

APPENDIX Z
Flagging, Fencing, and Signage Plan

Appendix Z

Flagging, Fencing, and Signage Plan Mountain Valley Pipeline Project

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ACRONYMS AND ABBREVIATIONS

ANST	Appalachian National Scenic Trail
BLM	U.S. Department of the Interior, Bureau of Land Management
Certificate	Certificate of Public Convenience and Necessity
CIC	Compliance Inspection Contractor
FERC	Federal Energy Regulatory Commission
FS	U.S. Department of Agriculture, Forest Service
JNF	Jefferson National Forest ¹
MVP	Mountain Valley Pipeline, LLC
Project	Mountain Valley Pipeline Project
ROW	right-of-way
Transco	Transcontinental Gas Pipe Line Company, LLC
USACE	U.S. Army Corps of Engineers

¹ Jefferson National Forest refers to the southern portion of the current George Washington & Jefferson National Forests throughout this document. Originally two separate national forests, the JNF and the George Washington National Forest were administratively combined in 1995 and are administered as a single national forest unit.

Mountain Valley Pipeline Project Flagging, Fencing, and Signage Plan

1.0 INTRODUCTION

Mountain Valley Pipeline, LLC (MVP), a joint venture between EQM Midstream Partners, LP; NextEra Capital Holdings, Inc.; Con Edison Gas Midstream LLC; WGL Midstream; and RGC Midstream, LLC (collectively referred to as MVP), was issued a Certificate of Public Convenience and Necessity (Certificate) from the Federal Energy Regulatory Commission (FERC) on October 13, 2017, pursuant to Section 7(c) of the Natural Gas Act authorizing it to construct and operate the Mountain Valley Pipeline Project (Project) located in 17 counties in West Virginia and Virginia. The Project is 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.

The pipeline extends 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 includes approximately 171,600 horsepower of compression at three compressor stations 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 3.5-mile long segment of the Project crosses 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 crosses 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 is 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.

Construction of the Project segment that crosses the Weston and Gauley Turnpike was completed in 2018. Construction of the Project segments across the JNF began in 2018 but were not completed and progress is on hold due to a July 27, 2018, order by the U.S.

Court of Appeals for the Fourth Circuit vacating and remanding the Right-of-Way Grant and a subsequent Stop Work Order issued by FERC.

The FS is 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 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.

2.0 PURPOSE

The purpose of this Plan is to describe the methods that will be used in the field to delineate the Project limits of disturbance and protect sensitive environmental and cultural resources during Project construction. These methods are intended to ensure MVP personnel, the construction contractor(s), the BLM, FS, USACE, Compliance Inspection Contractor (CIC), and other monitors and visitors to the Project construction sites stay on approved access routes and within approved work areas. The measures described in this Plan are an integral part of the environmental compliance program for avoiding and minimizing impacts to sensitive resources. The objective of this plan is to provide information on the field markings (i.e., flagging, fencing, and signage) that will be used to identify approved Project travel and work areas, as well as sensitive resource areas where construction or travel is to be excluded.

The crossing of the Weston Gauley Turnpike, owned by the USACE, was via conventional bore. Therefore, demarcations within USACE-owned property was not required and only the limits of USACE-owned property were demarcated.

3.0 METHODS

Table 3-1 provides standards for marking Project features prior to and during Project construction. Figures 3-1 through 3-7 (included at the end of this Appendix) show the size and configuration of typical sign layouts. Signs for sensitive resource areas will be oriented for visibility from both directions of likely travel.

Table 3-1. Flagging Scheme

Feature	Flagging or Sign Colors	Sign Text	What To Do
Project access road	Stakes with Blue and White Ribbon	Green Sign: Project Access Road – Road # (e.g., AR-WV-123) – Mountain Valley Pipeline Project	To be located at points of intersection, additional intermittent flagging may be required. Construction contractor(s) to verify that right of entry has been obtained before marking these areas.
Temporary work areas (pulling sites, multi-purpose areas, etc.)	Stakes with Blue and White Ribbon	<i>Not applicable</i>	Construction contractor(s) to verify that right of entry has been obtained before marking these areas.
Protected animals/plants or sensitive environmental areas	Yellow	Yellow Sign: Sensitive Resource Area Keep Out	Avoid these items/areas – do not drive vehicles or equipment near flagged items or within flagged areas.
Reclamation project areas	Brown	Brown Sign: Restoration in Progress – No Vehicle Traffic Allowed	Avoid these items/areas – do not drive vehicles or equipment near flagged items or within flagged areas.
No refueling	Red	Red Sign: No Refueling Within 100 Feet of Wetlands and Stream	No refueling or equipment maintenance is allowed within 100 feet of wetlands, streams, or sensitive resource areas (SPCC Plan). Signs will be posted at the of the restricted work areas limits (100 feet back from the protected resource).
Invasive weed cleaning stations	Blue	Weed Cleaning Station	Signs will be posted at entry points into weed cleaning stations.
Proposed structure locations	<i>Not Applicable</i>	<i>Not applicable</i>	Do not disturb survey stakes.
Structure offsets	<i>Not Applicable</i>	<i>Not applicable</i>	Do not disturb survey stakes.
Outside edge of permitted right-of-way (ROW) or centerline	Stakes with Orange Ribbon	<i>Not applicable</i>	Do not drive vehicles or equipment outside of designated corridor.
Non-authorized access road	Not Applicable	Red Sign: Do Not Enter Not an-Authorized Access Road	Do not drive vehicles or equipment on unauthorized roads.
Area between bore pits for the ANST crossing	To be decided by construction contractor(s)	Red Sign: Do not drive vehicles or equipment beyond this point. No motorized or mechanized traffic between bore pits. Foot travel only.	Do not drive motorized vehicles or equipment between the ANST bore pits.

Notes:

- Staking and flagging will be done by construction contractor(s) and verified by CIC, including sensitive resource areas and exclusion zones.

- Construction contractor(s) shall use staking intervals appropriate to the conditions observed in the field. For example, areas of rough terrain or dense vegetation may require staking intervals less than 500 feet. In all cases, field staking intervals shall be done at a frequency such that each adjacent stake can be easily discernible.
- Maintain (refurbish as necessary) staking over time as conditions require.

3.1 Demarcating Project Facilities

Prior to commencement of construction activities, areas that require protection to sensitive resources along the right-of-way will be identified by a variety of methods, including flagging, marking paint, signs, rope, or staking. Where not otherwise specified, a suitable method will be selected by the CIC, which provides the highest visibility to construction workers and is practical to install.

Signs will be posted to identify approved access roads, the limits of restricted work areas, protected resource areas, and exclusion areas. In addition, flagging may be used to designate components of the working area and identify specific sensitive resource areas. In some instances, fencing or protective barriers will be installed to ensure that construction activity does not enter highly sensitive resource areas.

3.2 Environmental Exclusions

Signs, flags, and/or fencing will be used to establish exclusion (avoidance) areas to protect sensitive environmental resources (e.g., biological, cultural, wetland, and paleontological resources) in the vicinity of construction activities. A system of standardized and simplified exclusion markings will be used to reduce potential confusion during construction and minimize the risk of highlighting types of sensitive resources that could be targeted by vandals (e.g., if exclusion areas protecting archaeological sites were marked differently than those protecting sensitive natural resource areas, the sites would be at a higher risk of unauthorized artifact collecting or other disturbances). Exclusion areas will be set up to protect these areas, but the construction contractor(s) will not know if it is for biological, cultural, or paleontological resources.

3.2.1 Signing

Areas along the Project right-of-way will be appropriately signed to designate restricted work areas and protected resources as well as features such as approved access roads and certain Project facilities such as “Weed Cleaning Station” or “Herbicide Use Area.” For areas where work restrictions or resource protection extends over large distances (greater than 500 feet), signs will be installed at spacing of approximately 300 feet with double arrows indicating the extent of the protective measure or restriction. Fencing may be installed to provide further protection for site-specific resources.

Signs will be a minimum of 8.5 inches by 11 inches on laminated (7 millimeters or greater) color paper or metal. Signs will be installed on metal posts and wooden stakes or attached to exclusion fencing/roping, as appropriate. Background colors will vary to enhance sign recognition from a distance.

3.2.2 Flagging

Survey flagging (i.e., surveyor’s ribbon tied to wooden stakes, metal posts, or vegetation) will be used to delineate the limits of work areas such as material yards, disturbance limits (i.e., boundaries of the right-of-way), wire stringing sites, access roads, etc., unless

existing fencing or other features clearly indicate the limits of the area. Survey flagging may be used to demarcate sensitive resource locations situated a safe distance from planned construction activities but generally will not be used to define resource exclusion areas close to planned construction activities due to concerns about the visibility and stability of flagging during construction.

The FS authorized officers or CIC, as needed, will determine whether flagging or fencing (as described below) is the appropriate protective device for a given location. Flagging color will conform to the requirements of Table 3-1.

3.2.3 Fencing

To delineate the limits of construction near sensitive resources requiring a high level of protection from Project disturbance, a combination of one or more of the following fencing materials will be installed by the construction contractor(s):

- Rope ($\frac{1}{4}$ inch in diameter in yellow or orange coloring);
- Plastic or fabric tape; and/or
- Safety fencing (plastic orange or red mesh at least 24 inches-wide and at least 18 inches off the ground to allow for small animal passage).

Roping with periodic marking by exclusionary signs or lengths of tape is a highly visible and effective exclusion device. Roping, tape, and safety fence will be installed using metal posts for increased durability and in areas with compact or rocky soils. If construction within a wetland is necessary, the boundaries of the approved disturbance area will be demarcated so impacts are limited to the authorized area. In most cases, it is anticipated that the exclusion device will be installed at the boundaries of the sensitive resource (including any required buffers), rather than at the edge of the work area. If a buffer zone encroaches into the work area, only the portions that overlap with the work area will be delineated and signed as exclusionary zones.

Wildlife fences will be used in coordination with escape ramps as a deterrent on the edges of both sides of the ROW. MVP environmental inspectors will check the trench each morning prior to the start of work to ensure that any animals that are trapped in the trench are removed.

3.2.4 Marking Paint

In some areas, it may not be feasible to install signs as described above to delineate sensitive resource or restricted work areas. In these situations, marking paint may be applied to the ground, herbaceous vegetation, or trees to identify protected areas, so long as it does not conflict with utility locates, harm resources, or permit requirements. Paint markings should be applied in a way that keeps it from being visible to users of roads and trails within 100 feet. Green fluorescent colored marking paint will typically be used to designate environmental areas but may vary according to location (if conflicts occur with other utilities). If marking paint is used, methods of coding and colors will be summarized by the Lead Environmental Inspector and issued as a POD update.

4.0 RESPONSIBILITY FOR INSTALLATION, MONITORING, AND MAINTENANCE

Meeting the objectives of this Plan relies on the proper installation, monitoring, and maintenance of protective devices. The construction contractor(s) will be responsible for the installation and maintenance of field marking of construction features (e.g., compressor stations, mainline valve sites, additional temporary work spaces, etc.). These markings will be installed in advance of construction activities in the area, maintained during the course of construction (as necessary), and removed after Project cleanup and reclamation activities. Environmental exclusion (e.g., signs, flags, and fencing) will be installed by the construction contractor(s) in coordination with the CIC to denote exclusionary zones along with the assistance of appropriate monitors (e.g., botanists, biologists, archaeologists) as needed. These environmental exclusions will be installed prior to the start of construction within a Project work area. The CIC will be consulted if there is uncertainty as to the type or location of needed exclusionary devices for botanical, wildlife, wetland, stream, or archaeological sensitive resource areas.

Routine Project monitoring by the CIC and construction contractor(s)'s environmental monitors and inspectors will include an ongoing assessment of the need for replacement or repair of exclusionary flagging or fencing. Maintenance needs related to exclusionary devices will either be corrected at the time of observation by the CIC, or will be documented as a future maintenance need. If maintenance of an exclusionary device is needed within an active construction area, corrective action will be taken within one workday. Maintenance of signs, flagging, and fencing within inactive work areas will be implemented as necessary. All exclusionary devices (e.g., signs, flagging, and fencing) will be removed after Project cleanup and reclamation activities by the construction contractor(s).

PROJECT
ACCESS
ROAD
ROAD #

MOUNTAIN VALLEY PIPELINE PROJECT

Figure 3-1. Typical Sign – PROJECT ACCESS ROAD



Figure 3-2. Typical Sign – SENSITIVE RESOURCE AREA KEEP OUT



Figure 3-3. Typical Sign – RESTORATION IN PROGRESS – NO VEHICLE TRAFFIC ALLOWED



Figure 3-4. Typical Sign – NO REFUELING

**DO NOT
ENTER
NOT AN
AUTHORIZED
ACCESS
ROAD**

MOUNTAIN VALLEY PIPELINE PROJECT

Figure 3-5. Typical Sign – DO NOT ENTER

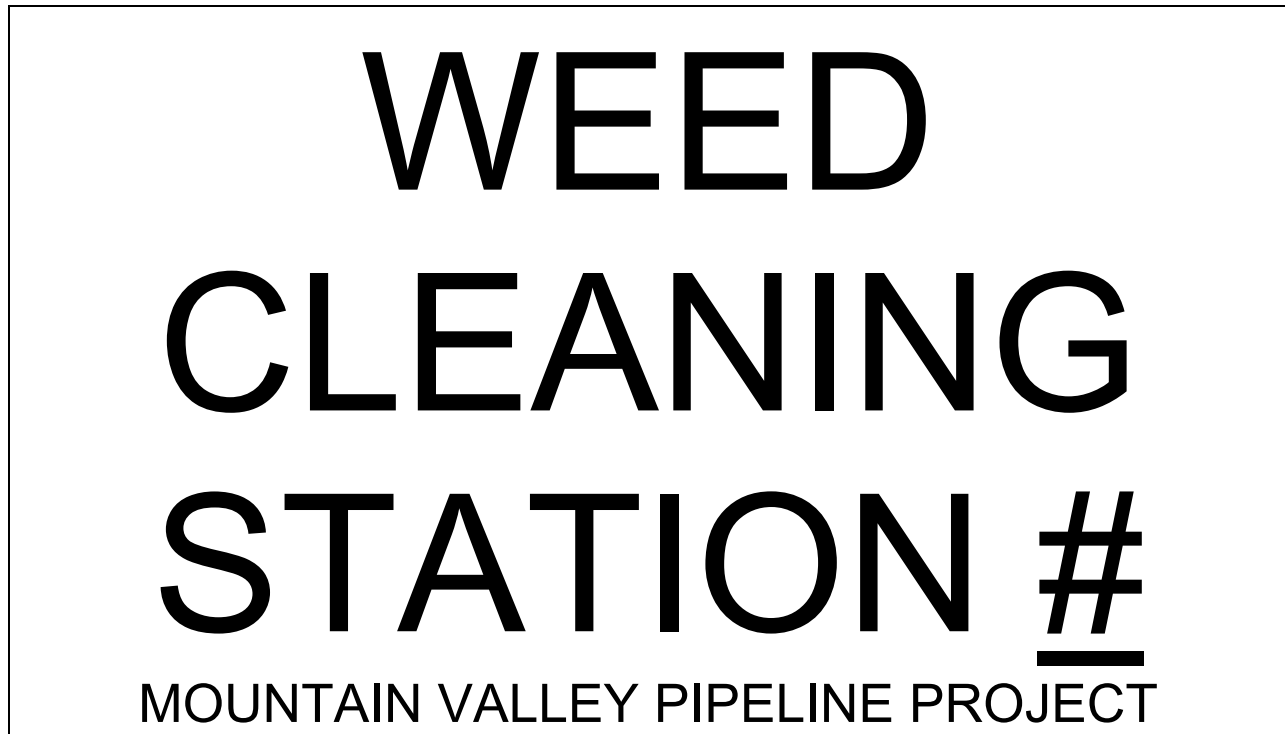


Figure 3-6. Typical Sign – WEED CLEANING STATION

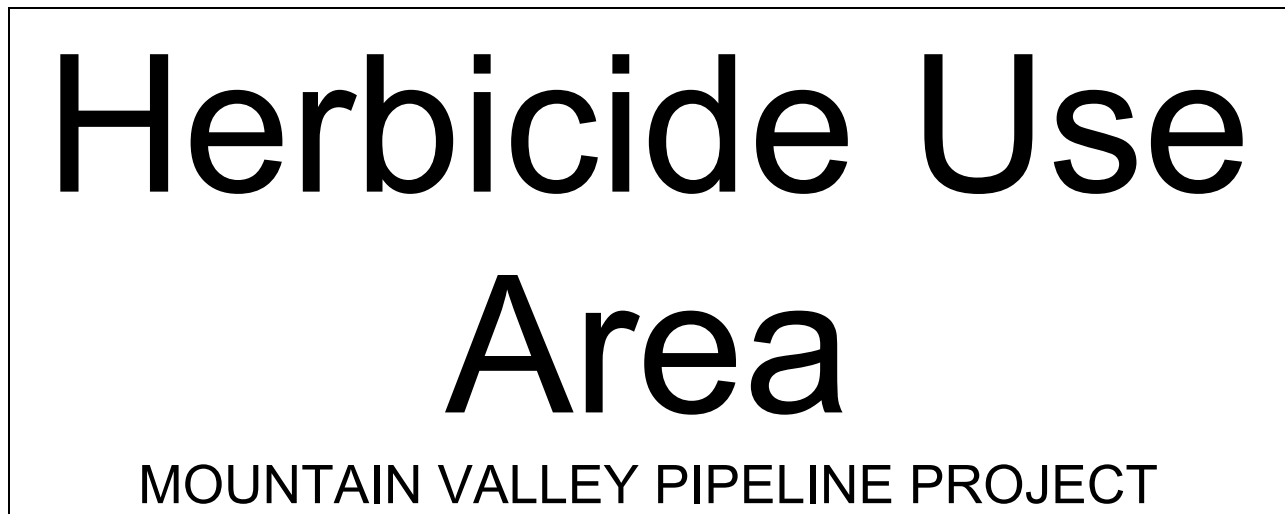


Figure 3-7. Typical Sign – HERBICIDE USE AREA

DO NOT DRIVE
VEHICLES OR
EQUIPMENT
BEYOND THIS
POINT. NO
MOTORIZED OR
MECHANIZED
TRAFFIC BETWEEN
BORE PITS. FOOT
TRAVEL ONLY.
MOUNTAIN VALLEY PIPELINE PROJECT

Figure 3-8. Typical Sign - AREA BETWEEN APPALACHIAN NATIONAL SCENIC TRAIL BORE PITS