2200 Rice Drive | Canonsburg, PA 15317
844-MVP-TALK | mail@mountainvalleypipeline.info
www.mountainvalleypipeline.info

February 13, 2018

Mr. Roger Kirchen
Virginia Department of Historic Resources
Division of Review and Compliance
2801 Kensington Avenue
Richmond, VA 23221

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Mr. Kirchen:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from your office, Giles County, the Greater Newport Rural Historic Committee, the Advisory Council on Historic Preservation, Shannon Lucas, Clarence and Karolyn Givens, Jerry and Jerolyn Deplazes, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

Should you have any questions, feel free to contact Evelyn Tidlow by telephone at (612) 812-5478 or by e-mail at E.Tidlow@gaiconsultants.com.

Thank you for your attention.

Sincerely,

Brian Clauto
Senior Environmental Coordinator

Enclosures: 1 hard copy of Revised Historic Property Treatment Plan (February 2018)

cc: Richard Chidester (Giles County) (with attachments)
Chris McKlarney (Giles County) (with attachments)
Joseph Yost (Giles County Historical Society) (with attachments)
David Brady (Greater Newport Rural Historic District Committee) (with attachments)
Matthew Fellerhoff (Strauss Troy) (with attachments)
Shannon Lucas (with attachments)
Clarence and Karolyn Givens (with attachments)
Jerry and Jerolyn Deplazes (with attachments)
Michael Williams (with attachments)
John Centofanti, EQT (with no attachments)
Evelyn Tidlow, GAI (with no attachments)

2200 Rice Drive | Canonsburg, PA 15317
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www.mountainvalleypipeline.info

February 13, 2018

Mr. Matthew Fellerhoff
Strauss Troy Co., LPA
The Federal Reserve Building
150 East Fourth Street
Cincinnati, OH 45202-4018

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Mr. Fellerhoff:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from Virginia Department of Historic Resources, Giles County, the Greater Newport Rural Historic District Committee, the Advisory Council on Historic Preservation, Shannon Lucas, Clarence and Karolyn Givens, Jerry and Jerolyn Deplazes, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

Should you have any questions or comments, feel free to contact John Centofanti by telephone at (421) 395-3305 or by e-mail at JCentofanti@eqt.com.

Thank you for your attention.

Sincerely,

Brian Clauto
Senior Environmental Coordinator

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February 13, 2018

Mr. David Brady
Greater Newport Rural Historic District
190 Cider Hill Road
Newport, VA 24128

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Mr. Brady:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from Virginia Department of Historic Resources, Giles County, the Greater Newport Rural Historic District Committee, the Advisory Council on Historic Preservation, Shannon Lucas, Clarence and Karolyn Givens, Jerry and Jerolyn Deplazes, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

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www.mountainvalleypipeline.info

February 13, 2018

Mr. Richard Chidester
Giles County Administration
315 North Main Street
Pearisburg, VA 24134

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Mr. Chidester:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from Giles County, the Virginia Department of Historic Resources, the Greater Newport Rural Historic District Committee, the Advisory Council on Historic Preservation, Shannon Lucas, Clarence and Karolyn Givens, Jerry and Jerolyn Deplazes, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

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February 13, 2018

Mr. Chris McKlarney
Giles County Board of Supervisors
315 North Main Street
Pearisburg, VA 24134

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Mr. McKlarney:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from Virginia Department of Historic Resources, Giles County, the Greater Newport Rural Historic District Committee, the Advisory Council on Historic Preservation, Shannon Lucas, Clarence and Karolyn Givens, Jerry and Jerolyn Deplazes, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

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Thank you for your attention.

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Senior Environmental Coordinator

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February 13, 2018

Jerry and Jerolyn Deplazes
Newport Development Company
291 Seven Oaks Road
Newport, VA 24128

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Jerry and Jerolyn Deplazes:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from Virginia Department of Historic Resources, Giles County, the Greater Newport Rural Historic District Committee, the Advisory Council on Historic Preservation, Shannon Lucas, Clarence and Karolyn Givens, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

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Thank you for your attention.

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Brian Clauto
Senior Environmental Coordinator

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February 13, 2018

Clarence and Karolyn Givens
2311 N. Main St.
Blacksburg, VA 24060

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Clarence and Karolyn Givens:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from Virginia Department of Historic Resources, Giles County, the Greater Newport Rural Historic District Committee, the Advisory Council on Historic Preservation, Shannon Lucas, Jerry and Jerolyn Deplazes, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

Should you have any questions or comments, feel free to contact John Centofanti by telephone at (421) 395-3305 or by e-mail at JCentofanti@eqt.com.

Thank you for your attention.

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Brian Clauto
Senior Environmental Coordinator

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www.mountainvalleypipeline.info

February 13, 2018

Mr. Michael Williams
Dowdy Farm LLC
372 Riverbend Dr.
Pearisburg, VA 24134

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Mr. Williams:

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Senior Environmental Coordinator

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February 13, 2018

Mr. Joseph Yost
Giles County Historical Society
208 North Main Street
Pearisburg, VA 24134

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Mr. Yost:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from Virginia Department of Historic Resources, Giles County, the Greater Newport Rural Historic District Committee, the Advisory Council on Historic Preservation, Shannon Lucas, Clarence and Karolyn Givens, Jerry and Jerolyn Deplazes, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

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Senior Environmental Coordinator

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February 13, 2018

Ms. Shannon Lucas
Briarwood Development
655 Lucas Road
Newport, VA 24128

Subject: **Mountain Valley Pipeline Project**
REVISED Historic Property Treatment Plan for the Greater Newport Rural Historic District (035-0412)
FERC DOCKET NO. CP16-10, DHR FILE #2014 1194

Dear Ms. Lucas:

On behalf of Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP and NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, you will find enclosed *Mountain Valley Pipeline Project, Revised Historic Property Treatment Plan: Greater Newport Rural Historic District (035-0412)* dated February 2018. This Treatment Plan has been substantially revised in response to the feedback received from Virginia Department of Historic Resources, Giles County, the Greater Newport Rural Historic District Committee, the Advisory Council on Historic Preservation, Jerry and Jerolyn Deplazes, Clarence and Karolyn Givens, and Michael Williams on the August 2017 and February 5, 2018 versions of the plan.

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Senior Environmental Coordinator

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MOUNTAIN VALLEY PIPELINE PROJECT

REVISED HISTORIC PROPERTY TREATMENT PLAN
Greater Newport Rural Historic District (035-0412)

DOCKET NO. CP16-10
DHR FILE #2014 1194

Prepared for

2200 Rice Drive
Canonsburg, Pennsylvania 15317

Prepared by

6 Century Drive, 3rd Floor
Parsippany, NJ 07054

Revised
February 2018

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Attachment 1 Avoidance Plans

Attachment 2 Correspondence

Attachment 3 Newport Community Center and Park Preservation Fund Terms and Conditions

1.0 INTRODUCTION

1.1 Project Overview

Mountain Valley Pipeline, LLC (Mountain Valley), a joint venture between affiliates of EQT Midstream Partners, LP, NextEra Energy, Inc., Con Edison Gas Midstream, LLC, WGL Holdings, Inc., and RGC Midstream, LLC, has obtained 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. Mountain Valley 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. 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 Zone 5 compressor station 165 in Pittsylvania County, Virginia.

The FERC is the lead federal agency for compliance with the National Environmental Policy Act and Section 106 of the National Historic Preservation Act (NHPA) for this undertaking. As a result, the FERC directed Mountain Valley to coordinate with the Virginia Department of Historic Resources (DHR), which serves as the State Historic Preservation Office (SHPO), following the FERC guidelines related to cultural resources compliance with Section 106 on FERC-regulated projects. Following submittal of the Criteria of Effects Report (May 2017) for the Project, DHR issued its opinion in a letter dated July 7, 2017, that the proposed Project will adversely affect the National Register of Historic Places (NRHP)-listed Greater Newport Rural Historic District (035-0412).[1] The FERC is consulting with the DHR on the treatment of historic properties that will be adversely impacted by the proposed Project. This Treatment Plan has been developed to document Mountain Valley's efforts to coordinate with consulting parties and other stakeholders to identify mitigation measures appropriate to address the proposed Project's potential adverse effects to the Greater Newport Rural Historic District. This Treatment Plan also proposes mitigation measures designed to mitigate the adverse effects of the Project.

Mountain Valley developed the direct and indirect Area of Potential Effect (APE) through consultation with the DHR. The indirect APE for historic architectural resources comprised, at a minimum, a 450-foot-wide corridor centered on the pipeline. In some areas, the APE was expanded up to one mile on either side of the pipeline in areas of higher elevation due to the possibility of distant views. The direct APE for the Project was defined at the outset of the Project as a 300-foot-

[1] As directed by DHR during an April 21, 2015, meeting between DHR and Mountain Valley's cultural resources consultant, Mountain Valley's architectural survey team did not re-inventory the previously recorded historic districts within the pipeline APE in Virginia.

wide corridor that would accommodate the actual construction right-of-way as well as workspace identified as Project engineering and field surveys were completed.[2]

1.2 Project Effect

In accordance with Section 106 of the NHPA of 1966, as amended, Mountain Valley applied the Criteria of Adverse Effect to the Greater Newport Rural Historic District by synthesizing the results of visual, construction-related and operation-related effects assessments.

As noted in Sections 3.2 and 4.1 of Mountain Valley's Criteria of Effects Report (May 2017), a rural historic landscape may also qualify as a Traditional Cultural Property (TCP), as defined in the National Park Service's (NPS) *Guidelines for Evaluating and Documenting Traditional Cultural Properties*, if the landscape's "organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents" or if it serves as a location "where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity." A rural historic district's eligibility for the NRHP as a TCP hinges on how the sites, structures, buildings, surrounding landscape, and landscape elements are used by members of the community. As such, Mountain Valley's assessment of effects to the Greater Newport Rural Historic District's rural historic landscape involved an evaluation of direct and indirect (visual) effects to primary contributing resources within the historic district and also accounted for direct impacts on historic and current land uses, the results of which were presented in Section 4.1 of the Criteria of Effects Report.

This assessment resulted in a recommendation that changes in the rural historic landscape within the Greater Newport Rural Historic District as a result of the proposed Project would not occur to an extent that would diminish the district's integrity. The Project's permanent easement would, when possible, run parallel to existing utility rights-of-way and the district was determined eligible for the NRHP with these existing corridors in place. Mountain Valley noted in the Criteria of Effects Report that the proposed Project's permanent easement could result in changes to the setting of the district. Mountain Valley further noted that woodlands similar to those of the Jefferson National Forest are predominant landscape features of the district and the NRHP nomination for the district states that these natural boundaries made by the forest are key in distinguishing the forest from land used for agricultural purposes. Based on a comparison of historic and current land use data, Mountain Valley recommended that most of the tree-clearing (approximately 82 percent of the length of the district crossed by the Project) would occur in areas that were not historically forested. In other words, the forested areas that would be impacted, for the most part, are not key in distinguishing between historic land uses (forest from land that was used for agricultural purposes).

Furthermore, photograph simulations depicting potential views from the Greater Newport Rural Historic District toward the Project demonstrated that the potential changes in the district's

[2] In a May 20, 2015, letter, DHR concurred that the indirect APE was appropriately defined and accurately reflected previous consultation.

viewshed and setting are "Inferior." In other words, the potential visual impact is visually inferior within the context of the existing setting and surrounding landscape.

Although a part of the district would incur changes to its viewshed and setting as a result of the Project, Mountain Valley recommended the Greater Newport Rural Historic District would continue to convey its rural and agricultural character and would continue to reflect its varying land uses through intact historic landscape features. The Project, therefore, would not affect the district's continuity of use. Furthermore, the three resources contributing to the district's historic significance located within the Project's direct APE—the 1912 Sinking Creek Covered Bridge (035-0412-0245; 035-0005), Link Farm (035-0412-0244), and Cemetery (035-0412-0465)—are outside the Project's limits of disturbance and direct impacts on these resources would be avoided (Attachment 1).

Following careful study of the Project and its relationship to the Greater Newport Rural Historic District, and considering a full range of potential direct and indirect effects to the built environment and surrounding landscape, Mountain Valley recommended that the proposed Project would have No Adverse Effect on the Greater Newport Rural Historic District.

DHR found, in a letter dated July 7, 2017, that:

> Based on the submitted analyses, DHR agrees with the consultant that the expected visual (indirect) impacts from Mountain Valley on the Newport Historic District, Greater Newport Rural Historic District, Big Stony Creek Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District do not significantly diminish those characteristics which make them eligible for listing in the NRHP.
>
> …the Greater Newport Rural Historic District, Big Stony Creek Historic District, North Fork Valley Rural Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District will be adversely affected by Mountain Valley bisecting them and leaving a permanent fifty-foot wide imprint on their landscapes. This condition is incompatible with the existing rural character of the districts, which derive much of their historic significance and NRHP-eligible status from that very agrarian setting and feeling the undertaking will diminish. The adverse effect to the five historic districts will require mitigation to be determined through future consultation with DHR and other stakeholders and memorialized in the Programmatic Agreement (PA) for the undertaking.

Mountain Valley accepted DHR's contrary finding of an Adverse Effect on the Greater Newport Rural Historic District and has proposed to mitigate that effect as detailed in this Treatment Plan.

2.0 GREATER NEWPORT RURAL HISTORIC DISTRICT SETTING AND ASSOCIATION

The Greater Newport Rural Historic District is located in eastern Giles County. This district, comprising 21,371 acres, is situated along the ridges and valleys of Gap and Sinking Creek Mountains, Clover Hollow Valley, Johns Creek Mountain, and the ridge of Salt Pond Mountain, where Mountain Lake is located (Figure 1). The district was listed in the NRHP in 2000 under

Mountain Valley Pipeline Project

NAD 1983 UTM 17N

0 0.5 1 2 Miles

Mountain Valley PIPELINE

Proposed Route within the Greater Newport Rural Historic District

Figure 1

January 2017

Data Sources: ESRI 2017, USGS 2017.

Legend

- Primary Contributing Historic Resource
- Limit of Disturbance
- Historic District Boundary

Greater Newport Rural Historic District

Newport Historic District

035-0412-0244
035-0412-0245; 035-0005
035-0412-0465
035-0412-0241
035-0412-0242
035-0412-0034
035-0412-0035
035-0412-0051
035-0412-0049
035-0412-0046
035-0412-0053
035-0412-0014
035-0412-0012
035-0412-0011
035-0412-0010
035-0412-0022; 035-5073
035-0412-0037; 035-0058
035-0412-0036
035-0412-0278
035-0412-0418
035-0412-0417
035-0412-0282
035-0412-0247
035-0412-0246
035-0412-0237
035-0412-0398
035-0412-0399
035-0412-0070
035-0412-0234
035-0412-0233
035-0412-0235
035-0004
035-0412-0066
035-0412-0065
035-0412-0058
035-0412-0059
035-0412-0052
035-0412-0061

Document Path: P:\EQT-Equitrans\MVP Project\GIS\Spatial\MXD\02_Cultural\20170816_VA_COE_Treatment_Plans_Historic_Districts\VA_COE_Treatment_Plan_HD_Boundaries_MasterListResources_GNRHD_Topo.mxd

Criteria A and C. The period of significance is between 1745 and 1949. There are 762 inventoried contributing resources, and 540 non-contributing resources within the district boundaries. The NRHP district includes contiguous historic, agricultural, residential, industrial, educational and resort areas. The NRHP nomination established eight areas of significance for the district: architecture, agriculture, commerce, military history, iron mining, tourism and recreation, education, and transportation including early state highways, covered bridges, and railroads.

3.0 DESCRIPTION OF MOUNTAIN VALLEY AS IT AFFECTS PROPERTY SETTING AND ASSOCIATION

Mountain Valley proposes to cross the Greater Newport Rural Historic District at approximate milepost 211 of the Project, for a distance of 32,553 feet, or 6.17 miles. Construction of the belowground pipeline and aboveground facilities will include short-term, long-term, and permanent impacts on the existing vegetation cover types. Only one proposed aboveground Project facility, a main line valve, is located within the district's NRHP boundary and would be installed completely within the Project's permanent right-of-way. Effects related to vegetation removal within the rural historic landscape were among several issues that were the focus of consultation discussions with DHR and stakeholders. When feasible, Project design plans have been modified in response to issues raised in public forums, Project correspondence, and docket filings. Avoidance plans related to specific properties within the district are provided as Attachment 1. These plans were developed by Mountain Valley to avoid direct impacts on contributing historic properties and were accepted by the DHR in a letter dated July 7, 2017.

To the extent possible, the pipeline has been aligned parallel to existing utility rights-of-way and other linear features, and Mountain Valley will utilize existing access roads including private roads, drives, lanes, farm, or roads from previous construction to minimize clearing. Construction of the pipeline adjacent to existing rights-of-way will minimize impacts on vegetation by reducing trampling, compaction, land use change, tree clearing, and stump removal activities. The areas disturbed by construction will be restored to their original grades, condition and use or better, to the greatest extent practicable, in accordance with Project Specific Standards and Specifications approved by the Virginia Department of Environmental Quality (DEQ). Cleared vegetation will be restored using native seed mixes approved by DEQ in consultation with the Virginia Department of Conservation and Recreation, except in active agricultural lands that will be returned to their prior use.

Of the approximately 32,553 feet of the Project within the Greater Newport Rural Historic District, only a few segments, crossing roadways, pastures, and some mountainous terrain (primarily along Highway 460 and State Route 614), are located in areas that are accessible, visible to the public, or visible from a primary contributing historic resource.

Vegetation removal for the Mountain Valley has been minimized to the greatest practicable extent. However, DHR concluded that project-related disturbances resulting from incompatible land use practices or resulting in the physical removal of vegetation within the rural historic landscape will

affect the aspects of integrity of setting, feeling, and association for the Greater Newport Rural Historic District and, as a result, requires treatment.

4.0 MITIGATION OF ADVERSE EFFECTS IDENTIFIED

4.1 Approach to Development of Mitigation

Mountain Valley's selection of appropriate mitigation is guided by three principles: it should (1) have a nexus to the identified adverse effects of the proposed action, (2) be proportional to those effects, and (3) take consideration of the input of consulting parties and local stakeholders. The adverse effect to be mitigated for the Greater Newport Rural Historic District is, according to DHR, the diminution in the "very agrarian setting and feeling" of the district resulting from the "permanent fifty-foot wide imprint on [its] landscape." To further clarify this effect and assess its magnitude, it is important to note that DHR specifically stated that this effect does not arise from visual impacts on the landscape in the district. Aboveground impacts from this buried natural gas pipeline will be largely imperceptible following the restoration of the right-of-way, which will be periodically cleared of woody vegetation to protect the integrity of the pipeline.

Permanent impacts on the portions of the landscape not devoted to agriculture and not in forest (e.g., meadows), will be avoided and/or minimized by the restoration of the pre-existing contours of the temporary and permanent rights-of-way and revegetation with native seed mixes. Permanent impacts on agricultural lands will be avoided and/or minimized by allowing the right-of-way to return to previous agricultural use following Project construction. For the Greater Newport Rural Historic District, these measures will result in the avoidance or restoration of approximately 14,306 feet (or 44 percent) of impacts.

In light of the largely temporary impacts on the physical landscape, additional changes to Project construction or restoration practices will only minimize, not effectively ameliorate, the adverse effect identified by DHR on the agrarian feeling and setting of the district. As a result, Mountain Valley has identified a combination of minimization and mitigation measures—enhanced treatment of the permanent right-of-way within the historic district and a building restoration and preservation fund—that will directly address the potential adverse effect identified by DHR to the "feeling" of the area for its residents and visitors and will preserve the historic and cultural significance of the district. This approach is proportional to the minimal long-term physical adverse effect to the district. It also is responsive to feedback Mountain Valley received from consulting parties and stakeholders.

4.2 Consultation with Consulting Parties and Other Stakeholders

The DHR recommended that the Mountain Valley assist the FERC with outreach to consulting parties and other interested stakeholders (including the Greater Newport Rural Historic District Committee [Committee] and Preserve Newport Historic Properties) to identify appropriate mitigation measures for the adverse impacts on the Greater Newport Rural Historic District. As a practical matter, Mountain Valley's approach to consultation with interested stakeholders did not differentiate between consulting parties and parties that were not granted consulting party status due to their intervention in the FERC proceeding.

Mountain Valley prepared its original proposed Treatment Plan for the Greater Newport Rural Historic District in August 2017. The Treatment Plan was circulated to relevant consulting parties and other interested stakeholders for comment on or around August 28, 2017, including:

- Roger Kirchen (DHR)
- Chris McKlarney (Giles County/Giles County Board of Supervisors)
- Matthew Fellerhoff (counsel for the Committee, Jerry Deplazes, Jerolyn Deplazes, Karolyn Givens, Frances Collins, Michael Williams, Miller Williams, and Tony Williams)
- Joseph Yost (Giles County Historical Society)
- Sonja Ingram (Preservation Virginia)
- Ann Rogers (Committee for Appalachian and Piedmont Preservation)
- Frances Collins
- Jerry and Jerolyn Deplazes
- Clarence and Karolyn Givens
- Shannon Lucas

Mountain Valley received comments on the Treatment Plan from Matthew Fellerhoff (discussed below) and Richard Roos-Collins for Giles County (discussed below).

Attachment 2 includes copies of minutes, email correspondence, letters, and other documents referenced in Section 4.2.

4.2.1 DHR

DHR provided general comments on the draft Mountain Valley treatment plans (August 2017) in a letter dated November 3, 2017. In that letter, DHR suggested that the treatment of the historic districts would benefit from the input of consulting parties. DHR noted that it previously discussed with Mountain Valley the possibility of constricting the maintained pipeline right-of-way as it crosses historic properties, and especially at public roads within historic districts, to minimize the visibility of the pipeline from public spaces. DHR encouraged the FERC to work with the consulting parties to consider such an effort to minimize impacts.

4.2.2 Giles County Historical Society

Mountain Valley contacted the Giles County Historical Society (GCHS) and held a meeting on July 27, 2017, at the GCHS. At that meeting, Executive Director of the GCHS, Joseph Yost, requested that Mountain Valley schedule a meeting with the GCHS Board of Directors. A meeting was scheduled for August 15, 2017, at the GCHS in Pearisburg, to which GCHS was invited. Members of the Giles County Board of Supervisors were also invited to attend the meeting.

Subsequently, Mr. Yost contacted Mountain Valley requesting that the meeting be postponed and, to date, the meeting has not been rescheduled.

4.2.3 Giles County

In a letter dated November 17, 2017, Giles County staff provided comments on the draft Treatment Plan that proposed reforestation within the district similar to Mountain Valley's restoration and revegetation plan for the Jefferson National Forest and opposed Mountain Valley's proposal to fund the preparation of a historic driving tour with accompanying signage.

Mountain Valley contacted Richard Chidester of Giles County and held a meeting by teleconference on January 12, 2018, with Mr. Chidester and John Ross to discuss Giles County's comments on the proposed Treatment Plan for the Greater Newport Rural Historic District, which were outlined in letters to the FERC docket dated November 3, 2017, and January 4, 2018 (filed jointly with Roanoke County), as well as other relevant issues the county wished to address. The issues discussed are outlined in Sections 4.2.2.1-4.2.2.9.[3]

4.2.3.1 Mitigation Fund

During the January 12, 2018, teleconference, in response to the request in Giles County's letters for the establishment of a mitigation fund, Mountain Valley provided an overview of a historic resource mitigation agreement entered into between Mountain Valley and the Commonwealth of Virginia. Mountain Valley explained that the agreement obligates Mountain Valley to expend at least $1.5 million on historic resources mitigation and to fund the creation of a $1 million mitigation fund for the purpose of providing grants for the preservation of historic resources within the vicinity of the Project.[4] Mountain Valley clarified that the fund, to be managed by the Virginia Historical Society (VHS), predated the consulting parties' request for a mitigation fund and that it is relevant to, but not a substitute for, the preparation of treatment plans or discussion of other possible compensatory mitigation measures.

Mountain Valley further noted that there was a separate mitigation agreement to provide compensatory mitigation for impacts on forests and water quality, copies of which Mountain Valley provided to Mr. Chidester and Mr. Ross via email during the teleconference.

4.2.3.2 Reduction of the Maintained Permanent Easement

Mr. Chidester and Mr. Ross discussed the county's request for a reduction in the right-of-way maintenance area. Mr. Ross explained that the county's primary concerns regarding visual impacts are related to the vistas from road crossings. Mountain Valley explained the measures developed

[3] Mr. Ross and Mr. Chidester stated that the opinions they expressed in the meeting were not necessarily those of Giles County, and that the county's position on mitigation options would have to be approved by the county board.

[4] Section 3.a of the agreement, which can be found in Attachment 2, states:

The Mitigation Fund shall operate as an endowment for grant-making purposes to document, preserve, and interpret the historic resources within the Commonwealth's localities affected by the Project. The Commonwealth shall work with [Virginia Historical Society] and determine project selection criteria and a process for evaluating appropriate projects that are consistent with DHR historic resources mitigation standards.

with the US Forest Service to introduce undulations and reductions in the maintained area of the right-of-way to reduce visual impacts and noted that Mountain Valley was reviewing possible locations to implement similar measures in the vicinity of the Greater Newport Rural Historic District. Mr. Chidester suggested that it may be more productive to discuss potential locations to implement the right-of-way measures after trees have been cleared, so the visual impacts would be more evident. Mountain Valley agreed to further evaluate this concept as a possible treatment plan measure.

4.2.3.3 Comments on Existing Draft Treatment Plan

Mr. Ross stated that in his discussions with stakeholders he had not heard any support for the concept of developing a driving tour. Mountain Valley responded that this tour was proposed in the draft as the starting point for discussions with consulting parties, and that the Treatment Plan would be revised based on the consultation.[5] The group discussed the option of a Historic Structure Report (HSR) that would identify and prioritize needed maintenance for at-risk buildings and structures, such as the covered bridges or the community center as an appropriate mitigation measure to include in the Treatment Plan. Mountain Valley reiterated that any mitigation fund discussed for Section 106 purposes must be targeted toward preserving or restoring historic significance.

4.2.3.4 Mislocation/Misidentification of Historic Resources

Mr. Ross raised the concern that certain historic resources had been mislocated and/or misidentified in the record. Mountain Valley stated that relevant information was provided to DHR and consulting parties and that DHR provided concurrence on Mountain Valley's Criteria of Effects Report. As requested by DHR's July 7, 2017, comment letter on the Criteria of Effects Report, Mountain Valley also provided additional information to DHR and consulting parties, and to date, DHR had not requested any additional information regarding this issue. Mr. Chidester requested copies of the relevant documents in advance of the county's board meeting on January 17, 2018. Mountain Valley provided agency and consulting party correspondence regarding the identification and location of historic resources via email on January 16, 2018. Giles County confirmed receipt of the email and attachments via email on the same day.

4.2.3.5 Historic Private Water Supplies

Mr. Ross inquired about measures in place to protect and, if necessary, restore historic private water supplies. Mountain Valley provided an overview of the Water Resources Identification and Testing Plan (Plan) and the related conditions in the Virginia State Water Control Board's Supplemental 401 Certification (Certification). A copy of the Plan and Certification were sent to Mr. Chidester and Mr. Ross via email during the teleconference. In an email dated January 22, 2018, Mr. Chidester indicated that the board had reviewed the Plan and noted that there were a number of people in attendance at the January 18, 2018, meeting of the board that expressed concerns over impacts on private water sources. In an email dated January 25, 2018, Mountain Valley provided Mr. Chidester with the contact information for Mountain Valley's two full-time

[5] As reflected in Section 4.3, Mountain Valley has abandoned the driving tour as a proposed mitigation measure.

hydrogeologists leading Mountain Valley's water source protection program to whom landowners may be directed to provide information about the identification of private water sources.

4.2.3.6 Pipeline Class

Mr. Ross asked about Mountain Valley's response to the county's request to increase the class of the pipeline. Mountain Valley provided a summary of the applicable federal Pipeline and Hazardous Materials Safety Administration (PHMSA) safety requirements that applied to the pipeline and explained that although federal regulations require Class 1 pipe through Giles County, the Project would be using Class 2 pipe throughout the county.

4.2.3.7 Historic Agricultural Properties

Mr. Ross expressed the county's concerns about the continued use of historical agricultural properties, specifically, the ability to continue to use heavy farming and logging equipment within the right-of-way. Mountain Valley explained that landowners are contacted directly on a case-by-case basis to ensure that the existing agricultural practices can continue and that the pipeline is designed to handle heavy equipment up to certain weight limits. Mr. Chidester requested additional information on what types of practices can occur or are restricted in the pipeline right-of-way and how this information is provided to future landowners. Mountain Valley provided the requested information to Mr. Chidester and Mr. Ross via email on January 18, 2018. Giles County confirmed receipt of the email via email January 22, 2018.

4.2.3.8 Indemnification

Mr. Chidester inquired about the county's request for indemnification or a performance bond. Mountain Valley stated that there were overlapping federal and state agencies with authority to ensure that Mountain Valley addressed any damage from the Project. Mountain Valley also discussed that the DEQ had declined to similar requests to impose a performance bond on the Project in recognition of the Project partners' financial capabilities and the existence of federal and state enforcement authorities. Mountain Valley provided a copy of DEQ's response to comments on the issue to Mr. Chidester and Mr. Ross via email during the teleconference.

4.2.3.9 Restricted Use of Permanent Easement for Future Pipelines

Mr. Chidester reiterated the county's request for a restriction on the use of the pipeline corridor for future additional pipelines. He referenced easement language regarding permission to site future pipelines in the right-of-way. Mr. Chidester asked for a response to the easement language he referenced. Mountain Valley responded to Mr. Chidester's request via email January 18, 2018. In that email, Mountain Valley explained that the referenced provision is boilerplate and does not indicate a plan or proposal to add a second pipeline to the right-of-way. Mountain Valley further noted that the easement provision does not give Mountain Valley any right, authorization, or shortcut for the construction of any hypothetical future pipeline. Any future pipelines, whether or not they share an existing right-of-way, would have to go through the process of obtaining all necessary federal and state approvals. In addition, it is noted that additional lines cannot be placed within easements on properties where the easements are obtained through the condemnation process.

On January 22, Mr. Chidester responded to Mountain Valley via email indicating that he and Mr. Ross had reviewed with the Giles County Board of Supervisors the information discussed in the January 12, 2018, teleconference along with the supplemental information that Mountain Valley provided subsequent to that call. Mr. Chidester noted that prior to the board meeting on January 18, 2018, the county received the Advisory Council on Historic Preservation's (ACHP's) letter to FERC dated January 18, 2018, and indicated that the board concurred with the recommendations made by ACHP (See Section 4.2.5). Mr. Chidester indicated that the board's directive was to proceed with discussions to further those recommendations.

4.2.4 Greater Newport Rural Historic District Committee, Preserve Newport Historic Properties, and Giles County Landowners[6]

Consulting parties and other stakeholders' concerns about potential impacts on the Greater Newport Rural Historic District have been expressed and considered early in the Section 106 process through comments and responses. The Committee, Mr. Fellerhoff, and others filed numerous comments on the FERC docket.[7] FERC acknowledged those comments and directed Mountain Valley to provide responses to many of them.[8] These exchanges are documented more fully in the FERC docket.

Mountain Valley also reached out to consulting parties and stakeholders directly. Mountain Valley contacted David Brady, Section 106 Coordinator for the Committee, on July 19, 2017, to "set a meeting to discuss potential impacts of the Mountain Valley Pipeline Project on the Greater Newport Rural Historic District and possible mitigation options." Mr. Brady responded in an email dated July 25, 2017 (which copied various consulting parties, including Ms. Rogers, Ms. Deplazes, Mr. Givens, and Mr. Fellerhoff), that after consulting with his steering committee, he believed it was premature to discuss mitigation measures and declined to meet with Mountain Valley. He also stated that "FERC is the one that needs to be doing the outreach on Section 106, not MVP." Mountain Valley responded to the Committee by letter dated August 24, 2017, addressing concerns raised in Mr. Brady's email and expressing Mountain Valley's continued willingness to meet.

Subsequently, counsel for the Committee and others, Mr. Fellerhoff, reached out to Mountain Valley to arrange a teleconference. A teleconference was held on September 7, 2017, among Mountain Valley and Mr. Fellerhoff, Reid Broughton, Ms. Deplazes, Mr. Brady, David Yolton, Mr. Williams, and Tom King for the purpose of discussing the Project in general and the Treatment Plan. Mountain Valley followed up on the call with a letter to Mr. Fellerhoff on September 18, 2017.

In letters dated November 21, 2017, and January 4, 2018, and submitted by Mr. Fellerhoff, various consulting parties provided comments on the draft Treatment Plan. Mountain Valley contacted Mr.

[6] Discussions with the parties noted in this section have generally been conducted jointly, so they are discussed here as a group.

[7] *E.g.*, comments of Mr. Fellerhoff (August 30, 2016), comments of Greater Newport Rural Historic District Committee (October 24, 2016), comments of Donald Wayne Jones (December 19, 2016), comments of Giles County (October 14, 2016).

[8] *E.g.*, FERC Post-DEIS Environmental Information Request (January 27, 2017) and Mountain Valley response (February 9, 2017).

Fellerhoff to arrange a telephone meeting, which was held on January 11, 2018. The meeting included Mr. Brady, Ms. Deplazes, Mr. Williams, Ms. Givens,[9] and their attorneys, Mr. Fellerhoff and Mr. Broughton. The purpose of the teleconference was to discuss the parties' comments on the proposed draft Treatment Plan for the Greater Newport Rural Historic District, which were outlined in their comment letters, as well as other relevant issues the consulting parties wished to address. The issues discussed are outlined in Sections 4.2.4.1-4.2.4.6.

4.2.4.1 Mislocation/Misidentification of Historic Resources

Mr. Fellerhoff stated that his clients have unresolved concerns about the identification and location of historic resources, and therefore whether all effects have been fully identified. Mr. Brady then discussed several specific resources that he believes were mislocated or misidentified in the record, or where impacts were not adequately evaluated. Mountain Valley added that previous responses addressed the concerns raised by the consulting parties in this regard, specifically, Mountain Valley's letter to Mr. Fellerhoff dated September 18, 2017. Mountain Valley also reiterated its request from the parties' prior teleconference (September 7, 2017) that if Mountain Valley has failed to identify any contributing resources within the limits of disturbance, this information be brought to Mountain Valley's attention promptly. To date, no such information has been provided to Mountain Valley.

4.2.4.2 Mitigation Fund

Mr. Fellerhoff discussed his clients' desire for the creation of a mitigation fund to be used to provide funds for certain historic property preservation activities. Mountain Valley provided an overview of a historic resource mitigation agreement entered into between Mountain Valley and the Commonwealth of Virginia. Mountain Valley explained that the agreement obligates Mountain Valley to expend at least $1.5 million on historic resources mitigation and to fund the creation of a $1 million mitigation fund for the purpose of providing grants for the preservation of historic resources within the vicinity of the Project. Mountain Valley clarified that the fund, to be managed by the VHS, predated the consulting parties' request for a mitigation fund and that it is relevant to, but not a substitute for, the preparation of treatment plans or discussion of other possible compensatory mitigation measures. Mr. Fellerhoff expressed reservations about the sufficiency of the historic resources mitigation fund.

Mountain Valley further noted that there was a separate mitigation agreement to provide compensatory mitigation for impacts on forests and water quality, copies of which Mountain Valley provided to Mr. Fellerhoff on January 11, 2018, following the teleconference.

4.2.4.3 Historic Water Sources and Historic Agricultural Properties

Mr. Brady discussed the importance of water supplies, including streams, springs, and associated water pipes, to maintaining the historic use of agricultural properties. He requested that landowners be consulted on their preferred method for crossing such resources, and that Mountain Valley agree to drill under the resources if requested by the landowner. Mr. Brady and Mr. Fellerhoff also asked what Mountain Valley would do to ensure that water supplies are not impaired and, if they are,

[9] Deplazes, Williams, and Givens noted their affiliation with Preserve Newport Historic Properties.

restored. Mountain Valley responded by explaining that the method for crossing each water resource had been reviewed and approved by the US Army Corps of Engineers in the process of reviewing and approving permit coverage under Nationwide Permit 12 and that the DEQ had reviewed and approved the stream crossing standards and restoration practices in the Project-Specific Standards and Specifications. Regarding potential impacts on water supply springs from construction, Mountain Valley explained that the question had been reviewed in several regulatory forums, most recently by the State Water Control Board in its Supplemental 401 Certification review. Responding to the concern about the restoration of damaged water supplies, Mountain Valley explained that it would be under a regulatory obligation to resolve any such problems in accordance with the Plan. Mr. Fellerhoff requested a copy of the Plan, which Mountain Valley provided via email on January 12, 2018.

4.2.4.4 Existing Agricultural Use

Mr. Fellerhoff explained that the consulting parties wanted assurances that existing agricultural uses will be maintained for farms crossed by the right-of-way, namely that the pipe will be of sufficient thickness to withstand traffic by heavy equipment. Mr. Brady elaborated that many properties have historic farming and logging practices that entail the use of heavy equipment. Mountain Valley committed to providing the consulting parties with additional information relevant to whether the practices identified by Mr. Brady can continue after construction. Mountain Valley provided the additional information to Mr. Fellerhoff on January 25, 2018.

4.2.4.5 Pipeline Class

Mr. Brady stated the parties' request that Class 3 pipe be installed across the entirety of Giles County, explaining that there are historical resources within the vicinity of the Project that are irreplaceable. Mountain Valley explained that the pipe class is dictated by and must meet all safety requirements of the PHMSA. Mountain Valley added that the PHMSA standards require only Class 1 pipe for Giles County, but that Mountain Valley will be installing Class 2 pipe throughout the county.

4.2.4.6 Indemnification

Mr. Fellerhoff asked that the Treatment Plan include a mechanism to indemnify owners of historic properties for all damages caused by Mountain Valley so that landowners do not have to resort to legal actions to receive compensation. Mountain Valley responded that there are multiple federal and state authorities with enforcement authority to ensure that Mountain Valley complies with all requirements and remedies any resource damages. Mountain Valley added that it would be conducting vibration studies for relevant historic structures to prevent and, if necessary, identify any potential damage from Project construction.

4.2.5 Follow Up Consultation with Giles County, Greater Newport Rural Historic District Committee, Preserve Newport Historic Properties, and Giles County Landowners[10]

On February 2, 2018, at Mr. Fellerhoff's request, Mountain Valley participated in a teleconference with consulting parties including Ms. Deplazes, Ms. Givens, and Mr. Williams. Tom Robinson and Mr. Brady from the Committee also participated, as did Mr. Fellerhoff and Mr. Broughton. In addition, Mr. McKlarney, Mr. Chidester, and Mr. Ross from Giles County participated. The purpose was to follow up on the issues discussed on the January 11 and January 12, 2018, teleconferences (discussed above) and the subsequent information exchanges. Prior to the teleconference, Mr. Fellerhoff provided Mountain Valley with a mitigation fund proposal. Mountain Valley also circulated draft plans for areas of enhanced right-of-way treatment within the Greater Newport Rural Historic District for the purpose of reviewing them on the call.

Mountain Valley asked the parties to walk through and explain the proposal they circulated. Mr. Fellerhoff and Mr. Brady discussed the Committee's proposal at length. In particular, they explained that $3 million in funds should be provide to be used for certain preservation activities identified by them as immediate needs, to be followed by an additional $15 million to be used for a trust fund managed by the local Newport community. A lengthy discussion ensued regarding the basis, justification, and precedent for the proposal. Mountain Valley responded that it could not agree with the elements of the proposal, including the nature or extent of the purported adverse effects it proposes to mitigate. In particular, Mountain Valley emphasized that any purported adverse effects on the district relating to what the Committee characterized as the "blast zone" were not adverse effects recognized by DHR or FERC, and that Mountain Valley does not consider that topic to be germane to Section 106.

Mr. Brady and Mr. Fellerhoff reiterated the Committee's concerns related to mislocated resources, specifically discussing the Adlai Jones Farm and the "trace" road located on the farm as well several other properties. Mountain Valley again explained that they had addressed these particular resource concerns in previously filings as requested by the FERC. Mr. Brady also requested Mountain Valley's response to request for new visual analysis for the Project and further evaluation of effects under Bulletins 30 and 38. Mountain Valley indicated that it had fulfilled DHR and FERC requests for analysis, documentation, and response to third-party comments to date and that no additional studies are planned.

Several participants raised issues related to maintenance of agricultural practices for historic properties in the district. Mountain Valley explained that it the normal practice for its land agents to work with individual landowners through the easement process to ensure that agricultural and cultural activities could continue during and after construction, and that Mountain Valley will work with owners to ensure that future planned activities, to the degree possible, are accommodated. Because this is a standard practice that is followed with all landowners, there is no need to address it through the Section 106 process.

[10] Discussions with the parties noted in this section have generally been conducted jointly, so they are discussed here as a group.

Mr. Brady opened a discussion regarding the previous request to upgrade the class of the pipe. Mountain Valley reiterated that Class 2 pipe was planned for all of Giles County and that this exceeded PHMSA requirements designed to protect human life. Mountain Valley also indicated in discussions related to water source protection that the permitting and regulatory process described above will protect the water sources adequately.

Mr. Fellerhoff inquired about the comments in his January 3, 2018, letter relating to individual landowners within the district. Mountain Valley reviewed the requests in the letter (e.g., maintenance of agricultural practices, restoration seed mixes, protection of water supplies) and stated that each appeared to be covered by processes, plans, or practices, and that it does not appear necessary to include additional measures in a treatment plan to address the comments.

Mountain Valley presented an overview of the areas Mountain Valley had targeted for enhanced right-of-way treatment, which were developed in response to the requests of the various parties for right-of-way treatments similar to those employed on US Forest Service land. Mountain Valley asked if the parties had additional areas that would like to see the enhanced treatment. Giles County staff requested that additional consideration be given to views from a potential overlook location along on Route 460 on the eastern side of the county. Mountain Valley explained that it may have limited ability to revise the enhanced treatment areas if and when a treatment plan is approved by FERC but that Mountain Valley would evaluate whether additional enhanced right-of-way treatment would be beneficial.[11]

4.2.6 Follow Up Consultation with DHR

On Friday, February 9, 2018, John Centofanti of MVP had a telephone conversation with Roger Kirchen of Virginia DHR. Mr. Centofanti described the proposal to create a fund for the preservation and restoration of Newport Community Center and Park. Mr. Kirchen expressed that he could support such a project as an element of a revised Treatment Plan but suggested that conditions be placed in the plan to afford DHR an ongoing consultation role to ensure the repairs are appropriate and do not cause adverse effects to this historical resource. Additional changes were made to this Treatment Plan (Section 4.3.2 and Attachment 3) in response to Mr. Kirchen's input.

4.2.7 ACHP

In the letter to the FERC dated January 18, 2018, the ACHP provided general observations regarding the resolution of adverse effects as proposed in the draft treatment plans based on its review of the plans and the comments submitted to the ACHP for its consideration. Specifically, the ACHP reiterated the request from consulting parties and stakeholders that the FERC require Mountain Valley to follow practices similar to those required by the US Forest Service in the

[11] Shortly after the call, Mountain Valley requested Giles County staff's assistance in identifying the location discussed on the call. Mr. Ross responded by providing a map showing the overlook's location. Mountain Valley's consultant evaluated potential views of the Project from that location and has proposed extending the fourth treatment area, milepost 212.98-213.22 (as shown in Table in 4.3.1 below) by 0.2 miles for enhanced right-of-way treatment, which is reflected in Section 4.3.1. This area of treatment now extends from milepost 212.98-213.52.

Jefferson National Forest to reduce the distinctive appearance of the right-of-way in high visibility areas in and near the affected historic districts (including Greater Newport Rural Historic District). Furthermore, the ACHP restated the requests of consulting parties and stakeholders to: 1) maintain the agricultural, grazing, and tree harvesting uses along the right-of-way where they currently exist and are recognized as important characteristics of affected historic districts; 2) consider working with local officials to establish financial resources to assist in preserving the rural historic character of the historic districts; and 3) explore how future collocation of additional natural gas pipelines in the right-of-way can be avoided to preserve the existing setting of the historic districts.

4.2.8 Incorporation of Consulting Parties' Suggestions into Treatment Plan

This Treatment Plan has been substantially revised in response to the feedback received from DHR, Giles County, the ACHP, and other consulting and interested parties on the August 2017 version of the plan and through subsequent discussions. Those parties' suggestions have been incorporated into this revised Treatment Plan and are reflected in Sections 4.3.1 and 4.3.2.

Several of the proposed mitigation options discussed with consulting parties and other stakeholders were not incorporated into this proposed minimization and mitigation plan. Mountain Valley has not proposed to create a general mitigation fund. Instead, Mountain Valley has proposed supplemental compensatory mitigation to assist local stakeholders in addressing needs, identified during consultations, related to specific contributing resources—which predate and are unrelated to any impacts from the Project. While Mountain Valley is sympathetic to the sincere concerns expressed by consulting parties and stakeholders, the justifications presented for a mitigation trust fund represent generalized grievances and fears about the Project. They are unrelated to the specific adverse effect to the district identified by DHR and are not in the nature of effects to resources that are mitigated under Section 106. Additionally, the funds proposed in this Treatment Plan can be augmented by applications for grants from the existing mitigation fund created by the Commonwealth and administered by VHS for this purpose.

Requests for additional water supply protections, agricultural land use preservation measures, and indemnification mechanisms have not been included in this Treatment Plan because these requests presently are addressed through existing plans, practices, and regulatory requirements. Likewise, the requests expressed by Mr. Fellerhoff for individual consulting parties are or can be addressed outside of this Treatment Plan.

Mountain Valley does not propose to further upgrade the pipeline classification within the district. The pipeline class within the district already exceeds the standard required by the federal safety regulations, and increasing the pipeline class further does not mitigate the adverse effects identified by DHR.

Lastly, Mountain Valley cannot restrict the authority of the FERC or other regulatory agencies to permit or deny the co-location of future utilities within or without the existing right-of-way in the future. It also is worth noting that the FERC evaluated an alternative in its Environmental Impact Statement involving the co-location of a second pipeline within Mountain Valley's right-of-way.

FERC concluded that this scenario likely is "technically infeasible."[12] In addition, it is noted that additional lines cannot be placed within easements on properties where the easements are obtained through the condemnation process.

4.3 Proposed Mitigation Plan

In a letter dated November 3, 2017, DHR encouraged the FERC to work with the consulting parties to consider "the possibility of constricting the maintained pipeline right-of-way as it crosses historic properties, and especially public roads within historic districts." Similarly, in a November 17, 2017, letter, Giles County proposed that "the reforestation plan recommended by the U.S. Forest Service for impacted areas within the Jefferson National Forest also be implemented to the greatest extent possible" within the Greater Newport Rural Historic District. Furthermore, the November 17, 2017, letter noted that "while historic resources are an important part of our tourism efforts, they are not the primary focus. Tourism relies more heavily upon the scenic features of the County, which will be significantly and adversely impacted by the pipeline."

4.3.1 Enhanced Right-of-Way Treatment to Reduce Visibility of Permanently Maintained Corridor

Mountain Valley's proposed minimization plan to address potential adverse effects focuses on further reducing the visibility of the maintained permanent right-of-way from locations with potential visibility within the district including high visibility areas such as main arterial roadways—a primary concern expressed by DHR, Giles County, and the ACHP. This approach will aid in the preservation of scenic and natural resources which, as noted by Giles County in the November 17, 2017, letter, "are essential to the rural character of the historic district."

Mountain Valley conducted a thorough desktop analysis, using information about the Project alignment, topography, and existing vegetation, to identify route segments that will be considered for enhanced right-of-way treatment. Mountain Valley applied the following three criteria to identify segments for further consideration: (a) location within the historic district boundary; (b) expected to be visible from likely viewing locations within that historic district; and (c) located within forested areas (as mapped in the National Land Cover Database and/or shown in recent aerial imagery), and therefore likely to result in relatively higher contrast following construction without restoration of the right-of-way.

Mountain Valley will implement the following mitigation measures to minimize potential visual impacts from the Project identified during the analysis. Within the following route segments, depicted in Figure 4.3.1-1., Mountain Valley will revegetate the right-of-way to ensure that vegetative openings appear more natural and conform to the natural form, line, color, and texture of the existing landscape.

[12] Certificate ¶ 302.

Segment	Milepost Range	Length (feet)	Mileage
1	211.09-211.14	264	0.05
2	211.47-212.90	2,270	0.43
3	212.82-212.96	739	0.14
4	212.98-213.50	2,746	0.52
	Total	6,019	1.14

Mountain Valley Pipeline Project

Mountain Valley PIPELINE

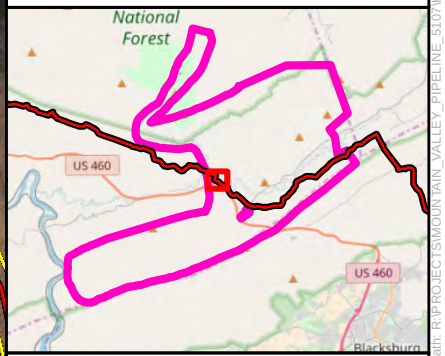
Figure 4.3.1-1
Proposed Enhanced ROW Treatment Areas within Greater Newport Rural Historic District

Segments 1 and 2

JANUARY 2018

Legend

- Milepost
- Reduction in the Maintenance of the Permanent ROW to 10ft
- Issued for Construction Route
- Permanent ROW
- Greater Newport Rural Historic District



Data Sources: VDHR, USGS, ESRI

N

1:4,800

NAD 1983 UTM 17N

0 100 200 400 600 800 Feet

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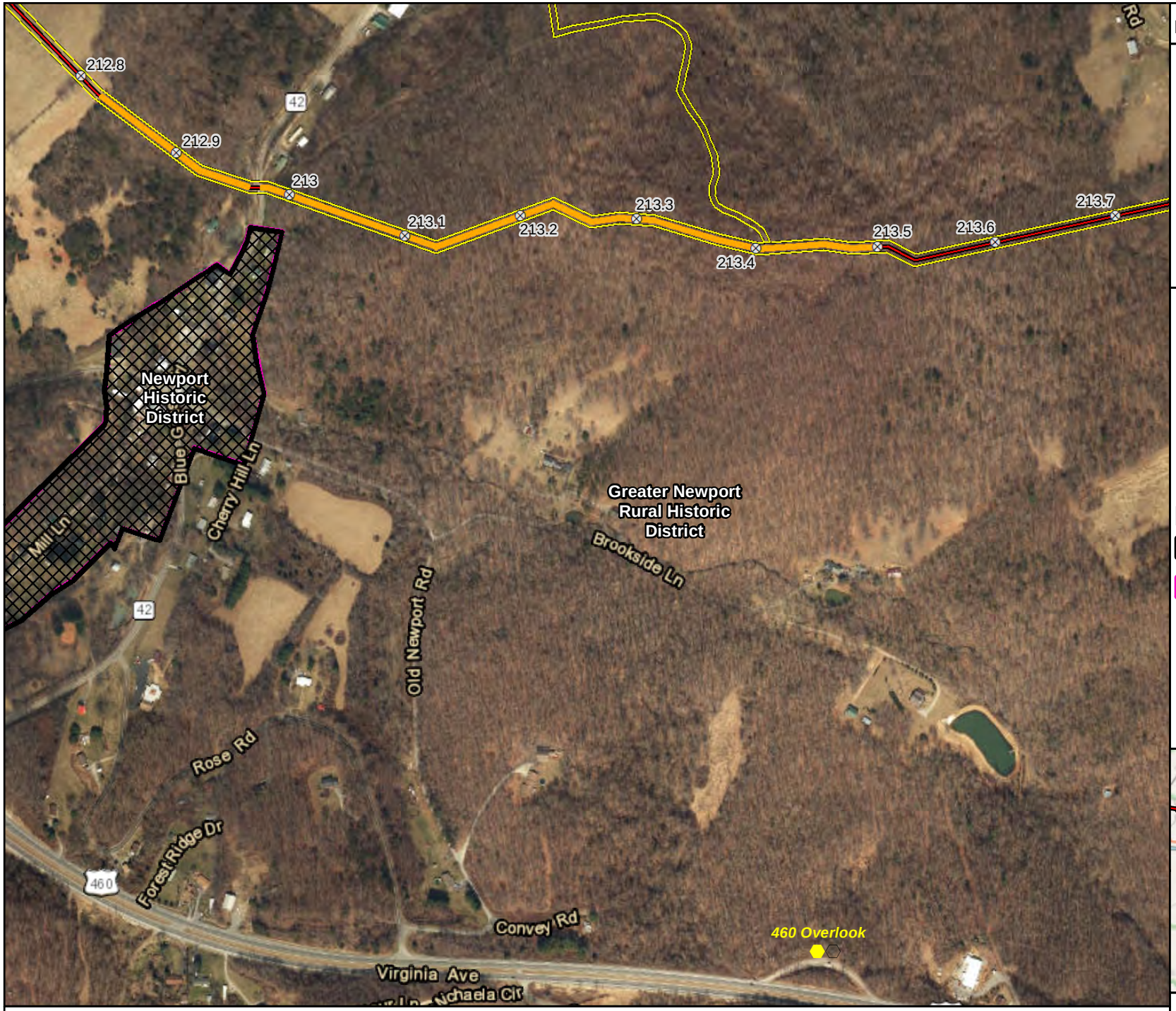


Mountain Valley Pipeline Project

Mountain Valley PIPELINE

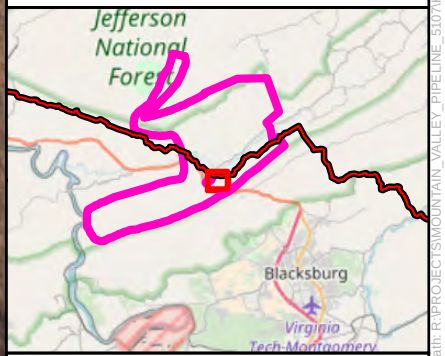
Figure 4.3.3-1
Proposed Enhanced ROW Treatment Areas within Greater Newport Rural Historic District

Segments 3 and 4

JANUARY 2018

Legend

- Milepost
- Reduction in the Maintenance of the Permanent ROW to 10ft
- Issued for Construction Route
- Permanent ROW
- Newport Historic District
- Greater Newport Rural Historic District



Data Sources: VDHR, USGS, ESRI

N

1:7,000

NAD 1983 UTM 17N

0 100 200 400 600 800 Feet

Document Path: R:\PROJECTS\MOUNTAIN_VALLEY_PIPELINE_5107\HISTORIC_DISTRICT_VIEWSHEDS\MAPS\GNRHD_Location_2.mxd

Mountain Valley will revegetate the construction and permanent operational right-of-way as shown in the concept diagram provided in Figure 4.3.1-2. This entails maintaining an herbaceous strip 10-foot-wide centered over the pipeline, and performing trimming or selective cutting of trees over 15 feet in height within a 30-foot-wide strip centered over pipeline. Outside the 10-foot-wide strip (reduced from the typical 50-foot width), the remainder of the construction and permanent right-of-way would be revegetated through the use of acceptable seed mixes, pollinator plants, shrubs and trees in accordance with the FERC Plan and Procedures (FERC Plan) and consistent with DEQ's approval.[13] Particularly along the edge of this herbaceous linear opening, a variety of sizes and species of vegetation would be planted in a manner that breaks up the straight, parallel edges of the corridor and reduces the hard shadow line that can draw the viewer's attention. This enhanced right-of-way treatment would reduce the visual contrast and the potential indirect visual effects within the Greater Newport Rural Historic District.

4.3.2 Preservation and Restoration of Newport Community Center and Park

In its November 17, 2017, letter to the FERC docket, Giles County—reiterating the Committee's comments in previous letters to the FERC docket—emphasized the importance of the Newport Community Center and Park (formerly Newport High School and Agriculture Building DHR#035-0412-0065 and 0066) as an important cultural resource within the district. Giles County noted in that letter that the resource "serves as a gathering point for residents within the District, and the area surrounding the school also hosts the Newport Agricultural Fair which is an annual event highlighting the agrarian culture of the district…preservation of these facilities are vital to the district." Other consulting parties and stakeholders also identified the Newport Community Center and Park as an important element of the district. In discussions with Giles County subsequent to the submission of a revised Treatment Plan on February 5, 2018, the county reiterated the need for funding to preserve and restore this historic resource and expressed its view that additional compensatory mitigation should be provided in the Treatment Plan.

As a result these consultations, and for the purpose of providing supplemental compensatory mitigation for the identified adverse effect on the district, this Treatment Plan has been revised to include the establishment of a $500,000 Newport Community Center and Park Preservation Fund (Fund) dedicated to the preservation and restoration of the Newport Community Center and Park (formerly the Newport High School and Agriculture Building) (contributing resource DHR#035-0412-0065 and 0066). The Fund shall be administered by the Giles County Board of Supervisors in continuing consultation with DHR. Its use will be subject to the Terms and Conditions set forth in Attachment 3, which ensure that the moneys are used for valid mitigation purposes consistent with this Treatment Plan and the requirements and objectives of the NHPA. The moneys ($500,000) to establish the Fund shall be provided by Mountain Valley to the Giles County Board of Supervisors within 30 days of the later of the following: (i) the commencement of land disturbance within the District or (ii) the date of Giles County's execution of the attached Terms

[13] The FERC Plan and Procedures comprise construction best management practice standards that the FERC first introduced in 1994. The FERC has encouraged natural gas pipeline companies to adopt these documents into their applications to the FERC and commit to these standards in construction for new pipelines and maintenance on existing pipelines.

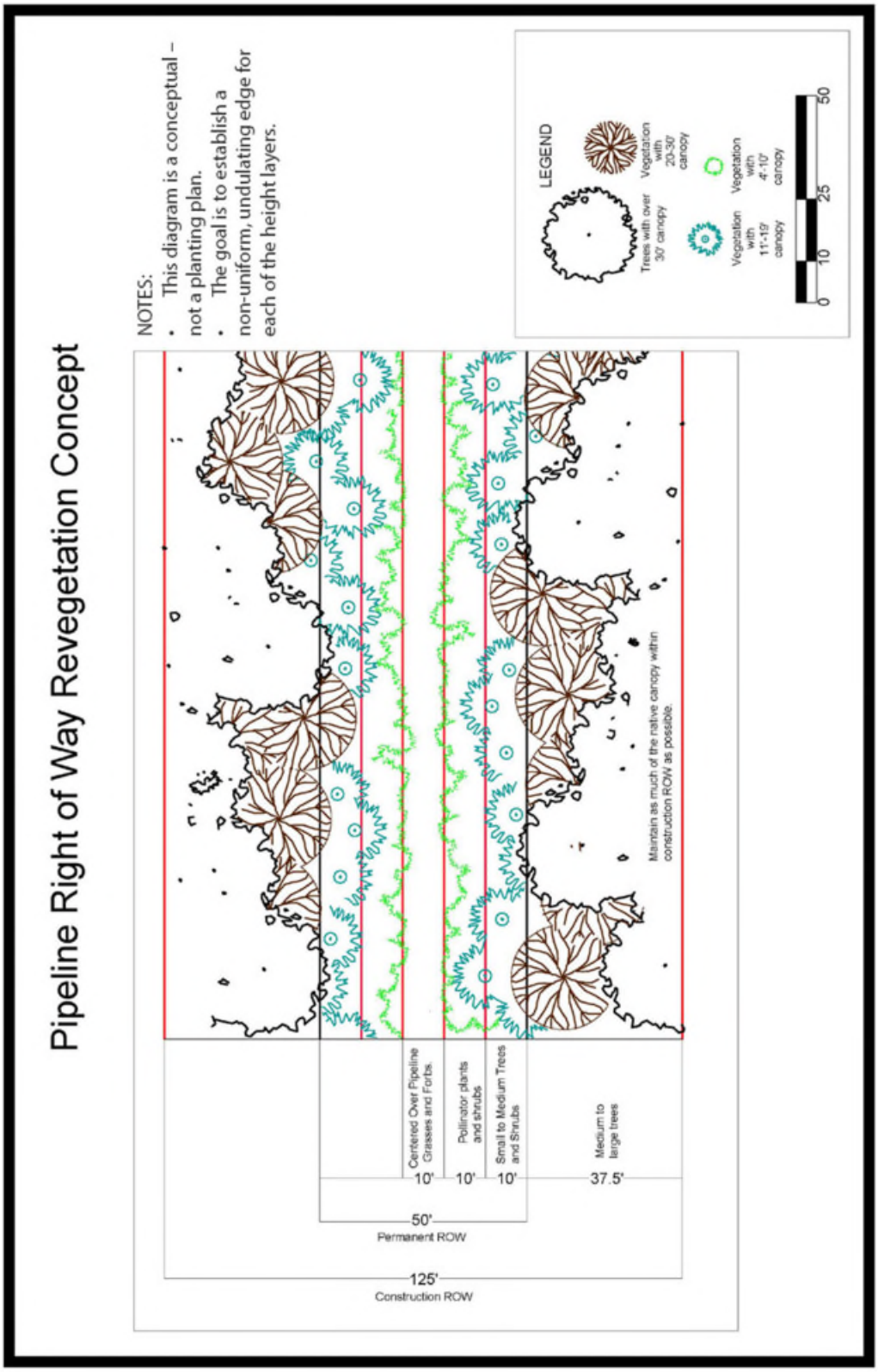


Figure 4.3.1-2 Proposed ROW Revegetation Concept for Enhanced Treatment Areas within Greater Newport Rural Historic District

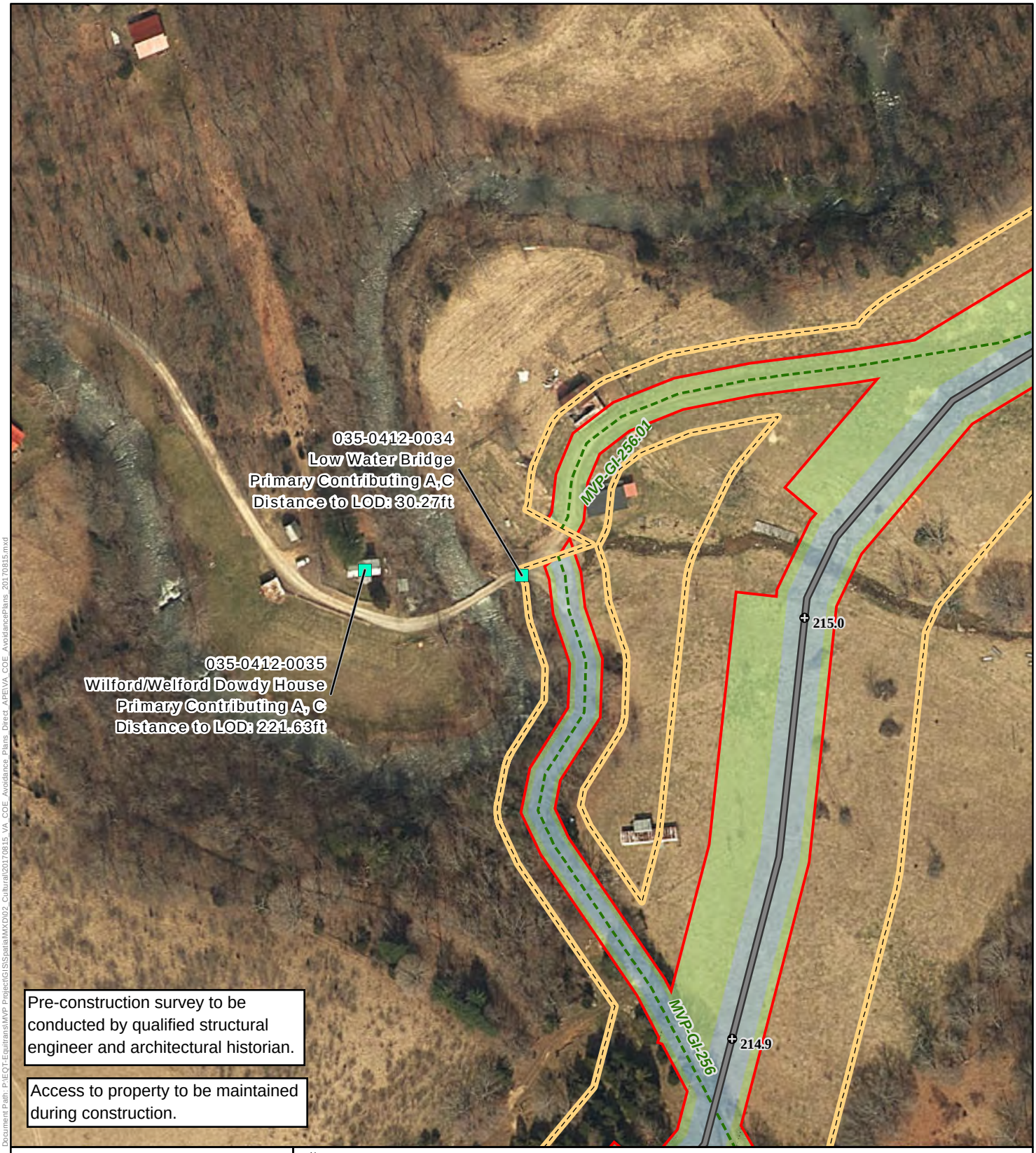
and Conditions. The Fund, in concert with the various avoidance, minimization, and compensation measures identified in this Treatment Plan, rounds out a robust suite of mitigation measures that fully addresses the need to mitigate the adverse effects to the district identified by DHR.

5.0 SCHEDULE

Mountain Valley will implement this Treatment Plan concurrently with construction activities in the district. The Treatment Plan will be implemented accordingly (as outlined in Section 4.3 above) and all activities related to the Treatment Plan to be completed by Mountain Valley, except for ongoing monitoring and maintenance of the enhanced right-of-way treatment, will be completed within one year of the date of service for the Mountain Valley Pipeline Project.

ATTACHMENT 1

AVOIDANCE PLANS



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Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 50 100 200 Feet

Mountain Valley PIPELINE

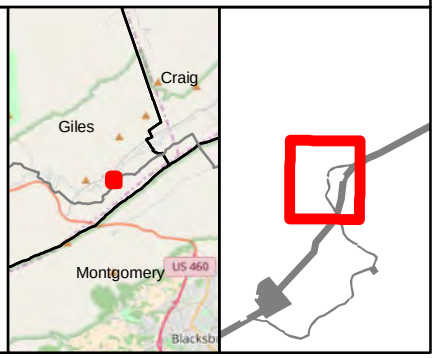
Avoidance Plan
Site: 035-0412-0034
Low Water Bridge
Giles County, Virginia

August 2017

Data Sources: USGS, ESRI, Open Street Map, VDHR.

Legend

- Avoided Historical Architectural Resource
- Milepost
- Proposed Route
- Access Road
- Direct APE
- Proposed Limits of Disturbance
- Permanent Limit of Disturbance
- Temporary Limit of Disturbance



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Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 50 100 200 Feet

Mountain Valley PIPELINE

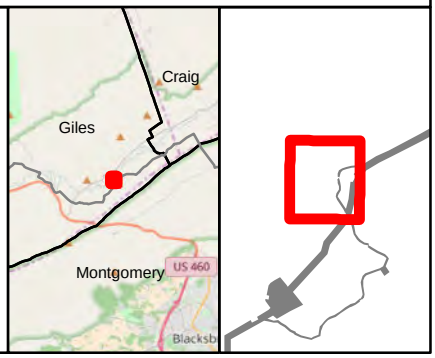
Avoidance Plan
Site: 035-0412-0035
Wilford/Welford Dowdy House
Giles County, Virginia

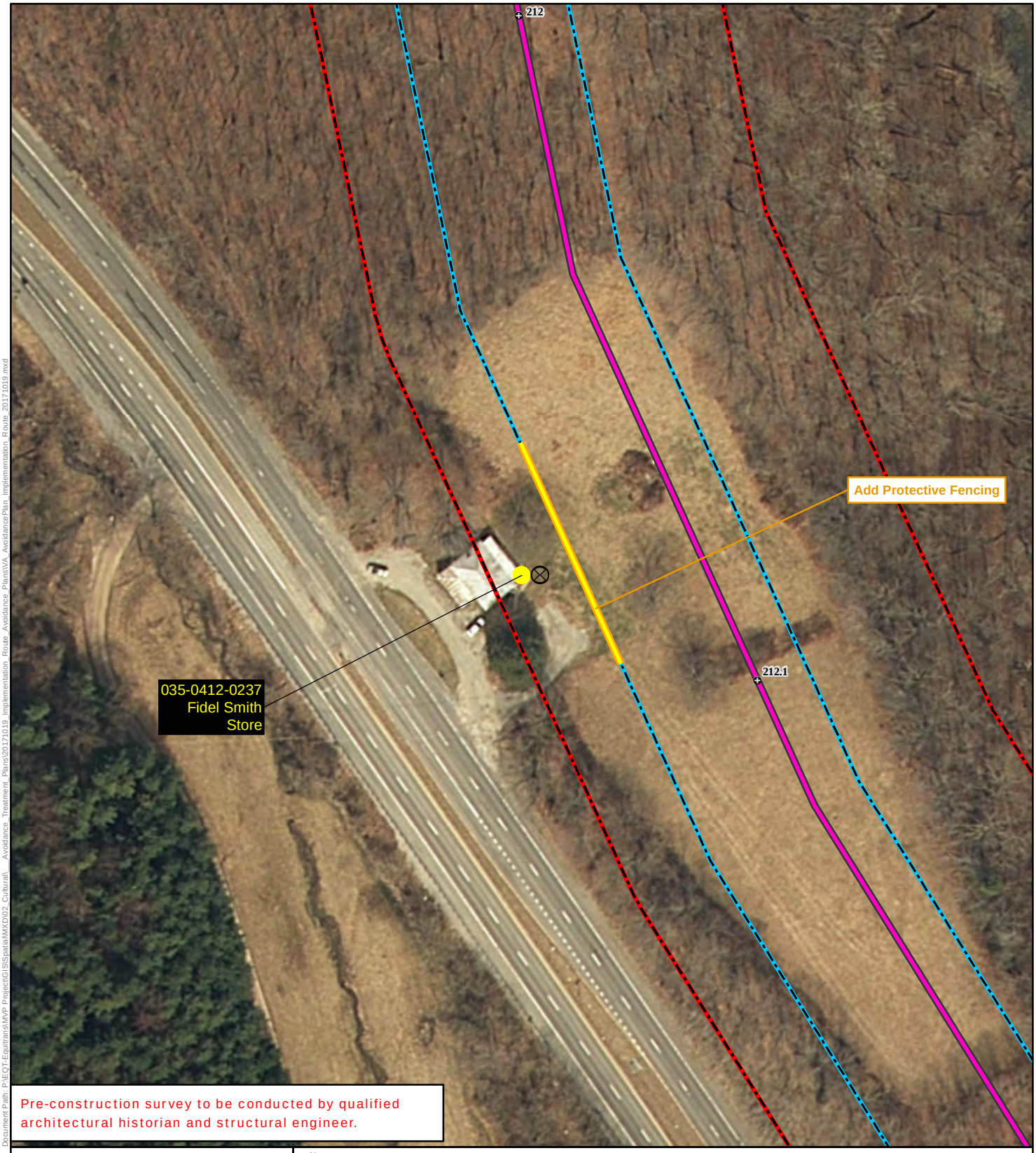
August 2017

Data Sources: USGS, ESRI, Open Street Map, VDHR.

Legend

- Avoided Historical Architectural Resource
- Milepost
- Proposed Route
- Access Road
- Direct APE
- Proposed Limits of Disturbance
- Permanent Limit of Disturbance
- Temporary Limit of Disturbance





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Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 40 80 160 Feet

Mountain Valley PIPELINE

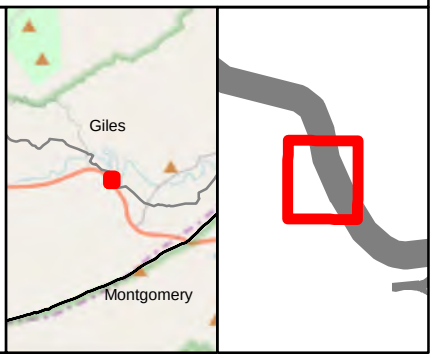
Avoidance Plan
Site: 035-0412-0237
Giles County, VA

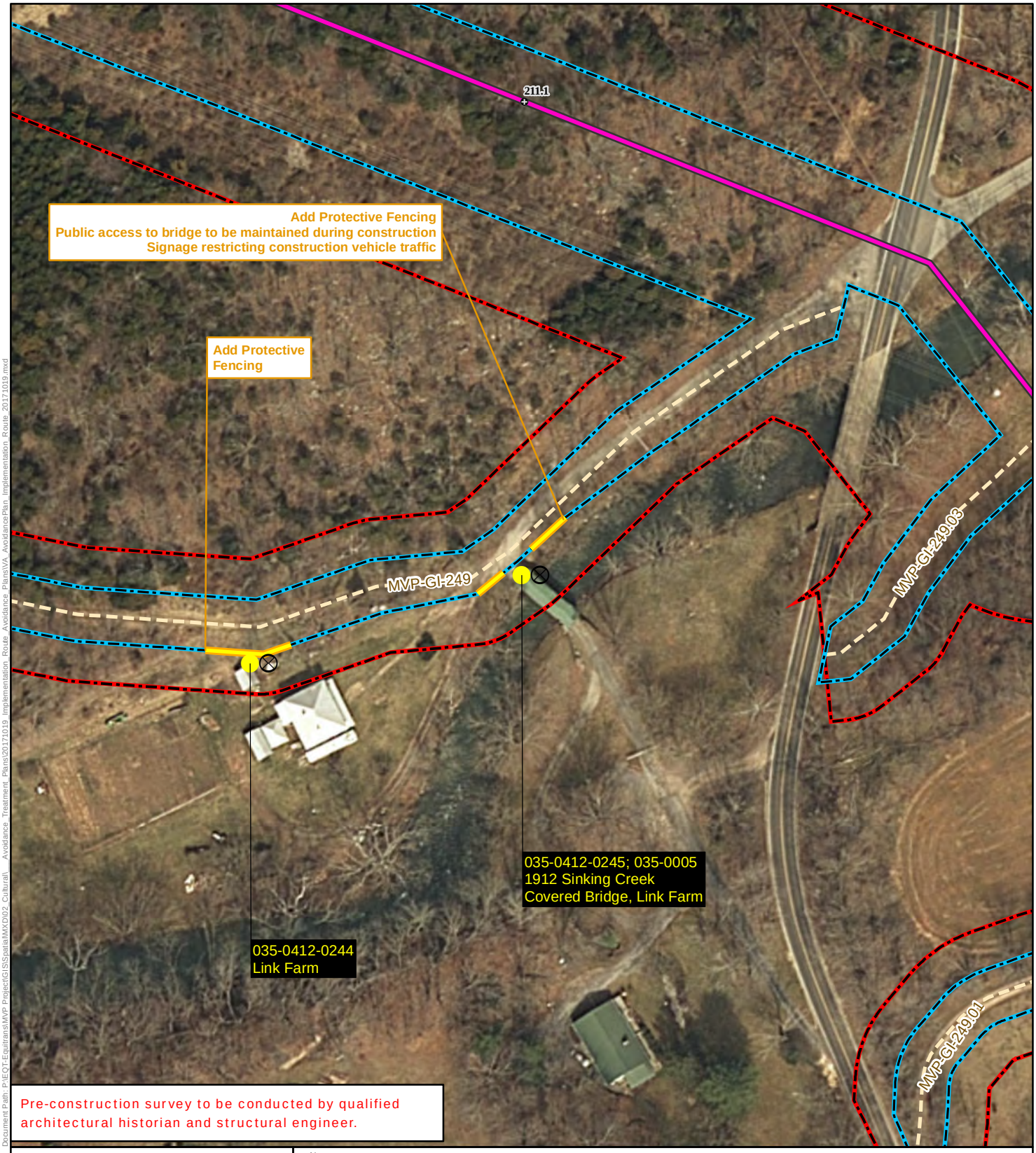
OCTOBER 2017

Data Sources: USGS, ESRI, Open Street Map.

Legend

- Avoided Historic Architectural Site
- Milepost
- Proposed Route
- Protective Fencing
- Construction Limits of Disturbance
- Direct APE





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Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 40 80 160 Feet

Mountain Valley PIPELINE

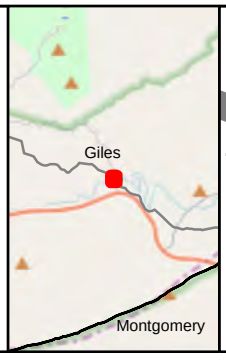
Avoidance Plan
Site: 035-0412-0245; 035-0005
Giles County, VA

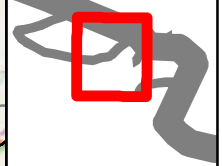
OCTOBER 2017

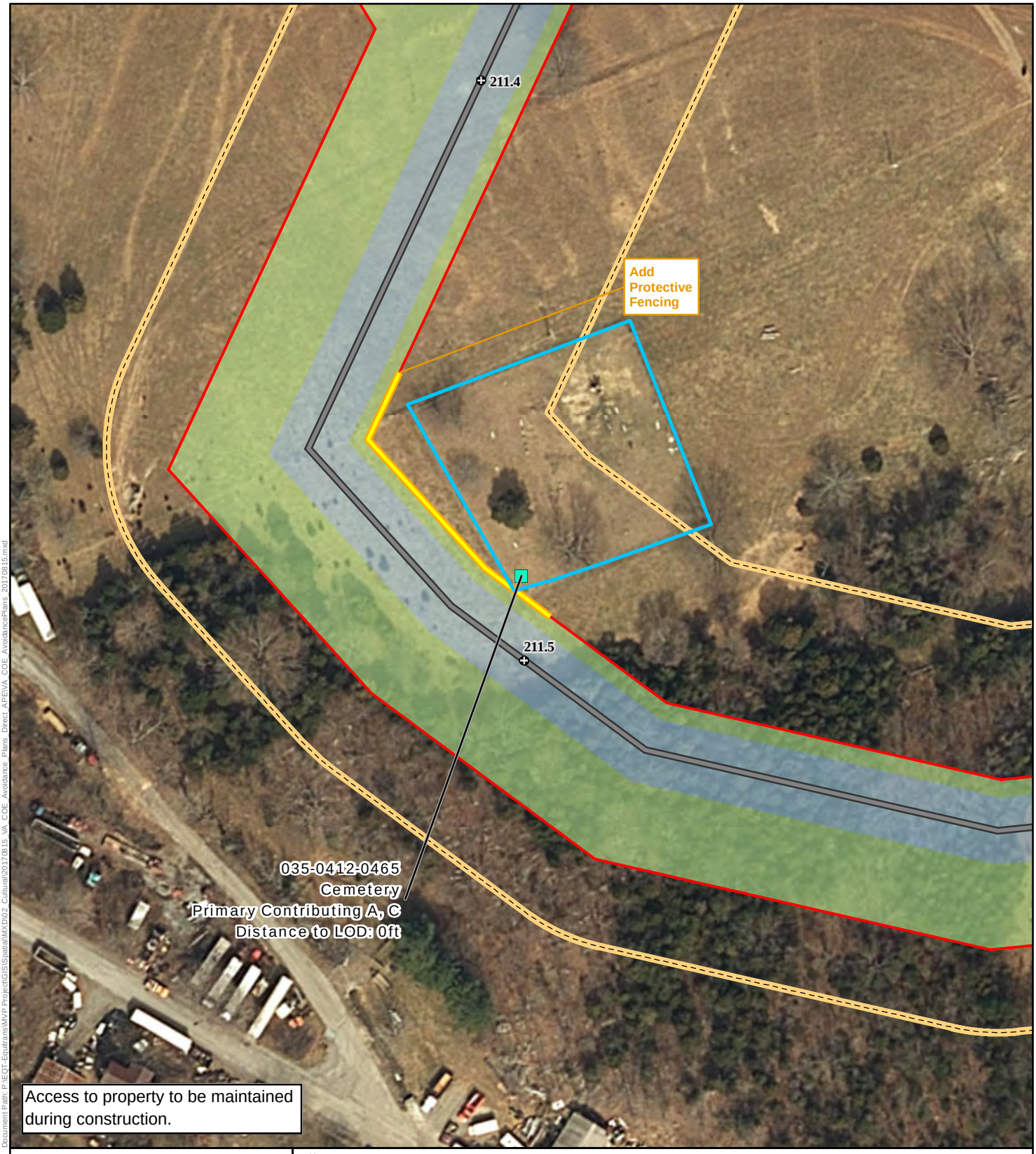
Data Sources: USGS, ESRI, Open Street Map.

Legend

- Avoided Historic Architectural Site
- Milepost
- Proposed Route
- Access Road
- Protective Fencing
- Construction Limits of Disturbance
- Direct APE







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Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 50 100 200 Feet

Mountain Valley PIPELINE

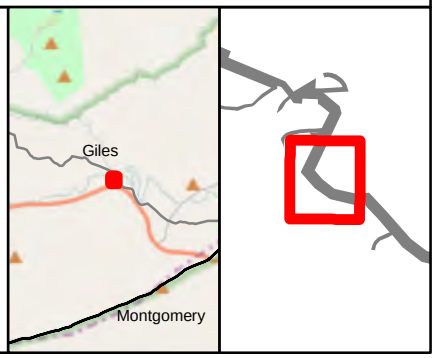
Avoidance Plan
Site: 035-0412-0465
Cemetery
Giles County, Virginia

August 2017

Data Sources: USGS, ESRI, Open Street Map, VDHR.

Legend

- Avoided Historical Architectural Resource
- Milepost
- Historical Architectural Resource Boundary
- Protective Fencing
- Proposed Route
- Direct APE
- Proposed Limits of Disturbance
- Permanent Limit of Disturbance
- Temporary Limit of Disturbance



ATTACHMENT 2

CORRESPONDENCE

From:	David Brady
To:	Neylon, Megan
Cc:	roger kirchen; emerritt; jeddins; Ann M Rogers; Ricky McCoy, VT; John Ross; MWFellerhoff; Deplazes; Clarence Givens; msw1mdw3; Justin Sarafin
Subject:	Re: Mountain Valley Pipeline
Date:	Tuesday, July 25, 2017 3:38:06 PM

Ms. Neylon,

Thanks for the email response and the SHPO's July 7, 2017 document. After consulting with the steering committee, we think it is premature to schedule a meeting to discuss mitigation of historic properties with you. As it relates to the Greater Newport Rural Historic District, the May 11, 2017 MVP report to which the SHPO has responded is so riddled with mislocated and misrepresented historic resources, as to render discussion of mitigation useless until the errors are corrected and adverse effects on these historic resources are correctly assessed. For example, we find it difficult to understand how we can meaningfully discuss mitigation of adverse effects to the historic Adlie Jones Farm (VDHR# 035-0412-0010), a contributing historic resource to the District directly affected by the pipeline project, when, after two and a half years of study, your team of experts cannot even correctly locate the Adlie Jones Farm in the report. As it relates to the District, there are many other examples of mislocated properties, misrepresented effects, and missing information in the report.

Similarly, the alternatives evaluation process is far from complete, as the SHPO's finding of adverse effects on five historic districts in the proposed route is a significant adverse effect that has not been considered by FERC in either the Final EIS, when compared to other system alternatives that avoid these districts entirely. Additionally, there methodological errors and missing assessments of cultural resources that still need to be addressed in the Final EIS, as discussed in the reports of Tom King and Preserve Roanoke/Bent Mountain, among others.

Finally, it is the Committee's understanding that FERC is the one that needs to be doing the outreach on Section 106, not MVP.

For future correspondence, my last name is Brady, not Grady.

Regards,

David Brady
Section 106 Coordinator
Greater Newport Rural Historic District Committee and
Preserve Newport Historic Properties

From: "Neylon, Megan" <MNeylon@eqt.com>
To: "David A Brady" <Flyngcow@Pemtel.net>
Sent: Wednesday, July 19, 2017 6:55:43 AM
Subject: Mountain Valley Pipeline

Good morning Mr. Grady,

It was nice to speak with you yesterday. As discussed, I have attached the VDHR Criteria of Effects letter. This letter will be available on the docket no later than Monday July 24, 2017.

We are trying to reach out to a primary contact for the Greater Newport Rural Historic District to set a meeting to discuss potential impacts of the Mountain Valley Pipeline Project on the Greater Newport Rural Historic District and possible mitigation options should the project receive its FERC certificate.

We hope to set up a meeting with you and other interested parties the week of July 24th if at all possible. Please let us know if a day the week of the 24th is an option or if another day the following week is better for you. Please let me know if you have any questions. I can be reached at this email address or at the phone number below.

Thank you for your attention to this matter. We look forward to talking with you soon.

Megan E. Neylon
Supervisor - Permitting
Office: 724-873-3645
MNeylon@eqt.com

From: Joseph Yost [mailto:director@gilescountyhistory.org]
Sent: Tuesday, August 15, 2017 10:30 AM
To: Neylon, Megan <MNeylon@eqt.com>
Subject: Today's Meeting

Good morning, Megan---

I hope you are doing well.

Unfortunately, it looks like we are going to have to postpone today's meeting. There seems to be some miscommunication regarding today's meeting. My intent was to have MVP make a presentation to our Board regarding the impact on historical assets in the County from the proposed MV Pipeline and for them to provide their input and opinions. However, in emails that were forwarded to me regarding today's meeting, it appears the scope of that is larger. While mitigation is obviously essential if the pipeline is approved but the timeframe of doing so by this Friday is not feasible for us and I do not intend to have them weigh in in this way. I believe this is something that is beyond our scope as an organization and it is imperative that you have larger input than our organization.

The Society is a private organization that is not a function of the County. Our goal is to preserve Giles County history within our property and tell the story of our past.

Again, I apologize for the inconvenience but we will need to postpone.

Please let me know if you have any further questions.

Best,
Joseph

/\/\/\

Mountain Valley PIPELINE LLC

August 24, 2017

Giles County Historical Society
Attn: Joseph R. Yost, MA, Executive Director
208 North Main Street
Pearisburg, Virginia 24134

RE: Mountain Valley Pipeline
DHR File 2014-1194
FERC Docket CP16-10

Dear Mr. Yost,

Thank you for meeting on July 27, 2017 to discuss potential cultural resource mitigation opportunities for the Mountain Valley Pipeline project. During that meeting, you communicated your preference to have a follow-up meeting with fellow members of the Historical Society Board of Giles County.

This meeting was confirmed via email (attached) on August 3, 2017, confirming an August 15, 2017 date for the meeting at the Giles County Historical Museum. In your email dated August 1, 2017 (attached) you requested that we invite Chris McKlarney, Giles County Administrator to the meeting. Megan Neylon reached out to Mr. McKlarney via telephone on August 3, 2017 and relayed the invitation to Mr. McKlarney's administrative assistant.

On August 9, 2017, John Ross, Giles County Zoning Adminstrator contacted Megan Meylon via phone stating that he was following up to the message left for Mr. McKlarney and that he would be attending the meeting in Mr. McKlarney's absence. Ms. Neylon relayed that the scope of the meeting was to discuss cultural resource mitigation options.

On August 14, 2017, Mr. Ross telephoned Ms. Neylon requesting a copy of the agenda for the August 15, 2017 meeting. Ms. Nelyon provided the agenda via email (attached) dated August 14, 2017. In this email, Ms. Nelyon also indicated that Mountain Valley would be filing initial cultural resource mitigation treatment plans with Virginia DHR and FERC on August 18, 2017, but that there would be additional opportunities for the Giles County Historical Board to provide input on these plans.

Unfortunately, the August 15, 2017 follow-up meeting, was postponed via email (attached) by you on the day of the meeting. Mountain Valley was prepared to have the meeting. In fact, our cultural resource consultant had flown from Michigan to Roanoke on August 14, 2017, specifically for these discussions with the Historical Society Board. We regret if there was any misunderstanding as to the purpose and scope of the meeting.

We also received feedback from Giles County Attorney, Richard Chidester, regarding the timing and scope of this meeting. To clarify, similar to our meeting with you on July 27, 2017, Mountain Valley's intent was to introduce initial mitigation treatment plans for the Big Stony and Greater Newport Historic Districts. These proposed plans were based in part on helpful input we received from you regarding the desire of the County and Historical Society to foster tourism in the area. We were then hoping to obtain additional

constructive feedback on the proposed treatment plans as well as to hear other potential mitigation ideas you or the Historical Society Board may have been considering.

The August 18, 2017 date that Mountain Valley identified as our date for submittal of the initial mitigation treatment plans to Virginia Department of Historic Resources and the Federal Energy Regulatory Commission needs to be clarified as well. Mountain Valley targeted that date for submittal of initial plans. As an update, the proposed plans are now expected to be submitted later this week. You and other consulting parties and stakeholders will receive copies of the plans for review at the same time. We will, of course, be requesting feedback from the Historical Society Board, as well as from other interested parties, on the plans.

We would like to reschedule this meeting as soon as practicably possible and we will make ourselves available at a date and time of your earliest convenience. We would like to sit down and discuss the Historical Society's initial response to the proposed plans and any other mitigation ideas you may have. We also will add other related issues to the meeting agenda if that is your preference. Please contact me at 412-417-3729 if you wish to further discuss. Thank you for your time and consideration.

Sincerely,

John J. Centofanti
Corporate Director, Environmental Affairs
Mountain Valley Pipeline, LLC
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222
412-395-3305 (office)
412-417-3729 (cell)

cc: Giles County Board of Supervisors (c/o County Attorney Richard Chidester)

Centofanti, John

From: Neylon, Megan
Sent: Wednesday, August 23, 2017 12:01 PM
To: Centofanti, John
Subject: FW: Meeting

From: Joseph Yost [mailto:director@gilescountyhistory.org]
Sent: Wednesday, August 09, 2017 1:54 PM
To: Neylon, Megan <MNeylon@eqt.com>
Subject: RE: Meeting

Great! Thank you, Megan.

Cheers,
Joseph

From: Neylon, Megan [mailto:MNeylon@eqt.com]
Sent: Wednesday, August 9, 2017 9:25 AM
To: Joseph Yost <director@gilescountyhistory.org>
Subject: RE: Meeting

Good morning,

I wanted to let you know that I spoke with John Ross from the Giles County Commissioners office this morning. Unfortunately, Chris McKlarney will not be able to attend the meeting on Tuesday afternoon, but John will be attending in his place. We will see you on Tuesday!

Thank you,
Megan

From: Neylon, Megan
Sent: Thursday, August 03, 2017 4:13 PM
To: 'Joseph Yost' <director@gilescountyhistory.org>
Subject: RE: Meeting

Hi Joseph,

I apologize that it has taken me so long to get back to you. August 15th at 4 pm will work for us. We will plan to be at the Giles County Historical Society to present to the board. I will bring more legible maps this time! Please let me know if there is anything additional that we could have prepared for the board. I will give Chris a call and let him know but I think it would be helpful if you mention it as well if you see him before then!

Thank you,
Megan

From: Joseph Yost [mailto:director@gilescountyhistory.org]
Sent: Tuesday, August 01, 2017 7:06 PM
To: Neylon, Megan <MNeylon@eqt.com>
Subject: Meeting

Good evening, Megan---

Hope you are doing well. I heard back from our Board members. Would you all be available for a meeting on August 15th at 4pm? Same place. You may also want to see if you can invite Chris McKlarney again.

Let me know.

Best,
Joseph

-+-

Joseph R. Yost, MA
Executive Director
Giles County Historical Society
208 North Main Street
Pearisburg, Virginia 24134
P: (540) 921 – 1050
http://www.gilescountyhistory.org

Centofanti, John

From: Neylon, Megan
Sent: Wednesday, August 23, 2017 12:20 PM
To: Centofanti, John
Subject: FW: Mountain Valley Meeting

From: Neylon, Megan
Sent: Monday, August 14, 2017 3:24 PM
To: 'JRoss@GilesCounty.org' <JRoss@GilesCounty.org>
Subject: Mountain Valley Meeting

Mr. Ross,

Mountain Valley plans to bring a short presentation to the Giles County Historical Society tomorrow that will cover the following:

- Project Introduction and Overview
- Section 106 Schedule
- Mountain Valley's Proposed Route and Alternatives
- Routing Constraints
- Cultural Impacts to the Big Stony Creek Historic District as defined in the Virginia Department of Historic Resources letter (July 7, 2017)
- Cultural Impacts to the Greater Newport Rural Historic District as defined in the Virginia Department of Historic Resources letter (July 7, 2017)
- Mountain Valley's proposed mitigation options for Big Stony Creek and Greater Newport Rural Historic Districts

We would like to use a majority of this time for both the Giles County Historical Society and yourself to propose and discuss culturally relevant mitigation options that Mountain Valley may undertake to assist each district. Following this discussion, Mountain Valley will submit a mitigation plan to the Virginia Department of Historic Resources and FERC by August 18, 2017. Once you are able to have a conversation with the Giles County Board of Supervisors, we can revise the submitted plan to include any additional mitigation options agreed upon by the Board and Mountain Valley.

Please let me know if you have any additional questions. I look forward to meeting with you tomorrow.

Thank you,
Megan E. Neylon
Supervisor - Permitting
Office: 724-873-3645
MNeylon@eqt.com

Centofanti, John

From: Joseph Yost <director@gilescountyhistory.org>
Sent: Tuesday, August 15, 2017 11:15 AM
To: Centofanti, John
Subject: FW: Today's Meeting

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Joseph R. Yost, MA
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P: (540) 921-1050
http://www.gilescountyhistory.org

From: Joseph Yost
Sent: Tuesday, August 15, 2017 10:30 AM
To: 'Neylon, Megan' <MNeylon@eqt.com>
Subject: Today's Meeting

Good morning, Megan---

I hope you are doing well.

Unfortunately, it looks like we are going to have to postpone today's meeting. There seems to be some miscommunication regarding today's meeting. My intent was to have MVP make a presentation to our Board regarding the impact on historical assets in the County from the proposed MV Pipeline and for them to provide their input and opinions. However, in emails that were forwarded to me regarding today's meeting, it appears the scope of that is larger. While mitigation is obviously essential if the pipeline is approved but the timeframe of doing so by this Friday is not feasible for us and I do not intend to have them weigh in in this way. I believe this is something that is beyond our scope as an organization and it is imperative that you have larger input than our organization.

The Society is a private organization that is not a function of the County. Our goal is to preserve Giles County history within our property and tell the story of our past.

Again, I apologize for the inconvenience but we will need to postpone.

Please let me know if you have any further questions.

Best,
Joseph

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Joseph R. Yost, MA
Executive Director
Giles County Historical Soceity
208 North Main Street

COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
www.dhr.virginia.gov

November 3, 2017

Mr. Paul Friedman
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: Mountain Valley Pipeline LLC – Docket No. CP16-10-000
DHR File No. 2014-1194

Dear Mr. Friedman:

The Department of Historic Resources (DHR), which serves as the Virginia State Historic Preservation Office (SHPO), has received for comment the Notice of Adverse Effect and draft Programmatic Agreement (PA) prepared by the Federal Energy Regulatory Commission (FERC) for the Mountain Valley Pipeline. We provide the following comments to assist the FERC in meeting its responsibilities pursuant to Section 106 of the National Historic Preservation Act (NHPA).

Consulting Parties

We appreciate that the FERC has honored some of the requests by stakeholders to be consulting parties in the Section 106 process. Inclusion and transparency throughout the process ultimately lead to better outcomes for communities and the historic properties they value. We understand that Giles, Montgomery, and Roanoke counties have expressed to the FERC their concern about the lack of meaningful consultation and ability to meet the review deadlines imposed by the FERC. We encourage the FERC to extend the review period for the PA, as requested by the counties, and provide to the consulting parties all relevant documents and correspondence so that they may fully participate in discussions on the treatment of historic properties.

The relationship of the National Park Service (NPS) to the project is complex and requires clarification. The FERC has recognized the NPS as a consulting party; however, the NPS acts in several roles within this project. DHR has been in direct consultation with NPS regarding its own undertaking related to their action at the Blue Ridge Parkway in support of this project. DHR, in consultation with NPS, has identified a possible adverse effect for the NPS undertaking and is continuing to consult on impacts. It is unclear whether the NPS will resolve any effects through participation in the FERC's PA or within their own agreement document. Further, the NPS retains interest in the Appalachian National Scenic Trail (ANST) and should be consulted on its treatment. It is unclear how the FERC has involved the NPS in consultation and what role they will continue to play in the resolution of adverse effects.

Assessment of Adverse Effects

We concur with the FERC's finding of Adverse Effect; however, we must bring to your attention several issues pertaining to the assessment of adverse effects.

Appalachian National Scenic Trail: DHR has not concurred with the finding by the U.S. Forest Service (USFS) that the ANST would not be adversely affected by this undertaking. Our discussions with and submissions by the NPS and the Appalachian Trail Conservancy (ATC) bring into question the validity of the visual impacts assessment for the ANST. Photo-simulations prepared on behalf of the ATC suggest that from certain vistas along the ANST the undertaking would be clearly visible and diminish the overall integrity of its setting. When we last discussed this issue with the NPS, it was their intention to consult directly with the USFS regarding potential impacts to the ANST and provide written comments to FERC and DHR. We are awaiting those comments from the NPS before finalizing consultation with the USFS regarding the ANST.

Bent Mountain Orchard Rural Historic District: Residents of Roanoke County have proposed a new historic district within the path of the undertaking. The Bent Mountain Orchard Rural Historic District (DHR ID #080-5731) is located within the boundaries of the previously-identified Bent Mountain Rural Historic District (DHR ID #080-5677). On October 12, 2017, DHR's National Register Evaluation Committee met to evaluate the proposed Bent Mountain Orchard Rural Historic District and found it to be eligible for listing in the National Register of Historic Places (NRHP). Although the Bent Mountain Orchard Rural Historic District is recognized within the treatment plan for the Bent Mountain Rural Historic District and Coles Terry Rural Historic District, impacts may need to be assessed and addressed separately for the Bent Mountain Orchard Rural Historic District now that it has be individually identified and evaluated.

Treatment Plans and Programmatic Agreement

We have received the treatment plans for the following resources, which the FERC identifies as adversely affected by this undertaking: Greater Newport Rural Historic District, Big Stony Creek Historic District, North Fork Valley Rural Historic District, Bent Mountain Rural Historic District, Coles-Terry Rural Historic District, 44RN0400, 44RN0401, and 44GS0241. We support and approve the plan for site 44GS0241; however, the treatment of the other historic properties would benefit from the input of consulting parties and we ask that FERC forward for our review all comments received on the plans so that we may ensure adequate consideration. DHR previously discussed with MVP the possibility of constricting the maintained pipeline right of way as it crosses historic properties, and especially public roads within historic districts, to minimize the visibility of the pipeline from public spaces. We encourage the FERC to work with the consulting parties to consider such an effort to minimize impacts.

We appreciate that the FERC has elected to pursue a PA for this project which will allow for the resolution of identified adverse effects while providing a framework to identify and resolve any additional effects when unsurveyed areas become accessible. The issues raised above should be addressed in the PA, where appropriate. In addition, we offer the following general comments. Once we have had an opportunity to review the comments of the Advisory Council on Historic Preservation and other consulting parties, we may have additional feedback:

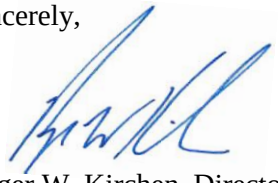
1. FERC is the entity responsible for compliance with Section 106 and the PA should consistently reaffirm this responsibility and ensure that all decisions regarding NRHP eligibility, effect, and treatment are made in consultation with the SHPOs and consulting parties. In several places throughout the PA, consulting parties are not invited to participate in consultation. Further, the potential for additional consulting parties related to historic properties not yet identified must be addressed.

2. Stipulation III.B.1 erroneously refers to site 44GS240 rather than the correct 44GS0241.

3. DHR's signature line should be Julie V. Langan, Director, Department of Historic Resources.

We look forward to continued consultation on this project. Should you have any questions concerning these comments, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,



Roger W. Kirchen, Director
Review and Compliance Division

c. Mr. John Eddins, ACHP

Mountain Valley Pipeline
Section 106 Consultation
Meeting Minutes

I. Consultation Overview

A. Teleconference on January 11, 2018, 10:30am-12:00pm

B. Consulting Parties: Greater Newport Rural Historic District Committee and Members of Preserve Newport Historic Properties (501(c)(3)) (listed below)

II. Participants

A. For MVP

1. John Centofanti (EQT)
2. Evelyn Tidlow (GAI Consultants)
3. Thomas Jensen (Holland & Hart)
4. Justin Curtis (AquaLaw)

B. For Consulting Parties

1. Matthew Fellerhoff (Strauss Troy)
2. Reid Broughton (Sands Anderson)
3. David Brady (Greater Newport Rural Historic District Committee)
4. Jerolyn Deplazes (Preserve Newport Historic Properties (501(c)(3)))
5. Michael Williams (Preserve Newport Historic Properties (501(c)(3)))
6. Karolyn Givens (Preserve Newport Historic Properties (501(c)(3)))

III. Meeting Summary

Mr. Centofanti opened the call. He stated that it was MVP's intention to discuss the consulting parties' comments on the proposed draft treatment plan for the Greater Newport Rural Historic District, which were outlined in letters to the FERC docket dated November 21, 2017, and January 4, 2018, as well as other relevant issues the consulting parties wished to address.

Mr. Fellerhoff responded that his clients have unresolved concerns about the identification and location of historic resources, including in particular the Items identified in Section II of the Programmatic Agreement (including inventories of historic resources and cultural resources, including traditional cultural properties and historical landscapes), and therefore whether all effects have been fully identified. He reiterated his previously stated position that he believes a discussion

of treatment options is premature until those concerns are addressed. However, he said his clients were willing to discuss treatment plan options at this time.

Mr. Brady then discussed several specific resources that he believed were mislocated or misidentified in the record, or where impacts were not adequately evaluated, including the Adlai Jones House, Pole Barn and Road Trace, the Leffel Mansion and the Mason Hutcheson House, and others. Mr. Brady mentioned that he believed the mislocated properties were addressed in the Giles County August 2, 2017 filing, and that the adverse effects on these properties needed to be re-evaluated and resubmitted to the SHPO for review. Mr. Fellerhoff expressed his understanding that the Programmatic Agreement requires that further consultation take place on the issue of the resource identification and evaluation of cultural resources. Mr. Fellerhoff and Mr. Brady also discussed need for the analysis of cultural resources such as traditional cultural properties addressed in the consultant Thomas King reports, and the MVP Consultant Applied Cultural Ecologies report. Mr.Fellerhoff offered his clients assistance in correcting these deficiencies and evaluating the adverse effects on these resources.

Ms. Tidlow explained that MVP relied on the best available information for the Greater Newport Rural Historic District to prepare its Criteria of Effects Report, and that the SHPO had concurred with the report. Mr. Brady explained that he believed the SHPO would need to re-evaluate the criteria of effects report's results once the errors and omissions had been corrected Mr. Centofanti added that MVP believed it had responded to the concerns raised by the consulting parties, including in the letter to Mr. Fellerhoff dated September 18, 2017. Mr. Curtis reiterated the request from the parties' prior call (September 7, 2017) that if MVP has failed to identify any resources within the limits of disturbance, this information be brought to MVP's attention promptly. Mr. Brady digressed at length about the continued disagreement.

Mr. Fellerhoff restated his position that incorrect resources and impacts had been previously identified repeatedly in the record. Mr. Brady stated that he believed that the alleged visual analysis deficiencies noted in the Yolton expert report contained in the Giles County August 2, 2017 Request to be Consulted have not been evaluated/re-evaluated, and believed there was insufficient consultation with the consulting properties on selection of Key Observation Points (KOPs). Mr. Brady noted several specific viewshed KOPs he believed were not addressed or insufficiently addressed, including the crossing of Mountain Lake Road at the Link Farm and Covered Bridge, the Blue Grass Trail at the southern and northern entry points to the GNRHD, and those identified in the Giles County August 2, 2017 filing. Mr. Brady and Mr. Fellerhoff offered the assistance of local surveyor expert David Yolton.

Mr. Centofanti asked to move the discussion forward to the consulting parties' comments on the treatment plans for the Greater Newport Rural Historic District and other relevant properties.

Mr. Fellerhoff discussed his clients' desire for the creation of a mitigation fund to be used to provide funds for certain historic property preservation activities in the GNRHD. Mr. Curtis responded that MVP had entered into a historic resource mitigation agreement with the Commonwealth. The agreement obligates MVP to expend at least $1.5 million on historic resources mitigation and likely to be more and to fund the creation of a $1 million mitigation fund. The mitigation fund would be established for the purpose of providing grants for historic preservation of resources within the vicinity of the Project. The fund would be managed by the Virginia Historical Society. Mr. Curtis clarified that the plan for the fund predated the consulting parties' request for a mitigation fund and that it is relevant to, but not a substitute for, the preparation of treatment plans. Mr. Curtis also explained that there was a separate mitigation agreement to provide compensatory mitigation for impacts on forests and water quality.

Mr. Fellerhoff expressed reservations about the sufficiency of the historic resources mitigation fund and requested to review a copy of the agreement. He noted his position that his clients and other consulting parties were not consulted nor parties to the agreement. Mr. Curtis stated MVP needed to consult with the Commonwealth before providing copies of the agreements. Mr. Brady cited the $27 million Jamestown-Hog Island Dominion powerline settlement with historic Jamestown was a more relevant precedent for mitigation funds.

Mr. Brady expressed his belief for the need to reforest sensitive properties such as the Greater Newport Rural Historic District in the same manner as MVP had agreed to reforest the US Forest Service lands, as described in the GNRHD Committee's and Giles Count's January 4, 2018 Comments on the Treatment Plans. This proposal would include reforestation in the GNRHD to within 10 feet of the pipeline instead of 50 feet, and replanting with native species. He also expressed his position for the need for the GNRHDC and consulting parties to be involved as consulting parties with the Appalachian National Scenic Trail consultations, as the GNRHD viewshed had been identified in Appalachian Trail Committee documents as being within the viewshed of the ATC that will be adversely affected by the pipeline.

Mr. Brady discussed the importance of water supplies, including streams, springs, and associated water pipes, to maintaining the historic use of agricultural properties. He requested that landowners be consulted on their preferred method for crossing such resources, and the MVP agree to drill under the resources if requested by the landowner, after consultation with an independent geological expert, chosen by the landowner, at MVP's expense. Mr. Brady and Mr. Fellerhoff also asked what MVP would do to ensure that water supplies are not impaired and are restored if they are.

Mr. Curtis responded by explaining that the method for crossing each water resource had been reviewed and approved by the Corps of Engineers in the process of reviewing

and approving permit coverage under Nationwide Permit 12 and that Department of Environmental Quality had reviewed and approved the stream crossing standards and restoration practices in the Project-Specific Standards and Specifications. Regarding potential impacts on water supply springs from construction, Mr. Curtis explained that the question had been reviewed in several regulatory forums, most recently by the State Water Control Board in its Supplemental 401 Certification review. Responding to the concern about the restoration of damaged water supplies, Mr. Curtis explained that MVP would be under a regulatory obligation to resolve any such problems in accordance with the Water Resources Identification and Testing Plan. Mr. Fellerhoff requested a copy of the Plan, which MVP committed to providing.

Mr. Fellerhoff explained that the consulting parties wanted assurances that existing agricultural uses will be maintained for farms crossed by the right of way, namely that the pipe will be of sufficient thickness to withstand traffic by heavy equipment throughout the property. Mr. Brady elaborated that many properties have historical farming and logging practices that entail the use of heavy equipment.

Mr. Centofanti responded that the pipeline is designed to allow the maintenance of agricultural uses, but that there were no engineers on the call who could address the technical questions (e.g., how much weight can the pipeline bear?). Mr. Jensen added that MVP shares landowners' interests in ensuring that property owners' use of the land does not damage the pipeline and works with landowners to address such issues. Mr. Centofanti committed to providing the consulting parties with additional information relevant to whether the practices identified by Mr. Brady can continue after construction.

Mr. Brady stated the parties' request that Class 3 pipe be installed across locations in the GNRHD and the Newport Historic District in which historic resources were within the Potential Impact Radius (PIR) of the pipeline. Mr. Brady asserted that the Newport High School Campus and Fairgrounds, the Newport-Mt. Olivet United Methodist Church, the Link Farm and Covered Bridge and other locations identified in the Giles County and GNRHD January 4, 2018 filings are within the PIR. He explained that there are historical resources within the vicinity of the project that are irreplaceable, which justifies a higher pipe class. Mr. Brady believed the pipeline would have a negative economic impact on the Newport High School Campus and Fairgrounds, as the Mayapple pre-school, a tenant, has announced that, if the pipeline is built, it will leave the building rather than have the school be in the PIR. Mr. Centofanti and Mr. Jensen explained that the pipe class is dictated by and must meet all safety requirements of the federal Pipelines and Hazardous Materials Safety Administration (PHMSA). Mr. Centofanti added that the PHMSA standards would require only Class 1 pipe for Giles County, but that MVP will be installing Class 2 pipe.

Mr. Fellerhoff asked that the treatment plan include a mechanism to indemnify owners of historic properties for all damages caused by MVP so that they do not have to resort to legal actions to receive compensation. Mr. Curtis responded that there are multiple federal and state authorities with enforcement authority to ensure that MVP complies with all requirements and remedies any resource damages. He also discussed that the Department of Environmental Quality had declined two similar requests to impose a performance bond or financial assurance requirements on the project in recognition of the project partners' financial capabilities and the existence of federal and state enforcement authorities. Ms. Tidlow added that MVP would be conducting vibration studies for relevant historic structures to identify any potential damage from project construction.

Mr. Brady closed with two comments. First, he reiterated his position that MVP should correct the alleged errors of fact and resolution of facts in dispute in the analysis of adverse effects and submit the reevaluated adverse effects to the SHPO for his review. Second, he noted that if this pipeline were to be built, he believed MVP would be adversely affecting the GNRHD for a long time, and stressed the need for MVP to be a good corporate citizen during that period. He concluded that he believed the parties should meet again to discuss disputed facts and effects, and further terms which would, in his opinion, ameliorate the purported significant long term adverse effects to Newport's historic resources and traditional rural way of life.

The meeting concluded at approximately 12:00 pm.

IV. Action Items

A. MVP to provide the Committee with copies of referenced Mitigation Agreements (*completed on January 11*)

B. MVP to provide the Committee with additional information on use of right of way by farming and logging equipment, namely the weight limit for vehicle traffic and actions taken to coordinate continued uses with landowners (*completed on January 25*)

After the meeting Mr. Fellerhoff contacted Mr. Centofanti with a request to delay responding to FERC until the Committee had a chance to review and comment on the Virginia/ MVP mitigation documents referenced in the meeting by MVP.

Dated: January 25, 2018

These minutes were prepared by MVP for the purpose of documenting Section 106 consultation for the FERC docket. Draft minutes were circulated to counsel for the participating consulting parties on January 16 with a request to they provide any material corrections. Mr. Fellerhoff responded with

lengthy edits, the majority of which were accepted by MVP and incorporated into this document.

From: Justin Curtis <justin@aqualaw.com>
Sent: Thursday, January 11, 2018 4:52 PM
To: MWFellerhoff@strausstroy.com; rbroughton@sandsanderson.com
Cc: john centofanti; Thomas Jensen
Subject: MVP: Follow up on today's call
Attachments: RPT 18 0104 - WaterSupplyIDTestingPlan_EPA#3.pdf; Virginia MVP Comprehensive Mitigation Agreement 12-22-2017 FULLY EXECUTE....pdf; Virginia MVP Historic Resources Mitigation Agreement 12-22-2017 FULLY EX....pdf

Matt and Reid,

As discussed on this morning's call, attached are the two mitigation agreements between MVP and the Commonwealth and the Water Resources Identification and Testing Plan.

Justin

Justin Curtis
Attorney
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(804) 402-7300 (cell)
www.AquaLaw.com

MEMORANDUM OF AGREEMENT
FOR COMPREHENSIVE MITIGATION OF VIRGINIA RESOURCE IMPACTS
OF MOUNTAIN VALLEY PIPELINE

THIS MEMORANDUM OF AGREEMENT FOR COMPREHENSIVE MITIGATION OF VIRGINIA RESOURCE IMPACTS OF MOUNTAIN VALLEY PIPELINE (this "Agreement") is entered as of this 22nd day of December, 2017, by and between the Commonwealth of Virginia (the "Commonwealth") and Mountain Valley Pipeline, LLC ("MVP") (each a "Party" and jointly the "Parties").

RECITALS

A. Description of the Project. MVP is a joint venture between EQT Midstream Partners, LP, US Marcellus Gas Infrastructure, LLC, WGL Holdings, Inc., Con Edison Gas Midstream, LLC, and RGC Midstream, LLC. The Federal Energy Regulatory Commission ("FERC") has issued a Certificate of Public Convenience and Necessity ("CPCN") pursuant to Section 7(c) of the Natural Gas Act for the Mountain Valley Pipeline project, an approximately 488.3-kilometer (303.4-mile), 106.7-centimeter (42-inch) diameter natural gas pipeline to be constructed in 17 counties in Virginia and West Virginia ("Project").

B. Commonwealth's Commitment to Environmental Protection. At all times relevant to the Project, the Commonwealth, through the Office of the Governor and the Office of the Secretary of Natural Resources and its agencies, has expressed a strong and consistent commitment to proper environmental protections, including thorough evaluation and regulation under the most comprehensive environmental review process ever conducted by the Commonwealth for the construction of an underground utility pipeline, whether for natural gas or other products that are also routinely transported by pipeline in Virginia such as petroleum products, chemicals, industrial and municipal wastewater, and drinking water. In furtherance of the Commonwealth's commitment to environmental protection and enhancement of natural resources, the expenditure of mitigation funds under this Agreement includes consultation with the state agencies that have expertise in the appropriate areas associated with such mitigation.

C. Process for Federal & State Authorizations. The Project has been or continues to be reviewed and regulated pursuant to numerous authorities, including without limitation pursuant to the Natural Gas Act, the National Environmental Policy Act, the Endangered Species Act, and the Clean Water Act, under which the Commonwealth has applied an intensive review process for imposing additional water quality certification conditions designed to avoid, minimize, and mitigate impacts from interstate natural gas pipeline construction.

D. Implementation of Mitigation Hierarchy. Project planning efforts followed the mitigation hierarchy by taking all practicable steps first to avoid and minimize impacts of the Project. Where avoidance was not possible, MVP developed onsite mitigation measures and worked with relevant Virginia and federal agencies to establish compensatory mitigation measures, including the significant measures established by this Agreement.

E. Technical Basis of Agreement. This Agreement is the direct result of cooperation by MVP with the Commonwealth in response to the Environmental Impact Statement prepared as part of the National Environmental Policy Act review process, Endangered Species Act Section 7 consultation, and MVP's commitment to the Migratory Bird Treaty Act concerning migratory birds and their habitat. Specific consideration was given both to the results the Habitat Equivalency Analysis methodology used by the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the Bureau of Land Management and employed by MVP and to additional Virginia-specific methodologies employed by the Virginia Department of Conservation and Recreation, Virginia Department of Forestry, and Virginia Department of Game and Inland Fisheries to further analyze and design compensatory mitigation for forest fragmentation in the Commonwealth. This Agreement establishes commitments related to forest conservation and water quality based on consideration of the impacts from forest fragmentation.

F. Mutual Interests in Comprehensive Mitigation. This Agreement serves the mutual interests of the Parties in establishing a comprehensive, exceptional approach for compensatory mitigation that is at least commensurate with the Project's impacts and which fully meets the Commonwealth's natural resources objectives in the context of the Project.

G. No Guaranty of Regulatory Approvals. For clarity, this Agreement provides no guaranty, right or entitlement of any kind that the Commonwealth (including any of its administrative agencies or other instrumentalities) will grant any or all required permits, certifications, consents, authorizations or other approvals of any kind that may be required for the Project (the "State Approvals"). Any required State Approvals shall be an entirely separate matter to be considered by the relevant authorities in full compliance with applicable laws and regulations. However, if the Project proceeds, it is the purpose of this Agreement to commit the Parties to and thereby assure implementation of the comprehensive compensatory mitigation framework memorialized in this Agreement.

NOW, THEREFORE, in satisfaction of Parties' responsibilities to ensure mitigation of the impacts of the Project, the Parties agree as follows:

AGREEMENT

1. Comprehensive Mitigation Amount. The Commonwealth requests, and MVP agrees to promptly pay, a compensatory mitigation payment in the total amount of **Twenty Seven Million Five Hundred Thousand Dollars ($27,500,000)** for the purpose of providing comprehensive mitigation of adverse impacts to, and to otherwise benefit, natural resources in Virginia, subject to the terms and conditions established herein (the "Mitigation Amount").

2. Forest Conservation. Out of the total Mitigation Amount established in Paragraph 1, MVP shall pay the amount of **Twenty Million Dollars ($20,000,000**) to the entities and in the allocated amounts and by the deadlines set forth in Paragraph 2.a. The Parties further agree that such amount fully satisfies any and all mitigation responsibilities related to and otherwise fully offsets the direct or indirect forest-related impacts of the Project in Virginia. The following specific conditions and restrictions shall apply to the use and expenditure of such funds:

a. MVP agrees to promptly transfer funds in the amount of $15,000,000 to the Virginia Outdoors Foundation to be held as a special fund pursuant to Va. Code § 10.1-1801(4) and $5,000,000 to the U.S. Endowment for Forestry and Communities (each a "Forest Mitigation Partner"). Such transfer shall be accomplished by payment of the invoices at Attachment A to the Forest Mitigation Partner in the above amounts. MVP shall pay each invoice before it undertakes substantial tree clearing and grubbing activities for the pipeline route in Virginia, which shall mean completion of the first linear mile (cumulative) of such activities, the intent being to fully fund the mitigation at the earliest stage of such activities.

b. The Commonwealth shall work with the Forest Mitigation Partners and determine project selection criteria and a process for evaluating appropriate sites that are consistent with state agency mitigation standards and practices and national standards for mitigation articulated by a wide range of federal agencies. The Forest Mitigation Partners will identify sites that meet the criteria and carry out projects designed to address the impacts of the Project on forestlands in the Commonwealth. All projects will be within a reasonable proximity to, and within the same terrestrial ecoregion as, the location of forest impacts; will achieve the durable restoration and/or enhancement of forest habitats similar to those adversely impacted by the Project; and will be in addition to any current or planned government action or requirement or preservation project for which there is already designated public or private funding.

c. From the funds provided to each Forest Mitigation Partner under Paragraph 2.a., an amount not to exceed five percent (5%) thereof may by expended by each to defray its costs and expenses for the administration of this Agreement and oversight of its related mitigation activities.

3. Water Quality. Out of the total Mitigation Amount established in Paragraph 1, MVP shall pay the amount of **Seven Million Five Hundred Thousand Dollars ($7,500,000**) to entities and in the allocated amounts and by the deadlines set forth in Paragraph 3.a., 3.b., and 3.c. The following specific conditions and restrictions shall apply to the use and expenditure of such funds:

a. MVP agrees to transfer funds in the amount of $3,850,000 to the Virginia Association of Soil and Water Conservation Districts and $3,000,000 to the Virginia Environmental Endowment (each a "Water Quality Mitigation Partner"). Such transfer shall be accomplished by payment of the invoices at Attachment B to the Water Quality Mitigation Partners in the above amounts. MVP shall pay each invoice before it undertakes substantial tree clearing and grubbing activities for the pipeline route in Virginia, which shall mean completion of the first linear mile (cumulative) of such activities, the intent being to fully fund the mitigation at the earliest stage of such activities. The Water Quality Mitigation Partners shall use such funds exclusively for the following purposes and subject to the following conditions and restrictions:

i. The Commonwealth shall work with the Water Quality Mitigation Partners and determine project selection criteria and a process for evaluating appropriate projects that is consistent with state water quality protection, restoration, and improvement priorities. The Parties agree that such amount fully satisfies any and all mitigation responsibilities related to and

otherwise fully offsets all water quality impacts of the Project, if any, that are not otherwise avoided by MVP's construction methods and environmental protection measures.

ii. Funds provided to the Virginia Association of Soil and Water Conservation Districts under this Subparagraph 3.a. shall be restricted to structural water quality improvement practices in localities or watersheds with substantial Project construction activities, it being the intent to provide water quality improvements in proximity to the Project activities. Further, such funds shall be restricted to making implementation grants or transfers to individual Soil and Water Conservation Districts to carry out the purposes of this Agreement.

iii. From the funds provided to the Virginia Environmental Endowment under Paragraph 3.a., an amount not to exceed five percent (5%) thereof may by expended by the Virginia Environmental Endowment to defray costs and expenses for the administration of this Agreement and oversight of its related mitigation activities. From the funds provided to the Virginia Association of Soil and Water Conservation Districts under Paragraph 3.a., an amount not to exceed three percent (3%) thereof may be expended by the Virginia Association of Soil and Water Conservation Districts to defray costs and expenses for the administration of this Agreement, and an amount not to exceed eight percent (8%) thereof may be expended by each Soil and Water Conservation District that receives funding from the Virginia Association of Soil and Water Conservation Districts to defray costs and expenses for the administration of this Agreement and oversight of its related mitigation activities.

b. Enhanced Water Quality Monitoring. MVP agrees to transfer funds in the amount of $650,000 to the United States Geological Survey ("USGS") to pay for water quality monitoring requirements of the Commonwealth. MVP shall pay such invoice within thirty (30) days of the date of receipt.

4. Additional Requirements & Contingencies. The Parties agree to the following additional requirements and procedures for contingencies to implement the mitigation objectives of this Agreement.

a. Conditions Applicable to Mitigation Partners. The Commonwealth's goal is for the Forest Mitigation Partners and the Water Quality Mitigation Partners to receive, obligate and expend the mitigation funds paid by MVP under this Agreement in a manner that furthers the goals and objectives of this Agreement. As further assurance to the Commonwealth that the Forest Mitigation Partners or Water Quality Mitigation Partners will fully cooperate with the Commonwealth in the performance of its mitigation efforts, and as assurance to MVP of its right to the return of the Mitigation Amount under the limited circumstances set forth in this Paragraph 4 of this Agreement, each such partner entity shall be required to execute a binding and enforceable Mitigation Partner Memorandum of Agreement substantially in the form shown in Attachment C hereto prior to its receipt of mitigation funds hereunder. If any such partner entity were to refuse to execute such agreement in a timely manner, the Commonwealth may elect to seek a modification, including a substitute mitigation partner, pursuant to this Paragraph 4. MVP shall have no responsibility of any kind for the failure of any partner entity to execute such agreement in a timely manner, to accept funds that MVP is ready and willing to transfer pursuant to this Agreement, to comply with this Agreement, or to meet the expectations of the Commonwealth,

nor shall any such failure by a mitigation partner in any way delay, impair or prevent MVP from proceeding with the Project.

b. Mitigation Investment Modifications. The priorities identified for and the allocations of the Mitigation Amount set forth in this Agreement reflect the full extent of natural resources-related mitigation measures and investments contemplated for the Project by the Parties. To the extent that either Party identifies revised or additional mitigation measures relevant to the Project and of potential benefit to the natural resources in Virginia, either Party may propose a reallocation of the Mitigation Amount in furtherance thereof through re-prioritization or re-allocation of the Mitigation Amount. In addition, the Commonwealth may propose to terminate any mitigation partner and propose a substitute mitigation partner, if any mitigation partner delays or fails to meet the Commonwealth's expectations for the implementation of this Agreement. In the event of such substitution or termination, the original mitigation partner shall deliver to MVP, within thirty (30) days of receipt of written notice of substitution or termination by the Commonwealth, all remaining funds that are unobligated as of the date of such notice. In no event shall the amount of remaining funds to be returned be less than the amount that the mitigation partner would be required to return under this Agreement if MVP had terminated the Project. Returned mitigation funds shall not revert to MVP and instead shall be redirected to other mutually agreeable mitigation purposes. The Parties agree to give reasonable and timely consideration to any such proposed modifications and, in the event of agreement, memorialize any modification to the mitigation measures and investments only in accordance Paragraph 5.

c. Return of Remaining Mitigation Amount in Event of Termination. In the event that MVP terminates the Project, whether in the unanticipated event that the Project fails to obtain and maintain the State Approvals or any other necessary permits, certifications, consents, authorizations and other approvals or for any other reason in MVP's sole discretion, each of the Forest Mitigation Partners and the Water Quality Mitigation Partners shall deliver a proportionate share of the Mitigation Amount in accordance with this Paragraph 4 to MVP within thirty (30) days of receipt of written notice of termination from MVP. Such proportionate share to be returned to MVP shall be calculated, preserved and, in the event of termination, returned based upon the number of miles of the pipeline route in Virginia for which tree clearing and grubbing activity remains to be performed compared to the total number of miles of the pipeline route requiring such activities in Virginia as part of the Project. For example, if MVP terminates the Project after having tree-cleared and grubbed 25 miles of the route, and further assuming for the sake of example that the total number of miles of the pipeline route requiring such activities in Virginia is 50 miles, then each partner would be responsible for returning to MVP one-half (determined by dividing 25 miles by 50 miles) of the portion of the Mitigation Amount that it received from MVP.

5. Miscellaneous Provisions.

a. Governing Law; Interpretation. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. This Agreement shall be interpreted as if it were mutually drafted by the Parties. The captions and headings to the various paragraphs and subparagraphs of this Agreement are for informational purposes only and shall not alter the substance of the terms and conditions of this Agreement.

b. Integration; Modification. This Agreement contains all commitments and agreements of the Parties as of the date hereof with respect to the subject matter of this Agreement, and no verbal or written commitments other than this Agreement shall have any force or effect regarding the subject matter hereof. This Agreement may be amended only by the signed written consent of both Parties.

c. No Enforcement by Third Parties. Notwithstanding the identification of certain non-governmental entities to receive and administer mitigation funding provided under this Agreement, this Agreement shall not be construed as granting to those entities any legal or equitable right, remedy, or claim against the Commonwealth or MVP arising out of this Agreement.

d. No Waiver. By entering into this Agreement, MVP does not waive any procedural or substantive rights, claims or defenses of any kind related to any State Approvals or any other required permit, certification, consent, authorization or other approval of any kind that may be required for the Project.

e. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties further agree that a facsimile, scanned or other electronic signature may substitute for and have the same legal effect as an original signature, and that any copy of this executed Agreement made by photocopy, facsimile, or scanner shall be considered an original.

f. Power and Authority of the Parties. Each of the Parties represents and warrants that the undersigned has full power and authority to enter into and perform this Agreement on its behalf.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed in their names and on their behalf by the undersigned.

COMMONWEALTH OF VIRGINIA

By: Molly Ward 12-28-17

Molly Joseph Ward
Secretary of Natural Resources

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

SIGNATURE PAGE TO MEMORANDUM OF AGREEMENT FOR COMPREHENSIVE MITIGATION OF VIRGINIA RESOURCE IMPACTS OF MOUNTAIN VALLEY PIPELINE BY AND BETWEEN THE COMMONWEALTH OF VIRGINIA AND MOUNTAIN VALLEY PIPELINE, LLC

MOUNTAIN VALLEY PIPELINE, LLC
by and through its operator,
EQM Gathering Opco, LLC

By: Robert J. Cooper
Robert J. Cooper
Senior Vice President

[END OF SIGNATURES]

ATTACHMENT A

MOUNTAIN VALLEY PIPELINE MITIGATION INVOICES

FOR

FOREST MITIGATION PARTNERS

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$15,000,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
Virginia Outdoors Foundation
39 Garrett St., Suite 200
Warrenton, VA 20186

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$5,000,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
U.S. Endowment for Forestry and Communities
908 E. North Street
Greenville, SC 29601

ATTACHMENT B

MOUNTAIN VALLEY PIPELINE MITIGATION INVOICES

FOR

WATER QUALITY MITIGATION PARTNERS

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$3,850,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
Virginia Association of Soil and Water Conservation Districts
7308 Hanover Green Drive, Suite 100
Mechanicsville, Virginia 23111

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$3,000,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
Virginia Environmental Endowment
919 East Main Street, Suite 1070
Richmond, VA 23219

ATTACHMENT C

MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT

MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT

THIS MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT (this "MOA") is executed effective this ____ day of _____, 20___, by _____ (the "Mitigation Partner").

RECITALS

A. The Commonwealth of Virginia (the "Commonwealth") and Mountain Valley Pipeline, LLC ("MVP") are parties to a certain Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline dated December 22, 2017 (the "Mitigation Agreement").

B. The Mitigation Agreement contemplates the transfer of funds from MVP to certain identified public bodies and non-profit organizations willing to undertake certain mitigation efforts as described therein, including to the Mitigation Partner.

C. The Mitigation Partner desires to receive certain funds and undertake certain mitigation efforts subject to the terms and conditions of the Mitigation Agreement.

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which the Mitigation Partner acknowledges, the Mitigation Partner agrees as follows:

1. Consent to Be Bound to Mitigation Agreement. The Mitigation Partner covenants, promises, and agrees that it shall hereby be bound by all terms and conditions of the Mitigation Agreement as if the Mitigation Partner had been an original party thereto, including without limitation any and all conditions or limitations pertaining to receipt and use of funds, project selection criteria, project evaluation process, and the preservation and, if applicable, return of funds to MVP in the event of Project termination.

2. Termination by Mitigation Partner. The Mitigation Partner may terminate this MOA upon thirty (30) days written notice to the Commonwealth and MVP, in which event the Mitigation Partner shall deliver to MVP, immediately upon termination, all remaining funds that are unobligated as of the date of termination. In no event shall the amount of remaining funds to be returned be less than the amount that the Mitigation Partner would be required to return under the Agreement if MVP had terminated the Project.

3. Miscellaneous Provisions.

a. Governing Law; Interpretation. This MOA shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. All terms used herein shall have the meanings ascribed to such terms in the Mitigation Agreement. The captions and headings to the various paragraphs and subparagraphs of this MOA are for

informational purposes only and shall not alter the substance of the terms and conditions of this MOA.

b. Integration; Modification. This MOA, together with the Mitigation Agreement, contains all commitments and agreements of the Mitigation Partner as of the date hereof with respect to the subject matter of this MOA, and no verbal or written commitments other than this MOA shall have any force or effect regarding the subject matter hereof. This MOA may be amended only by the signed written consent of the Mitigation Partner and both parties to the Mitigation Agreement.

c. No Right to Demand Payment. This MOA shall not be construed as granting to the Mitigation Partner any legal or equitable right, remedy, or claim against the Commonwealth or MVP to demand payment of any portion of the Mitigation Amount established under the Mitigation Agreement, but that upon receipt of such payment this MOA shall become enforceable against the Mitigation Partner.

d. Originals. A facsimile, scanned or other electronic signature may substitute for and have the same legal effect as an original signature, and any copy of this executed MOA made by photocopy, facsimile, or scanner shall be considered an original.

e. Power and Authority. The Mitigation Partner represents and warrants that the undersigned has full power and authority to enter into and perform this MOA on its behalf.

IN WITNESS WHEREOF, the Mitigation Partner has caused this MOA to be signed in its name and on its behalf by the undersigned.

[MITIGATION PARTNER ENTITY]

By: _____
[Name]
[Title]

MEMORANDUM OF AGREEMENT
FOR HISTORIC RESOURCE MITIGATION OF VIRGINIA RESOURCE IMPACTS
OF MOUNTAIN VALLEY PIPELINE

THIS MEMORANDUM OF AGREEMENT FOR HISTORIC RESOURCE MITIGATION OF VIRGINIA RESOURCE IMPACTS OF MOUNTAIN VALLEY PIPELINE (this "Agreement") is entered as of this 22nd day of December, 2017, by and between the Commonwealth of Virginia (the "Commonwealth") and Mountain Valley Pipeline, LLC ("MVP") (each a "Party" and jointly the "Parties").

RECITALS

A. Description of the Project. MVP is a joint venture between EQT Midstream Partners, LP, US Marcellus Gas Infrastructure, LLC, WGL Holdings, Inc., Con Edison Gas Midstream, LLC, and RGC Midstream, LLC. The Federal Energy Regulatory Commission ("FERC") has issued a Certificate of Public Convenience and Necessity ("CPCN") pursuant to Section 7(c) of the Natural Gas Act for the Mountain Valley Pipeline project, an approximately 488.3-kilometer (303.4-mile), 106.7-centimeter (42-inch) diameter natural gas pipeline to be constructed in 17 counties in Virginia and West Virginia ("Project").

B. Compliance with Section 106 of the National Historic Preservation Act. The FERC has consulted with the Commonwealth's Department of Historic Resources ("DHR"), which serves as the State Historic Preservation Office ("SHPO"), pursuant to Section 106 of the National Historic Preservation Act ("Section 106") and has determined that the project will result in an adverse effect to historic properties. FERC has satisfied its responsibilities under Section 106 through the execution of a Programmatic Agreement ("PA") dated December 15, 2017, which, among other things, directs MVP to prepare property-specific or site-specific Treatment Plans for all unavoidably adversely-affected historic properties.

C. Basis of Agreement. This Agreement is the direct result of cooperation by MVP with the Commonwealth in response to consultation on and careful consideration of the potential impacts of the Project on historic resources and acknowledges that the Commonwealth's commitment to our shared heritage and public benefit is broader than that defined under Section 106.

D. Mutual Interests in Comprehensive Mitigation. This Agreement serves the mutual interests of the Parties in establishing a comprehensive, exceptional approach for compensatory mitigation that is at least commensurate with the Project's impacts and which fully meets the Commonwealth's historic resources objectives in the context of the Project.

E. No Guaranty of Approvals. For clarity, this Agreement provides no guaranty, right or entitlement of any kind that the Commonwealth (including any of its administrative agencies or other instrumentalities) will grant any or all approvals of any kind that may be required for the Project (the "State Approvals"). Any required State Approvals shall be an entirely separate matter to be considered by the relevant authorities in full compliance with applicable laws and regulations. However, if the Project proceeds, it is the purpose of this

Agreement to commit the Parties to and thereby assure implementation of the comprehensive compensatory mitigation framework memorialized in this Agreement.

NOW, THEREFORE, in satisfaction of Parties' responsibilities to ensure mitigation of the impacts of the Project, the Parties agree as follows:

AGREEMENT

1. Comprehensive Mitigation Amount. The Commonwealth requests, and MVP agrees to pay, a compensatory mitigation payment in the total amount of **Two Million Five Hundred Thousand Dollars ($2,500,000)** for the purpose of providing comprehensive mitigation of adverse impacts to, and to otherwise benefit, historic resources in Virginia, subject to the terms and conditions established herein (the "Mitigation Amount").

2. Section 106 Commitments. Out of the total Mitigation Amount established in Paragraph 1, MVP shall reserve the amount of **One Million Five Hundred Thousand Dollars ($1,500,000**) to be applied to costs incurred by MVP for implementation of the approved property-specific or site-specific Treatment Plans developed pursuant to FERC's PA for the adversely affected historic properties.

a. Should the cost of implementing the Treatment Plans exceed the amount specified in Paragraph 2, MVP shall commit the necessary additional funds to complete implementation of such mitigation.

b. Should the cost of implementing the Treatment Plans not exceed the amount specified in Paragraph 2, MVP shall, within six (6) months of the complete implementation of the Treatment Plans, transfer all remaining funds to the Mitigation Fund specified in Paragraph 3.

3. Historic Resources Mitigation Fund. Out of the total Mitigation Amount established in Paragraph 1, MVP shall, within six (6) months of the execution of this Agreement, provide funding in the amount of **One Million Dollars ($1,000,000**) to the Virginia Historical Society ("VHS") by payment of the invoice at Attachment A to establish a Mitigation Fund to be fiscally managed by VHS. The following specific conditions and restrictions shall apply to the use and expenditure of funds from the Mitigation Fund.

a. The Mitigation Fund shall operate as an endowment for grant-making purposes to document, preserve, and interpret the historic resources within the Commonwealth's localities affected by the Project. The Commonwealth shall work with VHS and determine project selection criteria and a process for evaluating appropriate projects that are consistent with DHR historic resources mitigation standards.

b. From the funds provided to VHS under this Paragraph 3, an amount not to exceed two percent (2%) per year may be expended by VHS to defray its costs and expenses for the administration of the Mitigation Fund and oversight of its related mitigation activities.

4. Additional Requirements & Contingencies. The Parties agree to the following additional requirements and procedures for contingencies to implement the mitigation objectives of this Agreement.

a. Conditions Applicable to VHS's Receipt and Use of Funds. The Commonwealth's goal is for VHS to receive, obligate and expend the mitigation funds paid by MVP under this Agreement in a manner that furthers the goals and objectives of this Agreement. As further assurance to the Commonwealth that VHS will fully cooperate with the Commonwealth in the performance of its mitigation efforts, and as assurance to MVP of its right to the return of the Mitigation Amount under the limited circumstances set forth in this Agreement, VHS shall be required to execute a binding and enforceable Mitigation Partner Memorandum of Agreement substantially in the form shown in Attachment B hereto prior to its receipt of mitigation funds hereunder. If VHS were to refuse to execute such agreement in a timely manner, the Commonwealth may elect to seek a modification, including a substitute mitigation partner, pursuant to this Paragraph 4. MVP shall have no responsibility of any kind for the failure of VHS or any substitute mitigation partner entity to execute such agreement in a timely manner, to accept funds that MVP is ready and willing to transfer pursuant to this Agreement, to comply with this Agreement, or to meet the expectations of the Commonwealth, nor shall any such failure by VHS or any substitute mitigation partner in any way delay, impair or prevent MVP from proceeding with the Project.

b. Mitigation Investment Modifications. The priorities identified for and the allocations of the Mitigation Amount set forth in this Agreement reflect the full extent of historic resources-related mitigation measures and investments contemplated for the Project by the Parties. To the extent that either Party identifies revised or additional mitigation measures relevant to the Project and of potential benefit to the historic resources in Virginia, either Party may propose a reallocation of the Mitigation Amount in furtherance thereof through re-prioritization or re-allocation of the Mitigation Amount. In addition, the Commonwealth may propose to terminate any mitigation partner and propose a substitute mitigation partner, if any mitigation partner delays or fails to meet the Commonwealth's expectations for the implementation of this Agreement. In the event of such substitution or termination, the original mitigation partner shall deliver to MVP, within thirty (30) days of receipt of written notice of substitution or termination by the Commonwealth, all remaining funds that are unobligated as of the date of such notice. In no event shall the amount of remaining funds to be returned be less than the amount that the mitigation partner would be required to return under this Agreement if MVP had terminated the Project. Returned mitigation funds shall not revert to MVP and instead shall be redirected to other mutually agreeable mitigation purposes. The Parties agree to give reasonable and timely consideration to any such proposed modifications and, in the event of agreement, memorialize any modification to the mitigation measures and investments only in accordance Paragraph 5.

c. Return of Remaining Mitigation Amount in Event of Termination. In the event that MVP terminates the Project, whether in the unanticipated event that the Project fails to obtain and maintain the necessary permits, certifications, consents, authorizations or other approvals or for any other reason in MVP's sole discretion, VHS or any substitute mitigation partner shall deliver the proportionate share of the Mitigation Fund to MVP within thirty (30)

days of receipt of written notice of termination from MVP. Such proportionate share to be returned to MVP shall be calculated based upon the number of miles of the pipeline route in Virginia for which tree clearing and grubbing activity remains to be performed compared to the total number of miles of the pipeline route requiring such activities in Virginia as part of the Project. For example, if MVP terminates the Project after having tree-cleared and grubbed 25 miles of the route, and further assuming for the sake of example that the total number of miles of the pipeline route requiring such activities in Virginia is 50 miles, then each partner would be responsible for returning to MVP one-half (determined by dividing 25 miles by 50 miles) of the portion of the Mitigation Amount that it received from MVP.

5. Miscellaneous Provisions.

a. Governing Law; Interpretation. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. This Agreement shall be interpreted as if it were mutually drafted by the Parties. The captions and headings to the various paragraphs and subparagraphs of this Agreement are for informational purposes only and shall not alter the substance of the terms and conditions of this Agreement.

b. Integration; Modification. This Agreement contains all commitments and agreements of the Parties as of the date hereof with respect to the subject matter of this Agreement, and no verbal or written commitments other than this Agreement shall have any force or effect regarding the subject matter hereof. This Agreement is independent of, and does not modify, any rights or responsibilities of the Parties under the PA. This Agreement may be amended only by the signed written consent of both Parties.

c. No Enforcement by Third Parties. Notwithstanding the identification of certain non-governmental entities to receive and administer mitigation funding provided under this Agreement, this Agreement shall not be construed as granting to those entities any legal or equitable right, remedy, or claim against the Commonwealth or MVP arising out of this Agreement.

d. No Waiver. By entering into this Agreement, MVP does not waive any procedural or substantive rights, claims or defenses of any kind related to any State Approvals or any other required permit, certification, consent, authorization or other approval of any kind that may be required for the Project.

e. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties further agree that a facsimile, scanned or other electronic signature may substitute for and have the same legal effect as an original signature, and that any copy of this executed Agreement made by photocopy, facsimile, or scanner shall be considered an original.

f. Power and Authority of the Parties. Each of the Parties represents and warrants that the undersigned has full power and authority to enter into and perform this Agreement on its behalf.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed in their names and on their behalf by the undersigned.

COMMONWEALTH OF VIRGINIA

By: Molly Ward

Molly Joseph Ward
Secretary of Natural Resources

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

SIGNATURE PAGE TO MEMORANDUM OF AGREEMENT FOR HISTORIC RESOURCE MITIGATION OF VIRGINIA RESOURCE IMPACTS OF MOUNTAIN VALLEY PIPELINE BY AND BETWEEN THE COMMONWEALTH OF VIRGINIA AND MOUNTAIN VALLEY PIPELINE, LLC

MOUNTAIN VALLEY PIPELINE, LLC
by and through its operator,
EQM Gathering Opco, LLC

By: _____
Robert J. Cooper
Senior Vice President

[END OF SIGNATURES]

ATTACHMENT A

MOUNTAIN VALLEY PIPELINE MITIGATION INVOICE

FOR

HISTORIC RESOURCES MITIGATION

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$1,000,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Historic Resource Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Historic Resource Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
Virginia Historical Society
428 North Boulevard
Richmond, VA 23220

ATTACHMENT B

MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT

MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT

THIS MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT (this "MOA") is executed effective this ___ day of _____, 20___, by _____ (the "Mitigation Partner").

RECITALS

A. The Commonwealth of Virginia (the "Commonwealth") and Mountain Valley Pipeline, LLC ("MVP") are parties to a certain Memorandum of Agreement for Historic Resource Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline dated December 22, 2017 (the "Mitigation Agreement").

B. The Mitigation Agreement contemplates the transfer of funds from MVP to certain identified public bodies and non-profit organizations willing to undertake certain mitigation efforts as described therein, including to the Mitigation Partner.

C. The Mitigation Partner desires to receive certain funds and undertake certain mitigation efforts subject to the terms and conditions of the Mitigation Agreement.

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which the Mitigation Partner acknowledges, the Mitigation Partner agrees as follows:

1. Consent to Be Bound to Mitigation Agreement. The Mitigation Partner covenants, promises, and agrees that it shall hereby be bound by all terms and conditions of the Mitigation Agreement as if the Mitigation Partner had been an original party thereto, including without limitation any and all conditions or limitations pertaining to receipt and use of funds, project selection criteria, project evaluation process, and the preservation and, if applicable, return of funds to MVP in the event of Project termination.

2. Termination by Mitigation Partner. The Mitigation Partner may terminate this MOA upon thirty (30) days written notice to the Commonwealth and MVP, in which event the Mitigation Partner shall deliver to MVP, immediately upon termination, all remaining funds that are unobligated as of the date of termination. In no event shall the amount of remaining funds to be returned be less than the amount that the Mitigation Partner would be required to return under the Agreement if MVP had terminated the Project.

3. Miscellaneous Provisions.

a. Governing Law; Interpretation. This MOA shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. All terms used herein shall have the meanings ascribed to such terms in the Mitigation Agreement. The captions and headings to the various paragraphs and subparagraphs of this

MOA are for informational purposes only and shall not alter the substance of the terms and conditions of this MOA.

b. Integration; Modification. This MOA, together with the Mitigation Agreement, contains all commitments and agreements of the Mitigation Partner as of the date hereof with respect to the subject matter of this MOA, and no verbal or written commitments other than this MOA shall have any force or effect regarding the subject matter hereof. This MOA may be amended only by the signed written consent of the Mitigation Partner and both parties to the Mitigation Agreement.

c. No Right to Demand Payment. This MOA shall not be construed as granting to the Mitigation Partner any legal or equitable right, remedy, or claim against the Commonwealth or MVP to demand payment of any portion of the Mitigation Amount established under the Mitigation Agreement, but that upon receipt of such payment this MOA shall become enforceable against the Mitigation Partner.

d. Originals. A facsimile, scanned or other electronic signature may substitute for and have the same legal effect as an original signature, and any copy of this executed MOA made by photocopy, facsimile, or scanner shall be considered an original.

e. Power and Authority. The Mitigation Partner represents and warrants that the undersigned has full power and authority to enter into and perform this MOA on its behalf.

IN WITNESS WHEREOF, the Mitigation Partner has caused this MOA to be signed in its name and on its behalf by the undersigned.

VIRGINIA HISTORICAL SOCIETY

By: _____
[Name]
[Title]

WATER RESOURCES IDENTIFICATION AND TESTING PLAN

Prepared for:

Mountain Valley Pipeline, LLC

EQT Plaza, Suite 1700

625 Liberty Avenue

Pittsburgh, PA 15222-3111

Revision: October 2017

Prepared by:

Draper Aden Associates

Engineering • Surveying • Environmental Services

DAA Project Number: B14188B-01

Draper Aden Associates (DAA) prepared this document (which may include drawings, specifications, reports, studies and attachments) in accordance with the agreement between DAA and Mountain Valley Pipeline, LLC.

The standard of care for all professional engineering, environmental and surveying and related services performed or furnished by DAA under this Agreement are the care and skill ordinarily used by members of these professions practicing under similar circumstances at the same time and in the same locality. DAA makes no warranties, express or implied, under this Agreement in connection with DAA's services.

Conclusions presented are based upon a review of available information, the results of our field studies, and/or professional judgment. To the best of our knowledge, information provided by others is true and accurate, unless otherwise noted.

DAA's liability, hereunder, shall be limited to amounts due DAA for services actually rendered, or reimbursable expenses actually incurred.

Any reuse or modification of any of the aforementioned documents (whether hard copies or electronic transmittals) prepared by DAA without written verification or adaptation by DAA will be at the sole risk of the individual or entity utilizing said documents and such use is without the authorization of DAA. DAA shall have no legal liability resulting from any and all claims, damages, losses, and expenses, including attorney's fees arising out of the unauthorized reuse or modification of these documents. Client shall indemnify DAA from any claims arising out of unauthorized use or modification of the documents whether hard copy or electronic.

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APPENDICES

Appendix A Information Collected from Water Supply Owners

Appendix B Private Well Yield Testing Protocol

1.0 WATER RESOURCES IDENTIFICATION AND TESTING PLAN

Mountain Valley LLC (Mountain Valley) proposes to construct the Mountain Valley Pipeline (MVP), 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 facilities in the Mid-Atlantic and southeastern markets, as well as potential markets in the Appalachian region.

The proposed MVP 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, MVP components will include 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 MVP is designed to transport up to 2.0 million dekatherms per day (MMDth/d) of natural gas.

1.1 Introduction to Water Resources Identification and Testing Plan

There are negligible risks for impact to a water source from pipeline construction. Nonetheless, out of an abundance of caution, Mountain Valley prepared and is executing the terms of this Water Resources Identification and Testing Plan (Plan) in order to document pre-construction (baseline) and post-construction water quality and quantity of privately owned water supply systems, and to address concerns of public water suppliers to ensure there is no interruption of water service during construction or final land reclamation.

This Plan summarizes protocols for identifying and assessing water supplies in the vicinity of the proposed MVP and related components. Mountain Valley documented locations and characteristics of private water supplies within 150 feet (500 feet in karst terrain) of the proposed alignment or a related MVP component and offered water quality and quantity testing. Mountain Valley also addressed public water supplies that are located within 1) a U.S. Geological Survey (USGS) Hydrologic Unit Code (HUC) HUC-10 watershed that is traversed by the proposed alignment or contains a MVP component, and / or 2) has a surface water intake located within three (3) miles downstream of the proposed alignment water body crossing (FERC criterion), and / or 3) has a surface water intake in West Virginia where the proposed alignment or a related

Project component is located within 0.5-mile of a Zone of Critical Concern defined by the West Virginia Department of Health and Human Services (WVDHHR) (FERC request).

The broad criterion of addressing public water supplies within a HUC-10 watershed represents a conservative approach in terms of maximizing the number of public water supplies to be addressed because the HUC 10-unit code applies to an entire watershed, with an average 227 square miles.

This Plan discusses the outreach methodology followed by Mountain Valley, and the general plan for testing.

Private water resources identified for water quality and quantity testing within 150 feet or 500 feet in karst terrain are summarized in **Table 1**. The private water supply owners were contacted by Mountain Valley via certified mail to confirm the location and characteristics of water resource(s) on the owner's property and to request permission for Mountain Valley to conduct water quality and quantity sampling.

Field confirmation of private water sources has not been completed on some parcels because property access permission has not been granted. Therefore, this Plan is subject to change following the completion of field environmental investigations.

Public water suppliers identified within a HUC 10 watershed that contains a MVP component are shown in **Figure 1** (West Virginia) and **Figure 2** (Virginia) and summarized in **Table 2**. Mountain Valley contacted these public water suppliers (which incorporate the other criteria identified above) to confirm their water supply system and address any concerns that the owner or operator had regarding the project.

2.0 IDENTIFYING WATER RESOURCES

2.1 Private wells and springs

Unlike public water supplies, Mountain Valley is not aware of publically available data that can be reliably used to identify the location of privately owned water resources. Private wells and springs located within 150 feet of Mountain Valley work areas, and within 500 feet in karst terrain, were identified by route alignment civil surveying, as well as desktop review and field observation

(where property access was granted). The private water supply sources were confirmed through pre-construction water supply testing (**see Table 1**) as described in this Plan.

As part of the desktop review for potential drinking water sources an indirect method was employed to supplement the civil survey to identify potential private wells. GIS data taken from the various counties were used to identify if a structure was present on the parcel. To maximize the potential for identifying private water resources all structures were assumed to have one or more private wells.

As discussed in this Plan, the property owners identified by civil survey, and desktop review, along the entire proposed MVP alignment and Project components were contacted by Mountain Valley via certified mail to confirm drinking water sources on the identified property and to request permission to conduct water quality and quantity testing.

If a private property owner did not respond to the certified mail request for information within approximately four (4) weeks of submittal by Mountain Valley, a second request was sent. If no response was provided to Mountain Valley through the second submittal, no further contacts were initiated with the property owner regarding water resources.

Private well and spring locations identified as described above, and updated as of the date of this Plan, are listed in **Table 1**. **Appendix A** provides a list of information requested from the water supply owners during the initial contact along with the request for permission to sample the water supply.

2.2 Public Water Supplies

Public water suppliers in West Virginia and Virginia were identified from publicly available data sources (WVDEP, 2016; VDEQ, 2016). Specific locations and conditions of the water supply sources (wells, springs or surface water intakes) were confirmed through contacts with the public supply owner or operator (discussed below).

Public water suppliers in West Virginia and Virginia were incorporated into this Plan if a supplier is located within a USGS HUC-10 watershed that also contains one or more MVP component (regardless if the supply is upgradient or downgradient of the MVP component). Public suppliers

that have a surface water intake located within three (3) miles downstream of a water body crossing are also included in this Plan.

A West Virginia public water supply was also included in the Plan if one or more MVP components (e.g., the alignment, temporary work space, etc.) is located within 0.5-mile of a Zone of Critical Concern (ZCC) associated with the public supply surface water intake (there is no corresponding ZCC designation in Virginia).

Figure 1 shows the proposed MVP alignment, HUC 10 watersheds, and corresponding public water supplies in West Virginia. **Figure 2** shows these features and public water supply locations in Virginia. Refer to **Table 2** for a summary listing of public water supplies.

3.0 WATER RESOURCE EVALUATION

The following discussion outlines protocols water supply testing activities. The testing results will be documented by Mountain Valley and provided directly to the water supply owner.

3.1 Private Water Supplies

1. Mountain Valley plans to conduct two (2) baseline pre-construction, and one post-construction water resource testing events at each private water source identified in this Plan. Mountain Valley proposes to collect one sample approximately six (6) months before construction, and a second sample within three (3) months prior to construction, and conduct a well yield test (protocol described below).

2. All private property owners with a known or suspected water source (see earlier discussion) were contacted as discussed below:

    a. Send contact by mail to mailing address listed for the property owner;

    b. If no response is received within approximately 4 weeks of sending the first letter, a second follow-up letter will be sent;

c. If no response is provided by property owner after two (2) attempts this result will be documented and Mountain Valley will suspend further contact to the property owner regarding water quality testing;

d. If a property owner declines permission for Mountain Valley to conduct water quality testing, this will be documented and Mountain Valley will suspend further contact with the property owner regarding water quality testing;

3. Mountain Valley completed one of two (2) pre-construction baseline water quality and quantity testing events at the identified private water supplies. Mountain Valley is currently conducting the second of two (2) pre-construction events. Mountain Valley intends to conduct one pre-construction event during a relatively wet period, and one during a relatively dry period, to better characterize natural variation in water quality and quantity at the private supplies.

4. Property and water supply access approval documentation was secured by Mountain Valley before entering the property. The property / supply owner was notified prior to Mountain Valley entering the property for sampling. See **Appendix A** for information to be collected from the water supply owner during initial and follow-up contact.

5. A two-person field crew was deployed to collect water samples at the identified locations.

6. The sampling location coordinates were collected using GPS (1-meter resolution) and recorded.

7. Field testing, sample collection and sample management techniques were implemented consistent with industry standards and approved guidance (U.S. EPA, West Virginia Department of Environmental Protection, and Virginia Department of Environmental Quality).

8. For surface water resources, a decontaminated or new one-time-use sample collection device suitable for the surface water resource was inserted in a flowing portion of the spring or stream and the water sample transferred directly to the appropriate sample container provided by the laboratory.

9. A decontaminated field meter was inserted in a flowing portion of the spring or stream, and the field parameters recorded along with date and time.

10. For water well testing, a water sample was collected from a flowing spigot (after a minimum of 10 minutes purging) upstream of any treatment system (if applicable) in order to collect a raw water sample in the appropriate laboratory-prepared sample bottle with appropriate preservatives. Field parameters were analyzed at the time of water sample collection.

    a. If the well does not have a pump installed, or does not demonstrate artesian flow, a new, disposable one-time use bailer and clean nylon string was used to collect the water sample. There will be limited ability to purge the well bore of water using the bailer.

11. Water samples were kept cool and transported \ to the analytical laboratory(ies) under Chain of Custody.

12. The target analyte list is comprised of a general water quality analyte suite and pollutant-specific suite (**Table 3**). The baseline target analyte list includes field parameters, coliform bacteria, major elements and water quality parameters. The expanded target analyte list adds a full suite of Volatile Organic Compounds and Semivolatile Organic Compounds included in USEPA drinking water testing methods EPA 524.2, EPA 525.2, respectively, and Total Petroleum Hydrocarbons buy EPA SW846 8015C.

    a. The first pre-construction sampling event comprised analysis of the full expanded target analyte list (**Table 3**). The second pre-construction sampling event (currently underway as of the date of this Plan) will include the baseline water quality (reduced list, **Table 3**) suite, unless there is a concern noted by the property owner, or if Mountain Valley observers a verified detection of a VOC or SVOC or TPH from the first sampling event.

    b. National Environmental Laboratory Accreditation Program (NELAP)-accredited laboratories were utilized for water sample analyses. For samples collected in Virginia the laboratories have current Virginia (V)ELAP accreditation.

13. Water resources testing activities (including the condition of the water resource and equipment) were photo-documented. All field activities and meter calibration for each water resources sampling event were documented.

14. The first pre-construction sampling event provided Mountain Valley with the opportunity to evaluate the condition of each well, spring or intake, surrounding topography and land characteristics and land-use, and generally assess the overall vulnerability of the water supply to existing or future sources of impact.

15. Mountain Valley will provide the water supply owner with the water supply testing results. Concurrent with providing the owner these results, Mountain Valley will discuss with the owner any conditions that were observed at the water supply that represent potential for existing or future sources of impacts.

16. The second sampling event (currently underway as of the date of this Plan) will also include well yield testing. The water supply owner will be apprised of the well yield testing procedure, and Mountain Valley will request permission to access the well for the quantity testing, at the owner's discretion. See **Appendix B** herein for private well yield testing protocol (PDEP, 2007; PDEP 2009a).

17. Mountain Valley will consult with an owner who appears to have a compromised water supply based on pre-construction sampling results. Mountain Valley will tailor an evaluation protocol for the second round of water quality testing as appropriate to evaluate the integrity of the water supply and ensure a comprehensive pre-construction assessment is completed.

3.2 Public Water Suppliers

Mountain Valley contacted and discussed the Project with public water suppliers, and addressed specific concerns. Project components that are hydrologically upgradient, or separated by significant distance alleviated concerns of most public suppliers. In other cases, alignment adjustments alleviated the concerns of public suppliers. Mountain Valley is completing water supply contingency planning efforts for public suppliers that have a surface water intake within three (3) miles downgradient of a pipeline water body crossing, or in West Virginia for suppliers

with a surface water intake(s) located within 0.5-mile of a Project component. Mountain Valley has communicated directly with the pubic suppliers, and is working directly with specific suppliers for contingency planning as of the date of this Plan.

4.0 POST-CONSTRUCTION BASELINE WATER RESOURCE TESTING

Mountain Valley will offer to each private water supply that participated in the pre-construction testing program, post-construction water quality (full target analyte list in **Table 3**) and quantity (i.e., well yield) testing. Mountain Valley will follow the same procedures described above for water supply sampling, comprehensive target analyte list laboratory analysis and water quantity testing. Mountain Valley will provide the post-construction monitoring results directly to the property owner.

Mountain Valley will maintain water supply contingency planning efforts that are specified in the respective supplier's Contingency Plan, through the construction period and until final land reclamation is completed.

5.0 COMPLAINT RESOLUTION PROCESS

Mountain Valley believes that the potential for impacts to private water supplies and springs is negligible. Nonetheless, if a claim of impact is made by a water supply owner, a thorough investigation of the alleged impact will be conducted by qualified groundwater and surface water scientists and engineers using industry-standard hydrogeologic investigative practices. This will include a review of the timing of the claim relative to the construction schedule, detailed interview with the supply owner, mechanical evaluation of the water system, possible resampling and analysis of the supply, performance of a hydrogeologic assessment, and other pertinent evaluations. Because each water supply system and hydrogeologic setting is unique, the only means to establish a clear link between a water supply quality or quantity issue and Project activities is through a comprehensive evaluation leading to complaint resolution.

If Mountain Valley determines that the impact was related to its pipeline construction, then the investigations described above will provide valuable information concerning the appropriate remedies. Restoration of a water supply could include:

- temporary supplied water until the water quality returns to baseline;
- connection to secondary on-site sources, if available; and/or
- temporary treatment to establish baseline quality (or better).

If the hydrogeologic assessment indicates that a long term solution is needed, Mountain Valley would provide the following as appropriate to restore water quality and quantity to pre-construction conditions:

- a permanent treatment system; or
- a new on-site source (new water well); or a combination of source replacement and treatment options.

6.0 REFERENCES

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WVDEP, 2016. West Virginia Department of Environmental Protection, Public Water Resources. http://tagis.dep.wv.gov/WVWaterPlan.

Tables

Table 1. Private Water Supplies for Water Quality and Quantity Testing

Project Mile Post	MVP Parcel Number	Water Source	Latitude	Longitude
13.7	WV-HA-027	Spring	39.42267	-80.47739
13.7	WV-HA-027	Spring	39.42241	-80.47676
13.7	WV-HA-3909	Well	39.42241	-80.47857
13.7	WV-HA-029	Well	39.42241	-80.47816
20.8	WV-HA-065.01	Well	39.34159	-80.51141
22.3	WV-HA-080	Spring	39.32512	-80.52914
22.3	WV-HA-080	Well	39.32579	-80.52921
22.5	WV-HA-080	Well	39.32394	-80.52845
44.1	WV-LE-036	Spring	39.10320	-80.58838
44.4	WV-LE-042	Spring	39.09694	-80.58769
44.4	WV-LE-3947	Well	39.09639	-80.58953
58.9	WV-LE-117	Well	38.93066	-80.57423
58.9	WV-LE-117	Well	38.93006	-80.57437
59.5	WV-LE-3953	Spring	38.91988	-80.59112
61.3	WV-LE-133	Spring	38.90201	-80.56544
61.3	WV-LE-133	Well	38.89967	-80.56852
61.9	WV-LE-133	Well	38.89268	-80.56563
67.2	WV-BR-002.04	Well	38.84206	-80.51576
67.7	WV-BR-002.07	Well	38.83148	-80.51395
67.8	WV-BR-002.07	Well	38.82892	-80.51369
69.9	WV-BR-009	Well	38.81010	-80.54137
71.3	WV-BR-014.02	Spring	38.79137	-80.53199
73.7	WV-BR-032	Well	38.76258	-80.51891
74.5	WV-BR-036	Well	38.75433	-80.51537
75.3	WV-BR-5214	Well	38.74226	-80.52715
80.6	WV-BR-046.17	Well	38.69035	-80.47962
80.6	WV-WB-001.04	Well	38.69019	-80.47964
81.7	WV-WB-001.09	Spring	38.67617	-80.47630
83.8	WV-WB-001.18	Well	38.64978	-80.48260
83.9	WV-WB-001.211	Well	38.64780	-80.48573
84.2	WV-WB-3991 (AR WB-117)	Spring	38.65258	-80.49857
93.1	WV-WB-001.40	Spring	38.54831	-80.53957
109.3	WV-WB-093	Spring	38.37201	-80.61146
111.2	WV-NI-002	Spring	38.35674	-80.63223
114.7	WV-NI-025.01	Well	38.32687	-80.66998
115.8	WV-NI-031	Spring	38.31332	-80.67369
116.9	WV-NI-4036	Well	38.29734	-80.67165
124.3	WV-NI-064	Spring	38.20971	-80.71832
124.4	WV-NI-4237	Well	38.20747	-80.72074
130.5	WV-NI-089	Spring	38.13614	-80.73122
133.2	BW-NI-14	Well	38.10644	-80.72493
137.3	WV-GR-007	Well	38.05957	-80.73022
137.4	WV-GR-007.02	Well	38.05802	-80.73088
137.4	WV-GR-007.03	Well	38.05743	-80.73096
139.7	WV-GR-012	Spring	38.03088	-80.73486

Table 1. Private Water Supplies for Water Quality and Quantity Testing

Project Mile Post	MVP Parcel Number	Water Source	Latitude	Longitude
140.5	WV-GR-014	Spring	38.02171	-80.74554
140.5	WV-GR-014	Spring	38.02166	-80.74554
140.5	WV-GR-014	Spring	38.02203	-80.74667
140.5	WV-GR-014	Spring	38.02166	-80.74409
140.5	WV-GR-014	Spring	38.02185	-80.74342
145.0	WV-GR-030	Spring	37.97346	-80.74545
145.4	WV-GR-031.01	Well	37.96917	-80.73914
146.2	WV-GR-033	Spring	37.96078	-80.73267
149.5	WV-GR-047	Well	37.92360	-80.73991
150.4	WV-GR-051.01	Spring	37.91400	-80.73080
150.5	WV-GR-051.01	Spring	37.91150	-80.72924
150.5	WV-GR-4069	Well	37.91029	-80.72680
150.5	WV-GR-4069	Spring	37.91060	-80.72660
150.6	WV-GR-051.01	Spring	37.91187	-80.73000
151.4	WV-GR-056	Well	37.90292	-80.73971
151.8	WV-GR-056	Well	37.89928	-80.74438
152.6	WV-GR-057	Well	37.88973	-80.74717
154.7	WV-FA-003	Well	37.86527	-80.75796
156.6	WV-GR-071	Well	37.84287	-80.75190
157.0	UNKNOWN	Well	37.84072	-80.75336
158.8	WV-SU-5891	Spring	37.81528	-80.74714
159.4	WV-SU-006	Spring	37.80742	-80.74577
159.5	WV-SU-006	Spring	37.80625	-80.74549
169.6	WV-SU-036	Well	37.69634	-80.73811
191.4	WV-MO-012.285	Well	37.45721	-80.66269
202.3	VA-GI-019	Spring	37.34759	-80.65521
204.1	VA-GI-030	Well	37.34357	-80.62491
204.3	VA-GI-032	Well	37.34155	-80.62222
204.4	VA-GI-034	Spring	37.34151	-80.62125
208.9	VA-GI-058	Spring	37.31929	-80.55470
209.0	VA-GI-058	Well	37.31791	-80.55369
217.5	VA-CR-200.050	Well	37.32534	-80.43136
218.1	VA-CR-200.052	Spring	37.32909	-80.42115
223.1	VA-MO-5521	Well	37.29771	-80.36041
229.3	VA-MO-5356	Well	37.25028	-80.28696
235.1	VA-MO-3715	Well	37.23673	-80.19895
235.1	VA-MO-3715	Spring	37.23672	-80.20008
245.1	VA-RO-5220	Well	37.13766	-80.12716
260.0	VA-FR-057	Well	37.07446	-79.94061
260.3	VA-FR-058	Well	37.07190	-79.93851
260.3	VA-FR-5422	Well	37.07111	-79.93964
261.2	BVFR-24	Well	37.06791	-79.92473
261.5	VA-FR-070	Well	37.06513	-79.92264
270.2	VA-FR-4277	Well	37.04292	-79.82255
271.7	VA-FR-140.01	Spring	37.03690	-79.80006

Table 1. Private Water Supplies for Water Quality and Quantity Testing

Project Mile Post	MVP Parcel Number	Water Source	Latitude	Longitude
271.9	VA-FR-5429	Well	37.03946	-79.79637
274.6	VA-FR-153	Spring	37.01513	-79.75793
278.5	VA-FR-4145	Well	36.98998	-79.70378
278.6	BVFR-54	Well	36.98967	-79.70258
289.9	VA-PI-029	Spring	36.92969	-79.52667
298.2	VA-PI-73.031	Well	36.87249	-79.40799
298.7	VA-PI-087.01	Well	36.86653	-79.40394

Table 2. Public Water Suppliers within a HUC-10 Watershed

Public Supply Name	PWS ID#	Locality	State
New-Martinsville Water Department	WV3305203	New Martinsville	WVa
Pine Grove	WV3305205	Pine Grove	WVa
West Union Municiple Water Plant	WV3300901	West Union	WVa
Lumberport Water	WV3301714	Lumberport	WVa
Salem Water Board	WV3301720	Salem	WVa
Clarksburg Water Board	WV3301705	Clarksburg	WVa
Jane Lew Public Service District	WV3302103	Jane Lew	WVa
West Virginia American Water - Weston WTP	WV3302104	Weston	WVa
Glenville Water Plant	WV3301104	Glenville	WVa
Burnsville Public Utility	WV3300408	Burnsville	WVa
West Virginia American Water- Gassaway	WV3300406	Gassaway	WVa
Flatwoods Canoe Run PSD	WV3300402	Sutton	WVa
Sugar Creek PSD	WV3300404	Frametown	WVa
Clay Municipal Water	WV3300801	Clay	WVa
West Virginia American Water - Webster Springs	WV3305104	Webster Springs	WVa
Craigsville PSD	WV3303402	Craigsville	WVa
Nettie-Leivasy PSD	WV3303403	Nettie	WVa
Summersville Municipal Water	WV3303404	Summersville	WVa
Wilderness PSD	WV3303405	Mt. Nebo	WVa
Greenbrier County PSD #2	WV3301302	Quinwood	WVa
Rainelle Water Department	WV3301309	Rainelle	WVa
Rupert Water Department	WV3301311	Rupert	WVa
Town of Meadow Bridge Water Dept.	Town Clerk	Meadow Bridge	WVa
City of White Sulphur Springs Water Plant	WV3301314	White Sulphur Springs	WVa
City of Lewisburg Water Plant	WV3301307	Lewisburg	WVa
Ronceverte Water Department	WV3301310	Ronceverte	WVa
Big Bend PSD	WV3304507	Talcott	WVa
Red Sulphur Public Service District	WV3303206	Peterstown	WVa
Town of Union	WV3303207	Union	WVa

Table 2. Public Water Suppliers within a HUC-10 Watershed

Public Supply Name	PWS ID#	Locality	State
Gap Mills Public Service District	WV3303204	Gap Mills	WVa
Green Valley/Glenwood PSD - Bulltail Water Plant	WV3302813	Bluefield	WVa
West Virginia American Water- Bluefield	WV3302835	Bluefield	WVa
Giles County PSA	1071455	Pearisburg	Va
NRV Regional Water Authority	1121057	Radford	Va
Western Virginia Water Authority (WVWA)	2770900	Roanoke	Va
City of Salem	2775300	Salem	Va
Town of Boones Mill	5067043	Boones Mill	Va
Town of Rocky Mount	5067840	Rocky Mount	Va
Franklin County	5067137	Rocky Mount	Va
Town of Ferrum	5067120	Ferrum	Va
Town of Gretna	5143210	Gretna	Va
Town of Chatham	5143114	Chatham	Va
Pittsylvania County Service Authority - Robin Court	5143690	Pittsylvania	Va

Table 3. Target Analytes for Private Water Supply Testing

Target Analyte (baseline water quality)	Notes / Rationale for Testing
pH	Field-measured indicator parameter characterizing the relative acid-base nature of water and a major indicator of overall water quality.
Specific conductivity (mS/cm)	Field-measured indicator parameter characterizing the dissolved ion content of water and a major indicator of overall water quality.
Temperature (^{o}C)	Field-measured indicator parameter that is a general water quality descriptor.
Turbidity (turb. units)	Field-measured indicator parameter characterizing the suspended solids content of water.
Total and Fecal coliform bacteria (MPN/100 ml)	Measures bacteria content of water. Indicator of surface water and / or septic field impact to the water well.
Total dissolved solids (TDS) (mg/L)	Measures amount of charged ions that are dissolved in water. Indicative of dissolved mineral content of the water.
Total suspended solids (TSS) (mg/L)	Measures amount of solid material suspended in water. Similar to turbidity field indicator, but provides a quantitative assessment of suspended solids mass.
Hardness (mg/L)	Major water quality indicator. Hardness is commonly used to measure dissolved calcium and magnesium. “Hard” water is high in dissolved minerals. Hardness, TDS and Specific conductivity are evaluated in common to characterize the relative mineralization of groundwater. Report in CaCO3 equivalent (mg/L).
Alkalinity (mg/L)	Measures the ability of water to neutralize acid (buffering capacity) and is part of an overall water quality indicator. Report in CaCO3 equivalent (mg/L)
Sulfate (mg/L)	Common major anion (negatively-charged compound) in groundwater and at high concentrations may lead to scaling of plumbing and impart poor taste to potable water. This is also used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well.
Chloride (mg/L)	Common major anion (negatively charged) that is an indicator of overall salt content of water. This is also used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well.
Nitrate (total) (mg/L)	Common major anion (negatively charged compound) that is typically used as an indicator of surface water or septic influence on groundwater. Nitrate and bacteria analyses are evaluated in tandem to identify potential impacts to groundwater sources. This is also used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well.

Table 3. Target Analytes for Private Water Supply Testing

Target Analyte (baseline water quality)	Notes / Rationale for Testing
Bicarbonate (mg/L)	Common major anion (negatively charged compound) used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well. Evaluating bicarbonate content along with alkalinity assists in understanding overall water quality.
Calcium and Magnesium (mg/L)	Common major cation (positively charged element) that will assist in characterizing overall water quality and Hardness, and will be used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well.
Sodium and Potassium (mg/L)	Common major cation (positively charged element) that will assist in characterizing overall water quality and to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well. High levels of sodium may also have health effects for persons with high blood pressure.
Iron and Manganese (mg/L)	Common major cation (positively charged element) that will assist in characterizing overall water quality and to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well. These major elements, when dissolved in water at a high enough concentration, can have aesthetic concerns for staining home fixtures or affecting laundry.
Target Analyte (Expanded Pollutant-specific)	**Notes / Rationale for Testing**
Volatile Organic Compounds (VOCs); EPA Method 524.2	Volatile organic compounds such as petroleum products, chlorinated compounds, solvents and degreasers, industrial chemicals, etc.
Semivolatile Organic Compounds (SVOCs); EPA Method 525.2	Semivolatile organic compounds potentially derived from industrial activity and materials.
Total Petroleum Hydrocarbons (TPH) EPA Method 1664	Range of petroleum products (see Note 1, below)

Note 1: Total Petroleum Hydrocarbon (TPH) Method 1664 captures a broad range of petroleum related hydrocarbons (including oil-range, diesel-range, gasoline-range and lighter-range). FERC suggested including Oil and Grease, but this analysis would capture fats and greases from animals, fry oils, waxes, soap, etc. There is no reasonable expectation that these types of substances will be associated with pipeline construction. The target analyte list in Table 3, including Method 1664 TPH, will provide a comprehensive analysis of potential contaminants in groundwater that would have a reasonably-expected potential derivation from pipeline construction.

Figures

Mountain Valley Pipeline Project

Mountain Valley PIPELINE

FIGURE NUMBER 1
Public Community Water Systems
West Virginia

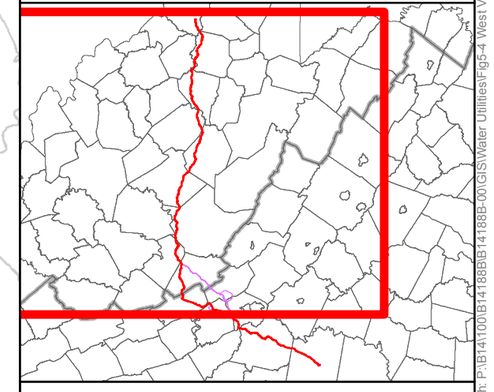
10-2017

Draper Aden Associates
Engineering • Surveying • Environmental Services

Legend

- Surface Water
- Ground Water
- USGS HUC-10 Watersheds
- MVP Proposed Route

Public Water resources:
http://tagis.dep.wv.gov/WVWaterPlan
Locations are approximate and data has not been verified for completeness or accuracy.



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NAD 1983 UTM 17N

0 10 20 30 Miles

Service Layer Credits:

Document Path: P:\B14100\B14188B\B14188B-00\GIS\Water Utilities\Figs-4 West Virginia Pub-Comm Water Source v2.mxd

Mountain Valley Pipeline Project

Mountain Valley PIPELINE

FIGURE NUMBER 2
Public Community Water Systems
Virginia

10-10-16

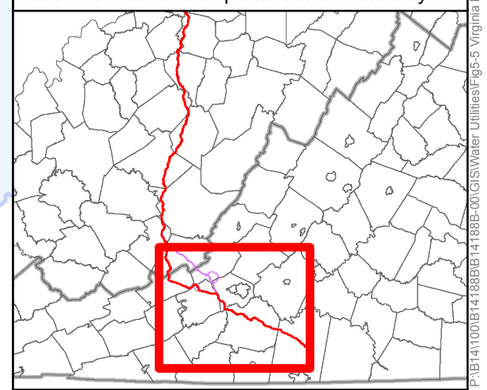
Draper Aden Associates
Engineering • Surveying • Environmental Services

Legend

Water Supply Sources

- Well
- Reservoir
- Stream
- Spring
- USGS HUC-10 Watersheds
- MVP Proposed Route

Public Water resources:
Virginia Regional Water Supply Plans
Locations are approximate and data has not been verified for completeness or accuracy.



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NAD 1983 UTM 17N

0 1 2 4 6 8 10 Miles

Service Layer Credits:

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Appendices

Appendix A Information Collected from Water Supply Owners

1 Route Specific Sort Order
2 Parcel Number(s)
3 APN(s)
4 Name (Last, First or Company)
5 Permission to Enter
6 Date on Form
7 Signed
8 Address Line 1
9 Address Line 2
10 City, State, Zip
11 Telephone Number
12 Email Address
13 Preferred Day/Time of Contact
14 Community or Municipal Water
15 Water Wells
16 Drilled or Dug
17 Used for Drinking
18 Well Depth
19 Treatment System or Filter
20 Other Water Wells
21 Number of Other Wells
22 Drilled or Dug
23 Used for Drinking
24 Well Depth
25 Treatment system
26 Springs
27 Number of Springs
28 Used for Livestock/Irrigation
29 Streams
30 Number of Streams
31 Used for Livestock/Irrigation
32 Other Bodies of Water
33 Number of Other Bodies of Water
34 Description
35 Used for Livestock/Irrigation
36 Comments

Appendix B Private Well Yield Testing Protocol

The following outlines the methodology for measuring pre-construction well yield at private water supply wells. Public water supplies have documented production data and this will be used for pre-construction baseline data. The private water well yield testing methods described below were taken from The Pennsylvania Department of Environmental Protection, Bureau of Mining Programs, Document 563-2112-605 (Water Supply Replacement and Permitting; Appendix B, Section C), and Document 563-2112-606 (Procedures for establishing the quantity of water in low-yield wells) (PDEP 2007, PDEP 2009a).

There are two (2) procedures discussed below. The first is well yield testing when the well is accessible for measuring water level during pumping and recovery. The second is a flow testing protocol when the well is not accessible, or the property owner does not authorize Mountain Valley to access the well but requests a well yield test.

If the property owner requests a post-construction well yield test, it is critical that the test be conducted under the same conditions as the pre-construction test, to the extent possible, in order to provide as accurate a comparison as possible. Since pumping rate and the test duration both affect the well yield estimate, these parameters need to be nearly the same to compare results of post-construction to pre-construction tests. If possible, the two tests should be conducted during the same season of the year because seasonal variation of well recharge can influence the yield estimate.

Yield Testing Protocol for Accessible Wells - Specific Capacity

The "specific capacity" of a well is the number of gallons of water produced per minute for each foot of well drawdown.

A test duration of 1 hour at a pumping rate of 5 gallons per minute (gpm) will be conducted to estimate well specific capacity.

Procedure

Request that the well owner not operate the well for as long as practical prior to conducting the test. Record when the owner last used the water system.

Well plumbing fixtures, such as the pressure shutoff switch, sediment filter and pressure tank may need to be by-passed or disconnected to maintain a stable, steady pumping rate.

Ensure that the discharged water is collected, or discharged away from the well so that it does not artificially recharge the well.

Measure and record the depth to water from the top of the well casing.

Measure and record the depth to the pump from the top of the well casing, if possible. Record any pump installation data that are available.

Record time that flow testing begins.

The following measurements should be taken during the pumping period:

Pumping rate – measure at the start of the test; at five minute intervals during the initial stages of the test; at 10 minute intervals during the latter stages of the test; and at the conclusion of pumping. Adjust flow controls as necessary to maintain the optimal 5 gpm pumping rate.

Water level – measure at the start of the test; at one or two minute intervals during the first 10 to 20 minutes; at five minute intervals during the remainder of the pumping period; and at the conclusion of pumping.

Terminate pumping if the water level drops within 5 feet of the pump, so the pump is not damaged by running it dry.

Record time that flow testing ends.

At the conclusion of the pumping test, commence recovery measurements in accordance with the following guidelines:

0 – 5 minute interval: every 30 seconds

5 - 10 minute interval: every 60 seconds

10 - 20 minute interval: every two minutes

20 - 60 minute interval: every five minutes

If after one hour the level of recovery is less than 50% of the depth of drawdown, continue to measure water levels at five minute intervals until water level has recovered to 90% of the depth of drawdown or until three hours since the start of recovery, whichever occurs first.

Tabulate pumping rate, drawdown and recovery data, and prepare a graph of water level vs. time.

Well yield can be calculated from specific capacity by multiplying the available drawdown in the well (the distance between the static water level and the normal pump setting in feet) with the specific capacity (units in gallons per minute per feet of drawdown), the result having the units of gpm. This calculated yield takes into consideration both the storage capacity of the well and the aquifer performance under the limited conditions of the specific capacity test.

$SC=R/D$

Where: SC = specific capacity (gpm/ft), R = adjusted discharge rate (gpm), and D = total drawdown (ft.)

$R = (Vt - Vs) / t$

Where: Vt = total volume of water discharged during test (gallons), Vs = volume of water discharged from borehole storage (gallons), and t = duration of the test (minutes).

$Vs = 23.5D\ r^2$

Where: Vs = volume of water discharged from borehole storage (gallons), D = total drawdown (feet), r = well radius in feet.

(Note, for a standard 6-1/2 inch diameter well, Vs = 1.72 gal./ft. X D)

Yield (gpm) = AD x SC

Where: AD = available drawdown (ft) = depth to pump intake - static water level - 5 ft.

Well storage may be overemphasized in specific capacity tests. Unlike a long-duration test of a high-performance, industrial well, a short-duration test of a low-yielding well, especially a deep well, may result in borehole storage water representing most of the water discharged during the test. A borehole storage problem becomes significant if the specific capacity is then multiplied by the available drawdown to calculate a yield. A poor-performing, unreliable well can appear to have a relatively good yield when borehole storage is large relative to the specific capacity. Mountain Valley will document both specific capacity from the test, and calculated well yield.

Yield Testing Protocol for Inaccessible Wells - Peak Demand Test

The Peak Demand Test (PDT) will be used if a well is inaccessible for direct monitoring of water level during pumping and recovery. The PDT is used to simulate well usage during peak demands, and does not provide an actual yield value. It only tests a delivery system's ability to provide water to the user.

Procedure

The test will be performed by running the water from an outdoor spigot or indoor faucet.

If possible, well plumbing fixtures, such as the pressure shutoff switch, sediment filter and pressure tank may need to be by-passed or disconnected to maintain a stable, steady flow rate.

Ensure that the discharged water is collected, or discharged away from the well so that it does not artificially recharge the well.

Open spigot or faucet for flow at 5 gpm for 15 minutes and then stop flow for recovery for 15 minutes.

The on/off pumping cycles are repeated for 4 hours or until the well fails, whichever comes first.

Record time at the beginning and end of each cycle.

The discharge rate (flow rate) will be recorded every 5 minutes (three times per pumping cycle).

If the pump intake breaks suction and the discharge rate drops noticeably, record the time when this occurs.

The parameters of the PDT must be carefully recorded. Maintaining a constant discharge rate can be difficult to achieve because an in-place water delivery system for a home can be difficult to control and the discharge rate may decline as the test advances.

Because the PDT does not require entry to the well bore, liability concerns from well damage are less. The test also provides a means of testing water supplies not physically accessible for water level measurements. A disadvantage of the test is that the PDT takes longer to perform than the short-duration specific capacity test. Because of the on-and-off cycles, the PDT will not adequately test the well if its duration is shortened to less than 4 hours. The PDT should only be allowed where borehole access requires an extraordinary effort, or the well owner does not authorize entry.

Mountain Valley Pipeline
Section 106 Consultation
Meeting Minutes

I. Consultation Overview

A. Teleconference on January 12, 2018, 9:00am-11:00am

B. Consulting Party: Giles County

II. Participants

A. For MVP

1. John Centofanti (EQT)
2. Rob Pichardo (EQT)
3. Evelyn Tidlow (GAI Consultants)
4. Hannah Dye (Tetra Tech)
5. Thomas Jensen (Holland & Hart)
6. Justin Curtis (AquaLaw)

B. For Consulting Party

1. Richard Chidester (Giles County)
2. John Ross (Giles County)

III. Meeting Summary

Mr. Centofanti opened the call. He stated that it was MVP's intention to discuss Giles County's comments on the proposed draft treatment plan for the Greater Newport Rural Historic District and Big Stony Creek Historic District, which were outlined in letters to the FERC docket dated November 3, 2017, and January 4, 2018 (filed jointly with Roanoke County), as well as other relevant issues the County wished to address.

In response to the request in the County's letters for the establishment of a mitigation fund, Mr. Curtis provided an overview of a historic resource mitigation agreement entered into between MVP the Commonwealth. The agreement obligates MVP to expend at least $1.5 million on historic resources mitigation and to fund the creation of a $1 million mitigation fund. The mitigation fund would be established for the purpose of providing grants for historic preservation of resources within the vicinity of the Project. The fund would be managed by the Virginia Historical Society. Mr. Curtis clarified that the plan for the fund predated the consulting parties' request for a mitigation fund and that it is relevant to, but not a substitute for, the preparation of treatment plans or discussion of other possible compensatory mitigation measures.

Mr. Curtis also explained that there was a separate mitigation agreement to provide compensatory mitigation for impacts to forests and water quality. Mr. Curtis emailed the agreements to Mr. Chidester during the call.

Mr. Chidester and Mr. Ross next discussed the County's request for a reduction in the right of way maintenance area. Mr. Ross explained that the County's primary concerns regarding visual impacts are the vistas from road crossings, and he discussed in particular a view along Route 460 on the eastern border of the County where there has been consideration of building a welcome center, as well as portions of the right of way potentially visible from the Appalachian Trail. Mr. Centofanti explained the measures developed with the Forest Service to introduce undulations and reductions in the maintained area of the right of way to reduce visual impacts. He added that MVP was reviewing possible locations to implement similar measures in the vicinity of the historic districts in Giles County. Ms. Tidlow added that the mitigation options being reviewed with the National Park Service and other parties likely would address the County's concerns relating to the Appalachian Trail.

Mr. Chidester suggested that it may be more productive to discuss potential locations to implement the right of way measures after trees had been cleared, so the visual impacts would be more evident. After discussion, MVP agreed that would be a reasonable option to evaluate further as a possible treatment plan measure. Mr. Ross wished to emphasize that this was a staff level discussion, and that the County's position on any particular treatment plan measures would have to be reviewed and approved by the County Board.

The discussion returned to mitigation funds. Mr. Ross explained the importance of the community center in Newport and the need for funds to maintain it. He also mentioned several covered bridges, one of which recently sustained wind damage, as other resources that could benefit from additional funds.

The existing draft Greater Newport Rural Historic District treatment plan was discussed. Mr. Ross stated that in his discussions with stakeholders he had not heard any support for the concept of developing a driving tour. Ms. Tidlow responded that this tour was proposed in the draft as the starting point for discussions with consulting parties, and that the treatment plan would be revised based on the consultation. The revised treatment plan need not include a driving tour if there is little local support for the measure. The group discussed the option of the Historic Structure Report that would identify and prioritize needed maintenance for at-risk buildings and structures, such as the covered bridges and the community center as an appropriate mitigation measure to include in the treatment plan for Greater Newport. Ms. Tidlow reiterated that any mitigation fund discussed for Section 106 purposes must be targeted toward preserving or restoring historic significance.

The draft Big Stony Creek Historic District was discussed next. Ms. Dye acknowledged the reservations about nominating the district. She suggested an alternative approach to better document the historic features of the district through use of a Historic American Landscape Survey. Mr. Ross and Mr. Chidester stated that much of the concern for that location is centered on potential impacts on the Big Stony Creek. They agreed that Ms. Dye's suggestion appeared preferable to the approach in the draft treatment plan, although Mr. Chidester reiterated that the County could not take an official position until the Board had considered the issue.

Ms. Tidlow inquired in the County's timeline for responding to today's discussion. Mr. Chidester explained the Board's meeting schedule and that the next meeting is Thursday, January 19. He stated that the substance of this day's call would be discussed with the Board at that meeting. He requested that MVP provide additional information better summarizing the issues discussed today.

Mr. Ross then raised the concern that certain historic resources had ben mislocated and/or misidentified in the record. Mr. Tidlow provided an update on the status of that issue. She stated that MVP had provided relevant information to the SHPO and had received concurrence—namely referring to the SHPO's concurrence with the Criteria of Effects Report. Mr. Chidester requested copies of the relevant documents in advance of the following week's Board meeting. Mr. Centofanti said MVP would provide additional information.

Mr. Ross inquired about measures in place to protect and if necessary restore historic private water supplies. Mr. Curtis replied by providing an overview of the Water Resources Identification and Testing Plan and the related conditions in the Virginia State Water Control Board's Supplemental 401 Certification. A copy of the Plan and Certification were sent to Mr. Chidester and Mr. Ross by email during the call.

Mr. Ross asked about MVP's response to the County's request to increase the class of the pipeline. Mr. Jensen responded with a summary of the applicable federal Pipeline and Hazardous Materials Safety Administration safety requirements that applied to the pipeline. Mr. Centofanti then explained that federal regulations would have required Class 1 pipe through Giles County, but the project would be using Class 2 pipe throughout the County.

Mr. Ross then expressed the County's concerns about the continued use of historical agricultural properties, and in particular the ability to continue to use heavy farming and logging equipment within the right of way. Mr. Centofanti explained that MVP typically works directly with landowners on a case-by-case basis to ensure that the existing agricultural practices can continue and that the pipeline is designed to handle heavy equipment up to certain weight limits. Mr. Chidester asked how information about acceptable uses would be memorialized for future land owners—

and whether they are recorded in the land records. Mr. Chidester requested additional information on what types of practices can occur or are restricted in the pipeline right of way and how this information is provided to future landowners. Mr. Centofanti committed to providing this information.

Mr. Chidester asked about the County's request for indemnification or a performance bond. Mr. Curtis responded by stating that there were overlapping federal and state agencies with authority to ensure that MVP addressed any damage from the project. He also discussed that the Virginia Department of Environmental Quality (DEQ) had declined to similar requests to impose a performance bond or financial assurance requirements on the project in recognition of the project partners' financial capabilities and the existence of federal and state enforcement authorities. A copy of the DEQ's response to comments document on the issue was sent by email during call to Mr. Chidester and Mr. Ross.

Mr. Chidester reiterated the County's request for a restriction on the use of the pipeline corridor for future additional pipelines. He referenced easement language regarding permission to site future pipelines in the right of way. Mr. Jensen stated any future project would require approval by FERC and referred to restrictive language in the FERC Certificate. Mr. Chidester asked for a response to the easement language he referenced.

The meeting conclude at approximately 11:00 am.

IV. Action Items

A. MVP to provide County with correspondence with the SHPO and other relevant documentation regarding location and identification of resources in Giles County (*provided January 16*)

B. MVP to provide County with additional information on agricultural practices that will be allowed or prohibited in the right of way and a summary of how such information is provided to current and future landowner (*in progress*)

C. MVP to provide County with additional information regarding the possibility of future pipelines being co-located in the existing right of way (*in progress*)

Dated: January 17, 2018

These minutes were prepared by MVP for the purpose of documenting Section 106 consultation for the FERC docket. Draft minutes were circulated to Mr. Chidester and Mr. Ross on January 16 with a request that they inform MVP of any material errors. They identified two errors which have been corrected.

From: Justin Curtis <justin@aqualaw.com>
Sent: Friday, January 12, 2018 9:17 AM
To: rchidester@gilescounty.org; jross@gilescounty.org
Cc: john centofanti; Thomas Jensen
Subject: MVP-VA Mitigation Agreements
Attachments: Virginia MVP Comprehensive Mitigation Agreement 12-22-2017 FULLY EXECUTE....pdf; Virginia MVP Historic Resources Mitigation Agreement 12-22-2017 FULLY EX....pdf

John and Richard-

As we discussed, attached are the mitigation agreements between MVP and Commonwealth.

Justin

Justin Curtis
Attorney
AquaLaw PLC
(804) 716-9021 ext:204 (office)
(804) 402-7300 (cell)
www.AquaLaw.com

MEMORANDUM OF AGREEMENT
FOR HISTORIC RESOURCE MITIGATION OF VIRGINIA RESOURCE IMPACTS
OF MOUNTAIN VALLEY PIPELINE

THIS MEMORANDUM OF AGREEMENT FOR HISTORIC RESOURCE MITIGATION OF VIRGINIA RESOURCE IMPACTS OF MOUNTAIN VALLEY PIPELINE (this "Agreement") is entered as of this 22nd day of December, 2017, by and between the Commonwealth of Virginia (the "Commonwealth") and Mountain Valley Pipeline, LLC ("MVP") (each a "Party" and jointly the "Parties").

RECITALS

A. Description of the Project. MVP is a joint venture between EQT Midstream Partners, LP, US Marcellus Gas Infrastructure, LLC, WGL Holdings, Inc., Con Edison Gas Midstream, LLC, and RGC Midstream, LLC. The Federal Energy Regulatory Commission ("FERC") has issued a Certificate of Public Convenience and Necessity ("CPCN") pursuant to Section 7(c) of the Natural Gas Act for the Mountain Valley Pipeline project, an approximately 488.3-kilometer (303.4-mile), 106.7-centimeter (42-inch) diameter natural gas pipeline to be constructed in 17 counties in Virginia and West Virginia ("Project").

B. Compliance with Section 106 of the National Historic Preservation Act. The FERC has consulted with the Commonwealth's Department of Historic Resources ("DHR"), which serves as the State Historic Preservation Office ("SHPO"), pursuant to Section 106 of the National Historic Preservation Act ("Section 106") and has determined that the project will result in an adverse effect to historic properties. FERC has satisfied its responsibilities under Section 106 through the execution of a Programmatic Agreement ("PA") dated December 15, 2017, which, among other things, directs MVP to prepare property-specific or site-specific Treatment Plans for all unavoidably adversely-affected historic properties.

C. Basis of Agreement. This Agreement is the direct result of cooperation by MVP with the Commonwealth in response to consultation on and careful consideration of the potential impacts of the Project on historic resources and acknowledges that the Commonwealth's commitment to our shared heritage and public benefit is broader than that defined under Section 106.

D. Mutual Interests in Comprehensive Mitigation. This Agreement serves the mutual interests of the Parties in establishing a comprehensive, exceptional approach for compensatory mitigation that is at least commensurate with the Project's impacts and which fully meets the Commonwealth's historic resources objectives in the context of the Project.

E. No Guaranty of Approvals. For clarity, this Agreement provides no guaranty, right or entitlement of any kind that the Commonwealth (including any of its administrative agencies or other instrumentalities) will grant any or all approvals of any kind that may be required for the Project (the "State Approvals"). Any required State Approvals shall be an entirely separate matter to be considered by the relevant authorities in full compliance with applicable laws and regulations. However, if the Project proceeds, it is the purpose of this

Agreement to commit the Parties to and thereby assure implementation of the comprehensive compensatory mitigation framework memorialized in this Agreement.

NOW, THEREFORE, in satisfaction of Parties' responsibilities to ensure mitigation of the impacts of the Project, the Parties agree as follows:

AGREEMENT

1. Comprehensive Mitigation Amount. The Commonwealth requests, and MVP agrees to pay, a compensatory mitigation payment in the total amount of **Two Million Five Hundred Thousand Dollars ($2,500,000)** for the purpose of providing comprehensive mitigation of adverse impacts to, and to otherwise benefit, historic resources in Virginia, subject to the terms and conditions established herein (the "Mitigation Amount").

2. Section 106 Commitments. Out of the total Mitigation Amount established in Paragraph 1, MVP shall reserve the amount of **One Million Five Hundred Thousand Dollars ($1,500,000**) to be applied to costs incurred by MVP for implementation of the approved property-specific or site-specific Treatment Plans developed pursuant to FERC's PA for the adversely affected historic properties.

a. Should the cost of implementing the Treatment Plans exceed the amount specified in Paragraph 2, MVP shall commit the necessary additional funds to complete implementation of such mitigation.

b. Should the cost of implementing the Treatment Plans not exceed the amount specified in Paragraph 2, MVP shall, within six (6) months of the complete implementation of the Treatment Plans, transfer all remaining funds to the Mitigation Fund specified in Paragraph 3.

3. Historic Resources Mitigation Fund. Out of the total Mitigation Amount established in Paragraph 1, MVP shall, within six (6) months of the execution of this Agreement, provide funding in the amount of **One Million Dollars ($1,000,000**) to the Virginia Historical Society ("VHS") by payment of the invoice at Attachment A to establish a Mitigation Fund to be fiscally managed by VHS. The following specific conditions and restrictions shall apply to the use and expenditure of funds from the Mitigation Fund.

a. The Mitigation Fund shall operate as an endowment for grant-making purposes to document, preserve, and interpret the historic resources within the Commonwealth's localities affected by the Project. The Commonwealth shall work with VHS and determine project selection criteria and a process for evaluating appropriate projects that are consistent with DHR historic resources mitigation standards.

b. From the funds provided to VHS under this Paragraph 3, an amount not to exceed two percent (2%) per year may be expended by VHS to defray its costs and expenses for the administration of the Mitigation Fund and oversight of its related mitigation activities.

4. Additional Requirements & Contingencies. The Parties agree to the following additional requirements and procedures for contingencies to implement the mitigation objectives of this Agreement.

a. Conditions Applicable to VHS's Receipt and Use of Funds. The Commonwealth's goal is for VHS to receive, obligate and expend the mitigation funds paid by MVP under this Agreement in a manner that furthers the goals and objectives of this Agreement. As further assurance to the Commonwealth that VHS will fully cooperate with the Commonwealth in the performance of its mitigation efforts, and as assurance to MVP of its right to the return of the Mitigation Amount under the limited circumstances set forth in this Agreement, VHS shall be required to execute a binding and enforceable Mitigation Partner Memorandum of Agreement substantially in the form shown in Attachment B hereto prior to its receipt of mitigation funds hereunder. If VHS were to refuse to execute such agreement in a timely manner, the Commonwealth may elect to seek a modification, including a substitute mitigation partner, pursuant to this Paragraph 4. MVP shall have no responsibility of any kind for the failure of VHS or any substitute mitigation partner entity to execute such agreement in a timely manner, to accept funds that MVP is ready and willing to transfer pursuant to this Agreement, to comply with this Agreement, or to meet the expectations of the Commonwealth, nor shall any such failure by VHS or any substitute mitigation partner in any way delay, impair or prevent MVP from proceeding with the Project.

b. Mitigation Investment Modifications. The priorities identified for and the allocations of the Mitigation Amount set forth in this Agreement reflect the full extent of historic resources-related mitigation measures and investments contemplated for the Project by the Parties. To the extent that either Party identifies revised or additional mitigation measures relevant to the Project and of potential benefit to the historic resources in Virginia, either Party may propose a reallocation of the Mitigation Amount in furtherance thereof through re-prioritization or re-allocation of the Mitigation Amount. In addition, the Commonwealth may propose to terminate any mitigation partner and propose a substitute mitigation partner, if any mitigation partner delays or fails to meet the Commonwealth's expectations for the implementation of this Agreement. In the event of such substitution or termination, the original mitigation partner shall deliver to MVP, within thirty (30) days of receipt of written notice of substitution or termination by the Commonwealth, all remaining funds that are unobligated as of the date of such notice. In no event shall the amount of remaining funds to be returned be less than the amount that the mitigation partner would be required to return under this Agreement if MVP had terminated the Project. Returned mitigation funds shall not revert to MVP and instead shall be redirected to other mutually agreeable mitigation purposes. The Parties agree to give reasonable and timely consideration to any such proposed modifications and, in the event of agreement, memorialize any modification to the mitigation measures and investments only in accordance Paragraph 5.

c. Return of Remaining Mitigation Amount in Event of Termination. In the event that MVP terminates the Project, whether in the unanticipated event that the Project fails to obtain and maintain the necessary permits, certifications, consents, authorizations or other approvals or for any other reason in MVP's sole discretion, VHS or any substitute mitigation partner shall deliver the proportionate share of the Mitigation Fund to MVP within thirty (30)

days of receipt of written notice of termination from MVP. Such proportionate share to be returned to MVP shall be calculated based upon the number of miles of the pipeline route in Virginia for which tree clearing and grubbing activity remains to be performed compared to the total number of miles of the pipeline route requiring such activities in Virginia as part of the Project. For example, if MVP terminates the Project after having tree-cleared and grubbed 25 miles of the route, and further assuming for the sake of example that the total number of miles of the pipeline route requiring such activities in Virginia is 50 miles, then each partner would be responsible for returning to MVP one-half (determined by dividing 25 miles by 50 miles) of the portion of the Mitigation Amount that it received from MVP.

5. Miscellaneous Provisions.

a. Governing Law; Interpretation. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. This Agreement shall be interpreted as if it were mutually drafted by the Parties. The captions and headings to the various paragraphs and subparagraphs of this Agreement are for informational purposes only and shall not alter the substance of the terms and conditions of this Agreement.

b. Integration; Modification. This Agreement contains all commitments and agreements of the Parties as of the date hereof with respect to the subject matter of this Agreement, and no verbal or written commitments other than this Agreement shall have any force or effect regarding the subject matter hereof. This Agreement is independent of, and does not modify, any rights or responsibilities of the Parties under the PA. This Agreement may be amended only by the signed written consent of both Parties.

c. No Enforcement by Third Parties. Notwithstanding the identification of certain non-governmental entities to receive and administer mitigation funding provided under this Agreement, this Agreement shall not be construed as granting to those entities any legal or equitable right, remedy, or claim against the Commonwealth or MVP arising out of this Agreement.

d. No Waiver. By entering into this Agreement, MVP does not waive any procedural or substantive rights, claims or defenses of any kind related to any State Approvals or any other required permit, certification, consent, authorization or other approval of any kind that may be required for the Project.

e. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties further agree that a facsimile, scanned or other electronic signature may substitute for and have the same legal effect as an original signature, and that any copy of this executed Agreement made by photocopy, facsimile, or scanner shall be considered an original.

f. Power and Authority of the Parties. Each of the Parties represents and warrants that the undersigned has full power and authority to enter into and perform this Agreement on its behalf.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed in their names and on their behalf by the undersigned.

COMMONWEALTH OF VIRGINIA

By: Molly Ward

Molly Joseph Ward
Secretary of Natural Resources

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

SIGNATURE PAGE TO MEMORANDUM OF AGREEMENT FOR HISTORIC RESOURCE MITIGATION OF VIRGINIA RESOURCE IMPACTS OF MOUNTAIN VALLEY PIPELINE BY AND BETWEEN THE COMMONWEALTH OF VIRGINIA AND MOUNTAIN VALLEY PIPELINE, LLC

MOUNTAIN VALLEY PIPELINE, LLC
by and through its operator,
EQM Gathering Opco, LLC

By: _____
Robert J. Cooper
Senior Vice President

[END OF SIGNATURES]

ATTACHMENT A

MOUNTAIN VALLEY PIPELINE MITIGATION INVOICE

FOR

HISTORIC RESOURCES MITIGATION

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$1,000,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Historic Resource Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Historic Resource Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
Virginia Historical Society
428 North Boulevard
Richmond, VA 23220

ATTACHMENT B

MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT

MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT

THIS MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT (this "MOA") is executed effective this ___ day of _____, 20___, by _____ (the "Mitigation Partner").

RECITALS

A. The Commonwealth of Virginia (the "Commonwealth") and Mountain Valley Pipeline, LLC ("MVP") are parties to a certain Memorandum of Agreement for Historic Resource Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline dated December 22, 2017 (the "Mitigation Agreement").

B. The Mitigation Agreement contemplates the transfer of funds from MVP to certain identified public bodies and non-profit organizations willing to undertake certain mitigation efforts as described therein, including to the Mitigation Partner.

C. The Mitigation Partner desires to receive certain funds and undertake certain mitigation efforts subject to the terms and conditions of the Mitigation Agreement.

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which the Mitigation Partner acknowledges, the Mitigation Partner agrees as follows:

1. Consent to Be Bound to Mitigation Agreement. The Mitigation Partner covenants, promises, and agrees that it shall hereby be bound by all terms and conditions of the Mitigation Agreement as if the Mitigation Partner had been an original party thereto, including without limitation any and all conditions or limitations pertaining to receipt and use of funds, project selection criteria, project evaluation process, and the preservation and, if applicable, return of funds to MVP in the event of Project termination.

2. Termination by Mitigation Partner. The Mitigation Partner may terminate this MOA upon thirty (30) days written notice to the Commonwealth and MVP, in which event the Mitigation Partner shall deliver to MVP, immediately upon termination, all remaining funds that are unobligated as of the date of termination. In no event shall the amount of remaining funds to be returned be less than the amount that the Mitigation Partner would be required to return under the Agreement if MVP had terminated the Project.

3. Miscellaneous Provisions.

a. Governing Law; Interpretation. This MOA shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. All terms used herein shall have the meanings ascribed to such terms in the Mitigation Agreement. The captions and headings to the various paragraphs and subparagraphs of this

MOA are for informational purposes only and shall not alter the substance of the terms and conditions of this MOA.

b. Integration; Modification. This MOA, together with the Mitigation Agreement, contains all commitments and agreements of the Mitigation Partner as of the date hereof with respect to the subject matter of this MOA, and no verbal or written commitments other than this MOA shall have any force or effect regarding the subject matter hereof. This MOA may be amended only by the signed written consent of the Mitigation Partner and both parties to the Mitigation Agreement.

c. No Right to Demand Payment. This MOA shall not be construed as granting to the Mitigation Partner any legal or equitable right, remedy, or claim against the Commonwealth or MVP to demand payment of any portion of the Mitigation Amount established under the Mitigation Agreement, but that upon receipt of such payment this MOA shall become enforceable against the Mitigation Partner.

d. Originals. A facsimile, scanned or other electronic signature may substitute for and have the same legal effect as an original signature, and any copy of this executed MOA made by photocopy, facsimile, or scanner shall be considered an original.

e. Power and Authority. The Mitigation Partner represents and warrants that the undersigned has full power and authority to enter into and perform this MOA on its behalf.

IN WITNESS WHEREOF, the Mitigation Partner has caused this MOA to be signed in its name and on its behalf by the undersigned.

VIRGINIA HISTORICAL SOCIETY

By: _____
[Name]
[Title]

MEMORANDUM OF AGREEMENT
FOR COMPREHENSIVE MITIGATION OF VIRGINIA RESOURCE IMPACTS
OF MOUNTAIN VALLEY PIPELINE

THIS MEMORANDUM OF AGREEMENT FOR COMPREHENSIVE MITIGATION OF VIRGINIA RESOURCE IMPACTS OF MOUNTAIN VALLEY PIPELINE (this "Agreement") is entered as of this 22nd day of December, 2017, by and between the Commonwealth of Virginia (the "Commonwealth") and Mountain Valley Pipeline, LLC ("MVP") (each a "Party" and jointly the "Parties").

RECITALS

A. Description of the Project. MVP is a joint venture between EQT Midstream Partners, LP, US Marcellus Gas Infrastructure, LLC, WGL Holdings, Inc., Con Edison Gas Midstream, LLC, and RGC Midstream, LLC. The Federal Energy Regulatory Commission ("FERC") has issued a Certificate of Public Convenience and Necessity ("CPCN") pursuant to Section 7(c) of the Natural Gas Act for the Mountain Valley Pipeline project, an approximately 488.3-kilometer (303.4-mile), 106.7-centimeter (42-inch) diameter natural gas pipeline to be constructed in 17 counties in Virginia and West Virginia ("Project").

B. Commonwealth's Commitment to Environmental Protection. At all times relevant to the Project, the Commonwealth, through the Office of the Governor and the Office of the Secretary of Natural Resources and its agencies, has expressed a strong and consistent commitment to proper environmental protections, including thorough evaluation and regulation under the most comprehensive environmental review process ever conducted by the Commonwealth for the construction of an underground utility pipeline, whether for natural gas or other products that are also routinely transported by pipeline in Virginia such as petroleum products, chemicals, industrial and municipal wastewater, and drinking water. In furtherance of the Commonwealth's commitment to environmental protection and enhancement of natural resources, the expenditure of mitigation funds under this Agreement includes consultation with the state agencies that have expertise in the appropriate areas associated with such mitigation.

C. Process for Federal & State Authorizations. The Project has been or continues to be reviewed and regulated pursuant to numerous authorities, including without limitation pursuant to the Natural Gas Act, the National Environmental Policy Act, the Endangered Species Act, and the Clean Water Act, under which the Commonwealth has applied an intensive review process for imposing additional water quality certification conditions designed to avoid, minimize, and mitigate impacts from interstate natural gas pipeline construction.

D. Implementation of Mitigation Hierarchy. Project planning efforts followed the mitigation hierarchy by taking all practicable steps first to avoid and minimize impacts of the Project. Where avoidance was not possible, MVP developed onsite mitigation measures and worked with relevant Virginia and federal agencies to establish compensatory mitigation measures, including the significant measures established by this Agreement.

E. Technical Basis of Agreement. This Agreement is the direct result of cooperation by MVP with the Commonwealth in response to the Environmental Impact Statement prepared as part of the National Environmental Policy Act review process, Endangered Species Act Section 7 consultation, and MVP's commitment to the Migratory Bird Treaty Act concerning migratory birds and their habitat. Specific consideration was given both to the results the Habitat Equivalency Analysis methodology used by the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the Bureau of Land Management and employed by MVP and to additional Virginia-specific methodologies employed by the Virginia Department of Conservation and Recreation, Virginia Department of Forestry, and Virginia Department of Game and Inland Fisheries to further analyze and design compensatory mitigation for forest fragmentation in the Commonwealth. This Agreement establishes commitments related to forest conservation and water quality based on consideration of the impacts from forest fragmentation.

F. Mutual Interests in Comprehensive Mitigation. This Agreement serves the mutual interests of the Parties in establishing a comprehensive, exceptional approach for compensatory mitigation that is at least commensurate with the Project's impacts and which fully meets the Commonwealth's natural resources objectives in the context of the Project.

G. No Guaranty of Regulatory Approvals. For clarity, this Agreement provides no guaranty, right or entitlement of any kind that the Commonwealth (including any of its administrative agencies or other instrumentalities) will grant any or all required permits, certifications, consents, authorizations or other approvals of any kind that may be required for the Project (the "State Approvals"). Any required State Approvals shall be an entirely separate matter to be considered by the relevant authorities in full compliance with applicable laws and regulations. However, if the Project proceeds, it is the purpose of this Agreement to commit the Parties to and thereby assure implementation of the comprehensive compensatory mitigation framework memorialized in this Agreement.

NOW, THEREFORE, in satisfaction of Parties' responsibilities to ensure mitigation of the impacts of the Project, the Parties agree as follows:

AGREEMENT

1. Comprehensive Mitigation Amount. The Commonwealth requests, and MVP agrees to promptly pay, a compensatory mitigation payment in the total amount of **Twenty Seven Million Five Hundred Thousand Dollars ($27,500,000)** for the purpose of providing comprehensive mitigation of adverse impacts to, and to otherwise benefit, natural resources in Virginia, subject to the terms and conditions established herein (the "Mitigation Amount").

2. Forest Conservation. Out of the total Mitigation Amount established in Paragraph 1, MVP shall pay the amount of **Twenty Million Dollars ($20,000,000**) to the entities and in the allocated amounts and by the deadlines set forth in Paragraph 2.a. The Parties further agree that such amount fully satisfies any and all mitigation responsibilities related to and otherwise fully offsets the direct or indirect forest-related impacts of the Project in Virginia. The following specific conditions and restrictions shall apply to the use and expenditure of such funds:

a. MVP agrees to promptly transfer funds in the amount of $15,000,000 to the Virginia Outdoors Foundation to be held as a special fund pursuant to Va. Code § 10.1-1801(4) and $5,000,000 to the U.S. Endowment for Forestry and Communities (each a "Forest Mitigation Partner"). Such transfer shall be accomplished by payment of the invoices at Attachment A to the Forest Mitigation Partner in the above amounts. MVP shall pay each invoice before it undertakes substantial tree clearing and grubbing activities for the pipeline route in Virginia, which shall mean completion of the first linear mile (cumulative) of such activities, the intent being to fully fund the mitigation at the earliest stage of such activities.

b. The Commonwealth shall work with the Forest Mitigation Partners and determine project selection criteria and a process for evaluating appropriate sites that are consistent with state agency mitigation standards and practices and national standards for mitigation articulated by a wide range of federal agencies. The Forest Mitigation Partners will identify sites that meet the criteria and carry out projects designed to address the impacts of the Project on forestlands in the Commonwealth. All projects will be within a reasonable proximity to, and within the same terrestrial ecoregion as, the location of forest impacts; will achieve the durable restoration and/or enhancement of forest habitats similar to those adversely impacted by the Project; and will be in addition to any current or planned government action or requirement or preservation project for which there is already designated public or private funding.

c. From the funds provided to each Forest Mitigation Partner under Paragraph 2.a., an amount not to exceed five percent (5%) thereof may by expended by each to defray its costs and expenses for the administration of this Agreement and oversight of its related mitigation activities.

3. Water Quality. Out of the total Mitigation Amount established in Paragraph 1, MVP shall pay the amount of **Seven Million Five Hundred Thousand Dollars ($7,500,000**) to entities and in the allocated amounts and by the deadlines set forth in Paragraph 3.a., 3.b., and 3.c. The following specific conditions and restrictions shall apply to the use and expenditure of such funds:

a. MVP agrees to transfer funds in the amount of $3,850,000 to the Virginia Association of Soil and Water Conservation Districts and $3,000,000 to the Virginia Environmental Endowment (each a "Water Quality Mitigation Partner"). Such transfer shall be accomplished by payment of the invoices at Attachment B to the Water Quality Mitigation Partners in the above amounts. MVP shall pay each invoice before it undertakes substantial tree clearing and grubbing activities for the pipeline route in Virginia, which shall mean completion of the first linear mile (cumulative) of such activities, the intent being to fully fund the mitigation at the earliest stage of such activities. The Water Quality Mitigation Partners shall use such funds exclusively for the following purposes and subject to the following conditions and restrictions:

i. The Commonwealth shall work with the Water Quality Mitigation Partners and determine project selection criteria and a process for evaluating appropriate projects that is consistent with state water quality protection, restoration, and improvement priorities. The Parties agree that such amount fully satisfies any and all mitigation responsibilities related to and

otherwise fully offsets all water quality impacts of the Project, if any, that are not otherwise avoided by MVP's construction methods and environmental protection measures.

ii. Funds provided to the Virginia Association of Soil and Water Conservation Districts under this Subparagraph 3.a. shall be restricted to structural water quality improvement practices in localities or watersheds with substantial Project construction activities, it being the intent to provide water quality improvements in proximity to the Project activities. Further, such funds shall be restricted to making implementation grants or transfers to individual Soil and Water Conservation Districts to carry out the purposes of this Agreement.

iii. From the funds provided to the Virginia Environmental Endowment under Paragraph 3.a., an amount not to exceed five percent (5%) thereof may by expended by the Virginia Environmental Endowment to defray costs and expenses for the administration of this Agreement and oversight of its related mitigation activities. From the funds provided to the Virginia Association of Soil and Water Conservation Districts under Paragraph 3.a., an amount not to exceed three percent (3%) thereof may be expended by the Virginia Association of Soil and Water Conservation Districts to defray costs and expenses for the administration of this Agreement, and an amount not to exceed eight percent (8%) thereof may be expended by each Soil and Water Conservation District that receives funding from the Virginia Association of Soil and Water Conservation Districts to defray costs and expenses for the administration of this Agreement and oversight of its related mitigation activities.

b. Enhanced Water Quality Monitoring. MVP agrees to transfer funds in the amount of $650,000 to the United States Geological Survey ("USGS") to pay for water quality monitoring requirements of the Commonwealth. MVP shall pay such invoice within thirty (30) days of the date of receipt.

4. Additional Requirements & Contingencies. The Parties agree to the following additional requirements and procedures for contingencies to implement the mitigation objectives of this Agreement.

a. Conditions Applicable to Mitigation Partners. The Commonwealth's goal is for the Forest Mitigation Partners and the Water Quality Mitigation Partners to receive, obligate and expend the mitigation funds paid by MVP under this Agreement in a manner that furthers the goals and objectives of this Agreement. As further assurance to the Commonwealth that the Forest Mitigation Partners or Water Quality Mitigation Partners will fully cooperate with the Commonwealth in the performance of its mitigation efforts, and as assurance to MVP of its right to the return of the Mitigation Amount under the limited circumstances set forth in this Paragraph 4 of this Agreement, each such partner entity shall be required to execute a binding and enforceable Mitigation Partner Memorandum of Agreement substantially in the form shown in Attachment C hereto prior to its receipt of mitigation funds hereunder. If any such partner entity were to refuse to execute such agreement in a timely manner, the Commonwealth may elect to seek a modification, including a substitute mitigation partner, pursuant to this Paragraph 4. MVP shall have no responsibility of any kind for the failure of any partner entity to execute such agreement in a timely manner, to accept funds that MVP is ready and willing to transfer pursuant to this Agreement, to comply with this Agreement, or to meet the expectations of the Commonwealth,

nor shall any such failure by a mitigation partner in any way delay, impair or prevent MVP from proceeding with the Project.

b. Mitigation Investment Modifications. The priorities identified for and the allocations of the Mitigation Amount set forth in this Agreement reflect the full extent of natural resources-related mitigation measures and investments contemplated for the Project by the Parties. To the extent that either Party identifies revised or additional mitigation measures relevant to the Project and of potential benefit to the natural resources in Virginia, either Party may propose a reallocation of the Mitigation Amount in furtherance thereof through re-prioritization or re-allocation of the Mitigation Amount. In addition, the Commonwealth may propose to terminate any mitigation partner and propose a substitute mitigation partner, if any mitigation partner delays or fails to meet the Commonwealth's expectations for the implementation of this Agreement. In the event of such substitution or termination, the original mitigation partner shall deliver to MVP, within thirty (30) days of receipt of written notice of substitution or termination by the Commonwealth, all remaining funds that are unobligated as of the date of such notice. In no event shall the amount of remaining funds to be returned be less than the amount that the mitigation partner would be required to return under this Agreement if MVP had terminated the Project. Returned mitigation funds shall not revert to MVP and instead shall be redirected to other mutually agreeable mitigation purposes. The Parties agree to give reasonable and timely consideration to any such proposed modifications and, in the event of agreement, memorialize any modification to the mitigation measures and investments only in accordance Paragraph 5.

c. Return of Remaining Mitigation Amount in Event of Termination. In the event that MVP terminates the Project, whether in the unanticipated event that the Project fails to obtain and maintain the State Approvals or any other necessary permits, certifications, consents, authorizations and other approvals or for any other reason in MVP's sole discretion, each of the Forest Mitigation Partners and the Water Quality Mitigation Partners shall deliver a proportionate share of the Mitigation Amount in accordance with this Paragraph 4 to MVP within thirty (30) days of receipt of written notice of termination from MVP. Such proportionate share to be returned to MVP shall be calculated, preserved and, in the event of termination, returned based upon the number of miles of the pipeline route in Virginia for which tree clearing and grubbing activity remains to be performed compared to the total number of miles of the pipeline route requiring such activities in Virginia as part of the Project. For example, if MVP terminates the Project after having tree-cleared and grubbed 25 miles of the route, and further assuming for the sake of example that the total number of miles of the pipeline route requiring such activities in Virginia is 50 miles, then each partner would be responsible for returning to MVP one-half (determined by dividing 25 miles by 50 miles) of the portion of the Mitigation Amount that it received from MVP.

5. Miscellaneous Provisions.

a. Governing Law; Interpretation. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. This Agreement shall be interpreted as if it were mutually drafted by the Parties. The captions and headings to the various paragraphs and subparagraphs of this Agreement are for informational purposes only and shall not alter the substance of the terms and conditions of this Agreement.

b. Integration; Modification. This Agreement contains all commitments and agreements of the Parties as of the date hereof with respect to the subject matter of this Agreement, and no verbal or written commitments other than this Agreement shall have any force or effect regarding the subject matter hereof. This Agreement may be amended only by the signed written consent of both Parties.

c. No Enforcement by Third Parties. Notwithstanding the identification of certain non-governmental entities to receive and administer mitigation funding provided under this Agreement, this Agreement shall not be construed as granting to those entities any legal or equitable right, remedy, or claim against the Commonwealth or MVP arising out of this Agreement.

d. No Waiver. By entering into this Agreement, MVP does not waive any procedural or substantive rights, claims or defenses of any kind related to any State Approvals or any other required permit, certification, consent, authorization or other approval of any kind that may be required for the Project.

e. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties further agree that a facsimile, scanned or other electronic signature may substitute for and have the same legal effect as an original signature, and that any copy of this executed Agreement made by photocopy, facsimile, or scanner shall be considered an original.

f. Power and Authority of the Parties. Each of the Parties represents and warrants that the undersigned has full power and authority to enter into and perform this Agreement on its behalf.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed in their names and on their behalf by the undersigned.

COMMONWEALTH OF VIRGINIA

By: Molly Ward 12-28-17

Molly Joseph Ward
Secretary of Natural Resources

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

SIGNATURE PAGE TO MEMORANDUM OF AGREEMENT FOR COMPREHENSIVE MITIGATION OF VIRGINIA RESOURCE IMPACTS OF MOUNTAIN VALLEY PIPELINE BY AND BETWEEN THE COMMONWEALTH OF VIRGINIA AND MOUNTAIN VALLEY PIPELINE, LLC

MOUNTAIN VALLEY PIPELINE, LLC
by and through its operator,
EQM Gathering Opco, LLC

By: Robert J. Cooper
Robert J. Cooper
Senior Vice President

[END OF SIGNATURES]

ATTACHMENT A

MOUNTAIN VALLEY PIPELINE MITIGATION INVOICES

FOR

FOREST MITIGATION PARTNERS

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$15,000,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
Virginia Outdoors Foundation
39 Garrett St., Suite 200
Warrenton, VA 20186

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$5,000,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
U.S. Endowment for Forestry and Communities
908 E. North Street
Greenville, SC 29601

ATTACHMENT B

MOUNTAIN VALLEY PIPELINE MITIGATION INVOICES

FOR

WATER QUALITY MITIGATION PARTNERS

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$3,850,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
Virginia Association of Soil and Water Conservation Districts
7308 Hanover Green Drive, Suite 100
Mechanicsville, Virginia 23111

INVOICE

To:
Mountain Valley Pipeline, LLC
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

Amount Due:
$3,000,000.00

Description:
Mitigation pursuant to (1) Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and (2) Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Terms & Conditions:
By its receipt and use of funds paid under this invoice, recipient acknowledges and agrees to all terms and conditions of the Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline and the applicable Mountain Valley Pipeline Mitigation Partner Memorandum of Agreement.

Payable to:
Virginia Environmental Endowment
919 East Main Street, Suite 1070
Richmond, VA 23219

ATTACHMENT C

MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT

MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT

THIS MOUNTAIN VALLEY PIPELINE MITIGATION PARTNER MEMORANDUM OF AGREEMENT (this "MOA") is executed effective this ____ day of _____, 20___, by _____ (the "Mitigation Partner").

RECITALS

A. The Commonwealth of Virginia (the "Commonwealth") and Mountain Valley Pipeline, LLC ("MVP") are parties to a certain Memorandum of Agreement for Comprehensive Mitigation of Virginia Resource Impacts of Mountain Valley Pipeline dated December 22, 2017 (the "Mitigation Agreement").

B. The Mitigation Agreement contemplates the transfer of funds from MVP to certain identified public bodies and non-profit organizations willing to undertake certain mitigation efforts as described therein, including to the Mitigation Partner.

C. The Mitigation Partner desires to receive certain funds and undertake certain mitigation efforts subject to the terms and conditions of the Mitigation Agreement.

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which the Mitigation Partner acknowledges, the Mitigation Partner agrees as follows:

1. Consent to Be Bound to Mitigation Agreement. The Mitigation Partner covenants, promises, and agrees that it shall hereby be bound by all terms and conditions of the Mitigation Agreement as if the Mitigation Partner had been an original party thereto, including without limitation any and all conditions or limitations pertaining to receipt and use of funds, project selection criteria, project evaluation process, and the preservation and, if applicable, return of funds to MVP in the event of Project termination.

2. Termination by Mitigation Partner. The Mitigation Partner may terminate this MOA upon thirty (30) days written notice to the Commonwealth and MVP, in which event the Mitigation Partner shall deliver to MVP, immediately upon termination, all remaining funds that are unobligated as of the date of termination. In no event shall the amount of remaining funds to be returned be less than the amount that the Mitigation Partner would be required to return under the Agreement if MVP had terminated the Project.

3. Miscellaneous Provisions.

a. Governing Law; Interpretation. This MOA shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. All terms used herein shall have the meanings ascribed to such terms in the Mitigation Agreement. The captions and headings to the various paragraphs and subparagraphs of this MOA are for

informational purposes only and shall not alter the substance of the terms and conditions of this MOA.

b. Integration; Modification. This MOA, together with the Mitigation Agreement, contains all commitments and agreements of the Mitigation Partner as of the date hereof with respect to the subject matter of this MOA, and no verbal or written commitments other than this MOA shall have any force or effect regarding the subject matter hereof. This MOA may be amended only by the signed written consent of the Mitigation Partner and both parties to the Mitigation Agreement.

c. No Right to Demand Payment. This MOA shall not be construed as granting to the Mitigation Partner any legal or equitable right, remedy, or claim against the Commonwealth or MVP to demand payment of any portion of the Mitigation Amount established under the Mitigation Agreement, but that upon receipt of such payment this MOA shall become enforceable against the Mitigation Partner.

d. Originals. A facsimile, scanned or other electronic signature may substitute for and have the same legal effect as an original signature, and any copy of this executed MOA made by photocopy, facsimile, or scanner shall be considered an original.

e. Power and Authority. The Mitigation Partner represents and warrants that the undersigned has full power and authority to enter into and perform this MOA on its behalf.

IN WITNESS WHEREOF, the Mitigation Partner has caused this MOA to be signed in its name and on its behalf by the undersigned.

[MITIGATION PARTNER ENTITY]

By: _____
[Name]
[Title]

From: Justin Curtis <justin@aqualaw.com>
Sent: Friday, January 12, 2018 10:34 AM
To: rchidester@gilescounty.org; jross@gilescounty.org
Cc: john centofanti; Thomas Jensen
Subject: RE: MVP-VA Mitigation Agreements
Attachments: MVP_Certification_Final.pdf; RPT 18 0104 - WaterSupplyIDTestingPlan_EPA#3.pdf

Also to follow up on our call, here is the Water Resources Identification and Testing Plan submitted to the FERC docket and the Supplemental 401 Certification issued by the State Water Control (which includes conditions supplementing the Plan).

Justin

From: Justin Curtis
Sent: Friday, January 12, 2018 9:17 AM
To: 'rchidester@gilescounty.org' <rchidester@gilescounty.org>; 'jross@gilescounty.org' <jross@gilescounty.org>
Cc: Centofanti, John (JCentofanti@eqt.com) <JCentofanti@eqt.com>; Thomas Jensen <TCJensen@hollandhart.com>
Subject: MVP-VA Mitigation Agreements

John and Richard-

As we discussed, attached are the mitigation agreements between MVP and Commonwealth.

Justin

Justin Curtis
Attorney
AquaLaw PLC
(804) 716-9021 ext:204 (office)
(804) 402-7300 (cell)
www.AquaLaw.com

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

December 8, 2017

Certified Mail

John Centofanti
Corporate Director, Environmental Affairs
Mountain Valley Pipeline, LLC
EQT Plaza, Suite 1700
625 Liberty Avenue
Pittsburgh, PA 15222-3111

Re: Issuance 401 Water Quality Certification
No. 17-001

Dear Mr. Centofanti:

Enclosed is Section 401 Water Quality Certification No. 17-001 issued to Mountain Valley Pipeline, LLC (MVP) on December 8, 2017.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Alternatively, any owner aggrieved by any action of the State Water Control Board taken without a formal hearing, or by inaction of the Board, may petition in writing for a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in 9VAC25-230-130 (Procedural Rule No. 1 – Petition for formal hearing). In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

If you have any questions about this Certification, please contact me at (804) 698-4038 or Melanie.Davenport@deq.virginia.gov.

Sincerely,

Melanie D. Davenport

Melanie D. Davenport, Director
Water Permitting Division

Enclosure 401 Certification No, 17-001

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

CERTIFICATION No. 17-001

401 Water Quality Certification Issued To

Mountain Valley Pipeline, LLC
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222

Pursuant to Guidance Memo No. GM17-2003
Interstate Natural Gas Infrastructure Projects -
Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification)

I. CERTIFICATION

The State Water Control Board finds that, subject to the additional conditions set out in Section V below, there is reasonable assurance that the Mountain Valley Pipeline, LLC activities covered by this Certification will be conducted in a manner that will not violate applicable Water Quality Standards in 9 VAC 25-260-5, *et seq.*, and will comply with the applicable provisions of 33 U.S.C. §§ 1311, 1312, 1313, 1316, and 1317.

II. DEFINITIONS

The following terms as used in this Certification shall have the following meaning:

"Annual Standards and Specifications" means the program for linear utility projects implementing the requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq.*) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*).

"Board" means State Water Control Board.

"Certification" means Clean Water Act Section 401 Water Quality Certification developed in accordance with Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects – Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification).

"Construction material or waste material" means solid waste as defined in the Solid Waste Management Regulations (9 VAC 20-81-95).

"Corps" means U.S. Army Corps of Engineers.

"Department" means the Virginia Department of Environmental Quality.

"Environmental Impact Statement" or "EIS" means the Final Environmental Impact Statement (FEIS) issued by FERC on June 23, 2017.

"FERC" means the Federal Energy Regulatory Commission.

"Guidance" means Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects - Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification) dated May 19, 2017.

"Karst feature" means any sinkhole, sinkhole lineament, cave, cavern, swallet, spring, or similar feature found in an area identified as an area of karst geology characterized by the presence of soluble bedrock such as limestone, dolomite, marble or gypsum. Karst features shall include all such features identified in Appendix L of the EIS and any subsequently identified features in areas of karst geology.

"Owner" means Mountain Valley Pipeline, LLC (MVP) a joint venture between EQT Midstream Partners, LP and affiliates of NextEra US Gas Assets, LLC; Con Edison Gas Midstream, LLC; WGL Midstream; and RGC Midstream, LLC.

"Project" means the Virginia portion of a pipeline project approximately 303 miles in length and 42-inches in diameter to transport up to 2.0 MMDth/d of natural gas from an interconnect point in Wetzel County, West Virginia, to an interconnect with an existing pipeline in Pittsylvania County, Virginia including approximately 106 miles of pipeline, 58 miles of Project access roads, and appurtenances which will be located within Virginia and traverse portions of Giles County, Craig County, Montgomery County, Roanoke County, Franklin County and Pittsylvania County. The 401 Water Quality Certification applies to the location of pipeline right of way, access roads, and appurtenances as described in the EIS and any changes thereto subsequently approved by FERC.

"Riparian buffer" means a vegetated area near a stream, usually forested, which helps shade and partially protect a stream from the impact of adjacent land uses.

III. SCOPE OF CERTIFICATION

This Certification addresses Project activities in upland areas outside of the Corps jurisdictional areas under 33 U.S.C. § 1344 and water withdrawal activities that are exempt from coverage under the Virginia Water Protection Permit Program Regulation (9 VAC 25-210-10, *et seq.*). In the manner and to the extent described herein, this includes all proposed upland activities associated with the construction, operation, maintenance, and repair of the pipeline, any components thereof or appurtenances thereto, and related access roads and rights-of-way as well as certain project-related surface water withdrawals. This Certification covers all relevant upland Project activities within the route identified in the Environmental Impact Statement.

As this Certification and the conditions contained in Section V are intended to address Project activities that are outside the jurisdictional scope of the Virginia Water Protection Permit Program Regulation, this Certification shall not be interpreted as limiting or otherwise relieving the Owner of any conditions for any portion of the Project that are imposed pursuant to the Virginia Water Protection Permit Program Regulation, to any permit issued by the Corps or Virginia Marine Resources Commission in response to the February 26, 2016 joint permit application, or to any other separate state or federal permit, license, or approval required for the Project.

In addition, this Certification operates in conjunction with other regulatory actions including: (a) regulations adopted for land disturbing activities pursuant to the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq.*) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*); and, (b) all requirements of the Annual Standards and Specifications applicable to the Project approved by the Department on June 20, 2017. These completed regulatory actions remain in full force and effect, and this Certification shall not be interpreted as limiting, modifying, or otherwise relieving the Owner of any conditions imposed pursuant thereto.

Pursuant to 33 U.S.C. § 1341 (a)(3), the Board reserves the right to impose further conditions if any existing plans and/or mitigation measures are amended by the Owner and/or FERC that may materially reduce the water quality protection provided thereunder.

IV. INFORMATION EXAMINED

In developing this Certification and the additional conditions imposed herein, the Board and Department have considered the record relevant to water quality considerations associated with the Project, including but not limited to:

1. All applicable FERC documents, including Draft and Final Environmental Impact Statements issued by FERC and the associated docket materials including all Appendices, and the FERC order granting a Certificate of Public Convenience and Necessity (Certificate) on October 13, 2017;
2. The Department's initial Request for Information (RFI) dated May 19, 2017 in accordance with the Guidance, the Department's subsequent June 15, 2017 RFI

and the Owner's June 1, 2017, and June 22, 2017 responses including but not limited to requested supplemental responses dated August 8, 2017, October 27, 2017, and November 2 and 6, 2017;

3. Proceedings of the multi-agency technical work session held June 6-7, 2017 (Lexington, Virginia);
4. Documents submitted for approval by the Department pursuant to requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq.*) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*);
5. Corps Nationwide Permit 12 and Norfolk District Regional Conditions;
6. Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects-Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification); and,
7. Public comments submitted during the public comment period, including both written (electronic or paper copy) and oral comments provided during the August 8 and 9, 2017 public hearings.

V. CONDITIONS

In consideration of the recommendations of the Department, the Board finds that there are additional reasonable and prudent conditions that will provide the Commonwealth with an increased degree of assurance that upland Project activities which may result in a discharge to surface waters will be conducted in a manner that will not violate applicable water quality standards. This Certification is only valid provided the Owner complies with the following conditions, limitations, and/or requirements:

1. The Owner shall follow the measures detailed in its June 1, 2017 and June 22, 2017 responses to the Department's May 19, 2017 and June 15, 2017 Requests for Information including but not limited to requested supplemental responses dated August 8, 2017, October 27, 2017, and November 2 and 6, 2017.

2. Riparian Buffer Requirements

   a. Removal of riparian buffers not directly associated with the Project's construction activities is prohibited. Disturbance and removal of riparian buffers from Project-related upland land disturbing activities that would occur within 50 feet of any perennial, intermittent, or ephemeral surface waters shall be avoided where possible, and minimized to the maximum extent practicable if 50 feet is not possible. The Owner shall notify the Department of any and all instances in which it believes 50 feet is not possible and shall proceed only where the Department concurs with the Owner's use of less than 50 feet of buffer. Removal of riparian buffers not associated with crossings shall not be allowed where stream bank stability under normal flow conditions would be compromised.

b. The construction limit of disturbance (LOD) in upland areas approaching waterbody and wetland crossings shall be reduced from 125 feet to 75 feet wide and shall apply 50 feet from each side of the stream or wetland crossing to minimize the extent of riparian buffer disturbance. For any upland area approaching a waterbody or wetland crossing where this reduced LOD is not possible, notification of FERC approval (and Corps approval, if required) shall be provided to the Department prior to initiating land disturbing activity in that area.

c. No refueling, hazardous materials storage, equipment maintenance, or equipment parking will take place within 100-feet of the waterbody or wetland crossing, except as allowed by the approved Annual Standards and Specifications.

3. Karst Terrain Requirements

a. An addendum to the Karst Hazard Assessment (February 2017), and any subsequent revisions or addenda to the same approved by FERC, will be provided to the Department upon completion of field survey activities and final pipeline alignments, and prior to land disturbing activities, that address those properties in Virginia where the Owner could not previously conduct karst surveys due to land access restrictions.

b. The Owner shall follow the measures as detailed in the Karst Mitigation Plan (March 2017), and any subsequent revisions or addenda to the same approved by FERC.

c. To further evaluate flow paths for karst features in the vicinity of the project, the Owner shall develop a Supplemental Karst Evaluation Plan to be submitted to the Department for review and concurrence prior to initiation of land disturbing activities in karst terrain. The Department, with assistance from the Virginia Department of Conservation and Recreation (DCR) identified areas of concern in Attachment B of the Department's June 15, 2017 request letter. The Owner will conduct contingency planning in accordance with the findings and conclusions of the Supplemental Plan, as appropriate, in order to monitor and mitigate a potential accidental release or spill during construction in Virginia's karst terrain.

d. The Owner shall: (1) conduct a survey to identify wells, cisterns, springs, and other surface waters within 1,000 feet of the project centerline in areas known to have karst topography; and, (2) conduct one water quality sampling event to evaluate wells and springs used for human consumption and located between 500 feet to 1000 feet from the project centerline. The sampling shall include the parameters identified in the Water Resources Identification and Testing Plan (February 2017), and any subsequent revisions or addenda to the same approved by FERC. The survey and/or water quality sampling event shall be conducted by the Owner at the request of a property owner and only if the property owner provides permission for access. This survey and/or water quality sampling event shall be conducted before the pipeline is placed into operation. The Owner must complete any survey and water quality evaluation requests received at least 30 days prior to placing the project in service.

e. The Owner shall provide a financial responsibility demonstration to the Department in the amount of five million dollars ($5,000,000), to support the Complaint Resolution Process contained in the Water Resources Identification and Testing Plan (February 2017) in the event a private water supply used for human consumption is impacted from project construction activities.

This demonstration requirement may be satisfied by any of the financial assurance mechanisms that are set forth in 9 VAC 25-650-90 through 9 VAC 25-650-130. The mechanism or combination of mechanisms shall not be accessible by third parties and shall be used by the Department to implement the Water Resources Identification and Testing Plan when necessary due to the Owner's failure to do the same.

The mechanism or combination of mechanisms shall be submitted to the Department for review and approval and must contain such wording and terms as specified by the Department to satisfy this condition.

The demonstration, having been approved by the Department, shall be made available prior to initiation of land disturbing activities in karst terrain and shall be maintained until 180 days after all land disturbing activity associated with the construction of the pipeline, and related access roads and rights-of-way have achieved final stabilization as required by the Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*). The Department will notify the Owner when the conditions to release the financial demonstration have been met.

4. Surface Water Withdrawals

a. Any surface water withdrawals for the purposes of hydrostatic testing shall not violate applicable Water Quality Standards and shall be managed so that no more than 10% of the instantaneous flow rate from the channel is removed; the intake screens shall be designed so that screen openings are not larger than 1 millimeter and the screen face intake velocities are not greater than 0.25 feet per second.

b. Any surface water withdrawals for the purposes of horizontal directional drilling or dust control that do not exceed 10,000 gallons per day from non-tidal waters or two million gallons per day from tidal waters shall not violate applicable Water Quality Standards and shall be managed so that no more than 10% of the instantaneous flow rate from the channel is removed and the intake screens shall be designed so that screen openings are not larger than 1 millimeter and the screen face intake velocities are not greater than 0.25 feet per second.

c. Daily withdrawals from horizontal directional drilling or dust control activities that exceed 10,000 gallons per day from non-tidal waters and two million gallons per day from tidal waters must comply with the requirements of the Virginia Water Protection Permit Program Regulation. The Owner shall record and track the daily volumes of water withdrawn for horizontal directional drilling or dust control activities and make such records available during inspection or upon request by the Department.

d. Hydrostatic test water shall be released to upland areas through energy dissipating dewatering devices. The energy dissipating dewatering devices must be sized to accommodate the rate and volume of release and be monitored and regulated to prevent erosion and over pumping of the energy dissipating dewatering devices. There shall be no direct point source discharge or intentional indirect discharge of hydrostatic test water to surface waters. The upland discharge of hydrostatic test waters shall be monitored in accordance with the General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests (9 VAC 25-120-10, *et seq.*) ("VPDES General Permit"). The Owner shall record and track the daily volumes of water withdrawn for hydrostatic testing activities and make such records available during inspection or upon request by the Department. In the event of an inadvertent indirect discharge to surface waters, the Owner shall be responsible for ensuring that such discharge complies with all requirements of the VPDES General Permit, including the requirement to notify the Department within 14 days.

5. The Owner shall implement water quality monitoring in accordance with the Upland Construction Water Quality Monitoring Plan (May 31, 2017, revised June 19, 2017).

6. The Owner shall implement the measures identified in the Spill Prevention, Control, and Countermeasure (SPCC) Plan (submitted with the June 1, 2017 response to the Department and additional information submitted June 22, 2017), and any subsequent revisions or addenda to the same approved by FERC.

7. All construction and installation associated with the Project, except as permitted by the Corps, shall be accomplished in such a manner that construction material or waste material shall not be placed into any perennial, intermittent, or ephemeral surface waters or karst features.

8. The Owner shall implement the measures intended to minimize the potential for discharges of soil or rock as detailed in the General Blasting Plan (February 2017) and the Landslide Mitigation Plan Revision 4 (February 2017), and any subsequent revisions or addenda to the same approved by FERC. The Owner shall notify the Department immediately, but no later than 24 hours after discovery, if blasting or landslide activity results in unpermitted discharges of soil or rock to any perennial, intermittent, or ephemeral surface waters. Any potential impacts to karst features will be addressed in accordance with the Karst Mitigation Plan.

9. The Owner shall follow the measures intended to minimize the potential for impacts as detailed in the Acid Forming Materials Mitigation Plan (May 2017), and any subsequent revisions or addenda to the same approved by FERC.

10. The Project, including all relevant records, is subject to inspection at reasonable hours and intervals by the Department or any authorized representative of the Department to determine compliance with this Certification.

11. The Owner shall provide the Department with written or electronic notification at least 10 business days prior to any planned Construction Spread pre-construction conferences.

12. The Owner shall immediately notify the Department of any modification of this Project and shall demonstrate in a written statement that said modifications will not violate any conditions listed in this Certification. If such demonstration cannot be made, the Owner shall apply for a modification of this Certification.

13. The Owner shall comply with the requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq.*) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*) and the Virginia Water Protection Permit Program Regulations (9 VAC 25-210-10, *et seq.*). The enforceability under this Certification is in addition to the independent enforcement authority of each individual program and/or permit.

14. This Certification is subject to revocation for failure to comply with the above conditions after a proper hearing. Any unpermitted or unauthorized direct or indirect discharge to State waters shall be subject to enforcement under the State Water Control Law.

15. The terms and conditions of this Certification shall remain in effect until 180 days after all land disturbing activity associated with the construction, operation, maintenance, and repair of the pipeline, and related access roads and rights-of-way have achieved final stabilization as required by the Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*).

16. This Certification is binding on the Owner and any successors in interest, designees and assigns, jointly and severally.

VI. CONCLUSION

The additional conditions contained in Section V of this Certification along with the requirements imposed by the VWP regulation, the Corps Section 404 permitting requirements, and prior regulatory actions associated with the approval and requirements of the June 2017 Annual Standards and Specifications, and the April 7, 2017 Section 401 Water Quality Certification of the Corps Nationwide Permit 12 provide reasonable assurance that water quality standards will not be violated. The conditions included in this Certification for upland areas are in addition to any other federal or state permit or regulatory requirements with which the Project must comply, including federal resource agency requirements embodied in the FERC certificate.

This Certification constitutes the Commonwealth's final decision on the upland activities associated with the construction, operation, maintenance, and repair of the Project under the requirement of Clean Water Act § 401. The provisions of this Certification are severable and

should any provision(s) of this Certification be declared invalid or unenforceable, the remainder of the Certification, including without limitation any additional conditions imposed hereunder, shall continue in full force and effect. The Commonwealth reserves its right to review this certification decision and take any appropriate action in accordance with 33 U.S.C. § 1341(a)(3). This Certification applies solely to upland activities authorized by FERC and shall not waive or otherwise impair or affect the authority of the Board to require additional certification under state or federal law.

By: Melanie D. Davenport Date: December 8, 2017

WATER RESOURCES IDENTIFICATION AND TESTING PLAN

Prepared for:

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Revision: October 2017

Prepared by:

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Engineering • Surveying • Environmental Services

DAA Project Number: B14188B-01

Draper Aden Associates (DAA) prepared this document (which may include drawings, specifications, reports, studies and attachments) in accordance with the agreement between DAA and Mountain Valley Pipeline, LLC.

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Conclusions presented are based upon a review of available information, the results of our field studies, and/or professional judgment. To the best of our knowledge, information provided by others is true and accurate, unless otherwise noted.

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APPENDICES

Appendix A Information Collected from Water Supply Owners

Appendix B Private Well Yield Testing Protocol

1.0 WATER RESOURCES IDENTIFICATION AND TESTING PLAN

Mountain Valley LLC (Mountain Valley) proposes to construct the Mountain Valley Pipeline (MVP), 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 facilities in the Mid-Atlantic and southeastern markets, as well as potential markets in the Appalachian region.

The proposed MVP 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, MVP components will include 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 MVP is designed to transport up to 2.0 million dekatherms per day (MMDth/d) of natural gas.

1.1 Introduction to Water Resources Identification and Testing Plan

There are negligible risks for impact to a water source from pipeline construction. Nonetheless, out of an abundance of caution, Mountain Valley prepared and is executing the terms of this Water Resources Identification and Testing Plan (Plan) in order to document pre-construction (baseline) and post-construction water quality and quantity of privately owned water supply systems, and to address concerns of public water suppliers to ensure there is no interruption of water service during construction or final land reclamation.

This Plan summarizes protocols for identifying and assessing water supplies in the vicinity of the proposed MVP and related components. Mountain Valley documented locations and characteristics of private water supplies within 150 feet (500 feet in karst terrain) of the proposed alignment or a related MVP component and offered water quality and quantity testing. Mountain Valley also addressed public water supplies that are located within 1) a U.S. Geological Survey (USGS) Hydrologic Unit Code (HUC) HUC-10 watershed that is traversed by the proposed alignment or contains a MVP component, and / or 2) has a surface water intake located within three (3) miles downstream of the proposed alignment water body crossing (FERC criterion), and / or 3) has a surface water intake in West Virginia where the proposed alignment or a related

Project component is located within 0.5-mile of a Zone of Critical Concern defined by the West Virginia Department of Health and Human Services (WVDHHR) (FERC request).

The broad criterion of addressing public water supplies within a HUC-10 watershed represents a conservative approach in terms of maximizing the number of public water supplies to be addressed because the HUC 10-unit code applies to an entire watershed, with an average 227 square miles.

This Plan discusses the outreach methodology followed by Mountain Valley, and the general plan for testing.

Private water resources identified for water quality and quantity testing within 150 feet or 500 feet in karst terrain are summarized in **Table 1**. The private water supply owners were contacted by Mountain Valley via certified mail to confirm the location and characteristics of water resource(s) on the owner's property and to request permission for Mountain Valley to conduct water quality and quantity sampling.

Field confirmation of private water sources has not been completed on some parcels because property access permission has not been granted. Therefore, this Plan is subject to change following the completion of field environmental investigations.

Public water suppliers identified within a HUC 10 watershed that contains a MVP component are shown in **Figure 1** (West Virginia) and **Figure 2** (Virginia) and summarized in **Table 2**. Mountain Valley contacted these public water suppliers (which incorporate the other criteria identified above) to confirm their water supply system and address any concerns that the owner or operator had regarding the project.

2.0 IDENTIFYING WATER RESOURCES

2.1 Private wells and springs

Unlike public water supplies, Mountain Valley is not aware of publically available data that can be reliably used to identify the location of privately owned water resources. Private wells and springs located within 150 feet of Mountain Valley work areas, and within 500 feet in karst terrain, were identified by route alignment civil surveying, as well as desktop review and field observation

(where property access was granted). The private water supply sources were confirmed through pre-construction water supply testing (**see Table 1**) as described in this Plan.

As part of the desktop review for potential drinking water sources an indirect method was employed to supplement the civil survey to identify potential private wells. GIS data taken from the various counties were used to identify if a structure was present on the parcel. To maximize the potential for identifying private water resources all structures were assumed to have one or more private wells.

As discussed in this Plan, the property owners identified by civil survey, and desktop review, along the entire proposed MVP alignment and Project components were contacted by Mountain Valley via certified mail to confirm drinking water sources on the identified property and to request permission to conduct water quality and quantity testing.

If a private property owner did not respond to the certified mail request for information within approximately four (4) weeks of submittal by Mountain Valley, a second request was sent. If no response was provided to Mountain Valley through the second submittal, no further contacts were initiated with the property owner regarding water resources.

Private well and spring locations identified as described above, and updated as of the date of this Plan, are listed in **Table 1**. **Appendix A** provides a list of information requested from the water supply owners during the initial contact along with the request for permission to sample the water supply.

2.2 Public Water Supplies

Public water suppliers in West Virginia and Virginia were identified from publicly available data sources (WVDEP, 2016; VDEQ, 2016). Specific locations and conditions of the water supply sources (wells, springs or surface water intakes) were confirmed through contacts with the public supply owner or operator (discussed below).

Public water suppliers in West Virginia and Virginia were incorporated into this Plan if a supplier is located within a USGS HUC-10 watershed that also contains one or more MVP component (regardless if the supply is upgradient or downgradient of the MVP component). Public suppliers

that have a surface water intake located within three (3) miles downstream of a water body crossing are also included in this Plan.

A West Virginia public water supply was also included in the Plan if one or more MVP components (e.g., the alignment, temporary work space, etc.) is located within 0.5-mile of a Zone of Critical Concern (ZCC) associated with the public supply surface water intake (there is no corresponding ZCC designation in Virginia).

Figure 1 shows the proposed MVP alignment, HUC 10 watersheds, and corresponding public water supplies in West Virginia. **Figure 2** shows these features and public water supply locations in Virginia. Refer to **Table 2** for a summary listing of public water supplies.

3.0 WATER RESOURCE EVALUATION

The following discussion outlines protocols water supply testing activities. The testing results will be documented by Mountain Valley and provided directly to the water supply owner.

3.1 Private Water Supplies

1. Mountain Valley plans to conduct two (2) baseline pre-construction, and one post-construction water resource testing events at each private water source identified in this Plan. Mountain Valley proposes to collect one sample approximately six (6) months before construction, and a second sample within three (3) months prior to construction, and conduct a well yield test (protocol described below).

2. All private property owners with a known or suspected water source (see earlier discussion) were contacted as discussed below:

    a. Send contact by mail to mailing address listed for the property owner;

    b. If no response is received within approximately 4 weeks of sending the first letter, a second follow-up letter will be sent;

c. If no response is provided by property owner after two (2) attempts this result will be documented and Mountain Valley will suspend further contact to the property owner regarding water quality testing;

d. If a property owner declines permission for Mountain Valley to conduct water quality testing, this will be documented and Mountain Valley will suspend further contact with the property owner regarding water quality testing;

3. Mountain Valley completed one of two (2) pre-construction baseline water quality and quantity testing events at the identified private water supplies. Mountain Valley is currently conducting the second of two (2) pre-construction events. Mountain Valley intends to conduct one pre-construction event during a relatively wet period, and one during a relatively dry period, to better characterize natural variation in water quality and quantity at the private supplies.

4. Property and water supply access approval documentation was secured by Mountain Valley before entering the property. The property / supply owner was notified prior to Mountain Valley entering the property for sampling. See **Appendix A** for information to be collected from the water supply owner during initial and follow-up contact.

5. A two-person field crew was deployed to collect water samples at the identified locations.

6. The sampling location coordinates were collected using GPS (1-meter resolution) and recorded.

7. Field testing, sample collection and sample management techniques were implemented consistent with industry standards and approved guidance (U.S. EPA, West Virginia Department of Environmental Protection, and Virginia Department of Environmental Quality).

8. For surface water resources, a decontaminated or new one-time-use sample collection device suitable for the surface water resource was inserted in a flowing portion of the spring or stream and the water sample transferred directly to the appropriate sample container provided by the laboratory.

9. A decontaminated field meter was inserted in a flowing portion of the spring or stream, and the field parameters recorded along with date and time.

10. For water well testing, a water sample was collected from a flowing spigot (after a minimum of 10 minutes purging) upstream of any treatment system (if applicable) in order to collect a raw water sample in the appropriate laboratory-prepared sample bottle with appropriate preservatives. Field parameters were analyzed at the time of water sample collection.

    a. If the well does not have a pump installed, or does not demonstrate artesian flow, a new, disposable one-time use bailer and clean nylon string was used to collect the water sample. There will be limited ability to purge the well bore of water using the bailer.

11. Water samples were kept cool and transported \ to the analytical laboratory(ies) under Chain of Custody.

12. The target analyte list is comprised of a general water quality analyte suite and pollutant-specific suite (**Table 3**). The baseline target analyte list includes field parameters, coliform bacteria, major elements and water quality parameters. The expanded target analyte list adds a full suite of Volatile Organic Compounds and Semivolatile Organic Compounds included in USEPA drinking water testing methods EPA 524.2, EPA 525.2, respectively, and Total Petroleum Hydrocarbons buy EPA SW846 8015C.

    a. The first pre-construction sampling event comprised analysis of the full expanded target analyte list (**Table 3**). The second pre-construction sampling event (currently underway as of the date of this Plan) will include the baseline water quality (reduced list, **Table 3**) suite, unless there is a concern noted by the property owner, or if Mountain Valley observers a verified detection of a VOC or SVOC or TPH from the first sampling event.

    b. National Environmental Laboratory Accreditation Program (NELAP)-accredited laboratories were utilized for water sample analyses. For samples collected in Virginia the laboratories have current Virginia (V)ELAP accreditation.

13. Water resources testing activities (including the condition of the water resource and equipment) were photo-documented. All field activities and meter calibration for each water resources sampling event were documented.

14. The first pre-construction sampling event provided Mountain Valley with the opportunity to evaluate the condition of each well, spring or intake, surrounding topography and land characteristics and land-use, and generally assess the overall vulnerability of the water supply to existing or future sources of impact.

15. Mountain Valley will provide the water supply owner with the water supply testing results. Concurrent with providing the owner these results, Mountain Valley will discuss with the owner any conditions that were observed at the water supply that represent potential for existing or future sources of impacts.

16. The second sampling event (currently underway as of the date of this Plan) will also include well yield testing. The water supply owner will be apprised of the well yield testing procedure, and Mountain Valley will request permission to access the well for the quantity testing, at the owner's discretion. See **Appendix B** herein for private well yield testing protocol (PDEP, 2007; PDEP 2009a).

17. Mountain Valley will consult with an owner who appears to have a compromised water supply based on pre-construction sampling results. Mountain Valley will tailor an evaluation protocol for the second round of water quality testing as appropriate to evaluate the integrity of the water supply and ensure a comprehensive pre-construction assessment is completed.

3.2 Public Water Suppliers

Mountain Valley contacted and discussed the Project with public water suppliers, and addressed specific concerns. Project components that are hydrologically upgradient, or separated by significant distance alleviated concerns of most public suppliers. In other cases, alignment adjustments alleviated the concerns of public suppliers. Mountain Valley is completing water supply contingency planning efforts for public suppliers that have a surface water intake within three (3) miles downgradient of a pipeline water body crossing, or in West Virginia for suppliers

with a surface water intake(s) located within 0.5-mile of a Project component. Mountain Valley has communicated directly with the pubic suppliers, and is working directly with specific suppliers for contingency planning as of the date of this Plan.

4.0 POST-CONSTRUCTION BASELINE WATER RESOURCE TESTING

Mountain Valley will offer to each private water supply that participated in the pre-construction testing program, post-construction water quality (full target analyte list in **Table 3**) and quantity (i.e., well yield) testing. Mountain Valley will follow the same procedures described above for water supply sampling, comprehensive target analyte list laboratory analysis and water quantity testing. Mountain Valley will provide the post-construction monitoring results directly to the property owner.

Mountain Valley will maintain water supply contingency planning efforts that are specified in the respective supplier's Contingency Plan, through the construction period and until final land reclamation is completed.

5.0 COMPLAINT RESOLUTION PROCESS

Mountain Valley believes that the potential for impacts to private water supplies and springs is negligible. Nonetheless, if a claim of impact is made by a water supply owner, a thorough investigation of the alleged impact will be conducted by qualified groundwater and surface water scientists and engineers using industry-standard hydrogeologic investigative practices. This will include a review of the timing of the claim relative to the construction schedule, detailed interview with the supply owner, mechanical evaluation of the water system, possible resampling and analysis of the supply, performance of a hydrogeologic assessment, and other pertinent evaluations. Because each water supply system and hydrogeologic setting is unique, the only means to establish a clear link between a water supply quality or quantity issue and Project activities is through a comprehensive evaluation leading to complaint resolution.

If Mountain Valley determines that the impact was related to its pipeline construction, then the investigations described above will provide valuable information concerning the appropriate remedies. Restoration of a water supply could include:

- temporary supplied water until the water quality returns to baseline;
- connection to secondary on-site sources, if available; and/or
- temporary treatment to establish baseline quality (or better).

If the hydrogeologic assessment indicates that a long term solution is needed, Mountain Valley would provide the following as appropriate to restore water quality and quantity to pre-construction conditions:

- a permanent treatment system; or
- a new on-site source (new water well); or a combination of source replacement and treatment options.

6.0 REFERENCES

National Environmental Laboratory Accreditation Program (NELAP), 2016. http://www.nelac-institute.org/content/NELAP/index.php

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Tables

Table 1. Private Water Supplies for Water Quality and Quantity Testing

Project Mile Post	MVP Parcel Number	Water Source	Latitude	Longitude
13.7	WV-HA-027	Spring	39.42267	-80.47739
13.7	WV-HA-027	Spring	39.42241	-80.47676
13.7	WV-HA-3909	Well	39.42241	-80.47857
13.7	WV-HA-029	Well	39.42241	-80.47816
20.8	WV-HA-065.01	Well	39.34159	-80.51141
22.3	WV-HA-080	Spring	39.32512	-80.52914
22.3	WV-HA-080	Well	39.32579	-80.52921
22.5	WV-HA-080	Well	39.32394	-80.52845
44.1	WV-LE-036	Spring	39.10320	-80.58838
44.4	WV-LE-042	Spring	39.09694	-80.58769
44.4	WV-LE-3947	Well	39.09639	-80.58953
58.9	WV-LE-117	Well	38.93066	-80.57423
58.9	WV-LE-117	Well	38.93006	-80.57437
59.5	WV-LE-3953	Spring	38.91988	-80.59112
61.3	WV-LE-133	Spring	38.90201	-80.56544
61.3	WV-LE-133	Well	38.89967	-80.56852
61.9	WV-LE-133	Well	38.89268	-80.56563
67.2	WV-BR-002.04	Well	38.84206	-80.51576
67.7	WV-BR-002.07	Well	38.83148	-80.51395
67.8	WV-BR-002.07	Well	38.82892	-80.51369
69.9	WV-BR-009	Well	38.81010	-80.54137
71.3	WV-BR-014.02	Spring	38.79137	-80.53199
73.7	WV-BR-032	Well	38.76258	-80.51891
74.5	WV-BR-036	Well	38.75433	-80.51537
75.3	WV-BR-5214	Well	38.74226	-80.52715
80.6	WV-BR-046.17	Well	38.69035	-80.47962
80.6	WV-WB-001.04	Well	38.69019	-80.47964
81.7	WV-WB-001.09	Spring	38.67617	-80.47630
83.8	WV-WB-001.18	Well	38.64978	-80.48260
83.9	WV-WB-001.211	Well	38.64780	-80.48573
84.2	WV-WB-3991 (AR WB-117)	Spring	38.65258	-80.49857
93.1	WV-WB-001.40	Spring	38.54831	-80.53957
109.3	WV-WB-093	Spring	38.37201	-80.61146
111.2	WV-NI-002	Spring	38.35674	-80.63223
114.7	WV-NI-025.01	Well	38.32687	-80.66998
115.8	WV-NI-031	Spring	38.31332	-80.67369
116.9	WV-NI-4036	Well	38.29734	-80.67165
124.3	WV-NI-064	Spring	38.20971	-80.71832
124.4	WV-NI-4237	Well	38.20747	-80.72074
130.5	WV-NI-089	Spring	38.13614	-80.73122
133.2	BW-NI-14	Well	38.10644	-80.72493
137.3	WV-GR-007	Well	38.05957	-80.73022
137.4	WV-GR-007.02	Well	38.05802	-80.73088
137.4	WV-GR-007.03	Well	38.05743	-80.73096
139.7	WV-GR-012	Spring	38.03088	-80.73486

Table 1. Private Water Supplies for Water Quality and Quantity Testing

Project Mile Post	MVP Parcel Number	Water Source	Latitude	Longitude
140.5	WV-GR-014	Spring	38.02171	-80.74554
140.5	WV-GR-014	Spring	38.02166	-80.74554
140.5	WV-GR-014	Spring	38.02203	-80.74667
140.5	WV-GR-014	Spring	38.02166	-80.74409
140.5	WV-GR-014	Spring	38.02185	-80.74342
145.0	WV-GR-030	Spring	37.97346	-80.74545
145.4	WV-GR-031.01	Well	37.96917	-80.73914
146.2	WV-GR-033	Spring	37.96078	-80.73267
149.5	WV-GR-047	Well	37.92360	-80.73991
150.4	WV-GR-051.01	Spring	37.91400	-80.73080
150.5	WV-GR-051.01	Spring	37.91150	-80.72924
150.5	WV-GR-4069	Well	37.91029	-80.72680
150.5	WV-GR-4069	Spring	37.91060	-80.72660
150.6	WV-GR-051.01	Spring	37.91187	-80.73000
151.4	WV-GR-056	Well	37.90292	-80.73971
151.8	WV-GR-056	Well	37.89928	-80.74438
152.6	WV-GR-057	Well	37.88973	-80.74717
154.7	WV-FA-003	Well	37.86527	-80.75796
156.6	WV-GR-071	Well	37.84287	-80.75190
157.0	UNKNOWN	Well	37.84072	-80.75336
158.8	WV-SU-5891	Spring	37.81528	-80.74714
159.4	WV-SU-006	Spring	37.80742	-80.74577
159.5	WV-SU-006	Spring	37.80625	-80.74549
169.6	WV-SU-036	Well	37.69634	-80.73811
191.4	WV-MO-012.285	Well	37.45721	-80.66269
202.3	VA-GI-019	Spring	37.34759	-80.65521
204.1	VA-GI-030	Well	37.34357	-80.62491
204.3	VA-GI-032	Well	37.34155	-80.62222
204.4	VA-GI-034	Spring	37.34151	-80.62125
208.9	VA-GI-058	Spring	37.31929	-80.55470
209.0	VA-GI-058	Well	37.31791	-80.55369
217.5	VA-CR-200.050	Well	37.32534	-80.43136
218.1	VA-CR-200.052	Spring	37.32909	-80.42115
223.1	VA-MO-5521	Well	37.29771	-80.36041
229.3	VA-MO-5356	Well	37.25028	-80.28696
235.1	VA-MO-3715	Well	37.23673	-80.19895
235.1	VA-MO-3715	Spring	37.23672	-80.20008
245.1	VA-RO-5220	Well	37.13766	-80.12716
260.0	VA-FR-057	Well	37.07446	-79.94061
260.3	VA-FR-058	Well	37.07190	-79.93851
260.3	VA-FR-5422	Well	37.07111	-79.93964
261.2	BVFR-24	Well	37.06791	-79.92473
261.5	VA-FR-070	Well	37.06513	-79.92264
270.2	VA-FR-4277	Well	37.04292	-79.82255
271.7	VA-FR-140.01	Spring	37.03690	-79.80006

Table 1. Private Water Supplies for Water Quality and Quantity Testing

Project Mile Post	MVP Parcel Number	Water Source	Latitude	Longitude
271.9	VA-FR-5429	Well	37.03946	-79.79637
274.6	VA-FR-153	Spring	37.01513	-79.75793
278.5	VA-FR-4145	Well	36.98998	-79.70378
278.6	BVFR-54	Well	36.98967	-79.70258
289.9	VA-PI-029	Spring	36.92969	-79.52667
298.2	VA-PI-73.031	Well	36.87249	-79.40799
298.7	VA-PI-087.01	Well	36.86653	-79.40394

Table 2. Public Water Suppliers within a HUC-10 Watershed

Public Supply Name	PWS ID#	Locality	State
New-Martinsville Water Department	WV3305203	New Martinsville	WVa
Pine Grove	WV3305205	Pine Grove	WVa
West Union Municiple Water Plant	WV3300901	West Union	WVa
Lumberport Water	WV3301714	Lumberport	WVa
Salem Water Board	WV3301720	Salem	WVa
Clarksburg Water Board	WV3301705	Clarksburg	WVa
Jane Lew Public Service District	WV3302103	Jane Lew	WVa
West Virginia American Water - Weston WTP	WV3302104	Weston	WVa
Glenville Water Plant	WV3301104	Glenville	WVa
Burnsville Public Utility	WV3300408	Burnsville	WVa
West Virginia American Water- Gassaway	WV3300406	Gassaway	WVa
Flatwoods Canoe Run PSD	WV3300402	Sutton	WVa
Sugar Creek PSD	WV3300404	Frametown	WVa
Clay Municipal Water	WV3300801	Clay	WVa
West Virginia American Water - Webster Springs	WV3305104	Webster Springs	WVa
Craigsville PSD	WV3303402	Craigsville	WVa
Nettie-Leivasy PSD	WV3303403	Nettie	WVa
Summersville Municipal Water	WV3303404	Summersville	WVa
Wilderness PSD	WV3303405	Mt. Nebo	WVa
Greenbrier County PSD #2	WV3301302	Quinwood	WVa
Rainelle Water Department	WV3301309	Rainelle	WVa
Rupert Water Department	WV3301311	Rupert	WVa
Town of Meadow Bridge Water Dept.	Town Clerk	Meadow Bridge	WVa
City of White Sulphur Springs Water Plant	WV3301314	White Sulphur Springs	WVa
City of Lewisburg Water Plant	WV3301307	Lewisburg	WVa
Ronceverte Water Department	WV3301310	Ronceverte	WVa
Big Bend PSD	WV3304507	Talcott	WVa
Red Sulphur Public Service District	WV3303206	Peterstown	WVa
Town of Union	WV3303207	Union	WVa

Table 2. Public Water Suppliers within a HUC-10 Watershed

Public Supply Name	PWS ID#	Locality	State
Gap Mills Public Service District	WV3303204	Gap Mills	WVa
Green Valley/Glenwood PSD - Bulltail Water Plant	WV3302813	Bluefield	WVa
West Virginia American Water- Bluefield	WV3302835	Bluefield	WVa
Giles County PSA	1071455	Pearisburg	Va
NRV Regional Water Authority	1121057	Radford	Va
Western Virginia Water Authority (WVWA)	2770900	Roanoke	Va
City of Salem	2775300	Salem	Va
Town of Boones Mill	5067043	Boones Mill	Va
Town of Rocky Mount	5067840	Rocky Mount	Va
Franklin County	5067137	Rocky Mount	Va
Town of Ferrum	5067120	Ferrum	Va
Town of Gretna	5143210	Gretna	Va
Town of Chatham	5143114	Chatham	Va
Pittsylvania County Service Authority - Robin Court	5143690	Pittsylvania	Va

Table 3. Target Analytes for Private Water Supply Testing

Target Analyte (baseline water quality)	Notes / Rationale for Testing
pH	Field-measured indicator parameter characterizing the relative acid-base nature of water and a major indicator of overall water quality.
Specific conductivity (mS/cm)	Field-measured indicator parameter characterizing the dissolved ion content of water and a major indicator of overall water quality.
Temperature (^{o}C)	Field-measured indicator parameter that is a general water quality descriptor.
Turbidity (turb. units)	Field-measured indicator parameter characterizing the suspended solids content of water.
Total and Fecal coliform bacteria (MPN/100 ml)	Measures bacteria content of water. Indicator of surface water and / or septic field impact to the water well.
Total dissolved solids (TDS) (mg/L)	Measures amount of charged ions that are dissolved in water. Indicative of dissolved mineral content of the water.
Total suspended solids (TSS) (mg/L)	Measures amount of solid material suspended in water. Similar to turbidity field indicator, but provides a quantitative assessment of suspended solids mass.
Hardness (mg/L)	Major water quality indicator. Hardness is commonly used to measure dissolved calcium and magnesium. “Hard” water is high in dissolved minerals. Hardness, TDS and Specific conductivity are evaluated in common to characterize the relative mineralization of groundwater. Report in CaCO3 equivalent (mg/L).
Alkalinity (mg/L)	Measures the ability of water to neutralize acid (buffering capacity) and is part of an overall water quality indicator. Report in CaCO3 equivalent (mg/L)
Sulfate (mg/L)	Common major anion (negatively-charged compound) in groundwater and at high concentrations may lead to scaling of plumbing and impart poor taste to potable water. This is also used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well.
Chloride (mg/L)	Common major anion (negatively charged) that is an indicator of overall salt content of water. This is also used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well.
Nitrate (total) (mg/L)	Common major anion (negatively charged compound) that is typically used as an indicator of surface water or septic influence on groundwater. Nitrate and bacteria analyses are evaluated in tandem to identify potential impacts to groundwater sources. This is also used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well.

Table 3. Target Analytes for Private Water Supply Testing

Target Analyte (baseline water quality)	Notes / Rationale for Testing
Bicarbonate (mg/L)	Common major anion (negatively charged compound) used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well. Evaluating bicarbonate content along with alkalinity assists in understanding overall water quality.
Calcium and Magnesium (mg/L)	Common major cation (positively charged element) that will assist in characterizing overall water quality and Hardness, and will be used to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well.
Sodium and Potassium (mg/L)	Common major cation (positively charged element) that will assist in characterizing overall water quality and to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well. High levels of sodium may also have health effects for persons with high blood pressure.
Iron and Manganese (mg/L)	Common major cation (positively charged element) that will assist in characterizing overall water quality and to evaluate charge balance (balanced anions and cations) of the overall water quality data set for each well. These major elements, when dissolved in water at a high enough concentration, can have aesthetic concerns for staining home fixtures or affecting laundry.
Target Analyte (Expanded Pollutant-specific)	**Notes / Rationale for Testing**
Volatile Organic Compounds (VOCs); EPA Method 524.2	Volatile organic compounds such as petroleum products, chlorinated compounds, solvents and degreasers, industrial chemicals, etc.
Semivolatile Organic Compounds (SVOCs); EPA Method 525.2	Semivolatile organic compounds potentially derived from industrial activity and materials.
Total Petroleum Hydrocarbons (TPH) EPA Method 1664	Range of petroleum products (see Note 1, below)

Note 1: Total Petroleum Hydrocarbon (TPH) Method 1664 captures a broad range of petroleum related hydrocarbons (including oil-range, diesel-range, gasoline-range and lighter-range). FERC suggested including Oil and Grease, but this analysis would capture fats and greases from animals, fry oils, waxes, soap, etc. There is no reasonable expectation that these types of substances will be associated with pipeline construction. The target analyte list in Table 3, including Method 1664 TPH, will provide a comprehensive analysis of potential contaminants in groundwater that would have a reasonably-expected potential derivation from pipeline construction.

Figures

Mountain Valley Pipeline Project

Mountain Valley PIPELINE

FIGURE NUMBER 1
Public Community Water Systems
West Virginia

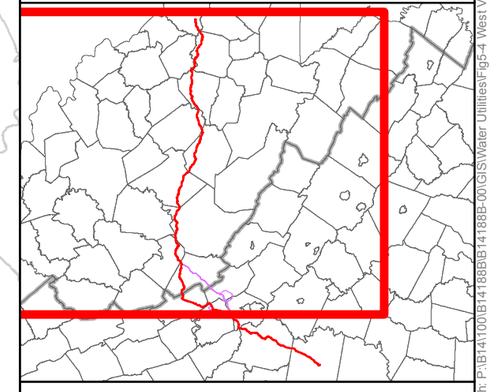
10-2017

Draper Aden Associates
Engineering • Surveying • Environmental Services

Legend

- Surface Water
- Ground Water
- USGS HUC-10 Watersheds
- MVP Proposed Route

Public Water resources:
http://tagis.dep.wv.gov/WVWaterPlan
Locations are approximate and data has not been verified for completeness or accuracy.



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Service Layer Credits:

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Mountain Valley Pipeline Project

Mountain Valley PIPELINE

FIGURE NUMBER 2
Public Community Water Systems
Virginia

10-10-16

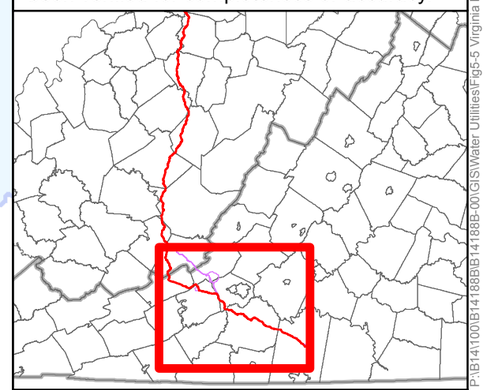
Draper Aden Associates
Engineering • Surveying • Environmental Services

Legend

Water Supply Sources

- Well
- Reservoir
- Stream
- Spring
- USGS HUC-10 Watersheds
- MVP Proposed Route

Public Water resources:
Virginia Regional Water Supply Plans
Locations are approximate and data has not been verified for completeness or accuracy.



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Service Layer Credits:

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Appendices

Appendix A Information Collected from Water Supply Owners

1 Route Specific Sort Order
2 Parcel Number(s)
3 APN(s)
4 Name (Last, First or Company)
5 Permission to Enter
6 Date on Form
7 Signed
8 Address Line 1
9 Address Line 2
10 City, State, Zip
11 Telephone Number
12 Email Address
13 Preferred Day/Time of Contact
14 Community or Municipal Water
15 Water Wells
16 Drilled or Dug
17 Used for Drinking
18 Well Depth
19 Treatment System or Filter
20 Other Water Wells
21 Number of Other Wells
22 Drilled or Dug
23 Used for Drinking
24 Well Depth
25 Treatment system
26 Springs
27 Number of Springs
28 Used for Livestock/Irrigation
29 Streams
30 Number of Streams
31 Used for Livestock/Irrigation
32 Other Bodies of Water
33 Number of Other Bodies of Water
34 Description
35 Used for Livestock/Irrigation
36 Comments

Appendix B Private Well Yield Testing Protocol

The following outlines the methodology for measuring pre-construction well yield at private water supply wells. Public water supplies have documented production data and this will be used for pre-construction baseline data. The private water well yield testing methods described below were taken from The Pennsylvania Department of Environmental Protection, Bureau of Mining Programs, Document 563-2112-605 (Water Supply Replacement and Permitting; Appendix B, Section C), and Document 563-2112-606 (Procedures for establishing the quantity of water in low-yield wells) (PDEP 2007, PDEP 2009a).

There are two (2) procedures discussed below. The first is well yield testing when the well is accessible for measuring water level during pumping and recovery. The second is a flow testing protocol when the well is not accessible, or the property owner does not authorize Mountain Valley to access the well but requests a well yield test.

If the property owner requests a post-construction well yield test, it is critical that the test be conducted under the same conditions as the pre-construction test, to the extent possible, in order to provide as accurate a comparison as possible. Since pumping rate and the test duration both affect the well yield estimate, these parameters need to be nearly the same to compare results of post-construction to pre-construction tests. If possible, the two tests should be conducted during the same season of the year because seasonal variation of well recharge can influence the yield estimate.

Yield Testing Protocol for Accessible Wells - Specific Capacity

The "specific capacity" of a well is the number of gallons of water produced per minute for each foot of well drawdown.

A test duration of 1 hour at a pumping rate of 5 gallons per minute (gpm) will be conducted to estimate well specific capacity.

Procedure

Request that the well owner not operate the well for as long as practical prior to conducting the test. Record when the owner last used the water system.

Well plumbing fixtures, such as the pressure shutoff switch, sediment filter and pressure tank may need to be by-passed or disconnected to maintain a stable, steady pumping rate.

Ensure that the discharged water is collected, or discharged away from the well so that it does not artificially recharge the well.

Measure and record the depth to water from the top of the well casing.

Measure and record the depth to the pump from the top of the well casing, if possible. Record any pump installation data that are available.

Record time that flow testing begins.

The following measurements should be taken during the pumping period:

Pumping rate – measure at the start of the test; at five minute intervals during the initial stages of the test; at 10 minute intervals during the latter stages of the test; and at the conclusion of pumping. Adjust flow controls as necessary to maintain the optimal 5 gpm pumping rate.

Water level – measure at the start of the test; at one or two minute intervals during the first 10 to 20 minutes; at five minute intervals during the remainder of the pumping period; and at the conclusion of pumping.

Terminate pumping if the water level drops within 5 feet of the pump, so the pump is not damaged by running it dry.

Record time that flow testing ends.

At the conclusion of the pumping test, commence recovery measurements in accordance with the following guidelines:

0 – 5 minute interval: every 30 seconds

5 - 10 minute interval: every 60 seconds

10 - 20 minute interval: every two minutes

20 - 60 minute interval: every five minutes

If after one hour the level of recovery is less than 50% of the depth of drawdown, continue to measure water levels at five minute intervals until water level has recovered to 90% of the depth of drawdown or until three hours since the start of recovery, whichever occurs first.

Tabulate pumping rate, drawdown and recovery data, and prepare a graph of water level vs. time.

Well yield can be calculated from specific capacity by multiplying the available drawdown in the well (the distance between the static water level and the normal pump setting in feet) with the specific capacity (units in gallons per minute per feet of drawdown), the result having the units of gpm. This calculated yield takes into consideration both the storage capacity of the well and the aquifer performance under the limited conditions of the specific capacity test.

$SC=R/D$

Where: SC = specific capacity (gpm/ft), R = adjusted discharge rate (gpm), and D = total drawdown (ft.)

$R = (Vt - Vs) / t$

Where: Vt = total volume of water discharged during test (gallons), Vs = volume of water discharged from borehole storage (gallons), and t = duration of the test (minutes).

$Vs = 23.5D\ r^2$

Where: Vs = volume of water discharged from borehole storage (gallons), D = total drawdown (feet), r = well radius in feet.

(Note, for a standard 6-1/2 inch diameter well, Vs = 1.72 gal./ft. X D)

Yield (gpm) = AD x SC

Where: AD = available drawdown (ft) = depth to pump intake - static water level - 5 ft.

Well storage may be overemphasized in specific capacity tests. Unlike a long-duration test of a high-performance, industrial well, a short-duration test of a low-yielding well, especially a deep well, may result in borehole storage water representing most of the water discharged during the test. A borehole storage problem becomes significant if the specific capacity is then multiplied by the available drawdown to calculate a yield. A poor-performing, unreliable well can appear to have a relatively good yield when borehole storage is large relative to the specific capacity. Mountain Valley will document both specific capacity from the test, and calculated well yield.

Yield Testing Protocol for Inaccessible Wells - Peak Demand Test

The Peak Demand Test (PDT) will be used if a well is inaccessible for direct monitoring of water level during pumping and recovery. The PDT is used to simulate well usage during peak demands, and does not provide an actual yield value. It only tests a delivery system's ability to provide water to the user.

Procedure

The test will be performed by running the water from an outdoor spigot or indoor faucet.

If possible, well plumbing fixtures, such as the pressure shutoff switch, sediment filter and pressure tank may need to be by-passed or disconnected to maintain a stable, steady flow rate.

Ensure that the discharged water is collected, or discharged away from the well so that it does not artificially recharge the well.

Open spigot or faucet for flow at 5 gpm for 15 minutes and then stop flow for recovery for 15 minutes.

The on/off pumping cycles are repeated for 4 hours or until the well fails, whichever comes first.

Record time at the beginning and end of each cycle.

The discharge rate (flow rate) will be recorded every 5 minutes (three times per pumping cycle).

If the pump intake breaks suction and the discharge rate drops noticeably, record the time when this occurs.

The parameters of the PDT must be carefully recorded. Maintaining a constant discharge rate can be difficult to achieve because an in-place water delivery system for a home can be difficult to control and the discharge rate may decline as the test advances.

Because the PDT does not require entry to the well bore, liability concerns from well damage are less. The test also provides a means of testing water supplies not physically accessible for water level measurements. A disadvantage of the test is that the PDT takes longer to perform than the short-duration specific capacity test. Because of the on-and-off cycles, the PDT will not adequately test the well if its duration is shortened to less than 4 hours. The PDT should only be allowed where borehole access requires an extraordinary effort, or the well owner does not authorize entry.

Evelyn Tidlow

From: Centofanti, John <JCentofanti@eqt.com>
Sent: Tuesday, January 16, 2018 1:15 PM
To: Richard Chidester; John Ross
Cc: Evelyn Tidlow; Justin Curtis
Subject: MVP Information
Attachments: Correspondence-Consulting Parties.zip; Correspondence-VDHR.zip

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Chidester and Mr. Ross –

Thank you again for participating in the conference call on Friday January 12, 2018. It was a very productive call and we greatly appreciate your time and thoughtful comments on the treatment plans. Per our discussion on Friday (1/12/2018), we have gathered some agency and consulting party correspondence regarding the identification and location of historic resources and attached it to this email. Please confirm that you have received this email and the attachments.

Attached please find two folders. In both, we have provided copies of relevant correspondence with VDHR and other consulting parties. Since some of these are lengthy and contain information related to other counties, we have tried to highlight the portions of the documents that seem most relevant to Giles County to save you some time. We have also added some notes to clarify the locations of some of the properties discussed in the letters so that you can focus on those located within Giles County.

The first folder contains correspondence with the VDHR that includes an email and letter that document VDHR's approvals of the Area of Potential Effect for the project and MVP's methods for evaluating the effects of the proposed project. The July 7 letter provides VDHR's comments on our effects assessment. VDHR did not agree with our assessments in all cases and staff also requested additional information related to one property in Giles County (Cemetery, DHR ID #035-0412-0465). This additional information was developed following our approved methods and was submitted in our August 25th response to the VDHR. The VDHR has not yet responded to our August 25th submittal.

The second folder provides several of the letters that we have written to consulting parties to address letters received by MVP and docket comments related to the issues we discussed in our call. These letters provide additional information related to mislocated properties and additional explanation on how our methods for evaluating effects were developed and implemented. Please note that MVP provided copies to Mr. Roger Kirchen for all of these letters to allow Mr. Kirchen an opportunity to enter into the discussion if he disagreed with our responses. As far as we are aware, Mr. Kirchen had no comments on these MVP letters.

On Friday's call, we also agreed to provide you with additional information regarding (1) maintenance of agricultural uses of the pipeline right of way and (2) the possibility of future pipelines being sited within the existing right of way. We are still gathering that information and will send it to you in an email to follow. At FERC's request, we also will be documenting Friday's call in a memo to the FERC docket. We plan to circulate a draft of that memo to you shortly to give you the opportunity to correct any material errors.

We look forward to continuing the conversation with you early the week of January 22nd so that we can revise the proposed treatment plans appropriately and redistribute them to the agencies and other consulting parties.

Thanks,

John

John J. Centofanti
Corporate Director, Environmental Affairs
EQT Corporation
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222
412-395-3305 (office)
412-417-3729 (cell)

To learn about EQT's sustainability efforts visit: https://csr.eqt.com

Greater Newport Historic District Committee
ATTN: Mr. David Brady
190 Cider Hill Road
Newport, VA 24128

Re: Potential Mitigation Options for Greater Newport Historic District
Response to July 25, 2017 Email

Dear Mr. Brady:

During a meeting with the Virginia Department of Historic Resources (VDHR) on June 28, 2017, Mountain Valley Pipeline (Mountain Valley or MVP) was asked begin developing potential mitigation plans for five historic districts, including the Greater Newport Historic District. VDHR recommended that MVP contact local stakeholders to solicit their input regarding potential mitigation options for direct impacts to each district. As suggested by VDHR, Mountain Valley contacted you on July 18 and 19, 2017 to arrange a meeting. In an email dated July 25, 2017, after declining the request for a meeting, you expressed concerns regarding the location of the Adlie Jones Farm (VDHR# 035-0412-0010) as identified in Mountain Valley cultural resource reports, Phase I Reconnaissance Architectural Survey for the Mountain Valley Pipeline, Craig and Giles Counties, Virginia (March 2016, VDHR concurrence: May 25, 2016), Addendum to the Phase I Reconnaissance Architectural Survey for the Mountain Valley Pipeline, Craig and Giles Counties, Virginia: Supplemental Information (June 2016, VDHR concurrence: August 4, 2016), Identification of Historic Architectural Resources for the Mountain Valley Pipeline in Virginia: Supplemental Information (February 2017), and Criteria of Effects Report for the Mountain Valley Pipeline, Giles, Craig, Montgomery, Roanoke, Franklin, and Pittsylvania Counties (May 2017, VDHR response: July 7, 2017). You stated within that correspondence that the alternatives analysis has not been completed by the Federal Energy Regulatory Commission (FERC), and that the Greater Newport Rural Historic District believes that FERC should be conducting the outreach for Section 106, not Mountain Valley.

Potential impacts on Adlie Jones Farm have been evaluated based on the information included in the National Register of Historic Places (NRHP) nomination inventory for the district. This is in addition to information that was collected by Mountain Valley's archaeological survey team within the direct area of potential effect (APE). As directed by VDHR during an April 21, 2015 meeting between VDHR and Mountain Valley's cultural resources consultant, Mountain Valley's architectural survey team did not re-inventory the previously recorded historic districts within the pipeline APE in Virginia. As a result, Mountain Valley consulted a variety of sources in order to determine the location of the contributing resources to the Greater Newport Rural Historic District. This endeavor included the evaluation of a 300-foot corridor centered on the Pipeline centerline across the Adlie Jones Farm property during archaeological surveys. The locational data used and referenced by Mountain Valley for the Adlie Jones Farm is based on the best available information, including the NRHP nomination inventory address, NRHP nomination sketch map, Virginia's Cultural Resource Information System, Giles County tax parcel data, and data collected by the archaeological field team during Phase I archaeological survey (within the 300-foot study corridor only).

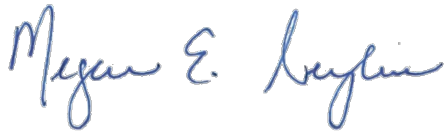
Mountain Valley responded to a January 27, 2017, FERC Environmental Information Request which referenced a letter from Donald Wayne Jones regarding the Adlie Jones Farm (Attachment A). In preparing the response, a qualified architectural historian for Mountain Valley attempted to gain access to the entire property in order to definitively identify and evaluate the ancillary structures and buildings on the Adlie Jones Farm property referenced in Mr. Jones' letter. Access to the property containing the Adlie Jones Farm's ancillary features in question was denied on February 7, 2017. As a result, Mountain Valley was not able to verify the data provided in Jones' letter.

Please be aware that a full alternatives analysis was completed for the District. Within the Final Environmental Impact Statement (FEIS), issued on June 23, 2017, FERC analyzed six Project system alternatives that would avoid impacts to the Greater Newport Rural Historic District. All six routes (Highway Collocation Alternative, Alternative 110, Alternative 110J, the Northern Pipeline-ACP Collocation Alternative, Alternative 1, and Hybrid Alternative 1A) were eliminated from consideration for various reasons that include visual impacts, constructability, and additional impacts on sensitive resources.

In sum, the information on the Adlie Jones Farm and other resources within the District have been collected from multiple sources representing the best available data, and a thorough alternatives analysis has been conducted to conclude that impacts to the District are unavoidable. Mountain Valley therefore respectfully disagrees with the assertions in your July 25, 2017 email. Nevertheless, resolving these disagreements is not necessary or material to the separate task of exploring potential mitigation measures to address the adverse impact to the "very agrarian setting and feeling" of the District stated in VDHR's July 7, 2017 letter. Mountain Valley regrets that you declined a request for a meeting, however, we continue to be open to meeting and working together in developing mitigation strategies moving forward. In the interim, Mountain Valley will continue to develop mitigation strategies with the VDHR in absence of input from the Greater Newport Rural Historic District.

If you have questions or would like to discuss mitigation options for the Mountain Valley Pipeline, please feel free to contact me at (724) 873-3645 or at mneylon@eqt.com.

Sincerely,



Megan Neylon
Environmental Permitting Supervisor

Attachment

cc: Roger Kirchen
Virginia Department of Historic Resources

Matthew W Fellerhoff, Shareholder
Strauss Troy Co., LPA

20161219-5105 FERC PDF (Unofficial) 12/19/2016 10:06:43 AM

December 17, 2016

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

Dear Ms. Bose and Members of the Commission;

Reference: MVKKP CP16-10-000

Subject: Draft Environmental Impact Statement and its intentional inadequate representation of historical Adlai Jones home lands.

According to documents provided to Giles County residents from Mountain Valley Pipeline Project, the Adlai Jones farm lands included 4 historical structures:

One: Pole Barn (MVP Site No. 035-0412-0010).
Two: Trace Road (MVP Site No. 035-0412-0466).
Three: Cemetery (MVP Site No. 035-0412-0065).
Four: Appalachian Trail (MVP Site No. 021-0512).

On page 4-379 of the DEIS only the Pole Barn is listed as a Culture Resource within the Direct Area of Potential Effect. Additionally, my grandfather's name is Adlai Jones: not Adie. Thanks for the carelessness you have shown with my family's heritage.

As cited previously by my father, George Lee Jones, in his statement of cultural attachment:

One: The Pole Barn was used as a stable for the work horses that were an absolute necessity for farmers who wisely farmed this land by hand for generations.
Two: The Trace Road was used by his family to access the upper ridges of the farm land for numerous agricultural ventures generation after generation.
*Additionally and of significant historical importance MVP identifies this as a remnant of the Cumberland Gap Turnpike on page 12 of its Phase I Reconnaissance Architectural Survey (information specifically requested by FERC).
Three: The Cemetery holds head stones of family members dating back to generation 3 (out of 10 generations). James Alexander Jones rests here as a decorated Civil War veteran (1823-1891).
Four: The Appalachian Trail is located on the top ridge of the Jones family farms and was an important means of transportation and commerce for citizens such as Walt Caldwell who would travel over Gap Mountain via the Appalachian Trail to trade labor for necessary supplies.

I am extremely confused and upset with the historical structures that were never acknowledged by MVP surveys. I accompanied all surveys that were performed with my knowledge and spoke to the surveyors about all of these structures at least once and usually numerous times. The list of structures and sites and cultural importance of historical importance that MVP and FERC completely ignored are as follows:

One: A deeded hand-dug ditch dated to 1800's for overflow of a mountain spring used as water for livestock for a neighboring farm. This water source is still in use today.

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Two: Ancient mountain spring with water rights deeded to five properties still used today as their only water source.
Three: "Billy" spring referenced in Dad's culture attachment that would be directly impacted by MVP service road contamination.
Four: Jones Cave used by ancestors for food storage.
Five: Historical Adlai Jones home place purchased in 1923 adjoining Adlai Jones' great great great grandfather's farm lands.
Six: William Arkennedy Jones' historical barn (Adlai's father) still standing and in daily use by the Jones family. The barn doors are made of wormy chestnut cut from the farm and is artfully carved with farm life detail by William and Everett Jones dated in the year 1900. It stands within feet of the MVP center line.
Seven: Historical home place of Adlai and Everett Jones rebuilt in 1926 after a fire in the original structure. Present home of Gordon Jones' family (Generation 6). It also stands within feet of the MVP center line.
Eight: Uncle Bub Jones' home place remains with three chimneys still standing representing historical mortar joints on hand faced rocks and hand hewn logs with wooden wedge nails still intact.
Nine: Denny Jones' home place remains with visible foundation and spring fed water trough for food preservation.
Ten: Denny Jones' corn crib used as a home when their home place burned down. Jones family heritage story states that they would wake up with snow on their quilts from snow blowing in through the cracks of the walls.
Eleven: Heirloom shrubs still producing a brilliant orange bloom unlike any other in the spring.
Twelve: John Jones hand stacked rock fence.
Thirteen: Site of Camper dwelling within feet of the Trace Road. Said to be one of the oldest recorded properties in present Giles County.
Fourteen: Site of Camper dwelling near "Billy Spring".
Fifteen: Historical "Slave Quarters" located on Leffell farm (pre-Jones) still standing.
Sixteen: Dude Smith dwelling remains within feet of the AT probably one of the oldest structures in Newport Va.
Seventeen: Fisher Cemetery containing one foot stone, one head stone and numerous depressions.
Eighteen: Jones family historical culture attachment of entire 700+ acres of home lands completely disregarded by MVP and FERC.

My view on this situation is as follows:

One: Rich energy businesses who financially back the Mountain Valley Pipeline Project were handed the time and means to collect all pertinent information about the Adlai Jones farm lands but failed to accurate access and provide that information to the Federal Energy Regulatory Commission.

Two: FERC had access to information that they simply ignored for reasons unknown to me or they are incompetent in evaluating the information provided to them and incorporating it into the Draft Environmental Impact Statement.

Three: I asked MVP representatives numerous times for copies of the reports they compiled on the Adlai Jones farm via the survey process that we were forced to comply with in order to check for accuracy. The information is about our land and we should have access to that information at any time. I was promised these documents time after time. I have yet to receive any information from MVP

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regarding the surveys. You may call this a misunderstanding or miscommunication or lack of knowledge of those representatives but according to the way I was raised I call these statements “lies”.

Four: No permits should be issued to MVP via FERC as neither one has shown to be able to even collect and convey information correctly. In my viewpoint, if you can’t provide information correctly, the citizens cannot expect MVP to build an enormous 42” 1400 psi pipeline accurately and safely.

Most sincerely,

Donald Wayne Jones
vmftech@yahoo.com
Generation 7

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Document Content(s)

December 17.DOCX.....1-3

Mountain Valley PIPELINE LLC

September 18, 2017

By U.S. Mail and Email

Mr. Matthew W. Fellerhoff
Strauss Troy
150 East Fourth Street
Cincinnati, Ohio 45202
mwfellerhoff@strausstroy.com

Re: Mountain Valley Pipeline
DHR File 2014-1194
FERC Docket CP16-10
Response to Letter Dated September 11, 2017

Dear Mr. Fellerhoff:

This letter responds to your letter of September 11, 2017, regarding a conference call between Mountain Valley and representatives of the Greater Newport Rural Historic District (GNRHD) on September 7, 2017.

You point out in your letter that you sent an email to Robert Pichardo, on July 17, 2017, stating that the GNRHD Committee wished to discuss "alternatives to the route and inaccuracies in the identification of effected resources." Both of those issues—appropriate mitigation and mislocated resources—had been thoroughly addressed in written communications prior to the September 7 call.

Mountain Valley previously addressed the concerns raised by Mr. Brady that contributing resources in the GNRHD, namely the Adlie Jones Farm, may be mislocated. On August 18, 2017, Mountain Valley sent a detailed explanation to the GNRHD Committee Section 106 Coordinator, David Brady, with copies to Roger Kirchen at the Virginia Department of Historic Resources (DHR) and the Committee's counsel, Matthew W. Fellerhoff of Strauss Troy. This letter described Mountain Valley's efforts to identify contributing resources on the Adlie Jones Farm.

As you are aware, Mountain Valley sent a copy of the proposed Treatment Plan for the GNRHD to Mr. Brady on August 25, 2017, with a copy to Mr. Fellerhoff. Copies of the letter also were sent to other consulting parties with an interest in GNRHD. The letter advised that Mountain Valley's objective was to engage consulting parties and stakeholders in a discussion of mitigation measures to address the adverse effect identified by DHR in its letter dated July 7, 2017. The letter further specified that the attached Treatment Plan was Mountain Valley's proposal to mitigate that adverse effect. Comments were requested by September 11, 2017, so that any necessary revisions could be made to the Treatment Plan. The Treatment Plan was predicated on the assumption that

additional avoidance and minimization measures were either not feasible, not proportional to the adverse effect identified by DHR, or both.

Mountain Valley explained the basis for its assumption about appropriate mitigation for the GNRHD in the August 18 letter referenced above to Mr. Brady (with a copy to Mr. Fellerhoff). This was one week before the circulation of the Treatment Plan. The letter explained that a full analysis of a reasonable range of alternatives had been conducted by FERC in its Final Environmental Impact Statement (FEIS) (June 2017), including six route alternatives that would have avoided direct impacts on the GNRHD. That evaluation expressly considered the avoidance of the GNRHD (and other historic districts) in its analysis, along with impacts on other relevant resources. Those alternatives were eliminated from consideration for various reasons detailed in the FEIS. As a result, impacts on the GNRHD are unavoidable if the project is granted regulatory approval. The letter concluded by acknowledging the GNRHD's objections to the recommended route in the FEIS and the location of resources within the GNRHD, while suggesting that the parties need not resolve their disagreements on those tangential issues to engage in a fruitful exploration of potential mitigation strategies to address the adverse effect identified by DHR.

We regret that there was a misunderstanding regarding the purpose of the teleconference. However, in light of the oral and written communications subsequent to your July 17, 2017 email, it was our intention and understating that the discussion would focus on the contents of Mountain Valley's recent submissions—the letters to Mr. Brady and the GNRHD Treatment Plan in particular. Furthermore, as we stated on the call, the outreach on treatment measures was being made in response to instructions from DHR and the FERC to engage with consulting parties regarding treatment measures for the identified adverse effects to the respective historic districts. While Mountain Valley was willing to discuss avoidance and mislocated resources, it was our understanding that these conversations would be germane to the task at hand—consulting on appropriate mitigation for the adverse effect to the GNRHD identified by DHR.

On the teleconference, you stated that the GNRHD intended to discuss only the two topics addressed in your July 17 email, and not the Treatment Plan. Regarding route alternatives, you state in your letter that it was your intention to discuss "avoidance alternatives that FERC had not evaluated based on the best scientific information available, and new information that was not available prior to the issuances of the Final Environmental Impact Statement." More specifically, you stated on the teleconference that it was the GNRHD representatives' preference for alternative route "Hybrid 1A." This route was considered and rejected by FERC because it offered no significant environmental benefit over the current route and would merely "shift the impacts from the current set of landowners to a new set of landowners" (FEIS 3-25). Mr. Brady added that the discussion of alternatives should include consideration of other potential resource impacts wholly unrelated to Section 106 consultation, including impacts on forest cores and federally listed species.

It was, and remains, our position that the discussion you proposed goes well beyond the appropriate scope of Section 106 consultation. As Mr. Brady confirmed on the call, you are advocating that FERC prepare a supplemental EIS to address "new information" and a second review of alternative route Hybrid 1A. Neither Mountain Valley nor Section 106 consulting parties have authority to determine how FERC complies with its responsibilities under the National Environmental Policy

Act (NEPA), including how and when FERC may exercise its discretion to supplement a completed EIS. Moreover, the GNRHD representatives and other interested parties have had ample opportunity to express their objections to the current route and their preferences for Hybrid 1A to FERC, DHR, and other relevant agencies. We are aware of numerous comments to this effect being submitted to the FERC docket. There is no new *material* information that would suggest a different conclusion on the preferred alternative if these objections are reviewed again—the FEIS evidences that FERC gave careful consideration to the avoidance of impacts on historic districts, forests, and sensitive species, among other issues. In short, Mountain Valley does not deem it productive to engage in a debate with Section 106 consulting parties about the purported necessity of a Supplemental EIS.

We wish to add that the "avoidance" mitigation option proposed by GNRHD representatives on the call—a drastic change to the route at this late hour—is not only infeasible,[1*] it is wholly disproportionate. It is a foundational principle of mitigation that its magnitude should be proportional to the degree of impact. The adverse effect identified by DHR is that the "agrarian setting and feeling" of the districts would be adversely affected "by the MVP bisecting them and leaving a permanent fifty-foot wide imprint on their landscapes." This adverse effect must be viewed in context to determine what degree of mitigation is appropriate. Once the pipeline is installed, the area will be restored to its original contours and land uses, with the exception of forested areas for which a 50-foot right-of-way must remain clear of woody vegetation and single main line valve that will not be visible to the general public. The principal agrarian elements of the district, its meadows, fields, pastures, and cropland, will return to meadow, field, pasture, or cropland following any temporary land disturbance necessary for construction of the buried pipeline infrastructure. As described in the Treatment Plan, other expert agencies, namely the Virginia Department of Environmental Quality and U.S. Army Corps of Engineers, have prescribed requirements and will oversee the proper restoration of all disturbed streams, wetlands, and uplands. Appropriate mitigation for the diminishment of the agrarian setting and feeling of the district must take into account the fact that the infrastructure will be buried and the surface disturbance will be restored.

The objective of Section 106 consultation at this stage is to evaluate measures to "avoid, minimize, or mitigate" the specific adverse effects on "historic properties" identified by DHR. 36 C.F.R. § 800.6(a). It is an abuse of this process to attempt to use it to seek a remedy for all of a party's perceived grievances with the Project. Accordingly, Mountain Valley is ready and willing to discuss appropriate mitigation for the adverse effect to historical resources identified by DHR, but this is not an appropriate forum to debate unrelated environmental concerns or the NEPA process.

Regarding the location of contributing resources in the GNRHD, Mountain Valley also reiterated on the teleconference that the incorrect information cited by the GNRHD was addressed in the above-mentioned August 18 letter to Mr. Brady. Furthermore, to the extent resources are in fact mislocated within the GNRHD, we fail to see how those purported errors rise to a level of materiality or should prevent good faith discussion of the proposed GNRHD Treatment Plan. DHR

[*] Although it is not feasible to avoid the boundaries of the GNRHD altogether, care was taken to avoid direct adverse effects to all contributing resources within the district. By the same token, care was taken to avoid permanent indirect visual impacts on the districts and the key resources, as evidenced by the DHR's concurrence that that are no visual impacts to the GNRHD.

concluded that the only adverse effect to the GNRHD is to the setting and feeling of the district *as a whole*. That conclusion will not materially change—and therefore the appropriate type of mitigation will not change—if the location of an individual contributing resource is misplaced on the district map.

We note that this objection has been raised on several occasions but there has been no suggestion that any unidentified or mislocated resources are within the Project's proposed limits of disturbance. That would, of course, be material and necessitate additional mitigation measures. However, Mountain Valley believes it highly unlikely that it has failed to identify any resources within its proposed right-of-way. Furthermore, several GNRHD representatives stated on the call that they know the correct location of all resources in the district, and we find it implausible that the prior comments from GNRHD's representatives on this issue would have refrained from stating that an unidentified resource is within the limits of disturbance if that was the case. In the highly unlikely event that any resources are within the proposed limits of disturbance, however, we ask that this information be called to the attention of Mountain Valley or DHR so that it may be addressed. Absent the existence of any materially mislocated resources, this persistent objection is not a genuine reason to delay good faith discussions of mitigation options.

As you recall, Mountain Valley suggested on the call that a discussion of the Treatment Plan would present an appropriate opportunity to address many of the GNRHD's apparent concerns—including whether there are other avoidance/minimization mitigation options (other than shifting the route to Hybrid 1A) that should be considered and whether there are potentially misidentified resources within the direct APE that should be avoided or given additional treatment measures. The GNRHD declined to engage in any discussion related to the contents of the Treatment Plan. Therefore, the meeting was concluded. Nevertheless, Mountain Valley remains open to discussion with the GNRHRD's representatives on all topics relevant to Section 106 consultation.

Sincerely,

John Centofanti
Corporate Director, Environmental Affairs
EQT Corporation

Cc: Mr. Paul Friedman, FERC
Mr. Roger Kirchen, VDHR
Mr. Richard Chidester, Giles County

555 Southpointe Boulevard, | Canonsburg, PA 15317
844-MVP-TALK | mail@mountainvalleypipeline.info
www.mountainvalleypipeline.info

August 25, 2017

Ms. Ann Rogers
Preserve Roanoke
6347 Back Creek Road
Boones Mill, VA 24065

Subject: Mountain Valley Pipeline Project
Response to Accession # 20170713-5027 (July 12, 2017)
DHR File No. 2014-1194; FERC Docket No. CP16-10

Ms. Rogers,

Mountain Valley has reviewed Preserve Roanoke's comments submitted July 12, 2017. To address specific concerns outlined in those comments, Mountain Valley provides the following responses.

1. Naming and Indexing of Documents Submitted to the FERC Docket

Mountain Valley typically includes a transmittal letter with each FERC filing to outline the documents included in each attachment. For example, if you refer to the transmittal letter included in the May 10, 2017 submission referenced in your comment (identified on the docket as "Transmittal for MVP data responses 5-10-17"), you will see that it provides the index that your comment requests. If an attachment exceeds the FERC eLibrary's 50 MB limit, the file has to be broken into smaller documents. In that case, each file is named the same with a sequential number at the end (e.g., "Part 1 of 7"). Appendices are attached to each respective document. While there may be multiple "Appendix A," for example, each appendix is associated with a report.

2. Methodology for Criteria of Effects Assessment

Mountain Valley strongly disagrees with the characterization of its Criteria of Effects Assessment methodology as "minimalist." As detailed below, the comprehensive, multi-step methodology employed for the assessment was developed by a team of experts (Tetra Tech) in accordance with the Virginia Department of Historic Resources (DHR)'s guidance and in consultation with DHR's staff.

Mountain Valley met with DHR staff at DHR's office in Richmond on November 15, 2016, to discuss Mountain Valley's progress in implementing the tools of analysis described in the "*Methods for Historic Architecture Criteria of Effects Assessment for Virginia*" (Methods). At the meeting, Mountain Valley acknowledged that due to the fact that visual effects cannot be quantitatively measured and may not harm the elements of a historic property in a physical manner, assessing visual effects on historic properties relies primarily on subjective analysis. As such, Mountain Valley noted that the Methods were designed to employ quantifiable tools of analysis when at all possible. Furthermore, Mountain Valley noted that in accordance with DHR's guidelines for *Assessing Visual Effects to Historic Properties*, Task 3 of the visual effects

assessment considers properties' historic significance and aspects of integrity. The guidelines state:

> *…it is possible to remove much of the bias from the process by gaining knowledge about the historic property visually affected. An historic property is affected when its historic integrity, that is, those characteristics that convey a resource's significance, has been diminished. Therefore, determining why a property is significant and understanding what characteristics make it so are essential to assessing visual effects.*
>
> *http://www.dhr.virginia.gov/pdf_files/Assessing_Visual_Effects_JUN10.pdf*

It should also be noted that, in accordance with these guidelines, the Criteria of Effects assessment considered Mountain Valley's visual effects to historic properties. For individual National Register of Historic Places-eligible (NRHP) or listed properties, Mountain Valley simulated views from the historic properties towards the pipeline and associated facilities. For NRHP-eligible or listed historic districts, Mountain Valley simulated views from both primary contributing resources and from publicly accessible arterial thoroughfares towards the pipeline and associated facilities. These efforts accounted for visual effects to not only individual resources that contribute to the districts' historic significance, but also for visual effects as experienced by someone traveling through the districts. The guidelines state:

> *…it is necessary to evaluate the changes and alterations the new feature will introduce, physically and visually, to the historic property.*
>
> *Once photo-simulations are available to provide an accurate understanding of how much of a new facility will be visible from a historic property and from where, one may then begin to assess the visual effect that the undertaking will have on the resource.*

DHR requested that Mountain Valley submit the reporting for the results of the impact analyses in phases according to the respective task numbers outlined in the Methods. As Tasks 1 through 3 involved the elimination of resources from further assessment based on visual impact analysis and consideration of historic significance and aspects of integrity, this phased approached to reporting assured DHR the opportunity to comment on the historic properties considered by Mountain Valley at each level of assessment.

As noted in DHR's July 7, 2017, letter regarding Mountain Valley's *Criteria of Effects Report*:

> *In coordination with DHR, consultants from Tetra Tech developed a phased approach to evaluate potential visual effects from the Mountain Valley project on the 188 architectural properties identified as being within the project Area of Potential Effects (APE). At each successive step, Tetra Tech, in consultation with DHR, was able to eliminate from further visual effect analysis all but nine (9) historic properties.*

3. Key Observation Point (KOP) Selection Process for Historic Districts

The KOPs were not arbitrarily chosen. They were determined by application of a documented selection process applying clearly stated criteria and in consultation with relevant expert agencies. A desktop review resulted in the selection of publicly accessible KOPs at locations within the historic districts, determined in previous steps of assessment to have a view of the Project, for field data collection and, ultimately, photograph simulation. The selection of KOPs from arterial thoroughfares within the historic districts was requested by DHR staff during the November 15, 2016, meeting between DHR and Mountain Valley at DHR offices in Richmond, Virginia**.** Maps depicting these selected KOPs were provided to DHR for review and comment January 10, 2017, prior to photographic simulation production; DHR provided no comments to Mountain Valley on the selected KOPs.

The proposed Coles-Terry Rural Historic District is very different in terms of its land cover than the other historic districts crossed by Mountain Valley's proposed route as it is very densely forested. The low number of publicly accessible rights-of way in proportion to the approximately 2,500-acre district boundary, combined with the heavily forested terrain, inherently reduces the number of KOPs from which project features would be visible.

KOPs for the Appalachian Trail Historic District and Blue Ridge Parkway Historic District were chosen in consultation with the US Forest Service (USFS) and the National Park Service (NPS) as part of the Visual Impact Analysis (VIA) Mountain Valley provided to those agencies. It is anticipated that the USFS and NPS will provide comments regarding visual impacts on these historic districts.

4. Consideration of Landscape (or the "spaces between") in Criteria of Effects Assessment for Historic Districts

As explained in Chapter 3 of the *Criteria of Effects Report*, the interpretation the photo simulations produced for each district first required the identification of character-defining features of the landscape and an analysis of historic and current land use (landscape integrity), particularly as it pertains to historic districts qualifying as rural historic landscapes. As such, the scope of Task 4 was expanded as the Methods were implemented. The photo simulations were utilized in conjunction with other tools of analysis for a multi-dimensional assessment of direct and indirect impacts on the built environment and surrounding landscape.

Your letter's characterization of this approach as arbitrary and capricious is unwarranted. No generally accepted methodology existed for evaluating the visual effects of a buried natural gas pipeline on an entire historic district, and therefore Mountain Valley had to develop one in consultation with DHR. The chosen methodology—evaluating visual impacts on each district by analyzing a reasonable number of vistas and KOPs throughout the district—represents a practical approach to cataloging such impacts and providing a reasonable basis upon which to determine if those impacts singly or collectively rise to a level of significance.

5. DHR Consultation and Guidance

Mountain Valley's consultation with DHR is thoroughly documented in the *Criteria of Effects Report* and specific aspects of that consultation and related guidance received from DHR in regards to your specific concerns are highlighted in #2 through #4 above. Consultation between Mountain Valley and DHR related to the approach, methods, and results of the Criteria of Effects assessment is summarized below.

Discussed at a January 12, 2016, meeting between Mountain Valley and DHR staff were approaches to the Criteria of Effects assessment. At that meeting, visual effects were identified as having the potential to impact the largest number of historic properties because of the aerial extent of the area of potential effect (APE) related to visual effects. Other effects, including those directly related to construction or post-construction operation of Mountain Valley, were recognized as possible but much more limited in geographical scope.

During a telephone conversation August 8, 2016, between DHR staff and Mountain Valley, DHR requested that Mountain Valley compile a list of known NRHP-eligible and -listed historic architectural resources within the direct and indirect APE in Virginia to be submitted to DHR together with a scope for the evaluation of potential impacts on historic resources in the list. Following the meeting, Tetra Tech developed the Methods that was submitted to the DHR for review and comment on September 22, 2016. A list of known NRHP-eligible and -listed historic architectural resources within the Project's direct and indirect APE in Virginia (Master List) was submitted as Appendix 1 to that document.

On October 19, 2016, DHR indicated that it "supports the methods presented in the document" prepared by TetraTech and further noted that the Master List "appears complete based on the studies to date." MVP met with DHR staff at DHR offices in Richmond on November 15, 2016, to discuss MVP's progress in implementing the tools of analysis described in the Methods. At the meeting, DHR requested that MVP submit the reporting for the results of the impact analyses in phases according to the respective task numbers outlined in the Methods. As Tasks 1 through 3 involved the elimination of resources from further assessment based on visual impact analysis and consideration of historic significance and aspects of integrity, this phased approached to reporting assured DHR the opportunity to comment on the historic properties considered by MVP at each level of assessment.

The results of Task 1 were summarized in a report submitted to DHR January 9, 2017. DHR responded to Tetra Tech by letter on February 9, 2017, indicating that, as previously agreed upon, it "approves of this approach to refine the indirect APE and consider the effects of the MVP project on only those architectural resources that will have a demonstrated view of the new pipeline, associated facilities, and vegetative clearing along the corridor." In the letter, DHR requested additional clarification in regards to the seasonal coverage of the National Land Cover Dataset (NLCD). DHR noted that results could be different depending on the season the data depicts and indicated that fall and winter information represents a "worst case scenario" and recommended this to be "the most appropriate data set to use." Tetra Tech provided clarification regarding this

issue in the subsequent Tasks 2 and 3 summary report on page 5 in the section entitled, "Task 2: Viewshed and Viewpoint Analysis: Step 1- Viewshed Analysis." Tasks 2 and 3 were submitted in one package to DHR February 15, 2017, and were accepted by DHR by letter dated March 22, 2017.

DHR responded to Tetra Tech by letter on March 22, 2017, confirming that "After implementing Tasks 1, 2, and 3 of the agreed upon methodology for the viewshed and viewpoint analysis, Tetra Tech eliminated all but nine (9) NRHP-eligible or listed properties from further study under Task 4." In that correspondence, DHR concurred that the historic properties identified by Tetra Tech as requiring additional analysis are Newport Historic District (035-0151), Greater Newport Rural Historic District (035-0412), Cemetery (035-0412-0465), Big Stony Creek Historic District (035-5127), North Fork Valley Rural Historic District (060-0574), Barn (060-0574-0125), Bent Mountain Rural Historic District (080-5677), Cabin (080-5677-0006), and Coles-Terry Rural Historic District (080-5689). DHR stated that "Based on the information provided, DHR concurs with the consultant's recommendation that these nine (9) properties warrant further study under Task 4 of the established viewshed and viewpoint analysis."

At a meeting held on March 27, 2017, Mountain Valley discussed the status of the project and the plan for completing Task 4 of the visual effects assessment and other effects assessments, including construction-related and operation-related effects. Mountain Valley cultural resources staff explained the manner in which Task 4 had evolved as the evaluation process was implemented. MVP noted that the Methods as agreed upon by DHR in October 2016 largely focused on visual impacts, but the photo simulations in Task 4 became only one of many tools of analysis in order to assess direct and indirect impacts on the built environment and the historic landscape, specifically as it pertains to historic districts qualifying as rural historic landscapes.

Mountain Valley and DHR agreed at this meeting that a comprehensive report would be created that would include the previously reviewed Tasks 1, 2, and 3 documentation as well as the Task 4 results and additional assessment of effects related to construction and operation of the proposed Mountain Valley facilities. Mountain Valley submitted the comprehensive *Criteria of Effects Report* on May 15, 2017.

DHR provided comments on the comprehensive report in a July 7, 2017 letter. In that letter DHR found that:

> *Based on the submitted analyses, DHR agrees with the consultant that the expected visual (indirect) impacts from Mountain Valley on the Newport Historic District, Greater Newport Rural Historic District, Big Stony Creek Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District do not significantly diminish those characteristics which make them eligible for listing in the NRHP…DHR believes that the indirect visual effects of the Project will significantly diminish and adversely affect the feeling and setting of the North Fork Valley Rural Historic District.*

> *…the Greater Newport Rural Historic District, Big Stony Creek Historic District, North Fork Valley Rural Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District will be adversely affected by Mountain Valley bisecting them and leaving a permanent fifty-foot wide imprint on their landscapes. This condition is incompatible with the existing rural character of the districts, which derive much of their historic significance and NRHP-eligible status from that very agrarian setting and feeling the undertaking will diminish. The adverse effect to the five historic districts will require mitigation to be determined through future consultation with DHR and other stakeholders and memorialized in the Programmatic Agreement (PA) for the undertaking.*

DHR, in its review of the *Criteria of Effects Report*, disagreed with Mountain Valley's consultant's recommendation of no adverse effect to five historic districts crossed by the proposed Project (Big Stony Creek Historic District, Greater Newport Rural Historic District, North Fork Rural Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District); however, DHR did not disagree with the methods employed to complete the effects assessment.

DHR's thorough review of Mountain Valley's submittals assures that the impacts of the proposed Project have been appropriately identified and addressed through the Section 106 process.

6. Effect on Aquatic Features Contributing to Historic Integrity

As noted in the *Criteria of Effects Report*, a rural historic landscape is defined in the U.S. Department of Interior (DOI), NPS' Guidelines for the Documentation and Evaluation of Rural Historic Landscapes (Revised 1999) as:

> *a geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features.*

Natural features such as streams and rivers can play a key role in defining rural historic district boundaries and can play in role in conveying a district's historic significance. Mountain Valley acknowledges that it is possible that the NRHP-eligible Coles-Terry Rural Historic District contains numerous aquatic resources that contribute to the district's historic significance or that help define the district's recommended NRHP boundary.

Mountain Valley does not agree, however, that the project would affect how these aquatic resources convey their historic association or relationship with the district. Stream crossing techniques and best management practices are governed by stringent federal and state requirements, including permits and approvals issued or expected to be issue by the FERC, U.S. Army Corps of Engineers (USACE), DEQ, and, for some streams, the Virginia Marine Resources Commission. Among other things, these requirements ensure that the erosion and sedimentation of streams is minimized and that stream bed and banks are restored to their pre-construction contours immediately following construction. All streams and wetlands throughout the entire pipeline route must be surveyed and delineated (subject to federal and state review and approval),

including the unmapped and unnamed tributaries that do not appear on topographic maps, and none may be impacted without a permit from the USACE and/or DEQ. There is no reasonable basis for your comment's assertion that the pipeline's crossing of aquatic resources would adversely affect the district's integrity of location, design, setting, materials, workmanship, feeling, and association.

7. Potential Impacts to Blue Ridge Parkway Historic District

Mountain Valley strongly disagrees with your characterization of the project as having "dire impacts" to the Blue Ridge Parkway Historic District directly and/or indirectly through impacts to the Coles-Terry Historic District and Adney Gap.

a. Measures to Avoid and Minimize Permanent Impacts to the Blue Ridge Parkway Historic District

The pipeline as proposed would cross the Blue Ridge Parkway Historic District in Roanoke County, Virginia close to Adney Gap. In May 2014, Mountain Valley performed a detailed analysis of potential routes for the Project, including multiple potential crossing locations for the Blue Ridge Parkway (BLRI) and the Blue Ridge Parkway Historic District that comprises it. The analysis studied 94 corridor segments, including 2,362 miles of potential alternative routes. There are no routes from the origination of the pipeline to its terminus that would avoid crossing the BLRI. The proposed location is the only feasible location to cross the BLRI within relatively flat, non-forested, open land, thereby minimizing tree clearing and other construction disturbance on or near the BLRI and, in turn, the area of Adney Gap.

Mitigation measures and Best Management Practices (BMPs) would be applied individually and combined to reduce or eliminate impacts and were considered in cooperation with and guided by on-site meetings with a representative from the NPS on December 14, 2016. These measures would minimize visual change where Mountain Valley crosses the BLRI close to Adney Gap. The mitigation measures that Mountain Valley proposes to implement are:

- The right-of-way would be feathered in selected forested areas visible from managed vistas to reduce the contrast of the right-of-way and ensure that vegetative openings appear more natural and in conformance with the natural form, line, color, and texture of the existing landscape;

- The project would cross the BLRI at a perpendicular angle to ensure the shortest duration of view for the crossing;

- The project would use conventional bore methods to construct the pipeline under the parkway itself, ensuring there would be no disruptions to the traffic flow along the BLRI;

- The project's alignment has been sited to conform to the natural lines in the landscape including crossing the BLRI in an open pasture landscape;

• The disturbed area of the right-of-way would be restored in accordance with Project Specific Standards and Specifications and site-specific Erosion and Sediment Control Plans approved by the Virginia Department of Environmental Quality (DEQ). Contrary to your comments about the creation of compacted "grassy highway" through the farm fields of Adney Gap that will never be returned to its previous condition, the Standards and Specifications require that the disturbed area (except for cultivated cropland) would be returned to its original contours; the topsoil would be replaced; the subsoil and topsoil will be disced to avoid compaction (and subsequently tested to ensure soil compaction conditions match pre-construction conditions); native seed mixes developed in consultation the Wildlife Habitat Council, Virginia Department of Conservation and Recreation, U.S. Fish and Wildlife Service, and U.S. Forest Service, and approved by DEQ, would be applied; mulch would be added to protect the seed and soil; and the area would be monitored to ensure that the vegetation is established. Cultivated croplands would be returned to their prior cultivated uses;

• Mountain Valley would narrow the temporary construction right-of-way to 75 feet for an approximate distance of 75 feet, which would reduce visual impacts from tree clearing. Mountain Valley plans to take a permissive approach to requests for co-location of other utilities' infrastructure, as demonstrated by Mountain Valley's recent position regarding a request for co-location of Appalachian Electric Power's proposed buried 34.5-kV electric utility line. With moderate and low visual impacts as well as the implementation of the mitigation measures and BMPs listed above, the Project would not result in significant visual impacts on visual resources on the BLRI or Adney Gap.

b. Use of Herbicide in Pipeline Corridor Visible from Blue Ridge Parkway Historic District

Mountain Valley would not utilize herbicides or pesticides to control vegetation within the pipeline corridor unless requested to do so by a state or federal agency. No agency has requested the use of herbicides or pesticides within the vicinity of Adney Gap. Your assertion that farmers using Adney Gap for cattle grazing will erect fencing to protect their cattle and/or cease their use of these pastures due to herbicide use is unfounded.

c. Impacts to Coles-Terry Rural Historic District Potentially Affecting the Blue Ridge Parkway Historic District

Mountain Valley disagrees with your characterization that construction within the Coles-Terry Rural Historic District "will drastically alter the appearance of Poor Mountain," thereby affecting the integrity of the Blue Ridge Parkway Historic District. Mountain Valley also disagrees unfounded statements that the Hill Studio simulation reproduced in your letter is a high-quality visualization and the corresponding Tetra Tech simulation is a low-quality image. The visual simulations that Mountain Valley has provided in its filings were prepared by Tetra Tech according to accepted industry standards for developing visually accurate simulations. The methods used to prepare the simulations presented in the Visual Impact Assessment (VIA) for the Blue Ridge

Parkway, including details regarding right-of-way (ROW) width and vegetative cover conditions, are disclosed in the document. Mountain Valley has reviewed the simulation products prepared by Hill Studio, but to Mountain Valley's knowledge neither Hill Studio nor the organizations that have presented those simulations have disclosed the specific methods that Hill Studio used to prepare its simulations.

Review of the Hill Studio simulation for Poor Mountain Overlook indicates that it displays an exaggerated and inaccurate right-of-way width. Mountain Valley proposes to use a 50-foot-wide permanent right-of-way for the project in this location, and that specification was used in the Tetra Tech simulation for the Poor Mountain Overlook (see the BLRI VIA, Appendix D, KOP 49). The Tetra Tech and Hill Studio simulations both show the existing view from that overlook, in which an existing transmission line corridor is a prominent feature. The existing transmission line corridor includes two high-voltage powerlines on lattice-steel towers, and the cleared corridor is over 200-feet-wide. Based on the comparative size of the existing transmission corridor and the two simulated images for the project right-of-way, the Hill Studio simulation appears to depict a right-of-way at least 150-feet-wide. Therefore, the Hill Studio simulation depicts an MVP right-of-way that is three times wider than what Mountain Valley has proposed.

The Hill Studio simulation also does not accurately show the visual condition of the right-of-way after the MVP Project has been constructed. As stated in the VIA (page 6) and discussed in Response 7.a above, the simulation provided by Mountain Valley displays how the project right-of-way would appear in the long term, based on use of site-specific reclamation techniques such as replanting the disturbed area with native seed mixtures). Although Hill Studio has not disclosed how it prepared its simulation for Poor Mountain, it is likely that the studio simply transferred the color and texture of the existing transmission line corridor to the project right-of-way. Mountain Valley has not investigated the right-of-way maintenance practices employed on the existing transmission line corridor, but we do know what reclamation practices we have proposed for the project and are confident that the Tetra Tech simulation accurately depicts the future appearance of the MVP right-of-way.

Finally, Mountain Valley disagrees strongly with the incorrect assertion in the comment that "Tetra Tech's dismissive statement that the MVP pipeline corridor, as viewed from the Poor Mountain Overlook, would blend in visually with other utility corridors on Poor Mountain is egregiously untenable." The actual statements in the BLRI VIA (page 12) regarding the conditions at the Poor Mountain Overlook include the following:

> *Parallel electric transmission lines and the associated ROW crossing a ridge in the middleground introduce a prominent element of the view, and several communication towers that are visible create vertical human-made elements.*
>
> *Although the Project ROW is visible in the simulation, the existing electric transmission ROW would create a co-dominant relationship with the Project pipeline within this view.*

Based on the current landscape conditions, including the existing modifications of the natural landscape that are prominent features, the existing scenic quality for this location was rated as Class C. Tetra Tech did not state that the MVP right-of-way would "blend in visually" with other utility corridors, but rather stated that the project would be co-dominant with the transmission line corridor. More to the point, it should be apparent that existing evidence of industrialization has already affected the scenic integrity of the view from Poor Mountain Overlook, and the incremental visual effects of the MVP Project would be limited.

Mountain Valley appreciates this opportunity to provide responses to your comments. If additional clarification is needed, you may contact me by telephone at (724) 873-3645 or by e-mail at mneylon@eqt.com if you have questions.

Thank you for your attention.
Sincerely,

Megan E. Neylon
Senior Environmental Coordinator

cc: Mr. Roger Kirchen, DHR

COMMONWEALTH of VIRGINIA

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July 7, 2017

Ms. Megan L. Neylon
Mountain Valley Pipeline
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222

Re: *Mountain Valley Pipeline Project: Criteria of Effects Report, Giles, Craig, Montgomery, Roanoke, Franklin, and Pittsylvania Counties, Virginia* (May 2017)
DHR File No. 2014-1194; FERC Docket No. CP16-10

Dear Ms. Neylon:

The Department of Historic Resources (DHR) has received for review and comment the study referenced above prepared by Tetra Tech for Mountain Valley Pipeline, LLC (MVP) and the Federal Energy Regulatory Commission (FERC). This document and six volumes of supporting appendices summarize the activities completed to date under the federal Section 106 review process and present an assessment of effects for those architectural properties along the 107-mile project corridor located in Virginia that are listed in, eligible for listing, or treated as eligible for listing in the National Register of Historic Places (NRHP). The FERC in its Final Environmental Impact Statement acknowledges the recommendations of this study, but withholds final comments regarding effects to architectural properties pending these comments from DHR.

In coordination with DHR, consultants from Tetra Tech developed a phased approach to evaluate potential visual effects from the MVP project on the 188 architectural properties identified as being within the project Area of Potential Effects (APE). At each successive step, Tetra Tech, in consultation with DHR, was able to eliminate from further visual effect analysis all but nine (9) historic properties. These nine historic properties are: Newport Rural Historic District (DHR ID #035-0151), Greater Newport Rural Historic District (DHR ID #035-0412), Cemetery (DHR ID #035-0412-0465; contributing resource to Greater Newport Rural Historic District), Big Stony Creek Historic District (DHR ID #035-5127), North Fork Valley Rural Historic District (DHR ID #060-0574), Barn (DHR ID #060-0574-0125; contributing resource to North Fork Valley Rural Historic District), Bent Mountain Rural Historic District (DHR ID #080-5677), Cabin (DHR ID #080-5677-0006; contributing resource to Bent Mountain Rural Historic District), and Coles-Terry Rural Historic District (DHR ID #080-5689). It should be noted that in addition to these nine resources there are 13 properties subject to effects analysis pursuant to requests from the National Park Service (NPS) and the United States Forest Service (USFS), as they fall within these two federal agencies' jurisdictions. Our understanding is that NPS and USFS will consult directly with DHR on these 13 properties.

For the final, Step 4, visual analysis Tetra Tech prepared photographic simulations at Key Observation Points (KOP) taken from the architectural properties and important publicly accessible arterial transportation routes

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within the historic districts toward the MVP corridor. The consultants then evaluated the visibility of the project from the selected KOP, taking into consideration those qualities which make each historic property significant, and interpreted the pipeline's anticipated visual impacts to those characteristics which make each historic property eligible for listing in the NRHP. After concluding its Step 4 analyses Tetra Tech recommends that the MVP project will not indirectly, through visual impacts, adversely affect the six (6) historic districts located within the APE. These recommendations are summarized in Table 4.1-5 "Task 4-Step 4 Results" on page 32, Volume 1 of the report. It must be noted that only the six historic districts are addressed in this table and, it appears, were the only properties subjected to the Step 4 evaluation. The three individual properties identified during Step 3 to be advanced to Step 4, Cemetery (DHR ID #035-0412-0465), Barn (DHR ID #060-0574-0125), and Cabin (DHR ID #080-5677-0006), were not assessed for visual effects and must be assessed using the Step 4 methodology as previously agreed upon.

Based on the submitted analyses, DHR agrees with the consultant that the expected visual (indirect) impacts from the MVP on the Newport Rural Historic District, Greater Newport Rural Historic District, Big Stony Creek Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District do not significantly diminish those characteristics which make them eligible for listing in the NRHP (direct effects to these districts are discussed below). We disagree, however, that this is the case for the North Fork Valley Rural Historic District. The photo-simulations taken from the major publicly accessible arterial transportation route at KOP NFV-01 and KOP NFV-02 clearly demonstrate that a long stretch of the MVP right-of-way will be visible as it descends a ridge line. At these KOPs an associated access road will also constitute a new and prominent feature on the historic landscape visible by those traveling along the primary roadway. We believe that the indirect visual effects of the project will significantly diminish and adversely affect the feeling and setting of the North Fork Valley Rural Historic District.

In addition to the Step 4 analysis for visual effects the document also evaluates the undertaking's direct impacts to historic properties, as well as other indirect implications, such as those caused by noise and vibration, which will occur during short-term temporary construction work and permanent operation. Thirty-three architectural properties identified within 500 feet on either side of the MVP Limit of Disturbance (LOD) centerline, or within 100 feet of the LOD for access roads, were subjected to noise and vibration analysis. This analysis determined that for only two properties, Link Farm (DHR ID #035-0412-0244; contributing resource to Greater Newport Rural Historic District) and a c.1934 Craftsman-style Bungalow (DHR ID #033-5325), did the expected noise level exceed local noise ordinances, and only during temporary access road construction. The DHR believes that any indirect impacts to historic properties due to increased noise levels will occur largely during construction activities and be temporary in nature. More at issue, however, are the short distances between Link Farm (30 feet) and 033-5325 (32 feet) to planned access roads. It is our opinion that additional study is need regarding any possible direct or visual effects from the planned access roads' on these two historic properties. Please provide site plans showing the relationship of the proposed access roads to Link Farm and 033-5325, as well as photo-simulations illustrating the appearance of the access roads from these historic properties.

With respect to vibration impacts, there are four historic properties located near areas of probable blasting. These four properties are Cemetery (DHR ID #035-0412-0465; contributing resource to Greater Newport Rural Historic District), Barn (DHR ID #060-0574-0125; contributing resource to North Fork Valley Rural Historic District), Doe Creek Farm/Hoge's Orchard (DHR ID #035-0018), and Clear View Dairy Farm (DHR ID #033-5304). If blasting is required the consultant recommends utilizing "restricted charge sizes in order to comply with the blast vibration and airblast damage limits" (Appendix K: Historic Resources Noise and Vibration Report, page 10). The DHR agrees with this recommendation. We also agree with the

recommendations for the 11 historic properties found in Table 6: Predicted Vibration Due to General Construction Activities on page 15 of Appendix K.

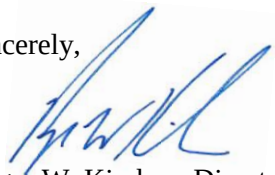
Activities associated with the routine operation of the MVP were also evaluated for their potential effects to historic properties in the APE. These operational-related activities will be limited primarily to the maintenance of the 50-foot pipeline right-of-way, and are not anticipated to pose much of a hazard to architectural properties. We agree that this is the case and believe that there is little potential for right-of-way maintenance to affect historic architectural properties.

The report's Appendix E: Master List summarizes in chart format the consultant's recommendations on the potential for the MVP project to affect historic properties within the project APE visually (Master List Part 2), by construction-related activities (Master List Part 3), and through operational-related events (Master List Part 4). The DHR, with the few exception already noted above and those that will be discussed below, concurs with the recommendations from the consultant summarized in Appendix E.

Direct effects on historic architectural properties from the MVP are confined to those historic districts through which the project crosses, namely Greater Newport Rural Historic District, Big Stony Creek Historic District, North Fork Valley Rural Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District. This list excludes the historic properties under the jurisdiction of NPS and USFS, which, as mentioned above, will be addressed separately by those agencies. It also does not include the Newport Historic District as the MVP alignment does not physically impact this resource. For the five (5) historic districts through which the pipeline crosses the consultant recommends that the undertaking will have no adverse effect. The DHR disagrees with this assessment. It is our opinion that the Greater Newport Rural Historic District, Big Stony Creek Historic District, North Fork Valley Rural Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District will be adversely affected by the MVP bisecting them and leaving a permanent fifty-foot wide imprint on their landscapes. This condition is incompatible with the existing rural character of the districts, which derive much of their historic significance and NRHP-eligible status from that very agrarian setting and feeling the undertaking will diminish. The adverse effect to the five historic districts will require mitigation to be determined through future consultation with DHR and other stakeholders and memorialized in the Programmatic Agreement (PA) for the undertaking. The PA will also address any additional cultural resource surveys and determinations of effect that may be outstanding due to pending right-of-way acquisitions.

DHR has been notified by several consulting and interested parties of their concerns regarding the validity and results of this analysis. In two instances, it is argued that line-of-sight considerations were made from incorrect locations. Others argue that the selected KOPs are insufficient to fully assess effects. We recommend that MVP and FERC review all comments received on the Criteria of Effects report and address any errors or omissions. If you have any questions regarding these comments, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,



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May 20, 2015

Ms. Sydne B. Marshall, Ph.D., RPA
Tetra Tech
1000 The American Road
Morris Plains, NJ 07950

Re: Mountain Valley Pipeline Project
Indirect Area of Potential Effects and Unanticipated Discoveries Plan
Giles, Montgomery, Roanoke, Franklin, and Pittsylvania Counties, Virginia
DHR File No. 2014-1194

Dear Ms. Marshall:

We have received for review the documents referenced above prepared by Tetra Tech for Mountain Valley Pipeline, LLC. Our comments are provided as assistance to FERC and its applicant in satisfying their collective responsibility pursuant to Section 106 of the National Historic Preservation Act.

We find that the revised *Area of Potential Effects (APE) for Indirect Effects* (April 2015) accurately reflects previous consultation and DHR concurs that the Indirect APE is appropriately defined. Likewise, we find that the *Plan for Unanticipated Historic Properties and Human Remains* (April 2015) adequately addresses our previous comments and DHR accepts the plan.

Thank you for your thoughtful revision to these documents. Should you have any questions regarding these comments or our review of this project, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,

Roger W. Kirchen, Director
Review and Compliance Division

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Dye, Hannah

From: Kirchen, Roger (DHR) <Roger.Kirchen@dhr.virginia.gov>
Sent: Wednesday, October 19, 2016 2:48 PM
To: Marshall, Sydne; Holma, Marc (DHR)
Cc: Eggerding, Matthew; Neylon, Megan; Sparks, Sean; Marine, James; Dye, Hannah
Subject: RE: MVP VA Effects Methods-REVISED

DHR supports the methods presented in the document "Methods for Historic Architecture Criteria of Effects Assessment for Virginia" prepared by TetraTech dated September 2016. The master list of affected properties appears complete based on the studies to date.

_____

Roger W. Kirchen, Director
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http://www.dhr.virginia.gov/50NHPA/50thindex.htm

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August 25, 2017

Mr. Roger Kirchen
Virginia Department of Historic Resources
Division of Review and Compliance
2801 Kensington Avenue
Richmond, VA 23221

Subject: **Mountain Valley Pipeline Project**
Re: **Mountain Valley Pipeline Project: Criteria of Effects Report, Giles, Craig, Montgomery, Roanoke, Franklin, and Pittsylvania Counties, Virginia (May 2017)**
DHR File No. 2014-1194; FERC #CP16-10

Dear Mr. Kirchen:

Mountain Valley Pipeline, LLC (MVP), a joint venture between affiliates of EQT Midstream Partners, LP, NextEra Energy, Inc., Con Edison Midstream Gas, LLC, WGL Holdings, Inc., and RGC Midstream LLC, is pleased to provide clarification in response to your comments regarding Criteria of Effects assessments for the Mountain Valley Pipeline Project. We appreciate your comments and recommendations in your letter dated July 7, 2017, regarding *Mountain Valley Pipeline Project Criteria of Effects Report for Giles, Craig, Montgomery, Roanoke, Franklin, and Pittsylvania Counties, Virginia (Criteria of Effects Report).*

Provided herein are MVP's responses to your requests which are numbered 1 through 4 below.

1. **There are 13 properties subject to effects analysis pursuant to requests from the National Park Service (NPS) and the United States Forest Service (USFS), as they will fall within these two federal agencies' jurisdictions. Our understanding is that NPS and USFS will consult directly with the DHR on these 13 properties.**

The NPS will consult directly with the DHR on the seven properties under its jurisdiction. These seven properties were addressed in a report titled *Mountain Valley Pipeline Project Criteria of Effects Report Addendum 1: Historic Architectural Resources under National Park Service Jurisdiction Franklin, Roanoke, and Floyd Counties, Virginia,* a copy of which was provided to your office June 1, 2017.

MVP evaluated the location of the remaining six properties to determine if they within the boundaries of the Jefferson National Forest. Only one property— the Appalachian Trail Historic District—is located within the bounds of the Jefferson National Forest. The USFS will consult directly with the DHR on effects related to the proposed project and the Appalachian Trail Historic District. The remaining five properties are located on private lands and MVP's consultants have

analyzed the effects of the proposed project and provided the results of this analysis to your office in a report titled *Mountain Valley Pipeline Project Phase I Survey Supplemental Information and Criteria of Effects Report: Addendum 2*, submitted to your office for review July 5, 2017.

2. **The three individual properties identified during Step 3 to be advanced to Step 4, Cemetery (DHR ID #035-0412-0465), Barn (DHR ID #060-0574-0125), and Cabin (DHR ID #080-5677-0006), were not assessed for visual effects and must be assessed using the Step 4 methodology as previously agreed upon.**

As requested, the results of Task 4 assessment for Barn (DHR ID #060-0574-0125) is provided as Attachment 1. A temporary access road and pipeline right-of-way would be visible northeast of the Kraft barn. The access road would be located within an open pasture field at the location of an existing tractor path; no tree-clearing would be required. The temporary access road location would be restored to pre-construction conditions post-construction. Likewise, vegetation removal that would occur through an open pasture field for the pipeline construction right-of-way would also be restored to pre-construction conditions post-construction. As such, it is recommended that the Project would result in No Adverse Effect to this resource.

The Master List, provided as Attachment 2, has been updated to reflect the additional Task 4 assessment for Barn (060-0574-0125).

MVP attempted to gain access to the properties containing Cemetery (DHR ID #035-0412-0465) and Cabin (DHR ID #080-5677-0006) in order to produce full photo simulations; however, permission to reenter or to access these properties has not yet been granted. MVP will provide full photo simulations for Cemetery (DHR ID #035-0412-0465), Cabin (DHR ID #080-5677-0006), and Henry-Waldron Cemetery (080-5690) when property access is granted.

3. **It is our opinion that additional study is need regarding any possible direct or visual effects from the planned access roads' on these two historic properties. Please provide site plans showing the relationship of the proposed access roads to Link Farm and 033-5325, as well as photo-simulations illustrating the appearance of the access roads from these historic properties.**

Site plans showing the relationship of the proposed access roads to Link Farm (035-0412-0244) and House at Windswept Lane (033-5325), as well as photo simulations illustrating the appearance of the access roads from these historic properties are provided as Attachment 3. A summary of the site plans and photo simulations for these resources and the resulting expected direct and indirect effects, as they relate to the Project's proposed access roads, is provided below.

Link Farm (035-0412-0244)

The permanent access road located in proximity to the Link Farm would follow an existing dirt tractor path. The path would be temporarily widened to 40 feet and surfaced with gravel. The permanent access road would be reduced to 25 feet; the gravel surface would be maintained within the 25-foot-wide permanent road. The remaining 15 feet would be restored to original conditions.

Direct Effects

As noted in the *Criteria of Effects Report*, due to the resource's proximity to the proposed permanent access road, a pre-construction survey will be conducted by a qualified structural engineer and qualified architectural historian. Construction equipment necessary for vibration-intensive activities in proximity to the resource would be selected based on the results of the pre-construction survey. On the basis of the screening threshold distances identified, precautionary restrictions such as limiting the number of pieces of construction equipment operating in proximity to the building at one time would be implemented. Impacts are not anticipated due to the precautionary restrictions MVP would implement; however, should impacts such as foundation cracking or settlement occur, MVP would work to address and resolve complaints regarding the construction and/or operation of the Project in a timely manner. A qualified architectural historian would be involved in the complaint resolution process.

At the Link Farm, sound levels due to access road construction would likely exceed the Federal Transit Administration (FTA) 8-hour sound levels. These would be small exceedances related to the proximity of the property to the access road. The access road construction would take only a few days and would occur only during daytime hours. Periodic maintenance of the access road would also be required. Due to the very short-term, daytime-only nature of the access road construction and maintenance noise, no specific noise mitigation is planned.

However, MVP construction personnel would maintain close contact with the residents of this property during all pipeline construction activities. If excessive noise or dust is reported by the residents during access road construction or during its period of use during pipeline construction, then temporary mitigation may be offered to the residents. Furthermore, right-of-way personnel will closely monitor safety hazards during construction and will address any safety concerns raised by the residents of this property.

Indirect Effects

A permanent access road leading to the pipeline right-of-way would be visible from this viewpoint in the immediate foreground, but would be largely screened by vegetation. Vegetation clearing, associated with widening an existing tractor path for the construction of the permanent road, would be visible where the road crosses over a hill adjacent to Link Farm. The permanent access road would consist of a gravel surface. As the permanent access road follows an existing tractor path and the view of the widened graveled road from the Link Farm residence would largely be screened by vegetation, the photo simulation for this resource received a rating of "Inferior." In turn, it is recommended that this permanent access road would result in No Adverse Effect.

House at Windswept Lane (033-5325)

The permanent access road located adjacent to the House at Windswept Lane would follow an existing gravel driveway (an abandoned historic-era rural route that crosses the property) and an existing farm lane/tractor path. The existing gravel driveway and path would be temporarily widened to 40 feet and surfaced with gravel during construction. The permanent access road would be reduced to 25 feet; the gravel surface would be maintained.

Direct Effects

At the Windswept Lane House, sound levels due to access road construction would likely exceed the FTA 8-hour sound levels. These would be small exceedances related to the proximity of the property to the access road. The access road construction would take only a few days and would occur only during daytime hours. Periodic maintenance of the access road would also be required. Due to the very short-term, daytime-only nature of the access road construction and maintenance noise, no specific noise mitigation is planned.

MVP construction personnel would maintain close contact with the residents of this property during all pipeline construction activities. Access to the property would be maintained during construction. If excessive noise or dust is reported by the residents during access road construction or during its period of use during pipeline construction, then temporary mitigation may be offered to the residents. Furthermore, MVP construction personnel would closely monitor safety hazards during construction and would address any safety concerns raised by the residents of this property.

It should be noted that MVP explored an alternate route for the proposed access road. MVP's cultural resources consultants met with the landowners on July 14, 2016, to confirm the route of the existing historic-era road traces and to discuss the alternate route that would have crossed the property at a further distance from the Windswept Lane House. However, the landowners preferred the proposed route as opposed to the alternative route. Furthermore, on August 11, 2016, the landowners indicated that they preferred that the access road remain in place post-construction (Attachment 6).

Indirect Effects

A permanent 25-foot wide access road leading to the 50-foot-wide permanent pipeline right-of-way would be visible from this viewpoint in the immediate foreground. The permanent access road would consist of a gravel surface and would appear dominant in the landscape. As such, the photo simulation for this resource received a rating of "Dominant." However, it should be noted that this permanent access road would follow the exact path of an existing gravel driveway—an abandoned former rural route that crossed the property during the resource's recommended period of significance—and an existing tractor path/farm lane (Attachment 4). In other words, while the visual impact of this proposed permanent access road on the House at Windswept Lane would be Dominant, it is recommended that the permanent access road would result in No Adverse Effect to this resource. Instead, the construction of the access road would, in effect, restore historic-era landscape features to the property that are consistent with the resource's period of historic significance.

4. **DHR has been notified by several consulting and interested parties of their concerns regarding the validity and results of this analysis. In two instances, it is argued that line-of-sight considerations were made from incorrect locations. Others argue that the selected KOPs are insufficient to fully assess effects. We recommend that MVP and FERC review all comments received on the Criteria of Effects report and address any errors or omissions.**

MVP reviewed comments filed on the FERC docket pertaining to the *Criteria of Effects* report received as of July 31, 2017, and is addressing comments from consulting and interested parties that provide specific concerns. This includes those comments related specifically to the validity of the Criteria of Effects analyses, line-of-sight considerations, and selected KOPs. MVP's responses to these comments will be provided to DHR and filed with the FERC. Furthermore, MVP appreciates DHR's efforts to provide additional correspondence received from interested parties to MVP for consideration. On July 21, 2017, your office forwarded a letter from landowners James and Karen Scott expressing concerns regarding the Elijah Henry House and the Henry-Waldron Cemetery. MVP investigated the issues outlined in the Scott letter. A summary of MVP's findings related to these resources is provided below.

Elijah Henry House and Associated Ancillary Buildings (080-5297)

As currently proposed, the Project would not directly impact the Elijah Henry House or any of its associated ancillary buildings as depicted on the figure in Attachment 5. The nearest building associated with this resource to the Project is the root cellar that is located approximately 107 feet from access road temporary workspace (nearest Project feature). Distances to the nearest MVP Project feature from each of buildings referenced in the Scott letter are as follows:

- *Elijah Henry House* = approximately 144 feet from temporary access road
- *Springhouse* = approximately 160 feet from temporary access road

- *Root Cellar* = approximately 107 feet from temporary access road
- *Chicken Coop* = approximately 164 feet from temporary access road
- *c.1990 Hay Barn* = approximately 153 feet from temporary access road
- *Milking Parlor* = approximately 163 feet from temporary access road

Also, it should be noted that the MVP route, as currently proposed, is the same MVP route depicted on all figures and used to calculate all distances for the *Criteria of Effects Report*. As such, the Elijah Henry House is located 425 feet from the pipeline centerline which is consistent with the information provided to DHR and is the same information upon which DHR based its finding that "the MVP would have no adverse effects on this resource." Furthermore, as indicated in the *Criteria of Effects Report*, MVP does not have the potential to affect access to this property; access to the property would be maintained during construction.

Henry-Waldron Cemetery (080-5690)

As currently proposed, the Project would not directly impact the Henry-Waldron Cemetery. The cemetery was delineated by MVP archaeological field crews during MVP's Phase I archaeological survey and the access road was reduced in width to avoid direct impacts on the cemetery (Attachment 5). Furthermore, protective fencing would be installed along the cemetery's eastern boundary along the access road limits of disturbance. Access to the cemetery would be maintained during construction. MVP also made an effort to complete Task 4 assessment for the Henry-Waldron Cemetery which was addressed in *Mountain Valley Pipeline Project Phase I Survey Supplemental Information and Criteria of Effects Report: Addendum 2*, submitted to your office for review July 5, 2017. However, permission to reenter that property has not yet been granted. MVP will provide full photo simulations for the Henry-Waldron Cemetery when property access is granted.

Consultation Regarding Mitigation of Adverse Effects

As stated in your office's July 7, 2017 letter, DHR believes that "the indirect visual effects of the Project will significantly diminish and adversely affect the feeling and setting of the North Fork Valley Rural Historic District" and furthermore, that "the Greater Newport Rural Historic District, Big Stony Creek Historic District, North Fork Valley Rural Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District will be adversely affected by the MVP bisecting them and leaving a permanent fifty-foot wide imprint on their landscapes." As such, MVP understands that the adverse effect to the five historic districts would require mitigation to be determined through future consultation with DHR and other stakeholders and memorialized in the Programmatic Agreement (PA) for the undertaking. MVP will be submitting initial mitigation treatment plans to DHR this week under separate cover.

MVP has contacted consulting parties and stakeholders to arrange meetings to discuss possible mitigation strategies for each of the five historic districts including: the Giles County Historical Society; the Norfolk & Western Historical Society (Ron Davis); the Greater Newport Rural Historic District Committee (David Brady); the Giles County Board of Supervisors (Chris McKlarney); Preserve Virginia (Lisa Bergstrom and Sonja Ingram); Gibson Worsham (preparer of the North Fork Valley Rural Historic District National Register nomination); Elizabeth Hahn

(primary contact for the North Fork Valley Rural Historic District); Preserve Montgomery (Anita Puckett); and, Preserve Roanoke and Committee for Appalachian and Piedmont Preservation (Ann Rogers). To date, one such meeting occurred on July 27, 2017, between MVP and Joseph Yost, Executive Director of the Giles County Historical Society regarding Big Stony Creek Historic District. A follow-up meeting with the Giles County Historical Society Board was scheduled for July 15, 2017, but then postponed by the Giles County Historical Society. MVP is attempting to reschedule this meeting.

In response to MVP's invitation to attend the July 27, 2017 meeting regarding the Big Stony Creek Historic District, Sonja Ingram of Preserve Virginia indicated that although Preserve Virginia could not attend, Preserve Virginia would appreciate the opportunity to participate in all future meetings. Subsequently, Sonja Ingram contacted MVP in writing indicating that in the opinion of Preserve Virginia, it is premature to discuss mitigation efforts due to what it believes is an incomplete and inadequate Final Environmental Impact Statement. Ingram further noted that without what it perceives to be a proper identification of historic resources, and a full understanding of the nature of the threats to them, Preserve Virginia believes additional levels of review need to be undertaken by FERC to address avoidance and minimization possibilities before discussing mitigation. Ms. Ingram also referenced and provided a copy of a June 29, 2017 letter Preserve Virginia sent to DHR concerning six prehistoric archaeological sites; 44FR0240, 4FR0372, 44FR0398, 44FR0399, 44FR0400 and 44FR0392; located in Franklin County, Virginia (Attachment 6).

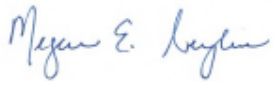
Another response to MVP's request for a meeting received from Mr. David Brady, Section 106 Coordinator for the Greater Newport Rural Historic District Committee noted perceived inconsistencies with MVP's architectural history reporting. Specifically, Mr. Brady called into question the location of the Adlie Jones Farm as represented by MVP. Mr. Brady indicated that after consulting with his steering committee, he believes it is premature to discuss mitigation measures and declined to meet with Mountain Valley. An attorney representing the Committee subsequently contacted Mountain Valley and offered to participate in discussions. A copy of Mr. Brady's correspondence was provided to you by MVP in our August 4, 2017 letter to your office.

MVP is considering the issues raised by Ms. Ingram and Mr. Brady and will respond to both Preserve Virginia and the Greater Newport Rural Historic District Committee. MVP's responses will also be provided to DHR and filed with the FERC.

Additional correspondence and information related to these meetings will be provided to DHR and filed with the FERC when it becomes available. You may contact me by telephone at (724) 873-3645 or by e-mail at mneylon@eqt.com if you have questions. You may also contact Hannah Dye, by telephone at (304) 685-6593 or by e-mail at hannah.dye@tetratech.com.

Thank you for your attention.

Sincerely,



Megan E. Neylon
Senior Environmental Coordinator

Attachments

Attachment 1 Photo Simulation for Barn (DHR ID #060-0574-0125)
Attachment 2 Master List (Revised July 31, 2017)
Attachment 3 Site Plans and Photo Simulations (illustrating access roads) for Link Farm (035-0412-0244) and House at Windswept Lane (033-5325)
Attachment 4 Historic and Current Aerial Photography for House at Windswept Lane (033-5325)
Attachment 5 Location Map for Elijah Henry House (DHR ID #080-5297) (including all ancillary buildings and structures) and Henry-Waldron Cemetery (DHR #080-5690)
Attachment 6 Correspondence

cc: Brian Clauto, MVP
Sean Sparks, Tetra Tech
Sydne Marshall, Tetra Tech
James Marine, Tetra Tech
Hannah Dye, Tetra Tech

555 Southpointe Boulevard, | Canonsburg, PA 15317
844-MVP-TALK |
mail@mountainvalleypipeline.info

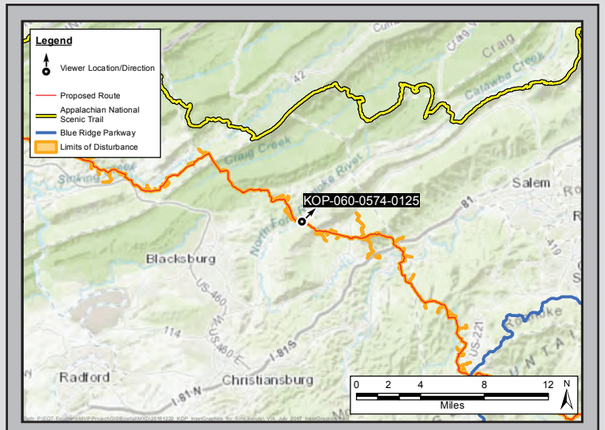
ATTACHMENT 1

PHOTOGRAPH SIMULATION FOR BARN (DHR ID #060-0574-0125)

The above images shows the expected construction impacts resulting from clearing ground cover along the 50-foot-wide pipeline right-of-way and ***temporary*** access road. The access road would remain unpaved during construction activities. The red arrow indicates where the temporary access road would be located through an existing pasture. The white arrow indicates where the pipeline right-of-way would be located.

The above image shows the expected post-construction condition resulting from revegetation of the 50-foot-wide pipeline right-of-way and temporary access road.

Rating for PT-060-0574-0125 Photo Simulation: Inferior



Photograph Information

Time of photograph: 11:15 AM

Date of photograph: 7.18.2017

Weather condition: Partly Sunny

Viewing direction: Northeast

Latitude: 37°16’2.70”N

Longitude: 80°18’48.54”W

Photo Location: The photo was taken from Kraft Barn approximately 0.3 mile southeast of Catawba Road/ Route 785 and approximately 6 miles northeast of the Town of Blacksburg, Virginia.

Mountain Valley Pipeline Project

Kraft Barn

PT-060-0574-0125

Montgomery County, Virginia

Mountain Valley

TETRA TECH

555 Southpointe Boulevard, | Canonsburg, PA 15317
844-MVP-TALK |
mail@mountainvalleypipeline.info

ATTACHMENT 2

MASTER LIST (Revised July 31, 2017)

REVISED July 2017.
Shaded rows contain revisions.

Master List Historic Properties (Part 1 of 4) - Location in Relation to MVP

VDHR ID	Name	Location	NRHP Status[1] and Criteria	Historic District	Nearest Milepost	Distance to Centerline (feet)	Nearest Project Feature	Distance to Nearest Project Feature	Located Within 0.5-Mile of Centerline	Located Within Permanent Easement
021-5012	Appalachian National Scenic Trail	N/A	Eligible	N/A	196.4	0 (Crossed by Conventional Bore)	Proposed MVP Permanent Easement	0 (Crossed by Conventional Bore)	YES	YES
033-0389	Flora Farm	40 Floradale Farms Lane	Listed A, C	N/A	255.7	874.9	Anode Bed - Temporary Work Space	446.5	YES	NO
033-5287; 080-5161-0340	Shaver Cemetery	Blue Ridge Parkway (Route 60)	Primary Contributing [3]	Bent Mountain Rural and Blue Ridge Parkway	247	1298.2	Workspace Limits	1203.7	YES	NO
033-5304	Clear View Dairy Farm	452 Listening Hill Rd (Rt 658)	Eligible A, C	N/A	280.7	58.5	Workspace Limits	21.0	YES	NO
033-5325	House	190 Windswept Lane	Eligible C	N/A	260.6	346.2	Access Road - Temporary Work Space	12.8	YES	NO
033-5329	House	Adney Gap Rd (Rt 643)	Eligible C	N/A	249.3	191.4	Workspace Limits	153.7	YES	NO
033-5398	House	7879 Grassy Hill Road (Route 919)	Eligible C	N/A	258.9	187.5	Additional Temporary Workspace	63.9	YES	NO
033-5400	House	1115 Leaning Oak (Route 782)	Eligible C	N/A	258.2	434.3	Additional Temporary Workspace	296.9	YES	NO
035-0004	Willowcroft	Off Route 460, Newport	Primary Contributing A, C	Greater Newport Rural	212.8	2403.7	Workspace Limits	2316.2	YES	NO
035-0018	Doe Creek Farm, Hoge's Orchard	412 Doe Creek Farm Road (Route 613)	Eligible A, C	N/A	207.3	114.3	Workspace Limits	26.8	YES	NO
035-0034	Berean Baptist Church	246 Hoot Owl Lane (Route 630)	Eligible C	N/A	201.6	751.5	Access Road - Temporary Work Space	47.9	YES	NO
035-0052	Sarver House	118 Old Newport Road, Newport	Primary Contributing A,C	Newport	213	1086.4	Workspace Limits	998.9	YES	NO
035-0053; 035-0151-0003	McElvey Store	500 Winding Way Drive, Newport	Primary Contributing A,C	Newport	213	1042.4	Workspace Limits	955.0	YES	NO
035-0054; 035-0151-0018	Albert Price House	275 Blue Grass Trail, Newport	Primary Contributing A,C	Newport	213	885.0	Workspace Limits	797.5	YES	NO
035-0055; 035-0151-0004	Eva Smith House	147 Mill Lane, Newport	Primary Contributing A,C	Newport	213	1564.0	Workspace Limits	1476.5	YES	NO
035-0056; 035-0151-0024	Payne Miller House	219 Blue Grass Trail, Newport	Primary Contributing A,C	Newport	213	1525.9	Workspace Limits	1441.4	YES	NO
035-0057; 035-0151-0013	Walker Mill	Mill Lane, Newport	Primary Contributing A,C	Newport	213	1440.2	Workspace Limits	1352.7	YES	NO

*See notes at the end of part 4 of 4

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Shaded rows contain revisions.

Master List Historic Properties (Part 1 of 4) - Location in Relation to MVP

VDHR ID	Name	Location	NRHP Status[1] and Criteria	Historic District	Nearest Milepost	Distance to Centerline (feet)	Nearest Project Feature	Distance to Nearest Project Feature	Located Within 0.5-Mile of Centerline	Located Within Permanent Easement
035-0059	Newport United Methodist Church, Mt. Olivet United Methodist Church	311 Blue Grass Trail, Newport	Primary Contributing A,C	Newport	213	449.1	Workspace Limits	367.1	YES	NO
035-0151	Newport Historic District	N/A	Listed	Newport	213	910.6	Workspace Limits	827.1	YES	NO
035-0151-0001	Miller Building	110 Old Newport Road	Primary Contributing A,C	Newport	213	1058.8	Workspace Limits	977.6	YES	NO
035-0151-0002	Butler-Smith House	119 Mill Lane	Primary Contributing A,C	Newport	213	1220.4	Workspace Limits	1133.6	YES	NO
035-0151-0005	Yancey Hale House	160 Mill Lane	Primary Contributing A,C	Newport	213	1667.4	Workspace Limits	1579.8	YES	NO
035-0151-0006	Methodist Parsonage	302 Blue Grass Trail	Primary Contributing A,C	Newport	213	597.4	Workspace Limits	512.7	YES	NO
035-0151-0007	Hunter House	103 Old Newport Road	Primary Contributing A,C	Newport	213	970.5	Workspace Limits	890.2	YES	NO
035-0151-0008	Spruce Run Street	191 Mill Lane	Primary Contributing A,C	Newport	213	2046.6	Workspace Limits	1958.6	YES	NO
035-0151-0009	Miller Brothers Store	101 Old Newport Road	Primary Contributing A,C	Newport	213	933.4	Workspace Limits	849.7	YES	NO
035-0151-0010	George Buchanan House	245 Blue Grass Trail	Primary Contributing A,C	Newport	213	1283.8	Workspace Limits	1199.0	YES	NO
035-0151-0011	Walter Miller House	161 Mill Lane	Primary Contributing A,C	Newport	213	1742.2	Workspace Limits	1654.7	YES	NO
035-0151-0012	R. H. Moomaw/Sasser House	211 Mill Lane	Primary Contributing A,C	Newport	213	2347.5	Workspace Limits	2258.9	YES	NO
035-0151-0014	Pasterfield House	288 Blue Grass Trail	Primary Contributing A,C	Newport	213	739.1	Workspace Limits	660.1	YES	NO
035-0151-0015	C.A. Hardwick House	320 Blue Grass Trail, Newport	Primary Contributing A, C	Newport	213	378.9	Workspace Limits	292.0	YES	NO
035-0151-0016	Jemmison W. Payne House	199 Mill Lane	Primary Contributing A,C	Newport	213	2136.0	Workspace Limits	2047.7	YES	NO
035-0151-0017	Robert Payne House	210 Mill Lane	Primary Contributing A,C	Newport	213	2218.9	Workspace Limits	2130.3	YES	NO
035-0151-0020	Francis Payne Service Station	250 Blue Grass Trail	Primary Contributing A,C	Newport	213	1140.2	Workspace Limits	1060.1	YES	NO
035-0151-0021	Sinking Creek Valley Bank	263 Blue Grass Trail	Primary Contributing A,C	Newport	213	1078.4	Workspace Limits	993.1	YES	NO
035-0151-0022	Pent Taylor Store	494 Winding Way Drive	Primary Contributing A,C	Newport	213	1015.7	Workspace Limits	928.2	YES	NO
035-0151-0023	C.C. Wingo House	174 Mill Lane	Primary Contributing A,C	Newport	213	1853.7	Workspace Limits	1765.6	YES	NO
035-0151-XXXX [5]	Newport Masonic Lodge No. 261	278 Blue Grass Trail-Alt Route 42	Primary Contributing A,C	Newport	213	864.9	Workspace Limits	785.2	YES	NO
035-0412	Greater Newport Rural Historic District	N/A	Listed	Greater Newport Rural	215.2	0.0	Proposed MVP Permanent Easement	0.0	NO	YES
035-0412-0010	Adlie/Adlai Jones Farm (house, pole barn, and road trace)[8]	428 Steele Acres Road, Newport	Primary Contributing A,C	Greater Newport Rural	216.4	1791.2	Workspace Limits	1703.5	YES	NO
035-0412-0011	Leffel Mansion	199 Leffel Lane, Newport	Primary Contributing A,C	Greater Newport Rural	216.5	2033.6	Access Road - Temporary Work Space	1617.8	YES	NO
035-0412-0012	Mason House	119 Leffel Lane, Newport	Primary Contributing A,C	Greater Newport Rural	216.5	2389.1	Access Road - Temporary Work Space	1913.2	YES	NO
035-0412-0014	"Camper" cabin	206 Steel Acres Road, Newport	Primary Contributing A,C	Greater Newport Rural	216.5	2711.6	Access Road - Temporary Work Space	2138.8	NO	NO
035-0412-0022; 035-5073	Sinking Creek (Reynolds) Bridge	1576 Blue Grass Trail, Newport	Primary Contributing A,C	Greater Newport Rural	216.1	2414.7	Workspace Limits	2326.9	YES	NO

*See notes at the end of part 4 of 4

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Shaded rows contain revisions.

Master List Historic Properties (Part 1 of 4) - Location in Relation to MVP

VDHR ID	Name	Location	NRHP Status[1] and Criteria	Historic District	Nearest Milepost	Distance to Centerline (feet)	Nearest Project Feature	Distance to Nearest Project Feature	Located Within 0.5-Mile of Centerline	Located Within Permanent Easement
035-0412-0034	Low Water Bridge	Southeast of Route 42 on Old Furnace Road, Newport	Primary Contributing A,C	Greater Newport Rural	215	352.1	Access Road - Temporary Work Space	30.3	YES	NO
035-0412-0035	Wilford Dowdy House	267 Old Furnace Road	Primary Contributing A,C	Greater Newport Rural	214.9	128.9	Workspace Limits	41.4	YES	NO
035-0412-0036	Iron Ore Smelting Furnace	192 Old Furnace Road, Newport	Primary Contributing A,C	Greater Newport Rural	215	1361.6	Access Road - Temporary Work Space	1025.0	YES	NO
035-0412-0037; 035-0058	Winding Brook Farm/Sheldon Dowdy Residence	158 Old Furnace Road, Newport	Primary Contributing A,C	Greater Newport Rural	215	1953.9	Access Road - Temporary Work Space	1606.7	YES	NO
035-0412-0046	Price Land/J.F. and Janet McMurray House	734 Blue Grass Trail, Newport	Primary Contributing A, C	Greater Newport Rural	214.3	2696.5	Access Road - Temporary Work Space	2422.9	NO	NO
035-0412-0049	Dode Caldwell Store	715 Blue Grass Trail, Newport	Primary Contributing A,C	Greater Newport Rural	214.3	3262.0	Access Road - Temporary Work Space	2585.6	NO	NO
035-0412-0051	Clarence Chipkeffer/Reynolds House	639 Blue Grass Trail, Newport	Primary Contributing A,C	Greater Newport Rural	213.4	2923.4	Access Road - Temporary Work Space	1470.1	NO	NO
035-0412-0052	Plunkett farm	291 Seven Oaks Road	Primary Contributing A,C	Greater Newport Rural	213.8	906.5	Access Road - Temporary Work Space	209.4	YES	NO
035-0412-0053	Garfield Bowyer House	175 Seven Oaks Road, Newport	Primary Contributing A,C	Greater Newport Rural	214.3	2064.3	Additional Temporary Workspace	1968.6	YES	NO
035-0412-0058	George Duncan Porterfield House	580 Blue Grass Trail, Newport	Primary Contributing A,C	Greater Newport Rural	213.3	2258.3	Access Road - Temporary Work Space	719.0	YES	NO
035-0412-0059	Leffel/Givens House	580 Blue Grass Trail, Newport	Primary Contributing A,C	Greater Newport Rural	213.3	1810.3	Access Road - Temporary Work Space	95.9	YES	NO
035-0412-0061	Frank Sibold House	497 Blue Grass Trail, Newport	Primary Contributing A,C	Greater Newport Rural	213.2	1708.8	Access Road - Temporary Work Space	308.6	YES	NO
035-0412-0065	Newport High School	434 Blue Grass Trail, Newport	Primary Contributing A,C	Greater Newport Rural	213.1	948.9	Access Road - Temporary Work Space	381.2	YES	NO
035-0412-0066	High School Agriculture Building	418 Blue Grass Trail, Newport	Primary Contributing A,C	Greater Newport Rural	213	816.8	Access Road - Temporary Work Space	318.6	YES	NO

*See notes at the end of part 4 of 4

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Shaded rows contain revisions.

Master List Historic Properties (Part 1 of 4) - Location in Relation to MVP

VDHR ID	Name	Location	NRHP Status[1] and Criteria	Historic District	Nearest Milepost	Distance to Centerline (feet)	Nearest Project Feature	Distance to Nearest Project Feature	Located Within 0.5-Mile of Centerline	Located Within Permanent Easement
035-0412-0070	Hampton Smith House	161 Winding Way	Primary Contributing A,C	Greater Newport Rural	212.5	624.1	Additional Temporary Workspace	392.8	YES	NO
035-0412-0233	Graham Farrier Residence	100 Summit Lane, Newport	Primary Contributing A,C	Greater Newport Rural	212.3	1972.7	Additional Temporary Workspace	1571.0	YES	NO
035-0412-0234	Farrier Farm	157 Farrier Lane, Newport	Primary Contributing A,C	Greater Newport Rural	212.3	1209.9	Additional Temporary Workspace	808.9	YES	NO
035-0412-0235	Renquist Residence	Summit Lane, Newport	Primary Contributing A,C	Greater Newport Rural	212.7	1981.3	Additional Temporary Workspace	1869.2	YES	NO
035-0412-0237	Fidel Smith Store	152 Old Furnace Road, Newport	Primary Contributing A,C	Greater Newport Rural	212.1	127.3	Workspace Limits	39.8	YES	NO
035-0412-0241	Charles Atkins House	112 Smith Brothers Road	Primary Contributing A,C	Greater Newport Rural	211.5	452.7	Workspace Limits	365.2	YES	NO
035-0412-0242	Charles Atkins House	136 Smith Brothers Road	Primary Contributing A,C	Greater Newport Rural	211.5	414.2	Workspace Limits	325.0	YES	NO
035-0412-0244	Link Farm	100 Covered Bridge Lane	Primary Contributing A,C	Greater Newport Rural	211.1	463.6	Access Road - Temporary Work Space	7.8	YES	NO
035-0412-0245; 035-0005	1912 Sinking Creek Covered Bridge, Link Farm	129 Covered Bridge Lane	Primary Contributing and Individually Eligible A,C	Greater Newport Rural	211.2	327.8	Access Road - Permanent Work Space	10.1	YES	NO
035-0412-0246	Harvey Residence	382 Mountain Lake Road, Newport	Primary Contributing A,C	Greater Newport Rural	211	1194.0	Additional Temporary Workspace	1076.6	YES	NO
035-0412-0247	Ira and Zettie Porterfield House	425 Mountain Lake Road, Newport	Primary Contributing A,C	Greater Newport Rural	210.9	1410.2	Additional Temporary Workspace	1310.1	YES	NO
035-0412-0278	Chestnut Grove School	1516 Mountain Lake Road, Newport	Primary Contributing A, C	Greater Newport Rural	208.5	1079.6	Access Road - Temporary Work Space	89.7	YES	NO
035-0412-0282	Jim Breen Residence	Newport	Primary Contributing A, C	Greater Newport Rural	211.8	275.1	Workspace Limits	237.6	YES	NO
035-0412-0398	Sibold	105 Clover Hollow Road, Newport	Primary Contributing A,C	Greater Newport Rural	212.6	2040.2	Access Road - Temporary Work Space	1724.5	YES	NO
035-0412-0399	Hugh Givens Property	122 Clover Hollow Road, Newport	Primary Contributing A,C	Greater Newport Rural	213	1898.2	Access Road - Temporary Work Space	398.6	YES	NO

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035-0412-0417	Claude and Ida Link Homeplace	1670 Blue Grass trail, Newport	Primary Contributing A,C	Greater Newport Rural	211.3	463.3	Anode Bed - Temporary Work Space	355.3	YES	NO
035-0412-0418	Newsome Barn	579 Zell's Mill Road, Newport	Primary Contributing A, C	Greater Newport Rural	211.3	1290.4	Anode Bed - Temporary Work Space	1007.3	YES	NO
035-0412-0465	Cemetery	133 Mountain Lake Drive (Route 700)	Primary Contributing A, C	Greater Newport Rural	211.5	31.5	Workspace Limits	0.0	YES	NO
035-5106	Warthen House	176 Obie Lane	Eligible C	N/A	210.8	3181.5	Access Road - Temporary Work Space	942.4	NO	NO
035-5117	Masters House	752 Norcross Road (Route 684)	Primary Contributing, C	Big Stony Creek	200.5	3717.1	Workspace Limits	3629.6	NO	NO
035-5118	McDonald Place	587 Norcross Road (Route 684)	Primary Contributing, C	Big Stony Creek	200.5	1747.9	Workspace Limits	1665.3	YES	NO
035-5119	Big Stony United Methodist Church	347 Norcross Road (Route 684)	Primary Contributing C	Big Stony Creek	200.5	1111.3	Access Road - Temporary Work Space	420.9	YES	NO
035-5120	APG Lime Plant #2	114 APG II Plant Lane	Primary Contributing C	Big Stony Creek	200.5	2830.2	Access Road - Temporary Work Space	857.1	NO	NO
035-5121	Caldwell Boarding House	114 Rogers Rd	Primary Contributing C	Big Stony Creek	199.4	2781.9	Additional Temporary Workspace	1068.4	NO	NO
035-5122	House	129 Rogers Rd	Primary Contributing C	Big Stony Creek	199.4	2891.4	Additional Temporary Workspace	1070.1	NO	NO
035-5123	House	141 Rogers Rd	Primary Contributing C	Big Stony Creek	199.1	2828.6	Additional Temporary Workspace	956.9	NO	NO
035-5126	Big Stony Creek Railroad	linear	Primary Contributing, C	Big Stony Creek	200.5	0.0	Proposed MVP Permanent Easement	0.0	YES	YES
035-5127	Big Stony Creek Rural Historic District	N/A	Eligible	Big Stony Creek	200.5	0.0	Proposed MVP Permanent Easement	0.0	YES	YES
060-0290	Kent House	Route 460	Unevaluated (assumed Eligible)	N/A	219.6	1359.0	Additional Temporary Workspace	1212.2	YES	NO
060-0326; 060-0574-0105	Log Building/Bennett's Store	2137 Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.8	0.0	Proposed MVP Permanent Easement	0.0	YES	YES

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060-0337	Slusser Farm	1875 Mount Tabor Road (Route 624)	Eligible	N/A	221.9	4214.3	Workspace Limits	4125.9	NO	NO
060-0340	Climens House	2190 Bishop Road	Unevaluated (assumed Eligible)	N/A	222	9765.4	Workspace Limits	9685.9	NO	NO
060-0415	Martin House	5520 North Fork Road (Route 603)	Eligible	N/A	234.1	5296.4	Temporary Ancillary Site	663.9	NO	NO
060-0574	North Fork Valley Rural Historic District	N/A	Listed	North Fork Valley Rural	227.1	540.9	Workspace Limits	501.9	YES	NO
060-0574-0001	Hahn Farm 1	Lusters Gate Road	Primary Contributing A,C,D	North Fork Valley Rural	226.9	18125.4	Access Road - Temporary Work Space	17745.6	NO	NO
060-0574-0003	House	Lusters Gate Road	Primary Contributing A,C,D	North Fork Valley Rural	226.7	15853.8	Access Road - Temporary Work Space	15217.8	NO	NO
060-0574-0043	house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.7	5258.2	Access Road - Temporary Work Space	4571.3	NO	NO
060-0574-0044	house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.8	2598.4	Additional Temporary Workspace	2293.8	YES	NO
060-0574-0048	house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.8	1366.0	Access Road - Temporary Work Space	1043.0	YES	NO
060-0574-0052	house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	225.8	1990.2	Workspace Limits	1902.7	YES	NO
060-0574-0055	barn	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	227.3	3204.3	Access Road - Permanent Work Space	2667.9	NO	NO
060-0574-0089	house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	227.3	1708.4	Additional Temporary Workspace	843.9	YES	NO
060-0574-0125	Barn	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	227.4	26.0	Workspace Limits	3.5	YES	NO
060-0574-0126	Cemetery	3721 Mill Creek Road	Primary Contributing A,C,D	North Fork Valley Rural	224.5	5263.6	Access Road - Temporary Work Space	3874.4	NO	NO
060-0574-0127	Mill Dam	1814 Catawba Road (Route 785), Blacksburg	Primary Contributing A,C	North Fork Valley Rural	226.6	5380.4	Access Road - Temporary Work Space	4628.6	NO	NO
060-0574-0303	Luster's Gate General Store	Harding Road	Primary Contributing A,C,D	North Fork Valley Rural	226.7	15535.8	Access Road - Temporary Work Space	14850.2	NO	NO

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060-0574-0304	Cooperative Cheese Factory	Lusters Gate Road	Primary Contributing A,C,D	North Fork Valley Rural	226.7	15409.8	Access Road - Temporary Work Space	14729.2	NO	NO
060-0574-0315	Rutledge Farm	Lusters Gate Road	Primary Contributing A,C,D	North Fork Valley Rural	226.8	16969.5	Access Road - Temporary Work Space	16388.9	NO	NO
060-0574-0316	Luster's Gate School	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.7	14799.2	Access Road - Temporary Work Space	14107.8	NO	NO
060-0574-0318	Rutledge House	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.7	11953.4	Access Road - Temporary Work Space	11274.3	NO	NO
060-0574-0319	Slusher Hosue	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.7	11641.0	Access Road - Temporary Work Space	10959.1	NO	NO
060-0574-0321	log house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	224.5	5859.9	Access Road - Temporary Work Space	4461.9	NO	NO
060-0574-0322	Bennett's Mill	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.6	5393.0	Access Road - Temporary Work Space	4633.3	NO	NO
060-0574-0323	George Robinson Farm/barn	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.7	2944.9	Access Road - Temporary Work Space	2373.3	NO	NO
060-0574-0325	Solver Farm	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	227	5235.5	Additional Temporary Workspace	5040.0	NO	NO
060-0574-0326	Road side store (John Brown farm)	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.9	812.3	Additional Temporary Workspace	502.7	YES	NO
060-0574-0327	John Brown Farm /barn	Catawba Road (Route 785)	Primary Contributing A, C	North Fork Valley Rural	227	1275.2	Additional Temporary Workspace	1149.4	YES	NO
060-0574-0328	house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.1	1527.4	Workspace Limits	1439.9	YES	NO
060-0574-0329	house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226.2	2275.4	Workspace Limits	2187.9	YES	NO
060-0574-0330	James Brown Farm	2537 Catawba Road	Primary Contributing A, C	North Fork Valley Rural	227.3	848.9	Access Road - Permanent Work Space	297.5	YES	NO

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060-0574-0331	log house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	227.3	1475.0	Access Road - Permanent Work Space	899.8	YES	NO
060-0574-0361	log house	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	226	2990.3	Workspace Limits	2902.4	NO	NO
060-0574-0362	Woods-Grubb Farm	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	227.3	3844.7	Additional Temporary Workspace	3217.7	NO	NO
060-0574-0366	Robinson Farm	Catawba Road (Route 785)	Primary Contributing A,C,D	North Fork Valley Rural	225.7	2359.9	Access Road - Temporary Work Space	1215.1	YES	NO
060-5170	Norfolk and Southern RR Corridor #1	North of Cove Hollow Road (Route 603)	Eligible A	N/A	235.5	0.0	Proposed MVP Permanent Easement	0.0	YES	YES
060-5171	Norfolk and Southern RR Corridor #2	Cannery Road (Route 773)	Eligible A	N/A	234.4	2089.7	Workspace Limits	2000.2	YES	NO
060-5172	Norfolk and Southern RR Bridge	Cove Hollow Road (Route 603)	Eligible A	N/A	231.8	6787.0	Access Road - Temporary Work Space	692.5	NO	NO
060-5178	House	2431 Mount Tabor Road	Unevaluated (assumed Eligible)	N/A	222	4646.6	Workspace Limits	4584.9	NO	NO
071-5483	Oak Grove Church and Cemetery	20581 US Highway 29	Eligible C	N/A	297.7	636.6	Access Road - Temporary Work Space	414.1	YES	NO
080-0047	Farm	11272 Rocky Road (Route 144)	Primary Contributing A, C	Bent Mountain Rural	245.8	1780.2	Workspace Limits	1691.9	YES	NO
080-0050	Barn	10935 Bottom Creek Rd (Rt 607)	Primary Contributing A, C	Bent Mountain Rural	245.1	3359.1	Workspace Limits	3269.4	NO	NO
080-0322	Bent Mountain Elementary School	10148 9370 Tinsley Ln (Rt 711)	Primary Contributing and Individually Eligible A, C	Bent Mountain Rural	243.8	1997.0	Additional Temporary Workspace	1777.0	YES	NO
080-0324	Sunnyside	9809 Tinsley Lane	Primary Contributing A, C	Bent Mountain Rural	243.7	4096.3	Access Road - Temporary Work Space	3118.2	NO	NO
080-0325	Reed's Farm	9207 Poor Mountain Road	Primary Contributing A, C	Bent Mountain Rural	243.3	5645.9	Access Road - Temporary Work Space	2843.4	NO	NO
080-0326	Thompson Grove Church	Bent Mountain Road (Route 221)	Eligible A, C	N/A	244	3667.9	Access Road - Temporary Work Space	3340.6	NO	NO

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080-0328	Store	9526 Tinsley Lane	Primary Contributing A, C	Bent Mountain Rural	242.4	6641.2	Access Road - Temporary Work Space	3642.1	NO	NO
080-0487	House	10721 Bent Mountain Road	Primary Contributing A,C	Bent Mountain Rural	245.6	1881.0	Additional Temporary Workspace	426.5	YES	NO
080-0488	House	8566 Poor Mountain Road	Eligible C	N/A	241.9	883.3	Workspace Limits	845.8	YES	NO
080-0490	Janet Wynot House, Terry Place, Terry-Coles Cemetery	8701 Poor Mountain Road , Terry Place , Terry-Coles Cemetery	Primary Contributing A,C	Bent Mountain Rural and Coles-Terry Rural	242	2371.6	Additional Temporary Workspace	1697.6	YES	NO
080-0491	Log House	8315 Willet Lane	Eligible C	N/A	241.8	2314.6	Additional Temporary Workspace	1659.9	YES	NO
080-0493	House	9970 Tinsley Lane	Primary Contributing A,C	Bent Mountain Rural	243.8	1907.2	Additional Temporary Workspace	1669.3	YES	NO
080-0494	House	10808 Bottom Creek Road	Primary Contributing A,C	Bent Mountain Rural	244.9	2155.8	Workspace Limits	2081.6	YES	NO
080-0495	Logan Place Farm	11082 Mountain Top Drive	Primary Contributing A,C	Bent Mountain Rural	245.1	1621.5	Workspace Limits	1527.1	YES	NO
080-0497	House	11010 Bent Mountain Road	Primary Contributing A,C	Bent Mountain Rural	246.4	1112.2	Workspace Limits	1024.7	YES	NO
080-0498	House	11005 Bent Mountain Road	Primary Contributing A,C	Bent Mountain Rural	246.3	1081.8	Workspace Limits	994.3	YES	NO
080-0527	House	10396 Bent Mountain Road	Primary Contributing A,C	Bent Mountain Rural	247.2	3844.7	Access Road - Temporary Work Space	1680.1	NO	NO
080-0528	Gas Station	10402 Bent Mountain Road	Primary Contributing A,C	Bent Mountain Rural	247.2	4633.9	Access Road - Temporary Work Space	1361.3	NO	NO
080-0580	Little Hope Church, Primitive Baptist Church	7427 Cove Hollow Road	Eligible A	N/A	237.6	3285.2	Access Road - Temporary Work Space	628.4	NO	NO
080-5148	Conner Cemetery	Bent Mountain Road	Primary Contributing A,C	Bent Mountain Rural	246.3	4302.1	Access Road - Temporary Work Space	330.7	NO	NO
080-5156	The Pines Cemetery	Tinsley Lane	Primary Contributing A,C	Bent Mountain Rural	243.3	4269.3	Access Road - Temporary Work Space	2193.2	NO	NO
080-5161	Blue Ridge Parkway Historic District	N/A	Eligible	Blue Ridge Parkway	246.6	0.0	Proposed MVP Permanent Easement	0.0	YES	YES

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080-5161-0188	Bridge	Spanning Callaway Rd (Rt 602) along Blue Ridge Parkway	Primary Contributing	Blue Ridge Parkway	246.5	451.4	Workspace Limits	363.9	YES	NO
080-5161-0341	Barn	Blue Ridge Parkway	Primary Contributing	Blue Ridge Parkway	246.4	1454.1	Workspace Limits	1416.6	YES	NO
080-5161-0342	Apple Storage Building	Callaway Road	Primary Contributing	Blue Ridge Parkway	246.6	643.1	Workspace Limits	605.6	YES	NO
080-5161-0343	Wimmer Cemetery	Blue Ridge Parkway	Primary Contributing	Blue Ridge Parkway	246.6	1212.9	Workspace Limits	1138.2	YES	NO
080-5161-0344	Earthen Dam	Calloway Road (Route 602)	Primary Contributing	Blue Ridge Parkway	246.7	669.6	Access Road - Temporary Work Space	511.7	YES	NO
080-5297	Elijah Henry House	8443 Poor Mountain Road (Route 612)	Eligible C	N/A	241.7	424.6	Access Road - Temporary Work Space	161.5	YES	NO
080-5326	Lawrence Cemetery	South side of Cobble Trail	Primary Contributing A,C	Bent Mountain Rural	244.4	2487.0	Access Road - Temporary Work Space	1303.5	YES	NO
080-5630	Board-and-Batten Cabin	11210 Bottom Creek Road (Route 607)	Primary Contributing A,C	Bent Mountain Rural	245.3	3564.9	Workspace Limits	3477.4	NO	NO
080-5631	House	11410 Rocky Road (Route 144)	Primary Contributing A,C	Bent Mountain Rural	245.7	1668.0	Workspace Limits	1577.2	YES	NO
080-5653	House	10498 Bent Mountain Rd (Rt 221)	Primary Contributing A,C	Bent Mountain Rural	246.2	2329.1	Access Road - Temporary Work Space	567.6	YES	NO
080-5654	Service Station	10661 Bent Mountain Road	Primary Contributing A,C	Bent Mountain Rural	245.5	2399.0	Access Road - Temporary Work Space	531.4	YES	NO
080-5655	House	10710 Bent Mountain Rd (Rt 221)	Primary Contributing A,C	Bent Mountain Rural	246.2	1837.4	Additional Temporary Workspace	479.2	YES	NO
080-5656	Store	10799 Bent Mountain Road	Primary Contributing A,C	Bent Mountain Rural	246.2	917.0	Additional Temporary Workspace	357.4	YES	NO
080-5657	House	10808 Bent Mountain Rd (Rt 221)	Primary Contributing A,C	Bent Mountain Rural	246.2	815.2	Additional Temporary Workspace	467.2	YES	NO
080-5658	Farmstead	10864 Bent Mountain Rd (Rt 221)	Primary Contributing A,C	Bent Mountain Rural	246.3	485.2	Anode Bed - Temporary Work Space	268.2	YES	NO
080-5659	House	11041 Clover Hill Rd (Rt 602)	Primary Contributing A,C	Bent Mountain Rural	246.5	875.3	Workspace Limits	787.8	YES	NO
080-5660	House	11062 Clover Hill Rd (Rt 602)	Primary Contributing A,C	Bent Mountain Rural	246.5	430.5	Workspace Limits	343.0	YES	NO

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080-5661	House	11028 Bent Mountain Rd (Rt 221)	Primary Contributing A,C	Bent Mountain Rural and Blue Ridge Parkway	246.4	1551.7	Workspace Limits	1464.2	YES	NO
080-5662	Farm	11072 Rocky Rd (Rt 144)	Primary Contributing A,C	Bent Mountain Rural	245.9	1421.6	Workspace Limits	1334.1	YES	NO
080-5663	House	11135 Rocky Rd (Rt 144)	Primary Contributing A,C	Bent Mountain Rural	245.8	1804.3	Workspace Limits	1716.8	YES	NO
080-5664	Storage Facility	10222 Bottom Creek Rd (Rt 607)	Primary Contributing A,C	Bent Mountain Rural	243.8	736.1	Additional Temporary Workspace	654.9	YES	NO
080-5665	House	10146 Bottom Creek Rd (Rt 607)	Primary Contributing A,C	Bent Mountain Rural	243.8	1164.9	Additional Temporary Workspace	924.0	YES	NO
080-5666	Lawrence Memorial United Methodist Church	9370 Tinsley Ln (Rt 711)	Primary Contributing A,C	Bent Mountain Rural	243.8	1865.9	Additional Temporary Workspace	1639.8	YES	NO
080-5667	Farm	9970 Tinsley Ln (Rt 711)	Primary Contributing A,C	Bent Mountain Rural	243.8	2286.8	Additional Temporary Workspace	2057.5	YES	NO
080-5668	Barn	10146 Bottom Creek Rd (Rt 607)	Primary Contributing A,C	Bent Mountain Rural	243.8	1402.9	Additional Temporary Workspace	1191.2	YES	NO
080-5669	House	Cobble Lane	Primary Contributing A,C	Bent Mountain Rural	244.4	2971.4	Access Road - Temporary Work Space	1755.9	NO	NO
080-5675	Television Broadcasting Complexes	Honeysuckle Rd (Rt 916)	Eligible A,C	N/A	240.2	1237.5	Workspace Limits	1150.0	YES	NO
080-5677	Bent Mountain Rural Historic District	N/A	Eligible	Bent Mountain Rural	244.7	0.0	Proposed MVP Permanent Easement	0.0	YES	YES
080-5677-0001	House	11070 Bottom Creek Road (Route 607)	Primary Contributing A,C	Bent Mountain Rural	245.2	3079.0	Workspace Limits	2986.0	NO	NO
080-5677-0002	House	10518 Bent Mountain Road (Route 221)	Primary Contributing A,C	Bent Mountain Rural	246.3	3904.9	Access Road - Temporary Work Space	149.2	NO	NO
080-5677-0003	House	10388 Bent Mountain Road (Route 221)	Primary Contributing A,C	Bent Mountain Rural	247.2	4691.8	Access Road - Temporary Work Space	1511.5	NO	NO
080-5677-0006	Cabin	10858 Green Hollow Drive, Bent Mountain	Primary Contributing A,C	Bent Mountain Rural	245.5	106.4	Workspace Limits	68.9	YES	NO
080-5677-0008	Henry-Gregory House	10568 Bottom Creek Road (Route 607), Bent Mountain	Primary Contributing A,C	Bent Mountain Rural	244.4	954.1	Access Road - Temporary Work Space	17.6	YES	NO

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VDHR ID	Name	Location	NRHP Status[1] and Criteria	Historic District	Nearest Milepost	Distance to Centerline (feet)	Nearest Project Feature	Distance to Nearest Project Feature	Located Within 0.5-Mile of Centerline	Located Within Permanent Easement
080-5679	Grace Terry Moncure Farm	8701 Poor Mountain Rd, Bent Mountain	Primary Contributing A,C	Bent Mountain Rural and Coles-Terry Rural	242.8	507.9	Workspace Limits	420.4	YES	NO
080-5681	House 11091 Bent Mountain Rd Rt 221	11091 Bent Mountain Rd Rt 221	Primary Contributing A,C	Bent Mountain Rural	246.4	1997.5	Workspace Limits	1910.0	YES	NO
080-5689	Coles-Terry Rural Historic District	N/A	Eligible	Coles-Terry Rural	241.4	0.0	Proposed MVP Permanent Easement	0.0	YES	YES
080-5690	Henry-Waldron Cemetery	Poor Mountain Road, Bent Mountain	Primary Contributing A, C, and D	Coles-Terry Rural	241.6	821.1	Access Road - Temporary Work Space	13.6	YES	NO
Pending - Baker House [6]	Baker House	Poor Mountain Road, Bent Mountain	Primary Contributing A,C	Bent Mountain Rural and Coles-Terry Rural	242.5	3529.8	Access Road - Temporary Work Space	511.3	NO	NO
Pending - Coles Terry's House	Coles Terry's House / Orchard and Barn	Poor Mountain Road, Bent Mountain	Primary Contributing A, C	Bent Mountain Rural and Coles-Terry Rural	242.3	819.8	Workspace Limits	782.3	YES	NO
Pending - Fire Tower	Fire tower	Honeysuckle Road, Bent Mountain	Primary Contributing A,C	Coles-Terry Rural	241.1	3768.1	Additional Temporary Workspace	1495.5	NO	NO

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021-5012	Appalachian National Scenic Trail	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	1	Pending USFS[2]	1	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	N/A	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]	Pending USFS[2]
033-0389	Flora Farm	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	33	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	2	Inferior	Inferior	Inferior-Eliminated from further analysis	1,2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
033-5287; 080-5161-0340	Shaver Cemetery	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	VA Criteria of Effects Report: NPS Addendum (Appendix C)	Viewshed analysis indicated no visibity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
033-5304	Clear View Dairy Farm	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	36	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	4	Co-Dominant	Inferior	Co-Dominant-Eliminated from further analysis	3,4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
033-5325	House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	35	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	5	Inferior	Dominant	Dominant-Recommended for Task 3 assessment	5,6	Low Potential-Eliminated from further analysis	N/A	N/A	N/A	Dominant [11]	N/A	N/A	N/A	N/A	Dominant	Attachment 3 of MVP's response to VDHR's July 7, 2017 letter	NO ADVERSE EFFECT
033-5329	House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	32	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	6	Inferior	N/A	Inferior-Eliminated from further analysis	7,8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
033-5398	House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	34	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	7	Inferior	Inferior	Inferior-Eliminated from further analysis	9,10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
033-5400	House	Area no longer under project consideration-outside Project APE	34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

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035-0004	Willowcroft	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0018	Doe Creek Farm, Hoge's Orchard	Chosen for Task 2 (Viewshed Analysis)	4	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	8	Inferior	Co-Dominant	Co-Dominant-Eliminated from further analysis	11,12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
035-0034	Berean Baptist Church	Eliminated from further impact analysis due to distance and vegetation	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0052	Sarver House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0053; 035-0151-0003	McElvey Store	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0054; 035-0151-0018	Albert Price House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0055; 035-0151-0004	Eva Smith House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0056; 035-0151-0024	Payne Miller House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0057; 035-0151-0013	Walker Mill	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0059	Newport United Methodist Church, Mt. Olivet United Methodist Church	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	9	Inferior	N/A	Inferior-Eliminated from further analysis	13,14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT

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035-0151	Newport Historic District	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed analysis for individual contributing resources indicated visibility; viewpoint renderings for individual contributing resources recommended to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	N/A	Dominant	Dominant	Dominant-Recommended for Task 3 assessment	N/A	High Potential-Recommended for Task 4 assessment	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	1	NHD-01: Inferior	N/A	N/A	N/A	N/A	Inferior	1	NO ADVERSE EFFECT
035-0151-0001	Miller Building	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0002	Butler-Smith House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0005	Yancey Hale House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0006	Methodist Parsonage	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	10	Inferior	N/A	Inferior-Eliminated from further analysis	15,16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
035-0151-0007	Hunter House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0008	Spruce Run Street	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0009	Miller Brothers Store	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0010	George Buchanan House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0011	Walter Miller House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0012	R. H. Moomaw/Sasser House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

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035-0151-0014	Pasterfield House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0015	C.A. Hardwick House	Chosen for Task 2 (Viewshed Analysis)	7	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	11	Inferior	N/A	Inferior-Eliminated from further analysis	17,18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
035-0151-0016	Jemmison W. Payne House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0017	Robert Payne House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0020	Francis Payne Service Station	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0021	Sinking Creek Valley Bank	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0022	Pent Taylor Store	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-0023	C.C. Wingo House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0151-XXXX [5]	Newport Masonic Lodge No. 261	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412	Greater Newport Rural Historic District	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	5-10	Viewshed analysis for individual contributing resources indicated visibility; viewpoint renderings for individual contributing resources recommended to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	N/A	Dominant	Dominant	Dominant-Recommended for Task 3 assessment	N/A	High Potential-Recommended for Task 4 assessment	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	2	GNR-01: Inferior	GNR-02: Inferior	GNR-03: Inferior	N/A	N/A	Inferior	2-4	NO ADVERSE EFFECT

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035-0412-0010	Adlie/Adlai Jones Farm (house, pole barn, and road trace)[8]	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	10	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	12	Inferior	Inferior	Inferior-Eliminated from further analysis	19,20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
035-0412-0011	Leffel Mansion	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	10	Viewshed model analysis indicated no visibility	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0012	Mason House	Eliminated from further impact analysis due to distance and vegetation	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0014	"Camper" cabin	Eliminated from further impact analysis due to distance and vegetation	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0022; 035-5073	Sinking Creek (Reynolds) Bridge	Eliminated from further impact analysis due to distance and vegetation	9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0034	Low Water Bridge	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	9	Viewshed model analysis indicated no visibility	14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0035	Wilford Dowdy House	Eliminated from further impact analysis due to distance and vegetation	8, 9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0036	Iron Ore Smelting Furnace	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	9	Viewshed model analysis indicated no visibility	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0037; 035-0058	Winding Brook Farm/Sheldon Dowdy Residence	Eliminated from further impact analysis due to distance and vegetation	9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0046	Price Land/J.F. and Janet McMurray House	Eliminated from further impact analysis due to distance and vegetation	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0049	Dode Caldwell Store	Eliminated from further impact analysis due to distance and vegetation	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0051	Clarence Chipkeffer/Reynolds House	Area no longer under project consideration-outside Project APE	7, 8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0052	Plunkett farm	Eliminated from further impact analysis due to distance and vegetation	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

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035-0412-0053	Garfield Bowyer House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	8	Viewshed model analysis indicated no visibility	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0058	George Duncan Porterfield House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0059	Leffel/Givens House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0061	Frank Sibold House	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0065	Newport High School	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed model analysis indicated no visibility	17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0066	High School Agriculture Building	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	18	Inferior	Inferior	Inferior-Eliminated from further analysis	21,22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
035-0412-0070	Hampton Smith House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed model analysis indicated no visibility	19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0233	Graham Farrier Residence	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed model analysis indicated no visibility	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0234	Farrier Farm	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed model analysis indicated no visibility	21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0235	Renquist Residence	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed model analysis indicated no visibility	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0237	Fidel Smith Store	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	7	Viewshed model analysis indicated no visibility	23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

*See notes at the end of part 4 of 4

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035-0412-0241	Charles Atkins House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	6	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	24	Co-Dominant	Inferior	Co-Dominant-Eliminated from further analysis	23,24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
035-0412-0242	Charles Atkins House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	6	Viewshed model analysis indicated no visibility	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0244	Link Farm	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	6	Viewshed model analysis indicated no visibility	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inferior [11]	N/A	N/A	N/A	N/A	Inferior	Attachment 3 of MVP's response to VDHR's July 7, 2017 letter	NO EFFECT
035-0412-0245; 035-0005	1912 Sinking Creek Covered Bridge, Link Farm	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	6	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	27	Co-Dominant	Inferior	Co-Dominant-Eliminated from further analysis	25,26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
035-0412-0246	Harvey Residence	Eliminated from further impact analysis due to distance and vegetation	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0247	Ira and Zettie Porterfield House	Eliminated from further impact analysis due to distance and vegetation	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0278	Chestnut Grove School	Eliminated from further impact analysis due to distance and vegetation	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0282	Jim Breen Residence	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	6	Viewshed model analysis indicated no visibility	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0398	Sibold	Area no longer under project consideration-outside Project APE	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0399	Hugh Givens Property	Eliminated from further impact analysis due to distance and vegetation	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0417	Claude and Ida Link Homeplace	Eliminated from further impact analysis due to distance and vegetation	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-0412-0418	Newsome Barn	Chosen for Task 2 (Viewshed Analysis)	6	Viewshed model analysis indicated no visibility	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

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035-0412-0465	Cemetery	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	6	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	30	Co-Dominant	Dominant	Dominant-Recommended for Task 3 assessment	27,28	High Potential-contributing resource to historic district, further analysis will utilize Key Observation Points and consider the district as a whole	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	See Greater Newport Rural Historic District	See Greater Newport Rural Historic District	See Greater Newport Rural Historic District	See Greater Newport Rural Historic District	See Greater Newport Rural Historic District	See Greater Newport Rural Historic District	See Greater Newport Rural Historic District	See Greater Newport Rural Historic District	NO ADVERSE EFFECT
035-5106	Warthen House	Eliminated from further impact analysis due to distance and vegetation	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-5117	Masters House	Area no longer under project consideration-outside Project APE	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-5118	McDonald Place	Area no longer under project consideration-outside Project APE	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-5119	Big Stony United Methodist Church	Eliminated from further impact analysis due to distance and vegetation	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-5120	APG Lime Plant #2	Eliminated from further impact analysis due to distance and vegetation	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-5121	Caldwell Boarding House	Eliminated from further impact analysis due to distance and vegetation	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-5122	House	Eliminated from further impact analysis due to distance and vegetation	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-5123	House	Eliminated from further impact analysis due to distance and vegetation	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
035-5126	Big Stony Creek Railroad	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	2, 3	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	31	Co-Dominant	Co-Dominant	Co-Dominant-Eliminated from further analysis	29,30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT

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035-5127	Big Stony Creek Rural Historic District	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	2, 3	Viewshed analysis for individual contributing resources indicated visibility; viewpoint renderings for individual contributing resources recommended to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	N/A	Dominant	Dominant	Dominant-Recommended for Task 3 assessment	N/A	High Potential-Recommended for Task 4 assessment	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	3	BSC-01: Inferior	N/A	N/A	N/A	N/A	Inferior	5	NO ADVERSE EFFECT
060-0290	Kent House	Eliminated from further impact analysis due to distance and vegetation	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-0326; 060-0574-0105	Log Building/Bennett's Store	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	-	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	32	Co-Dominant	Co-Dominant	Co-Dominant-Eliminated from further analysis	31,32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-0337	Slusser Farm	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix C	Viewshed model analysis indicated no visibility	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-0340	Climens House	Area no longer under project consideration-outside Project APE	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-0415	Martin House	Area no longer under project consideration-outside Project APE	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT

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060-0574	North Fork Valley Rural Historic District	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	13-19	Viewshed analysis for individual contributing resources indicated visibility; viewpoint renderings for individual contributing resources recommended to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	N/A	Dominant	Dominant	Dominant-Recommended for Task 3 assessment	N/A	High Potential-Recommended for Task 4 assessment	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	4	NFV-01: Inferior	NFV-02: Inferior	NFV-03: Inferior	NFV-04: Co-Dominant	NFV-05: Inferior	Co-Dominant	6-10	NO ADVERSE EFFECT
060-0574-0001	Hahn Farm 1	Area no longer under project consideration-outside Project APE	19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0003	House	Area no longer under project consideration-outside Project APE	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0043	house	Area no longer under project consideration-outside Project APE	15, 17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0044	house	Area no longer under project consideration-outside Project APE	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0048	house	Eliminated from further impact analysis due to distance and vegetation	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0052	house	Area no longer under project consideration-outside Project APE	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0055	barn	Area no longer under project consideration-outside Project APE	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0089	house	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	13, 16	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	33	Inferior	Inferior	Inferior-Eliminated from further analysis	33,34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-0574-0125	Barn	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	16	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	34	Dominant	Dominant	Dominant-Recommended for Task 3 assessment	35,36	High Potential-contributing resource to historic district, further analysis will utilize Key Observation Points and consider the district as a whole	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	See North Fork Valley Rural Historic District	Inferior [11]	N/A	N/A	N/A	N/A	Inferior	Attachment 3 of MVP's response to VDHR's July 7, 2017 letter	NO ADVERSE EFFECT

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060-0574-0126	Cemetery	Area no longer under project consideration-outside Project APE	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0127	Mill Dam	Area no longer under project consideration-outside Project APE	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0303	Luster's Gate General Store	Area no longer under project consideration-outside Project APE	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0304	Cooperative Cheese Factory	Area no longer under project consideration-outside Project APE	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0315	Rutledge Farm	Area no longer under project consideration-outside Project APE	19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0316	Luster's Gate School	Area no longer under project consideration-outside Project APE	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0318	Rutledge House	Area no longer under project consideration-outside Project APE	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0319	Slusher Hosue	Area no longer under project consideration-outside Project APE	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0321	log house	Area no longer under project consideration-outside Project APE	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0322	Bennett's Mill	Area no longer under project consideration-outside Project APE	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0323	George Robinson Farm/barn	Area no longer under project consideration-outside Project APE	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0325	Solver Farm	Area no longer under project consideration-outside Project APE	17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0326	Road side store (John Brown farm)	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	16	Viewshed model analysis indicated no visibility	35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0327	John Brown Farm /barn	Chosen for Task 2 (Viewshed Analysis)	16	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	36	Inferior	Inferior	Inferior-Eliminated from further analysis	37,38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-0574-0328	house	Eliminated from further impact analysis due to distance and vegetation	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0329	house	Area no longer under project consideration-outside Project APE	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

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060-0574-0330	James Brown Farm	Chosen for Task 2 (Viewshed Analysis)	16	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	37	Inferior	Co-Dominant	Co-Dominant-Eliminated from further analysis	39,40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-0574-0331	log house	=C15	16	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	38	Inferior	Co-Dominant	Co-Dominant-Eliminated from further analysis	41,42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-0574-0361	log house	Area no longer under project consideration-outside Project APE	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0362	Woods-Grubb Farm	Area no longer under project consideration-outside Project APE	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-0574-0366	Robinson Farm	Eliminated from further impact analysis due to distance and vegetation	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-5170	Norfolk and Southern RR Corridor #1	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	21	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	39	Inferior	Inferior	Inferior-Eliminated from further analysis	43-46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
060-5171	Norfolk and Southern RR Corridor #2	Area no longer under project consideration-outside Project APE	21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-5172	Norfolk and Southern RR Bridge	Area no longer under project consideration-outside Project APE	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
060-5178	House	Eliminated from further impact analysis due to distance and vegetation	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
071-5483	Oak Grove Church and Cemetery	Area no longer under project consideration-outside Project APE	37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0047	Farm	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0050	Barn	Area no longer under project consideration-outside Project APE	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

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080-0322	Bent Mountain Elementary School	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0324	Sunnyside	Eliminated from further impact analysis due to distance and vegetation	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0325	Reed's Farm	Eliminated from further impact analysis due to distance and vegetation	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0326	Thompson Grove Church	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0328	Store	Eliminated from further impact analysis due to distance and vegetation	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0487	House	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0488	House	Eliminated from further impact analysis due to distance and vegetation	25, 26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0490	Janet Wynot House, Terry Place, Terry-Coles Cemetery	Eliminated from further impact analysis due to distance and vegetation	25, 26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0491	Log House	Eliminated from further impact analysis due to distance and vegetation	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0493	House	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0494	House	Eliminated from further impact analysis due to distance and vegetation	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0495	Logan Place Farm	Eliminated from further impact analysis due to distance and vegetation	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0497	House	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0498	House	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0527	House	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

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080-0528	Gas Station	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-0580	Little Hope Church, Primitive Baptist Church	Eliminated from further impact analysis due to distance and vegetation	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5148	Conner Cemetery	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5156	The Pines Cemetery	Eliminated from further impact analysis due to distance and vegetation	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5161	Blue Ridge Parkway Historic District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Blue Ridge Parkway (BLRI) Visual Impact Analysis (VIA) (Revised May 2017)	NO ADVERSE EFFECT
080-5161-0188	Bridge	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	VA Criteria of Effects Report: NPS Addendum (Appendix C)	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	VA Criteria of Effects Report: NPS Addendum (Appendix D)	Inferior	Inferior	Inferior-Eliminated from further analysis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
080-5161-0341	Barn	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	VA Criteria of Effects Report: NPS Addendum (Appendix C)	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	VA Criteria of Effects Report: NPS Addendum (Appendix D)	Inferior	Inferior	Inferior-Eliminated from further analysis			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
080-5161-0342	Apple Storage Building	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	VA Criteria of Effects Report: NPS Addendum (Appendix C)	Viewshed analysis indicated no visibility	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5161-0343	Wimmer Cemetery	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	VA Criteria of Effects Report: NPS Addendum (Appendix C)	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	VA Criteria of Effects Report: NPS Addendum (Appendix D)	Inferior	Inferior	Inferior-Eliminated from further analysis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT

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080-5161-0344	Earthen Dam	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	VA Criteria of Effects Report: NPS Addendum (Appendix C)	Viewshed analysis indicated no visibiliy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5297	Elijah Henry House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	25	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	41	Inferior	Dominant	Dominant-Recommended for Task 3 assessment	47,48	Low Potential-Eliminated from further analysis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
080-5326	Lawrence Cemetery	Eliminated from further impact analysis due to distance and vegetation	28, 30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5630	Board-and-Batten Cabin	Area no longer under project consideration-outside Project APE	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5631	House	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5653	House	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5654	Service Station	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5655	House	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5656	Store	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	30, 31	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	42	Inferior	N/A	Inferior-Eliminated from further analysis	49,50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
080-5657	House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	30, 31	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	43	Inferior	N/A	Inferior-Eliminated from further analysis	51,52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
080-5658	Farmstead	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	30, 31	Viewshed model analysis indicated no visibility	44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

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080-5659	House	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5660	House	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5661	House	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5662	Farm	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5663	House	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5664	Storage Facility	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5665	House	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5666	Lawrence Memorial United Methodist Church	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5667	Farm	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5668	Barn	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5669	House	Eliminated from further impact analysis due to distance and vegetation	28, 30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5675	Television Broadcasting Complexes	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	23	Viewshed model analysis indicated no visibility	45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

*See notes at the end of part 4 of 4

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Master List Historic Properties (Part 2 of 4) - Visual Assessment

VDHR ID	Name	Task 1 Result	Task 1 NLCD Viewshed Map (Page)	Task 2-Step 1 Result	Task 2-Step 1 Viewshed Analysis (Page)	Task 2-Step 2 Viewpoint A Result	Task 2-Step 2 Viewpoint B Result	Task 2-Step 2 Final Result [7]	Task 2 Viewpoint Renderings (Page)	Task 3 Result	Task 4-Step 1 Result	Task 4-Step 2 Result	Task 4-Step 2 Land Use Maps (Page)	Task 4-Step 3 Photo Simulation A	Task 4-Step 3 Photo Simulation B	Task 4-Step 3 Photo Simulation C	Task 4-Step 3 Photo Simulation D	Task 4-Step 3 Photo Simulation E	Task 4 Step 3 Final Result	Task 4-Step 3 Photo Simulations-Appendix J (Page)	VISUAL EFFECTS FINAL ASSESSMENT
080-5677	Bent Mountain Rural Historic District	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	25-31	Viewshed analysis for individual contributing resources indicated visibility; viewpoint renderings for individual contributing resources recommended to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	N/A	Dominant	Dominant	Dominant-Recommended for Task 3 assessment	N/A	High Potential-Recommended for Task 4 assessment	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	5	BMR-01: Inferior	BMR-02: Inferior	N/A	N/A	N/A	Inferior	11-12	NO ADVERSE EFFECT
080-5677-0001	House	Area no longer under project consideration-outside Project APE	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5677-0002	House	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5677-0003	House	Eliminated from further impact analysis due to distance and vegetation	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5677-0006	Cabin	Chosen for Task 2 (Viewshed Analysis)	29	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	46	Inferior	Dominant	Dominant-Recommended for Task 3 assessment	53,54	High Potential-contributing resource to historic district, further analysis will utilize Key Observation Points and consider the district as a whole	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	See Bent Mountain Rural Historic District	See Bent Mountain Rural Historic District	See Bent Mountain Rural Historic District	See Bent Mountain Rural Historic District	See Bent Mountain Rural Historic District	See Bent Mountain Rural Historic District	See Bent Mountain Rural Historic District	See Bent Mountain Rural Historic District	NO ADVERSE EFFECT
080-5677-0008	Henry-Gregory House	Eliminated from further impact analysis due to distance and vegetation	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5679	Grace Terry Moncure Farm	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	27	Viewshed model analysis indicated no visibility	47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT
080-5681	House 11091 Bent Mountain Rd Rt 221	Eliminated from further impact analysis due to distance and vegetation	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO EFFECT

*See notes at the end of part 4 of 4

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Master List Historic Properties (Part 2 of 4) - Visual Assessment

VDHR ID	Name	Task 1 Result	Task 1 NLCD Viewshed Map (Page)	Task 2-Step 1 Result	Task 2-Step 1 Viewshed Analysis (Page)	Task 2-Step 2 Viewpoint A Result	Task 2-Step 2 Viewpoint B Result	Task 2-Step 2 Final Result [7]	Task 2 Viewpoint Renderings (Page)	Task 3 Result	Task 4-Step 1 Result	Task 4-Step 2 Result	Task 4-Step 2 Land Use Maps (Page)	Task 4-Step 3 Photo Simulation A	Task 4-Step 3 Photo Simulation B	Task 4-Step 3 Photo Simulation C	Task 4-Step 3 Photo Simulation D	Task 4-Step 3 Photo Simulation E	Task 4 Step 3 Final Result	Task 4-Step 3 Photo Simulations-Appendix J (Page)	VISUAL EFFECTS FINAL ASSESSMENT
080-5689	Coles-Terry Rural Historic District	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	23-27	Viewshed analysis for individual contributing resources indicated visibility; viewpoint renderings for individual contributing resources recommended to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	N/A	Dominant	Dominant	Dominant-Recommended for Task 3 assessment	N/A	High Potential-Recommended for Task 4 assessment	See Criteria of Effects Report Table 4.1.4	See Criteria of Effects Report Appendix H	6	CTR-01: Inferior	CTR-02: Inferior	CTR-03: Inferior	N/A	N/A	Inferior	13-15	NO ADVERSE EFFECT
080-5690	Henry-Waldron Cemetery	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix C	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix D	Dominant	Dominant	Dominant-Recommended for Task 3 assessment	Phase I and Criteria of Effects Addendum 2 (July 2017)-Appendix E	High Potential-contributing resource to historic district, further analysis will utilize Key Observation Points and consider the district as a whole	See Criteria of Effects Report Table 4.1.4.	See Criteria of Effects Report Appendix H	See Criteria of Effects Report-Appendix H	CTR-01: Inferior	CTR-02: Inferior	CTR-03: Inferior	N/A	N/A	Inferior	See Criteria of Effects Report, Appendix J pp.13-16	NO ADVERSE EFFECT
Pending - Baker House [6]	Baker House	Chosen for Task 2 action (viewshed analysis) based on NLCD Viewshed model and Google Earth terrain model	26	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	48	Inferior	Inferior	Inferior-Eliminated from further analysis	55,56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT
Pending - Coles Terry's House	Coles Terry's House / Orchard and Barn	Chosen for Task 2 (Viewshed Analysis)	26	Viewshed analysis indicated visibility; chosen for viewpoint renderings to assess the nature and extent of viewshed impacts within the context of the surrounding landscape	49	Co-Dominant	Inferior	Co-Dominant-Eliminated from further analysis	57,58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
021-5012	Appalachian National Scenic Trail	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction right-of-way will be cleared of vegetation prior to construction to provide safe working conditions. Along with implementing restoration measures contained in the FERC Plan, MVP is working with the Wildlife Habitat Council , to incorporate principles of Integrated Vegetation Management into MVP's right-of-way maintenance. Integrated Vegetation Management incorporates seed mix selection, vegetation maintenance scheduling, and selection of mechanical vegetation maintenance techniques to encourage a low ground cover of native species that flower for a long duration of the growing season. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Impacts Assessment for the NPS (Appendix M).	Conventional Bore (See Bore Plan-Appendix)	NO ADVERSE EFFECT
033-0389	Flora Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
033-5287; 080-5161-0340	Shaver Cemetery	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
033-5304	Clear View Dairy Farm	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	As a working dairy farm higher vibration criteria are likely to be acceptable. Inspection is recommended due to close proximity to pipeline LOD. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian. Equipment necessary for vibration intensive activities in close proximity to historic structures will be selected judiciously. On the basis of the screening threshold distances identified (Appendix K) precautionary restrictions will be implemented. Should impacts from construction occur, MVP will work to address and resolve complaints regarding the construction and/or operation of the Project in a timely manner. If the landowner's concerns involve historic properties, a qualified architectural historian will be involved in the complaint resolution process.	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
033-5325	House	At 190 Windswept Lane, sound levels due to access road construction exceed the FTA 8-hour criteria sound level of 80 dBA with predicted sound levels of 82.3 and 81.8 dBA, respectively. These are small exceedances and are due to the proximity of the properties to the access road work areas. The access road construction activities are expected to take only a few days for each area and will occur only during daytime hours. Due to the very short-term, daytime-only nature of the access road construction noises and the highly varying response of different residents to noise, no specific noise mitigation is recommended for these activities.	As an occupied structure higher vibration criteria are likely to be acceptable. Inspection is recommended due to close proximity to access road. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	The house's existing driveway will be utilized by MVP as a temporaray access road; however, driveway access will be maintained during construction (See Avoidance Plan-Appendix P)	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian. Equipment necessary for vibration intensive activities in close proximity to historic structures will be selected judiciously. On the basis of the screening threshold distances identified (Appendix K) precautionary restrictions will be implemented. Should impacts from construction occur, MVP will work to address and resolve complaints regarding the construction and/or operation of the Project in a timely manner. If the landowner's concerns involve historic properties, a qualified architectural historian will be involved in the complaint resolution process. Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P).	NO ADVERSE EFFECT
033-5329	House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
033-5398	House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	An additional temporaray workspace is located adjacent to the house's existing driveway, however, a proposed temporary access road will be utilized, instead of the existing driveway, to access the workspace. Driveway access will be maintained during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P)	NO ADVERSE EFFECT
033-5400	House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0004	Willowcroft	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0018	Doe Creek Farm, Hoge's Orchard	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Inspection of this structure is likely to determine higher vibration levels are acceptable. Alternatively, careful equipment selection can prevent damage. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	The MVP pipeline will intersect the existing access road to the Doe Creek Farm; however, this road is a public road and ingress and egress to the property will be maintained during construction by temporary rerouting (the property can be assessed from both directions).	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian. Equipment necessary for vibration intensive activities in close proximity to historic structures will be selected judiciously. On the basis of the screening threshold distances identified (Appendix K) precautionary restrictions will be implemented. Should impacts from construction occur, MVP will work to address and resolve complaints regarding the construction and/or operation of the Project in a timely manner. If the landowner's concerns involve historic properties, a qualified architectural historian will be involved in the complaint resolution process. Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P).	NO ADVERSE EFFECT
035-0034	Berean Baptist Church	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	The MVP pipeline will intersect the existing access road to the Berean Baptist Church; however, this road is a public road and ingress and egress to the property will be maintained during construction by temporary rerouting (the property can be assessed from both directions).	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P)	NO ADVERSE EFFECT
035-0052	Sarver House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0053; 035-0151-0003	McElvey Store	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0054; 035-0151-0018	Albert Price House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0055; 035-0151-0004	Eva Smith House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0056; 035-0151-0024	Payne Miller House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0057; 035-0151-0013	Walker Mill	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0059	Newport United Methodist Church, Mt. Olivet United Methodist Church	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151	Newport Historic District	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0001	Miller Building	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0002	Butler-Smith House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0005	Yancey Hale House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0006	Methodist Parsonage	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0007	Hunter House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0008	Spruce Run Street	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report- Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report- Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0151-0009	Miller Brothers Store	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0010	George Buchanan House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0011	Walter Miller House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0012	R. H. Moomaw/Sasser House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0014	Pasterfield House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0015	C.A. Hardwick House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0016	Jemmison W. Payne House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0017	Robert Payne House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0020	Francis Payne Service Station	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0021	Sinking Creek Valley Bank	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0151-0022	Pent Taylor Store	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-0023	C.C. Wingo House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0151-XXXX [5]	Newport Masonic Lodge No. 261	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412	Greater Newport Rural Historic District	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0010	Adlie/Adlai Jones Farm (house, pole barn, and road trace)[8]	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0011	Leffel Mansion	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0012	Mason House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0014	"Camper" cabin	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0022; 035-5073	Sinking Creek (Reynolds) Bridge	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0412-0034	Low Water Bridge	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Predicted maximum vibration is due to work near the structure. Higher vibration would be generated by heavy vehicles if travelling over this bridge. An inspection is recommended if heavy construction traffic will use the bridge to connect to the construction access road. Bridge structure is an existing lightly trafficked structure so the precautionary thresholds are likely to be over conservative. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian. Equipment necessary for vibration intensive activities in close proximity to historic structures will be selected judiciously. On the basis of the screening threshold distances identified (Appendix K) precautionary restrictions will be implemented. Should impacts from construction occur, MVP will work to address and resolve complaints regarding the construction and/or operation of the Project in a timely manner. If the landowner's concerns involve historic properties, a qualified architectural historian will be involved in the complaint resolution process.	NO ADVERSE EFFECT
035-0412-0035	Wilford Dowdy House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Structure located between access road and pipeline route. Exceedance of precautionary threshold is marginal. Inspection of this structure is likely to determine higher vibration levels are acceptable. Alternatively, careful equipment selection can prevent damage. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	An existing access road for the Wilford Dowdy will be used temporarily by MVP during construction, during which access to the house will be maintained.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P)	NO ADVERSE EFFECT
035-0412-0036	Iron Ore Smelting Furnace	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0037; 035-0058	Winding Brook Farm/Sheldon Dowdy Residence	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0046	Price Land/J.F. and Janet McMurray House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0049	Dode Caldwell Store	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0051	Clarence Chipkeffer/Reynolds House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0052	Plunkett farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0412-0053	Garfield Bowyer House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0058	George Duncan Porterfield House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0059	Leffel/Givens House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0061	Frank Sibold House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0065	Newport High School	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0066	High School Agriculture Building	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0070	Hampton Smith House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0233	Graham Farrier Residence	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0234	Farrier Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0235	Renquist Residence	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0412-0237	Fidel Smith Store	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Marginal threshold exceedance only. This property is located adjacent to a main road and the precautionary thresholds are likely to be over conservative. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian. Equipment necessary for vibration intensive activities in close proximity to historic structures will be selected judiciously. On the basis of the screening threshold distances identified (Appendix K) precautionary restrictions will be implemented. Should impacts from construction occur, MVP will work to address and resolve complaints regarding the construction and/or operation of the Project in a timely manner. If the landowner's concerns involve historic properties, a qualified architectural historian will be involved in the complaint resolution process.	NO ADVERSE EFFECT
035-0412-0241	Charles Atkins House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0242	Charles Atkins House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0244	Link Farm	At the Link Farm, sound levels due to access road construction exceed the FTA 8-hour criteria sound level of 80 dBA with predicted sound levels of 82.3 and 81.8 dBA, respectively. These are small exceedances and are due to the proximity of the properties to the access road work areas. The access road construction activities are expected to take only a few days for each area and will occur only during daytime hours. Due to the very short-term, daytime-only nature of the access road construction noises and the highly varying response of different residents to noise, no specific noise mitigation is recommended for these activities.	The shed is in close proximity to the access road. Inspection is recommended if vibration intensive equipment is required to construct access road. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	Public and private access roads leading to the Link Farm will be utilized by MVP for temporary access during construction; however, access to the Link farm from the public and provate road will be maintained during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P)	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0412-0245; 035-0005	1912 Sinking Creek Covered Bridge, Link Farm	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	The covered bridge is in close proximity to the access road. Inspection is recommended to determine vibration criteria. Monitoring is likely to be required to ensure vibration criteria are not exceeded. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0246	Harvey Residence	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0247	Ira and Zettie Porterfield House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0278	Chestnut Grove School	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0282	Jim Breen Residence	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-0412-0398	Sibold	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0399	Hugh Givens Property	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0417	Claude and Ida Link Homeplace	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-0412-0418	Newsome Barn	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-0412-0465	Cemetery	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	The cemetery is located outside, but adjacent to the centerline LOD; however, access to the cemetery through the protective fencing will be maintained during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P)	NO ADVERSE EFFECT
035-5106	Warthen House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-5117	Masters House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-5118	McDonald Place	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-5119	Big Stony United Methodist Church	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-5120	APG Lime Plant #2	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
035-5121	Caldwell Boarding House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-5122	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
035-5123	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

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VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
035-5126	Big Stony Creek Railroad	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction right-of-way will be cleared of vegetation prior to construction to provide safe working conditions. Along with implementing restoration measures contained in the FERC Plan, MVP is working with the Wildlife Habitat Council , to incorporate principles of Integrated Vegetation Management into MVP's right-of-way maintenance. Integrated Vegetation Management incorporates seed mix selection, vegetation maintenance scheduling, and selection of mechanical vegetation maintenance techniques to encourage a low ground cover of native species that flower for a long duration of the growing season.	Conventional Bore (See Bore Plan-Appendix)	NO ADVERSE EFFECT
035-5127	Big Stony Creek Rural Historic District	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0290	Kent House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0326; 060-0574-0105	Log Building/Bennett's Store	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0337	Slusser Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0340	Climens House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0415	Martin House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574	North Fork Valley Rural Historic District	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0001	Hahn Farm 1	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0003	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
060-0574-0043	house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0044	house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0048	house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0052	house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0055	barn	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0089	house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0125	Barn	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Inspection of this structure and determination of specific vibration criteria is recommended due to its close proximity to the work. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	The exisiting farm road leading to this barn will be contained within an additional temporary workspace; however, access to the barn will be maintained during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P)	NO ADVERSE EFFECT
060-0574-0126	Cemetery	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0127	Mill Dam	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0303	Luster's Gate General Store	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0304	Cooperative Cheese Factory	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
060-0574-0315	Rutledge Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0316	Luster's Gate School	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0318	Rutledge House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0319	Slusher Hosue	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0321	log house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0322	Bennett's Mill	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0323	George Robinson Farm/barn	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0325	Solver Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0326	Road side store (John Brown farm)	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0327	John Brown Farm /barn	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0328	house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
060-0574-0329	house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0330	James Brown Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0331	log house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-0574-0361	log house	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0362	Woods-Grubb Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-0574-0366	Robinson Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-5170	Norfolk and Southern RR Corridor #1	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction right-of-way will be cleared of vegetation prior to construction to provide safe working conditions. Along with implementing restoration measures contained in the FERC Plan, MVP is working with the Wildlife Habitat Council , to incorporate principles of Integrated Vegetation Management into MVP's right-of-way maintenance. Integrated Vegetation Management incorporates seed mix selection, vegetation maintenance scheduling, and selection of mechanical vegetation maintenance techniques to encourage a low ground cover of native species that flower for a long duration of the growing season.	Conventional Bore (See Bore Plan-Appendix)	NO ADVERSE EFFECT
060-5171	Norfolk and Southern RR Corridor #2	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
060-5172	Norfolk and Southern RR Bridge	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
060-5178	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	See Avoidance Plan-Phase I and Criteria of Effects Report Addendum 2-Appendix F	NO ADVERSE EFFECT

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
071-5483	Oak Grove Church and Cemetery	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-0047	Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0050	Barn	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0322	Bent Mountain Elementary School	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0324	Sunnyside	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-0325	Reed's Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-0326	Thompson Grove Church	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-0328	Store	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-0487	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0488	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0490	Janet Wynot House, Terry Place, Terry-Coles Cemetery	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
080-0491	Log House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0493	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0494	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0495	Logan Place Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0497	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0498	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-0527	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-0528	Gas Station	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-0580	Little Hope Church, Primitive Baptist Church	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5148	Conner Cemetery	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5156	The Pines Cemetery	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
080-5161	Blue Ridge Parkway Historic District	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP intersects the Blue Ridge Parkway; however, public access will be maintained during construction.	The pipeline construction right-of-way will be cleared of vegetation prior to construction to provide safe working conditions. Along with implementing restoration measures contained in the FERC Plan, MVP is working with the Wildlife Habitat Council , to incorporate principles of Integrated Vegetation Management into MVP's right-of-way maintenance. Integrated Vegetation Management incorporates seed mix selection, vegetation maintenance scheduling, and selection of mechanical vegetation maintenance techniques to encourage a low ground cover of native species that flower for a long duration of the growing season. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Impacts Assessment for the NPS (Appendix L).	Conventional Bore (See Bore Plan-Appendix P)	NO ADVERSE EFFECT
080-5161-0188	Bridge	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5161-0341	Barn	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5161-0342	Apple Storage Building	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5161-0343	Wimmer Cemetery	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5161-0344	Earthen Dam	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5297	Elijah Henry House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5326	Lawrence Cemetery	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5630	Board-and-Batten Cabin	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

REVISED July 2017.
Shaded rows contain revisions.

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
080-5631	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5653	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5654	Service Station	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5655	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5656	Store	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5657	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5658	Farmstead	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5659	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5660	House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
080-5661	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5662	Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5663	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5664	Storage Facility	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5665	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5666	Lawrence Memorial United Methodist Church	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5667	Farm	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5668	Barn	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5669	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5675	Television Broadcasting Complexes	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
080-5677	Bent Mountain Rural Historic District	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5677-0001	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5677-0002	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5677-0003	House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
080-5677-0006	Cabin	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Inspection of this structure may determine higher vibration levels are acceptable. Alternatively, careful equipment selection can prevent damage. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	The pipeline will cross the existing access road to the cabin; however, access to the cabin will be maintained during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P)	NO ADVERSE EFFECT
080-5677-0008	Henry-Gregory House	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Inspection is recommended due to close proximity to pipeline LOD. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	MVP will utilize an existing access road for the Henry-Gregory House; however, access to the house will be minatained during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	Right-of-way personnel will maintain close contact with the residents of this property during construction activities. If excessive noise is reported by the residents during access road construction, then temporary mitigation may be offered to the residents during the brief access road construction period (See Avoidance Plan-Appendix P)	NO ADVERSE EFFECT
080-5679	Grace Terry Moncure Farm	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Not within 50 feet of the most intensive anticipated vibration sources. Vibration due to general construction activities does not have the potential to exceed the identified screening thresholds	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5681	House 11091 Bent Mountain Rd Rt 221	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT
080-5689	Coles-Terry Rural Historic District	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

*See notes at the end of part 4 of 4

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Master List Historic Properties (Part 3 of 4) - Construction-Related Effects

VDHR ID	Name	Blasting and Other Construction-Related Noise (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Blasting and Other Construction-Related Vibration (See Noise and Vibration Report-Appendix K and MVP Blasting Plan Appendix O)	Access to Historic Properties (See Avoidance and Site-Specific Residential Plans Appendix P)	Vegetation Removal and Restoration (Properties For Which Nearest Project Feature is Permanent Easement, Workspace, or Additional Temporary Workspace)	Avoidance/ Minimization/ Mitigation Measures	CONSTRUCTION-RELATED EFFECTS FINAL ASSESSMENT
080-5690	Henry-Waldron Cemetery	The predicted 8-hour Leq (equivalent continuous) sound levels from construction are not expected to exceed 80 dBA (A-weighted decibels). This complies with Federal Transit Administration Criteria of 80 dBA at occupied residences. No special noise mitigation or noise monitoring program will be implemented during the construction phase.	Inspection is recommended due to close proximity to pipeline LOD. Preconstruction survey will be conducted by team comprised of a qualified structural engineer and qualified architectural historian.	Access to the cemetery will be maintained during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	See Avoidance Plan-Phase I and Criteria of Effects Report Addendum 2-Appendix F	NO ADVERSE EFFECT
Pending - Baker House [6]	Baker House	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	MVP will not require vegetation removal at this historic property. Any potential viewshed impacts due to vegetation removal were addressed in the Visual Effects Assessment Tasks 1-4.	None	NO ADVERSE EFFECT
Pending - Coles Terry's House	Coles Terry's House / Orchard and Barn	Located beyond the noise study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	Located beyond the vibration study area which was defined as 500 feet of either the pipeline Limit of Disturbance (LOD) and 100 feet of access road LOD	MVP does not have the potential to affect access to this property during construction.	The pipeline construction temporary work space will be cleared of vegetation prior to construction to provide safe working conditions. The construction work spacewill be identified and staked by the civil survey crew prior to the start of clearing operations. Timber will be cut into usable lengths and stacked adjacent to the right-of-way in accordance with landowner preferences. Non-merchantable brush and slash will be burned, stacked (except on national forest land), or chipped.	None	NO ADVERSE EFFECT

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Master List Historic Properties (Part 4 of 4) - Operation-Related Effects and Application of Critera of Effect

VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
021-5012	Appalachian National Scenic Trail	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	No main line valves are located along, or within the viewshed of, the Appalachian National Scenic Trail historic property boundary.	NO ADVERSE EFFECT	Pending USFS[2]	Pending USFS[2]
033-0389	Flora Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of the Flora Farm.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
033-5287; 080-5161-0340	Shaver Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
033-5304	Clear View Dairy Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of the Clear View Dairy Farm.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
033-5325	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
033-5329	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
033-5398	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
033-5400	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0004	Willowcroft	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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Master List Historic Properties (Part 4 of 4) - Operation-Related Effects and Application of Critera of Effect

VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
035-0018	Doe Creek Farm, Hoge's Orchard	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-0034	Berean Baptist Church	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0052	Sarver House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0053; 035-0151-0003	McElvey Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0054; 035-0151-0018	Albert Price House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0055; 035-0151-0004	Eva Smith House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0056; 035-0151-0024	Payne Miller House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0057; 035-0151-0013	Walker Mill	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0059	Newport United Methodist Church, Mt. Olivet United Methodist Church	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT

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Master List Historic Properties (Part 4 of 4) - Operation-Related Effects and Application of Critera of Effect

VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
035-0151	Newport Historic District	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	No main line valves are located in, or within the viewshed of, the Newport Historic District.	NO ADVERSE EFFECT	EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.1)	NO ADVERSE EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.2)
035-0151-0001	Miller Building	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0002	Butler-Smith House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0005	Yancey Hale House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0006	Methodist Parsonage	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-0151-0007	Hunter House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0008	Spruce Run Street	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0009	Miller Brothers Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0010	George Buchanan House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
035-0151-0011	Walter Miller House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0012	R. H. Moomaw/Sasser House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0014	Pasterfield House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0015	C.A. Hardwick House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-0151-0016	Jemmison W. Payne House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0017	Robert Payne House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0020	Francis Payne Service Station	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0021	Sinking Creek Valley Bank	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-0022	Pent Taylor Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
035-0151-0023	C.C. Wingo House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0151-XXXX [5]	Newport Masonic Lodge No. 261	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412	Greater Newport Rural Historic District	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	One MLV is located within the Greater Newport Rural Historic District. A photo simulation depicting the potential view of the MLV within the district is provided in Appendix J-Figure 5. The visual simulation received a rating of "Inferior;" the simulation did not indicate potential views of either the permanent right-of-way which contains the MLV nor the MLV itself.	NO ADVERSE EFFECT	EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.3)	NO ADVERSE (See Section 5.3 of Criteria of Efects Report-Table 5.4)
035-0412-0010	Adlie/Adlai Jones Farm (house, pole barn, and road trace)[8]	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-0412-0011	Leffel Mansion	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0012	Mason House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0014	"Camper" cabin	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0022; 035-5073	Sinking Creek (Reynolds) Bridge	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0034	Low Water Bridge	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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Master List Historic Properties (Part 4 of 4) - Operation-Related Effects and Application of Critera of Effect

VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
035-0412-0035	Wilford Dowdy House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0036	Iron Ore Smelting Furnace	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0037; 035-0058	Winding Brook Farm/Sheldon Dowdy Residence	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0046	Price Land/J.F. and Janet McMurray House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0049	Dode Caldwell Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0051	Clarence Chipkeffer/Reynolds House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0052	Plunkett farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0053	Garfield Bowyer House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0058	George Duncan Porterfield House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
035-0412-0059	Leffel/Givens House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0061	Frank Sibold House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0065	Newport High School	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0066	High School Agriculture Building	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-0412-0070	Hampton Smith House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0233	Graham Farrier Residence	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0234	Farrier Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0235	Renquist Residence	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0237	Fidel Smith Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
035-0412-0241	Charles Atkins House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-0412-0242	Charles Atkins House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0244	Link Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0245; 035-0005	1912 Sinking Creek Covered Bridge, Link Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-0412-0246	Harvey Residence	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0247	Ira and Zettie Porterfield House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0278	Chestnut Grove School	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0282	Jim Breen Residence	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0398	Sibold	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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035-0412-0399	Hugh Givens Property	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0417	Claude and Ida Link Homeplace	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0418	Newsome Barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-0412-0465	Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-5106	Warthen House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-5117	Masters House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-5118	McDonald Place	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-5119	Big Stony United Methodist Church	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-5120	APG Lime Plant #2	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
035-5121	Caldwell Boarding House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-5122	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-5123	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
035-5126	Big Stony Creek Railroad	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
035-5127	Big Stony Creek Rural Historic District	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	No main line valves are located in, or within the viewshed of, the Big Stony Creek Rural Historic District	NO ADVERSE EFFECT	EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.5)	NO ADVERSE EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.6)
060-0290	Kent House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	Pending USFS [4]	Pending USFS [4]
060-0326; 060-0574-0105	Log Building/Bennett's Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
060-0337	Slusser Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	Pending USFS [4]	Pending USFS [4]

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
060-0340	Climens House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	Pending USFS [4]	Pending USFS [4]
060-0415	Martin House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	Pending USFS [4]	Pending USFS [4]
060-0574	North Fork Valley Rural Historic District	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	No main line valves are located in, or within the viewshed of, the North Fork Valley Rural Historic District	NO ADVERSE EFFECT	EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.7)	NO ADVERSE EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.8)
060-0574-0001	Hahn Farm 1	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0003	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0043	house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0044	house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0048	house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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060-0574-0052	house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0055	barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0089	house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
060-0574-0125	Barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
060-0574-0126	Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0127	Mill Dam	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0303	Luster's Gate General Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0304	Cooperative Cheese Factory	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0315	Rutledge Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
060-0574-0316	Luster's Gate School	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0318	Rutledge House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0319	Slusher Hosue	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0321	log house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0322	Bennett's Mill	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0323	George Robinson Farm/barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0325	Solver Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0326	Road side store (John Brown farm)	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0327	John Brown Farm /barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT

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Master List Historic Properties (Part 4 of 4) - Operation-Related Effects and Application of Critera of Effect

VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
060-0574-0328	house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0329	house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0330	James Brown Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
060-0574-0331	log house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
060-0574-0361	log house	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0362	Woods-Grubb Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-0574-0366	Robinson Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-5170	Norfolk and Southern RR Corridor #1	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
060-5171	Norfolk and Southern RR Corridor #2	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
060-5172	Norfolk and Southern RR Bridge	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
060-5178	House	-	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	Pending USFS [4]	Pending USFS [4]
071-5483	Oak Grove Church and Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0047	Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0050	Barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0322	Bent Mountain Elementary School	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0324	Sunnyside	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0325	Reed's Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0326	Thompson Grove Church	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
080-0328	Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0487	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0488	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0490	Janet Wynot House, Terry Place, Terry-Coles Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0491	Log House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0493	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0494	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0495	Logan Place Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0497	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
080-0498	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0527	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0528	Gas Station	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-0580	Little Hope Church, Primitive Baptist Church	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5148	Conner Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5156	The Pines Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5161	Blue Ridge Parkway Historic District	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	No main line valves are located along, or within the viewshed of, the Blue Ridge Parkway Historic District	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5161-0188	Bridge	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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Master List Historic Properties (Part 4 of 4) - Operation-Related Effects and Application of Critera of Effect

VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
080-5161-0341	Barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5161-0342	Apple Storage Building	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5161-0343	Wimmer Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5161-0344	Earthen Dam	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	Only properties properties within or adjacent to the permanent right-of-way will be subjected to effects from pipeline markers. This resource is not located within or adjacent to the permanent right-of-way.	Main line valves will be installed completely within the Project's permanent right-of-way. This property is not located within or adjacent to the permanent right-of-way and will not be subjected to effects from main lines valves. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2)	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5297	Elijah Henry House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
080-5326	Lawrence Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5630	Board-and-Batten Cabin	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5631	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
080-5653	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5654	Service Station	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5655	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5656	Store	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
080-5657	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
080-5658	Farmstead	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5659	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5660	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5661	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
080-5662	Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5663	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5664	Storage Facility	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5665	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5666	Lawrence Memorial United Methodist Church	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5667	Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5668	Barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5669	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5675	Television Broadcasting Complexes	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. This resource is not located within or adjacent to the permanent right-of-way and, therefore, not be subjected to effects realted to main line valves.	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT

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VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
080-5677	Bent Mountain Rural Historic District	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	No main line valves are located along, or within the viewshed of, the Bent Mountain Rural Historic District.	NO ADVERSE EFFECT	EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.9)	NO ADVERSE EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.10)
080-5677-0001	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5677-0002	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5677-0003	House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5677-0006	Cabin	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
080-5677-0008	Henry-Gregory House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5679	Grace Terry Moncure Farm	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5681	House 11091 Bent Mountain Rd Rt 221	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	NO EFFECT	N/A-NO EFFECT
080-5689	Coles-Terry Rural Historic District	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of historic properties.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	No main line valves are located along, or within the viewshed of, the Coles-Terry Rural Historic District.	NO ADVERSE EFFECT	EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.11)	NO ADVERSE EFFECT (See Section 5.3 of Criteria of Efects Report-Table 5.12)

REVISED July 2017.
Shaded rows contain revisions.

Master List Historic Properties (Part 4 of 4) - Operation-Related Effects and Application of Critera of Effect

VDHR ID	Name	Permanent Right-of-Way Maintenance	Pipeline Markers	Main Line Valves	OPERATION-RELATED EFFECTS FINAL ASSESSMENT	Application of the Criteria of Effect [9]	Application of the Criteria of Adverse Effect [10]
080-5690	Henry-Waldron Cemetery	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This will occur approximately twice a year at railroad and road crossings and approximately every 15 months in all other locations along the ROW. This activity is not anticipated to affect access to or the use of the Henry-Waldron Cemetery.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	No main line valves are located along, or within the viewshed of, the Coles-Terry Rural Historic District.	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
Pending - Baker House [6]	Baker House	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
Pending - Coles Terry's House	Coles Terry's House / Orchard and Barn	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	NO ADVERSE EFFECT	EFFECT	NO ADVERSE EFFECT
Pending - Fire Tower	Fire tower	Operational activity on the pipeline will be limited primarily to maintenance of the right-of-way and inspection, repair, and cleaning of the pipeline. This property is not located within the permanent right-of-way, and will, therefore not be subjected to effects related to right-of-way maintenance.	These markers are purposefully placed in high visibility areas along roadways, railways, and waterbodies where other signage already exists. As such, the effect of these permanent markers on the surrounding landscape will be inferior when viewed within the context of existing vegetation, road signs, utility markers, fences, mailboxes, etc.	Main line valves will be installed completely within the Project's permanent right-of-way. The potential impacts of these permanent above-ground facilities on individual historic properties within the indirect APE were accounted for during Tasks 1 and 2 of the visual impact assessment (Section 3.2).	0	NO EFFECT	N/A-NO EFFECT

[1] Any primary resources located within previously-recorded historic districts (not reinventoried by MVP as per the project's Phase I survey methods) and the status of which has not been determined by VDHR (noted in V-CRIS and/or NRHP nomination as "unevaluated"), are for the purpose of this analysis labeled as "Primary Contributing." Any resources recommended for Phase II survey during the Phase I survey are identified as "Primary Contributing" and/or "Eligible."

[2] MVP continues to consult with the USFS with regards to the crossing location, potential impacts, effects assessment, and mitigation strategies for the Appalachian Trail Historic District. MVP also continues to consult with USFS regarding historic resources located on lands under USFS jurisdiction. MVP will provide USFS reviews of all impact/effects assessments regarding resources under USFS jurisdiction to VDHR and with file with the FERC. Task 1 was completed for these resources, for planning and consultation purposes only, in order to confirm the resources' location within the Project APE and the potential for these resources to incur views of the Project.

[3} NPS requested, May 12, 2017, that the NRHP statuses for those properties, previously indicated as "pending NPS" in the Master List, be revised to reflect MVP's VDHR-approved approach to treat all resources recommended for Phase II study as NRHP-eligible for purposes of applying the Criteria of Adverse Effect and in complying with Section 106 of the NHPA.

[4] NRHP Eligibility being evaluated. The NRHP nomination will be considered for NRHP listing at a meeting of the Virginia Board of Historic Resources and the Virginia State Review Board in March 2017

[5] "XXXX" indicates that no VDHR number exists for resource, identified by GNRHDC's consultant

[6] Not all resources, noted in V-CRIS and the Property Information Form as primary contributing resources to the Coles-Terry Rural Historic District, have been assigned VDHR identification numbers; these are labeled as "Pending"

[7] Resources categorized as either "Inferior" or "Co-Dominant," would incur views of the Project; however, when viewed within the context of the existing landscape and after taking into account the screening that vegetation and man-made features would provide, the potential impacts would not diminish the resources' integrity; the impact would constitute an "Effect" but "No Adverse Effect"

[8] The Adlie Jones Farm (035-0412-0010) road trace (035-0412-0466) was recommended for Phase II study by New South Associates in the report entitled Phase I Reconnaissance Architectural Survey for the Mountain Valley Pipeline, Craig and Giles Counties, Virginia. The report was submitted to VDHR for review March 15, 2016 and VDHR concurred with this recommendation by letter dated May 15, 2016. Subsequently, the portion of the road trace within the direct APE was civil surveyed by MVP in order confirm the road trace's location and to collect detailed topographical contours of the resource. The results were reviewed against historic USGS Newport, VA quadrangle mapping (1965) and the road trace, as surveyed, did not correspond to any driveway, road, etc. depicted on the 1965 Newport, VA quadrangle. Instead, the research indicated that the alleged historic-era road trace is likely a tractor path or unimproved driveway providing access to the eastern portion of the property. As additional work did not confirm the presence of a historic-era road in this location, Tetra Tech recommended by email to VDHR dated February 2, 2017 that the resource identified in the Phase I report as a road trace does not meet the requirements to be considered individually NRHP-eligible. Tetra Tech recommended that the Criteria of Effects assessment focus on the Adlie Jones Farm (035-0412-0010) as a whole and not on the road trace (035-0412-0466). VDHR concurred with this recommendation in an email dated February 8, 2017, stating that "Based on the information provided, DHR does not object to the removal of Adlie Jones Road Trace (DHR ID #035-0412-0466) from further consideration. Impacts assessment should still be completed for Adlie Jones Farm (DHR ID #035-0412-0010)." This correspondence is provided in Appendix A of the Criteria of Effects Report.

[9] Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria. Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria. Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.

[10] Physical destruction of or damage to all or part of the property; Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36CFR part 68) and applicable guidelines; Removal of the property from its historic location; Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance; Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features; Neglect of the property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native organization; and Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

[11] MVP produced photo simulations on selected individual resources within historic districts per VDHR's July 7, 2017 request.

NOTE: At a meeting held March 27, 2017, MVP and VDHR agreed on the process for documenting additional historic architecture survey results and, if necessary, further effects assessment as access to additional survey tracts is obtained during the late spring and summer 2017. It was agreed that any addendum reports would tier to the comprehensive report expected to be submitted to the VDHR in April 2017 and that the Master List would be updated to reflect any subsequent additions and submitted as part of the addendum report(s). To date, one historic property—the Henry Waldron Cemetery (080-5690)—will be included in a revised Master List and addressed in a Criteria of Effects addendum report. Although the cemetery was not recommended individually NRHP-eligible by NSA in the Phase I Architectural Combined Addendum Summary Report (March 2017), due to the cemetery's location within the boundaries of the Coles-Terry Rural Historic District, it could potentially serve as a primary contributing resource to that district and will undergo effects assessment. Regardless of the effects assessment for this cemetery, MVP will avoid this resource. An avoidance plan for this cemetery is provided in the Criteria of Effects Report as Appendix P.

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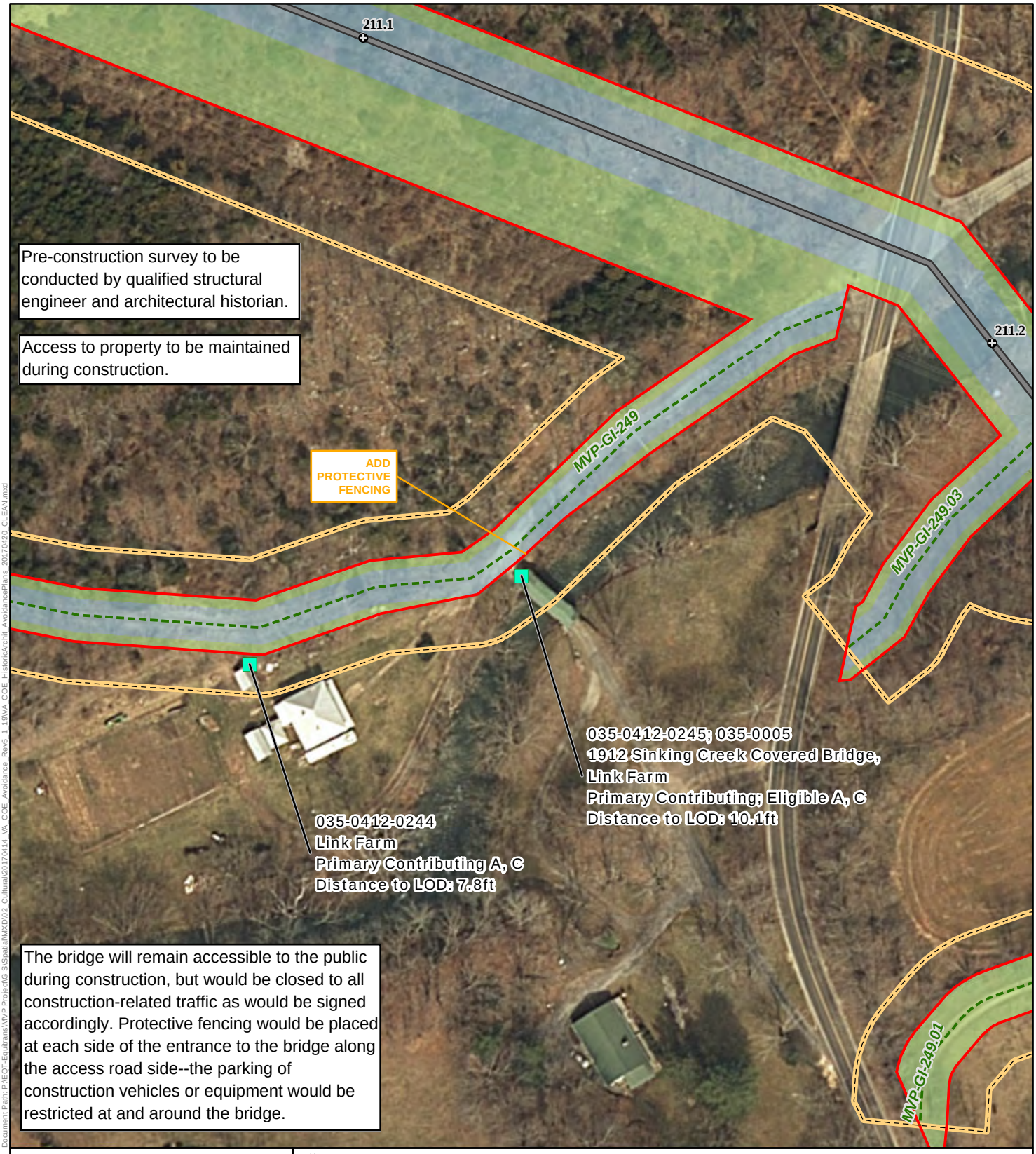
mail@mountainvalleypipeline.info

ATTACHMENT 3

SITE PLANS AND PHOTO SIMULATIONS FOR LINK FARM (035-0412-0244), HOUSE AT WINDSWEPT LANE (033-5325)



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Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 50 100 200 Feet

Mountain Valley PIPELINE

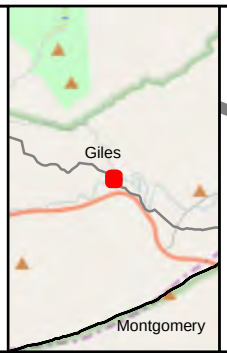
Avoidance Plan
Site: 035-0412-0244
Link Farm
Giles County, Virginia

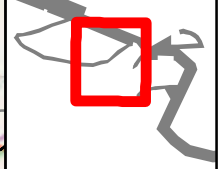
August 2017

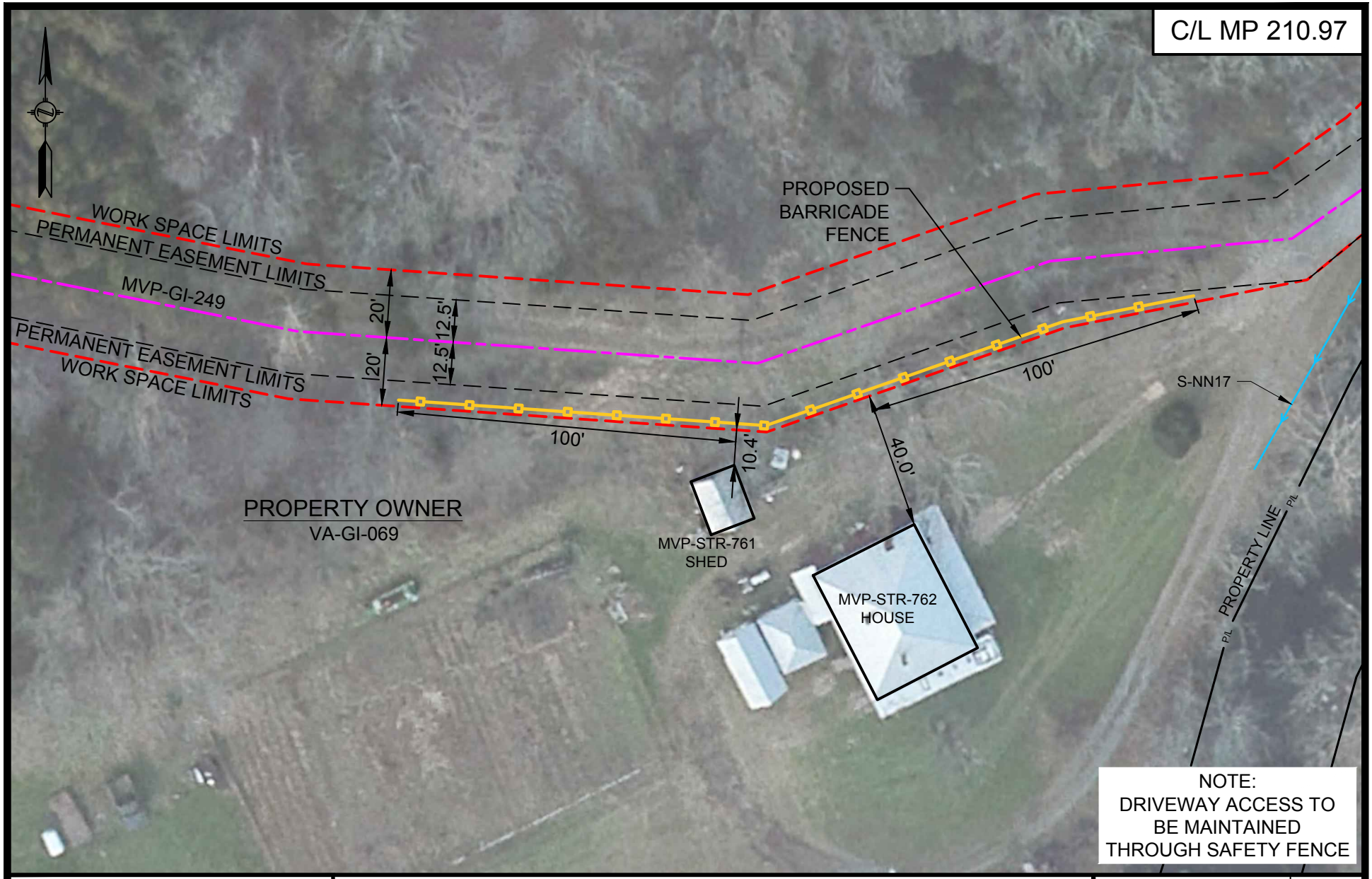
Data Sources: USGS, ESRI, Open Street Map.

Legend

- Avoided Historic Architectural Resource
- Milepost
- Proposed Route
- Access Road
- Proposed Limits of Disturbance
- Direct APE
- Permanent Easement
- Temporary Easement







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HEI PROJECT NO.: 14-10-052

Mountain Valley PIPELINE

CONSTRUCTION DETAILS - RESIDENTIAL SITE SPECIFIC

MOUNTAIN VALLEY PIPELINE PROJECT
PROPOSED H-600 PIPELINE
GILES COUNTY, VIRGINIA

SHEET 1 OF 1

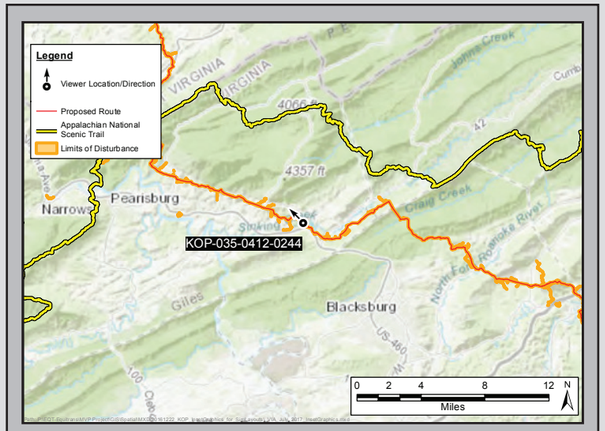
DRAWN BY: HEI(SRD)	10/14/16
DRAFTING CK:	
ENVIRONMENTAL CK:	
ENGINEERING CK: .	.
ALIGN. SHEET: PA-GIVA-H600-16	
DRAWING NO.: **RSS-H600-188**	
SCALE: 1" = 40'	REV. 0
DATE OF PLOT: 10/10/2016 3:05 PM	

Contributing Resource to the Greater Newport Rural Historic District

Existing Condition

Post-Construction - A permanent access road leading to the pipeline right-of-way would be visible from this viewpoint in the immediate foreground, but would be mostly screened by vegetation. Vegetation clearing associated with widening an existing tractor path (see gate in “Existing Condition” photograph above) for the construction of the permanent access road would be visible where the road crosses over a hill adjacent to Link Farm. The permanent access road would consist of a gravel surface.

Rating for PT-035-0412-0224 Photo Simulation: Inferior



Photograph Information

Time of photograph: 12:16 PM

Date of photograph: 7.18.2017

Weather condition: Sunny

Viewing direction: Northwestt

Latitude: 37°18’40.08”N

Longitude: 80°31’1.30”W

Photo Location: The photo was taken from along Covered Bridge Lane approximately 0.3 mile north of Highway 460 and approximately 1.6 miles northwest of the community of Newport, Virginia.

Mountain Valley Pipeline Project

Link Farm

PT-035-0412-0224

Giles County, Virginia

Mountain Valley

TETRA TECH

Document Path: P:\EQT-Equitrans\MVP Project\GIS\spatial\MXD\02_Cultural\20170414_VA_COE_Avoidance_Rev5_1_18\VA_COE_HistoricArchit_AvoidancePlans_20170420_CLEAN.mxd

Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 50 100 200 Feet

Mountain Valley PIPELINE

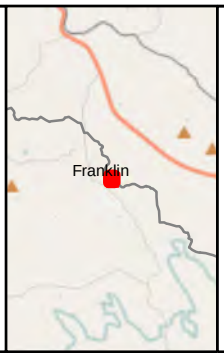
Avoidance Plan
Site: 033-5325
House
Franklin County, Virginia

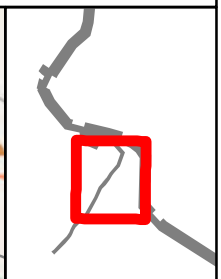
April 2017

Data Sources: USGS, ESRI, Open Street Map.

Legend

- Avoided Historical Architectural Resource
- Milepost
- Proposed Route
- Access Road
- Proposed Limits of Disturbance
- Direct APE
- Permanent Easement
- Temporary Impact

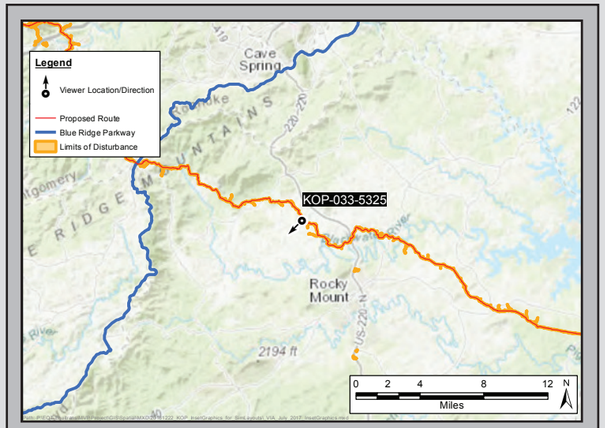




Existing Condition

Post-Construction - A 25-foot-wide permanent access road leading to the 50-foot-wide permanent pipeline right-of-way would be visible from this viewpoint in the immediate foreground. The permanent access road would consist of a gravel surface. The existing two-track dirt road is an abandoned former county road that would be restored to historic-era conditions. The permanent access road would follow the former road alignment and would be of compatible width and construction material.

Rating for PT-033-5325 Photo Simulation: Dominant (No Adverse Effect due to the restoration of historic-era landscape feature consistent with the recommended period of significance for the resource)



Photograph Information

Time of photograph: 11:09 AM

Date of photograph: 7.18.2017

Weather condition: Sunny

Viewing direction: Southwest

Latitude: 37° 4’19.32”N

Longitude: 79°56’18.97”W

Photo Location: The photo was taken from along Windswept Lane approximately 0.2 mile northeast of Grassy Hill Road and approximately 2.7 miles west of the community of Wirtz, Virginia.

Mountain Valley Pipeline Project

House at Windswept Lane

PT-033-5325

Franklin County, Virginia

Mountain Valley

TETRA TECH

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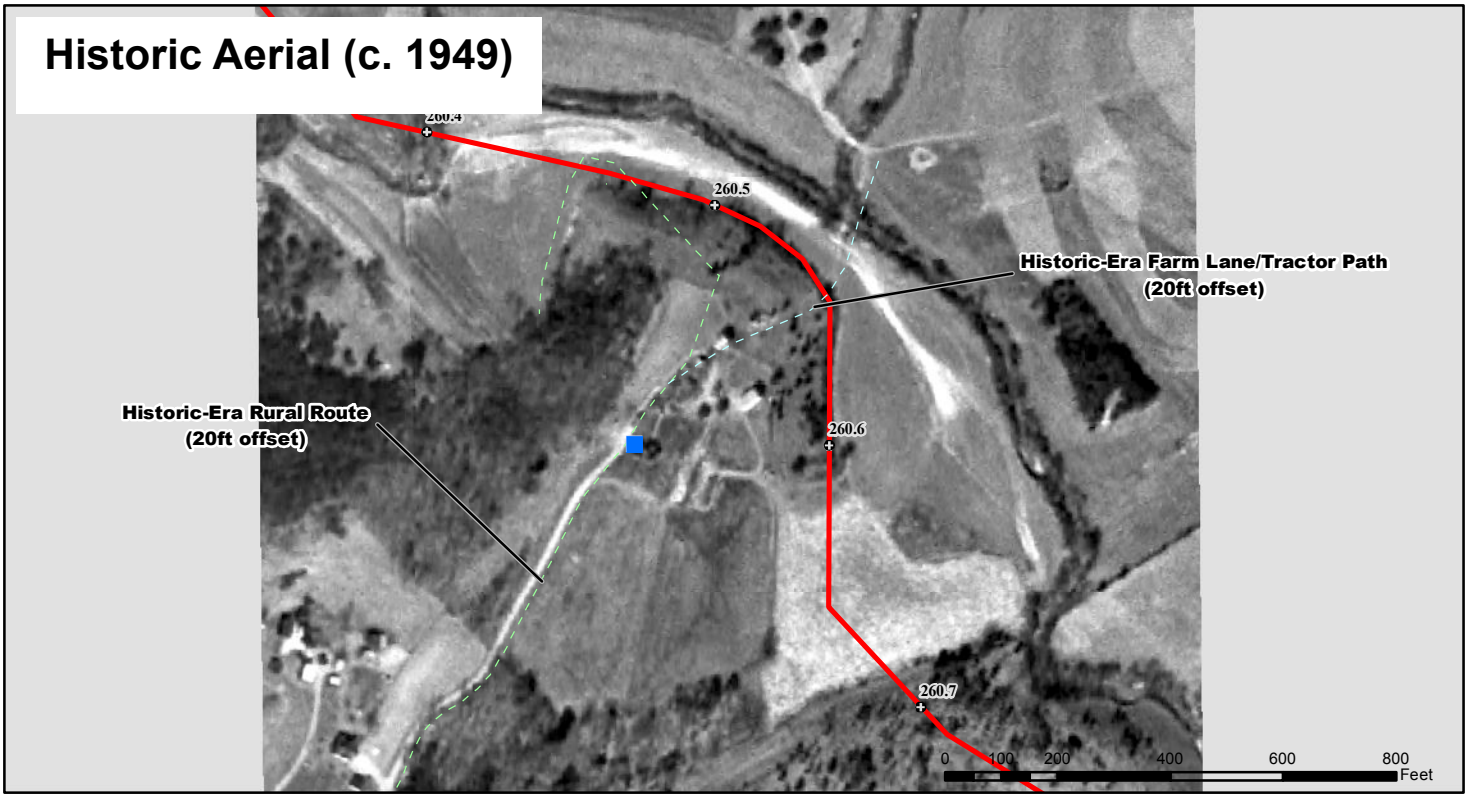
mail@mountainvalleypipeline.info

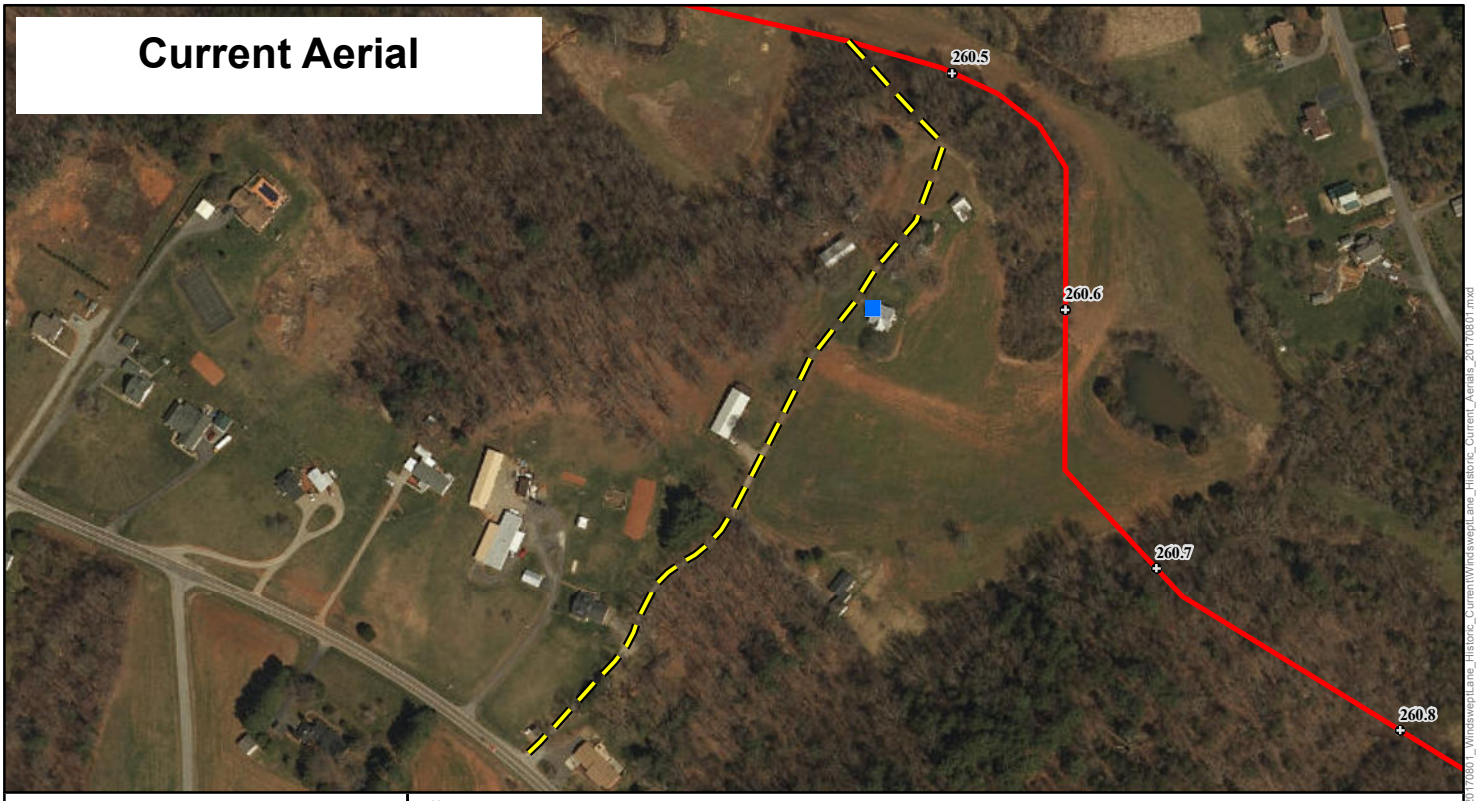
ATTACHMENT 4

HISTORIC AND CURRENT AERIAL PHOTOGRAPHY FOR
WINDSWEPT LANE (033-5325)

Historic Aerial (c. 1949)



Current Aerial



Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 100 200 400 600 800
Feet

Mountain Valley PIPELINE

Historic and Current Aerial Photography
030-5325
House (190 Windswept Lane)
Franklin County, Virginia

August 2017

Data Sources:Nationwide Environmental Title Research, LLC (NETR) , ESRI Streaming Data, 2017.

Legend

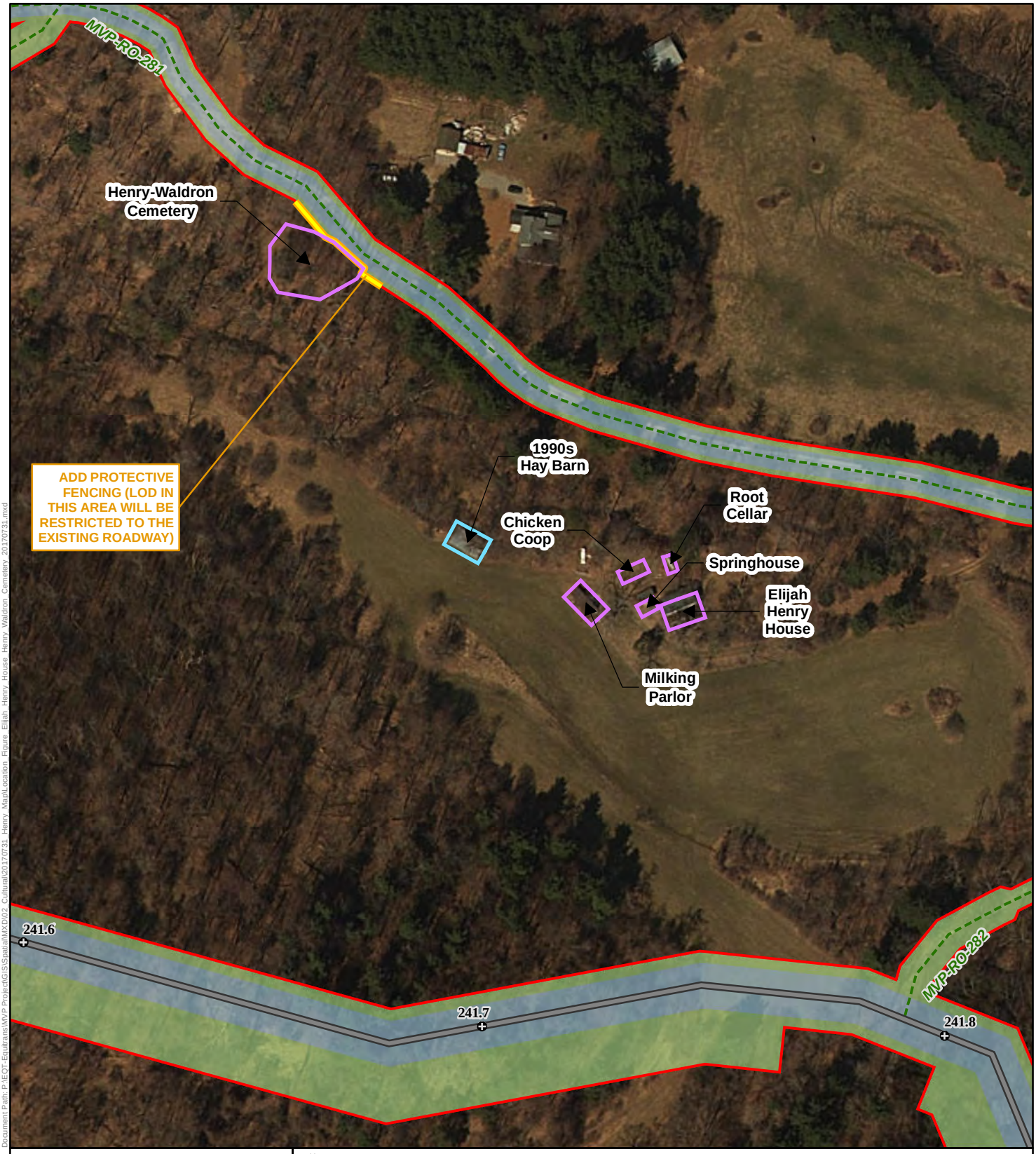
- 030-5325, House (190 Windswept Lane)
- Access Road
- Proposed Route
- Milepost

Document Path: P:\EQT-Equitrans\MVP Project\GIS\Spatial\MXD\02_Cultural\20170801_WindsweptLane_Historic_Current\WindsweptLane_Historic_Current_Aerials_20170801.mxd

555 Southpointe Boulevard, | Canonsburg, PA 15317
844-MVP-TALK |
mail@mountainvalleypipeline.info

ATTACHMENT 5

LOCATION MAP FOR ELIJAH HENRY HOUSE (DHR ID #080-5297)
AND HENRY-WALDRON CEMETERY
(DHR #080-5690)



Document Path: P:\EQT-Equitrans\MVP Project\GIS\Spatial\MXD\02_Cultural\20170731_Henry_Map\Location_Figure_Elijah_Henry_House_Henry_Waldron_Cemetery_20170731.mxd

Mountain Valley Pipeline Project

N

NAD 1983 UTM 17N

0 50 100 200 Feet

Mountain Valley PIPELINE

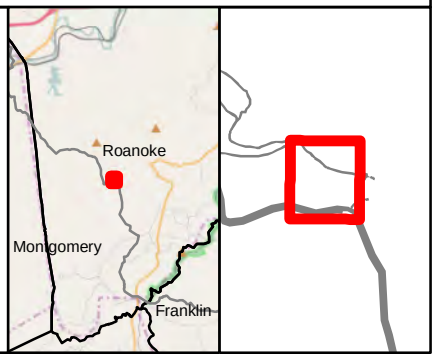
Location of
Elijah Henry House (080-5297) and
Henry-Waldron Cemetery (080-5690)
Roanoke County, Virginia

August 2017

Data Sources: USGS, ESRI, Open Street Map.

Legend

- Aboveground Historic Resource
- Modern Structure
- Milepost
- Protective Fencing
- Proposed Route
- Access Road
- Proposed Limits of Disturbance
- Permanent Easement
- Temporary Easement



555 Southpointe Boulevard, | Canonsburg, PA 15317
844-MVP-TALK |
mail@mountainvalleypipeline.info

ATTACHMENT 6

CORRESPONDENCE

From: Shepherd, Albert B.
Sent: Thursday, August 11, 2016 1:51 PM
To: Durofchalk, David <DDurofchalk@eqt.com>
Subject: FW: Windswept Lane

Screenshot:

Thank You,

Ben Shepherd
Mountain Valley PIPELINE

Landman II
Cell: (304) 815-3080
Email: ashepherd@eqt.com
B-Schedule

From: Shepherd, Albert B.
Sent: Thursday, August 11, 2016 1:50 PM
To: Durofchalk, David
Cc: Barnhouse, Kameron; tim.wall@coatesfs.com
Subject: RE: Windswept Lane

The landowner is requesting that road improvement be left in place. Is this an issue from a cultural standpoint?

Thank You,

Ben Shepherd
Mountain Valley PIPELINE
Landman II
Cell: (304) 815-3080
Email: ashepherd@eqt.com
B-Schedule

July 27, 2017

Megan E. Neylon
Supervisor - Permitting
EQT

Ms. Neylon:

Thank you for the invitation to participate in mitigation discussions concerning rural historic districts potentially affected by the Mountain Valley Pipeline. With less than a week's notice about the proposed, we are unable to commit the staff time in order to attend. Also, at this time, we believe it is premature to discuss mitigation efforts due to what we perceive as the incomplete and inadequate Final Environmental Impact Statement which was only recently released. Without proper identification of historic resources, and full understanding of the nature of the threats to them, we believe additional levels of review need to be undertaken by FERC to address avoidance and minimization possibilities before discussing mitigation.

I also want to bring to your attention to our letter submitted to FERC and the Virginia Department of Historic Resources on June 29, 2017 concerning a group of archaeological sites in Franklin County, Virginia that we strongly believe need further testing. We have attached this letter to this email for your convenience. We trust we will soon receive a reply concerning to this letter.

Sincerely,

Sonja Ingram

Sonja Ingram
Preservation Field Services Manager
Preservation Virginia

PRESERVATION VIRGINIA
204 West Franklin Street • Richmond, Virginia 23220-5012 • 804.648.1889 • (f) 804.775.0802 • www.preservationvirginia.org
Connecting people and resources to ensure the continued vitality of Virginia's historic places

June 29, 2017

Roger Kirchner
Virginia Department of Historic Resources
2801 Kensington Ave.
Richmond, VA 23221
SENT BY EMAIL

RE: Mountain Valley Pipeline/Docket Number CP16-10-000. Potential adverse effects of six archaeological sites 44FR0240, 4FR0372, 44FR0398, 44FR0399, 44FR0400 and 44FR0392; located in Franklin County, Virginia.

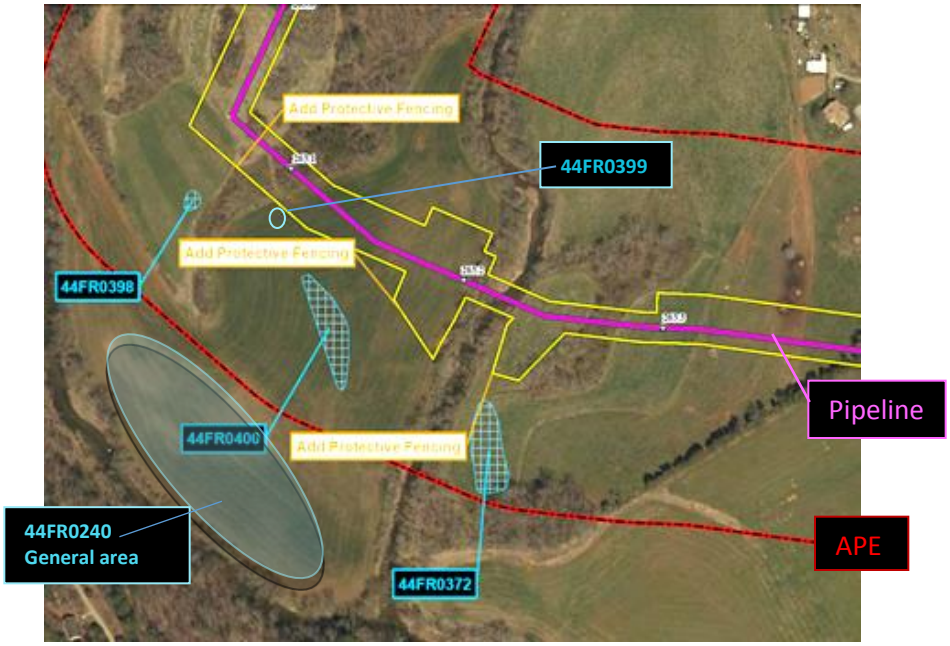
Dear Mr. Kirchner:

Preservation Virginia is submitting this letter in response to the *Final Environmental Impact Statement* and the *Phase II Archaeological Evaluations of 18 Sites, Franklin County, Virginia* by Tetra Tech, Inc. for the Section 106 review for the Mountain Valley Pipeline. We are concerned about six prehistoric archaeological sites; 44FR0240, 4FR0372, 44FR0398, 44FR0399, 44FR0400 and 44FR0392; located in Franklin County, Virginia that appear to be in areas of significant prehistoric use and habitation. We consider these sites to have not been fully evaluated and may be adversely affected by the Mountain Valley Pipeline and we encourage further testing and possibly more stringent mitigation measures.

Blackwater River Floodplain Sites 44FR0240, 4FR0372, 44FR0398, 44FR0399, 44FR0400
The first five sites listed above are located in close proximity to each other on a floodplain at the confluence of Blackwater River and Little Creek. Archaeological investigations completed during the Section 106 review of the MVP identified four of these sites (4FR0372, 44FR0398, 44FR0399 and 44FR0400), all of which were located within the direct 300-foot Area of Potential Effect (APE) for the pipeline. Site 44FR0240 was identified by non-pipeline related testing and appears to be located directly south of the APE.

<u>Site 44FR0372</u>
Site 44FR0372 was evaluated at the Phase II level and was found to contain intact, buried cultural deposits and was considered potentially eligible for National Register of Historic Places. No features were recovered during the Phase II, however, due to the buried cultural deposits, there is a high probability that intact features associated with a campsite or village exist that could provide important information on prehistoric people of Virginia. The fire-cracked rock recovered from the buried deposit may indicate cooking hearths that could provide carbon samples to help date the

site. It is also not uncommon to find Woodland-era burials in association with sites located in floodplains in Virginia.



Map of Blackwater River floodplain with five sites in relation to the proposed MVP pipeline and the Area of Potential Effect.

Site Boundaries

All of the sites' boundaries appear to have been delineated by means of negative shovel test pits. Shovel test pits void of artifacts are a typical way to delineate site boundaries, however, defining boundaries for many archeological sites can be difficult due to unknown subsurface artifacts and features.

Prehistoric artifacts including stone tools and lithics, fire-cracked rocks and prehistoric pottery sherds that date from the Paleo-Indian to the Late Woodland time periods have been recovered from the entire floodplain by the landowners for over fifty years. The sites identified during the Section 106 review show a similar wide-ranging temporal assemblage of artifacts.

The fact that a large number of artifacts dating from approximately 15,000 B.C. – 1600 A.D. ago have been found widely distributed on the surface of all parts of the floodplain would indicate, without further subsurface testing, that the entire landform is culturally significant with the likelihood of many, possibly overlapping sites with blurred boundaries, that date from the Paleo to Woodland time periods. Because of this we believe the boundaries of all of the currently recorded sites are tenuous and only further subsurface testing can determine if substantial intact archaeological evidence extends outside of the current sites' boundaries.

The most recent path of the pipeline is approximately 200 feet distance from the sites. If the current sites' boundaries are inaccurate, there is the high probability that important intact archaeological features may be destroyed by vehicular movement and subsurface disturbance during the excavation of the pipeline trench.

To ensure the landform is fully evaluated, the boundaries of all of the sites need to be further investigated. The existence of buried cultural deposits recovered at 44FR0372 strengthens the need for more testing at the Phase II level. Sites 44FR0398, 44FR0399, 44FR0400 should also be evaluated at the Phase II level. If, after further testing, additional substantial archaeological evidence is recovered, more effective mitigation measures, other than protective fencing, should be considered.

Site 44FR0240

The existence of 44FR0240, directly south of the APE, further increases the potential that the entire landform, or large parts of the landform, are culturally significant and should be further investigated. 44FR0240 was investigated in 1992 by the Archaeological Society of Virginia under Daniel E. Vogt. To support our opinion that a large significant site or sites may exist on the floodplain, Vogt states in his survey description, "Recent flooding has scattered artifacts to such an extent that accurate site size cannot be estimated nor was provenience of artifacts collected attempted. Primarily Woodland period artifacts with a modest presence of earlier periods represented. Density of lithic and ceramic debris suggests a significant woodland period occupation/s. Diagnostic lithics also indicate separate occupations at different times within the Woodland Hamlet or village sized settlement is inferred."

While 44FR0240 is currently outside of the direct APE, its close proximity to the other four recorded sites in the floodplain necessitates the need to consider it fully along with the other sites to determine if the boundaries overlap.

Deeply Buried Cultural Deposits

Floodplains are formed by flooding and river migration that creates colluvial, alluvial and aeolian deposits that have the potential to bury archaeological sites. It appears the floodplain being considered contains either colluvial or alluvial deposits. As a result, deep testing is needed to identify the potential for deeply buried sites. Depending on the depth of the colluvial deposits, this testing may include deep shovel tests or the excavation of deep test units or mechanical trenching.

North Fork and Blackwater River Site 44FR0392

Site 44FR0392 is a prehistoric site with a high artifact density of mainly stone tools and lithics. After the Phase II evaluation, Tetra Tech interpreted the site as a base camp that was repeatedly visited from the Middle Archaic to the Late Woodland time periods and found that the site contains buried deposits that have the potential to contain intact activity areas and features.

We agree with this conclusion but are concerned with the current site boundaries. Site 44FR0392 is located within the direct APE, close to the proposed pipeline's path. The site's high number of artifacts and existence of a buried cultural level requires further subsurface testing to determine if the site's boundaries are more extensive. If substantial archaeological evidence extends outside of the current boundaries, more effective mitigation measures should be considered.

Conclusions

Due to the close proximity of the current path of the pipeline, we strongly encourage that further subsurface testing at the Phase II level be completed for sites 44FR0240, 4FR0372, 44FR0398, 44FR0399 and 44FR0400 to determine precise site boundaries and the full extent and integrity of buried cultural layers that could be harmed by the pipeline. We also encourage deep testing in the Blackwater River floodplain to determine if any deeply buried sites exist that could be affected.

Due to close proximity of the pipeline and the existence of a high number of artifacts and buried deposits, we also encourage that further testing at the Phase II level be completed for site 44FR0392 so that the extent and importance of the site is fully evaluated.

It is our understanding that all of the cultural resource surveys and investigations have not been completed for the Mountain Valley Pipeline and we trust that construction will not begin on the pipeline until all surveys and the Section 106 review is completed and any adverse effects resolved with acceptable mitigation measures in place. Thank you again for your time. Feel free to contact me if you have any questions or concerns.

Sincerely,

Sonja Ingram

Sonja Ingram
Preservation Field Services Manager
Preservation Virginia

CC: Kimberly D. Bose, Federal Energy Regulatory Commission

Evelyn Tidlow

From: Centofanti, John <JCentofanti@eqt.com>
Sent: Thursday, January 18, 2018 12:01 PM
To: Richard Chidester; John Ross
Cc: Evelyn Tidlow; Justin Curtis
Subject: MVP Responses to Giles County Questions

Gentlemen – please find responses below to the two remaining questions from our meeting last week:

A. MVP to provide County with correspondence with the SHPO and other relevant documentation regarding location and identification of resources in Giles County (*provided January 16*)

B. MVP to provide County with additional information on agricultural practices that will be allowed or prohibited in the right of way and a summary of how such information is provided to current and future landowner

Response

MVP will utilize minimum Class 2 pipe in areas of karst, including Giles County, VA, which will withstand greater stress should a sinkhole develop under the pipe. MVP hired a consultant, D.G. Honegger Consulting, that specializes in constructing pipelines in areas with potential external forces, to perform an analysis of potential karst construction methods of the Project. The results of this analysis documented that class 2 pipe buried with a normal depth of cover of 3 feet could tolerate a sinkhole span of 145 feet, and if buried at an abnormal depth of cover of 10 feet, could tolerate a sinkhole span of 57 feet.

MVP is designed to accommodate a piece of farm equipment at 40,000 lbs. in agriculture areas. In instances where a landowner requires a crossing of greater than 40,000 lbs., the MVP Land team will work with the landowner and the MVP Engineering team in order to determine the proper engineering considerations to accommodate the specific landowner request. Engineering considerations at specific crossings could include items such as timber mats, additional gravel, air bridge, concrete, etc. There are too many variables beyond the weight of the equipment to be able to provide a blanket approval greater than the 40,000 lbs. In each particular case items such as the PHSMA class location (design factor), weight distribution of the requested piece of equipment (tracked vs. rubber tire, number of axles, etc.), permanent vs. temporary crossing, soil conditions, and installed pipeline depth of cover are considered as part of the engineering evaluation.

There are several examples along the MVP route where landowner requests for crossings greater than 40,000 lbs. have been accommodated. Specifically, in Giles County, there have been at least four examples where MVP has worked with the landowners to allow site specific crossings ranging from 60,000 to 100,000 lbs. It is imperative that landowners communicate potential crossing locations with the MVP Land team. The site specific designs of these crossings are critical to ensure pipeline integrity due to point loading on the pipe, increased soil compaction, and protection of environmental resources.

C. MVP to provide County with additional information regarding the possibility of future pipelines being co-located in the existing right of way

Response

axles, etc.), permanent vs. temporary crossing, soil conditions, and installed pipeline depth of cover are considered as part of the engineering evaluation.

There are several examples along the MVP route where landowner requests for crossings greater than 40,000 lbs. have been accommodated. Specifically, in Giles County, there have been at least four examples where MVP has worked with the landowners to allow site specific crossings ranging from 60,000 to 100,000 lbs. It is imperative that landowners communicate potential crossing locations with the MVP Land team. The site specific designs of these crossings are critical to ensure pipeline integrity due to point loading on the pipe, increased soil compaction, and protection of environmental resources.

C. MVP to provide County with additional information regarding the possibility of future pipelines being co-located in the existing right of way

Response

In our discussion last Friday, you asked for additional information about the possibility of future pipelines being sited within existing right of way. You referred to language in an easement agreement you had reviewed which granted MVP the right to site an additional pipeline within the right of way on the property.

Following our call, I reached out to our land department to get further information on the easement provision you referenced. I've been informed that the referenced provision is boilerplate and is included in MVP/EQT's standard land agreements. It does not indicate any plan or proposal to add a second pipeline to the right of way. The purpose of this standard language is simply to allow MVP to avoid having to renegotiate its existing easements in the event it were to decide, at a future date, to seek approval to co-locate a section of a new pipeline within one of its existing easements. To reiterate, MVP has not proposed to add a second pipeline to the existing right of way through Giles County.

The easement provision does not give MVP any right, authorization, or shortcut for the construction of any hypothetical future pipeline. Any future pipelines, whether or not they share an existing right of way, would have to through the process of obtaining all necessary federal and state approvals.

Please don't hesitate to contact me if you have any questions or comments.

Thanks,

John

John J. Centofanti
Corporate Director, Environmental Affairs
EQT Corporation
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222
412-395-3305 (office)
412-417-3729 (cell)

To learn about EQT's sustainability efforts visit: https://csr.eqt.com
To learn about EQT's sustainability efforts visit: https://csr.eqt.com

Preserving America's Heritage

January 18, 2018

Mr. James Martin
Chief, Gas Branch 3
OEP/DG2E/Gas 3
Federal Energy Regulatory Commission
Washington, D.C. 20426

Ref: ACHP Comments on Draft Treatment Plans for Five Historic Districts
Mountain Valley Pipeline Project
Docket No. CP16-10-000

Dear Mr. Martin:

The Advisory Council on Historic Preservation (ACHP) is providing general comments on the treatment plans developed by Mountain Valley Pipeline, LLC (Mountain Valley) to address adverse effects to historic properties from construction of the Mountain Valley Pipeline Project. The treatment plans were developed in August 2017 for effects to:

1) North Fork Valley Rural Historic District (060-0574);
2) Greater Newport Rural Historic District (035-0412);
3) Big Stony Creek Historic District (035-5127);
4) Bent Mountain Rural (080-0322) and Coles-Terry Rural Historic Districts (080-5689).

The ACHP has reviewed the treatment plans and also the comments shared with us by a number of consulting parties and stakeholders. In this letter we provide general observations regarding the resolution of adverse effects as proposed in the draft Treatment Plans and in the comments submitted to us for our consideration.

In sum, the resolution of adverse effects proposed by Mountain Valley is essentially limited to two treatment actions: the development of National Register of Historic Places nomination forms and site inventory forms for several of the districts and the development of one-hour driving tours with associated brochures and way-finding signage for a number of the districts. Many of the consulting parties and stakeholders have indicated that they find the proposed treatments to be minimal as they fail to appropriately resolve adverse effects. The ACHP agrees with this conclusion since the actions proposed in the draft Mountain Valley treatment plans will not adequately mitigate the project adverse effects on the historic districts, contributing properties, setting and context. Consulting parties and stakeholders have suggested that Mountain Valley make a more concerted effort to minimize and mitigate the effects from the undertaking on the historic districts and their contributing elements.

Specifically, they request that FERC require Mountain Valley to follow practices similar to those required by the USFS in Jefferson National Forest to reduce the distinctive appearance of the right-of-way (ROW) in high visibility areas in and near the affected historic districts. These practices include reducing the width of the permanent operational ROW that is cleared and converted to herbaceous cover and establishing a vegetative transition within the operational ROW by planting shrubs, small trees, and shallow rooted trees along the edge of the corridor. In addition, consulting parties and stakeholders request that FERC and Mountain Valley:

1) Maintain the agricultural, grazing, and tree harvesting uses along the ROW where they currently exist and are recognized as important characteristic of affected historic districts;
2) Consider working with local officials to establish financial resources to assist in preserving the rural historic character of the historic districts; and,
3) Explore how future collocation of additional natural gas pipelines in the ROW can be avoided to preserve the existing setting of the affected historic districts.

We found the comments and recommendations provided by the consulting parties and stakeholders reasonable for a project of this magnitude. Accordingly, the above suggestions to resolve adverse effects would be useful to preserve the overall setting and feeling of the affected historic districts. We also note that consulting parties and stakeholders repeated their request that FERC and the project proponent consult further with them about these issues. Given that the federal agency is ultimately responsible for determining an appropriate resolution of adverse effects for undertakings that it approves, assists, or authorizes, this request is reasonable. A consultation process regarding treatment plans that includes the federal agency, project proponent, consulting parties, and other stakeholders can result in appropriate steps to address adverse effects that may benefit the broader communities and not create a burden on the project proponent.

Should you have any questions or wish to discuss this matter further, please contact John T. Eddins, PhD at 202-517-0211, or by e-mail at jeddins@achp.gov.

Sincerely,

Charlene Dwin Vaughn

Charlene Dwin Vaughn, AICP
Assistant Director
Federal Permitting, Licensing, and Assistance Section
Office of Federal Agency Programs

From: Richard Chidester
Sent: Monday, January 22, 2018 10:10 AM
To: 'Centofanti, John' <JCentofanti@eqt.com>; John Ross <jross@gilescounty.org>; Chris McKlarney <cmcklarney@gilescounty.org>
Cc: Evelyn Tidlow <E.Tidlow@gaiconsultants.com>; Justin Curtis <justin@aqualaw.com>
Subject: RE: MVP Responses to Giles County Questions

Mr. Centofanti: We reviewed with the Giles County Board of Supervisors the information discussed in our conference call on January 12, 2018 along with the supplemental information that you provided subsequent to that call. Prior to the Board meeting on January 18th, we received Charlene Vaughn's letter (ACHP) to FERC dated January 18, 2018.

The Board concurred with the recommendations made by ACHP and directed us to proceed with negotiations to further those recommendations. Based on our discussions with representatives of the Greater Newport Rural Historic District, we are attempting to identify both present and future monetary needs to preserve the historic structures in the District and should be able to provide a proposal in that regard later this week.

We also reviewed the October 2017 Water Resources Identification and Testing Plan, specifically Table 1 which identifies private water sources within 150 feet of MVP work spaces and within 500 feet in karst terrain. We note that there are no private water sources identified between milepost 209.0 and 217.5. This may be due to the lack of communication from landowners identifying those sources. Nevertheless, we believe that there are a significant number of private water sources within 500 feet of the work spaces in the Greater Newport Rural Historic District, many of which are springs. There were a number of people in attendance at the Jan 18th meeting of the Board that expressed concerns over impacts to these sources. If there is an updated Table 1, please provide that to us.

We look forward to continued discussions to develop a mutually agreeable treatment plan.

Richard L. Chidester
County Attorney
Giles County Administration
315 North Main Street
Pearisburg, VA 24134
540.921.2525 ext 1117
540.921.1329 (fax)
rchidester@gilescounty.org
GilesCounty.org
NewRiverWaterTrail.com

(E-mail) dallison@eqt.com

David W. Crayne, CPG
Sr. Environmental Coordinator
EQT Corporation
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222
(Office) 412.395.5542
(Cell) 412.398.4139
(E-mail) dcrayne@eqt.com

Contact me any time with questions or comments.

Thank you,

John

John J. Centofanti
Corporate Director, Environmental Affairs
EQT Corporation
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222
412-395-3305 (office)
412-417-3729 (cell)

From: Richard Chidester [mailto:rchidester@gilescounty.org]
Sent: Wednesday, January 24, 2018 8:49 PM
To: Centofanti, John <JCentofanti@eqt.com>; John Ross <jross@gilescounty.org>; Chris McKlarney <cmcklarney@gilescounty.org>
Cc: Evelyn Tidlow <E.Tidlow@gaiconsultants.com>; Justin Curtis <justin@aqualaw.com>
Subject: RE: MVP Responses to Giles County Questions

Mr. Centofanti: We have been receiving calls yesterday and today from property owners in the Newport area regarding the water source identification issue referenced below. Is there someone at MVP to whom these callers may be directed to provide information about identification of these private water sources?

Richard L. Chidester
County Attorney
Giles County Administration
315 North Main Street
Pearisburg, VA 24134
540.921.2525 ext 1117
540.921.1329 (fax)
rchidester@gilescounty.org
GilesCounty.org
NewRiverWaterTrail.com

From: Centofanti, John [mailto:JCentofanti@eqt.com]
Sent: Thursday, January 25, 2018 1:21 PM
To: Fellerhoff, Matthew W. <MWFellerhoff@strausstroy.com>; RBroughton@sandsanderson.com
Cc: Justin Curtis <justin@aqualaw.com>; Evelyn Tidlow <E.Tidlow@gaiconsultants.com>
Subject: MVP Response to Question Regarding Agricultural Land Use

Gentlemen – please find MVP's response to the question regarding agricultural land use from our meeting on January 11, 2018.

MVP to provide the Committee with additional information on use of right of way by farming and logging equipment, namely the weight limit for vehicle traffic and actions taken to coordinate continued uses with landowners:

MVP will utilize minimum Class 2 pipe in areas of karst, including Giles County, VA, which will withstand greater stress should a sinkhole develop under the pipe. MVP hired a consultant, D.G. Honegger Consulting, that specializes in constructing pipelines in areas with potential external forces, to perform an analysis of potential karst construction methods of the Project. The results of this analysis documented that class 2 pipe buried with a normal depth of cover of 3 feet could tolerate a sinkhole span of 145 feet, and if buried at an abnormal depth of cover of 10 feet, could tolerate a sinkhole span of 57 feet.

MVP is designed to accommodate a piece of farm equipment at 40,000 lbs. in agriculture areas. In instances where a landowner requires a crossing of greater than 40,000 lbs., the MVP Land team will work with the landowner and the MVP Engineering team in order to determine the proper engineering considerations to accommodate the specific landowner request. Engineering considerations at specific crossings could include items such as timber mats, additional gravel, air bridge, concrete, etc. There are too many variables beyond the weight of the equipment to be able to provide a blanket approval greater than the 40,000 lbs. In each particular case items such as the PHSMA class location (design factor), weight distribution of the requested piece of equipment (tracked vs. rubber tire, number of axles, etc.), permanent vs. temporary crossing, soil conditions, and installed pipeline depth of cover are considered as part of the engineering evaluation.

There are several examples along the MVP route where landowner requests for crossings greater than 40,000 lbs. have been accommodated. Specifically, in Giles County, there have been at least four examples where MVP has worked with the landowners to allow site specific crossings ranging from 60,000 to 100,000 lbs. It is imperative that landowners communicate potential crossing locations with the MVP Land team. The site specific designs of these crossings are critical to ensure pipeline integrity due to point loading on the pipe, increased soil compaction, and protection of environmental resources.

Thank you,
John

John J. Centofanti
Corporate Director, Environmental Affairs
EQT Corporation
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222
412-395-3305 (office)
412-417-3729 (cell)

Evelyn Tidlow

From: Richard Chidester <rchidester@gilescounty.org>
Sent: Thursday, January 25, 2018 10:10 PM
To: Centofanti, John; John Ross; Chris McKlarney
Cc: Evelyn Tidlow; Justin Curtis; Allison, Dave; Crayne, David
Subject: RE: MVP Responses to Giles County Questions

Thanks John. John Ross spoke with them this afternoon and we will provide the contact information to those persons who believe that they they have water sources which may be impacted.

Richard L. Chidester
County Attorney
Giles County Administration
315 North Main Street
Pearisburg, VA 24134
540.921.2525 ext 1117
540.921.1329 (fax)
rchidester@gilescounty.org
GilesCounty.org
NewRiverWaterTrail.com

From: Centofanti, John [mailto:JCentofanti@eqt.com]
Sent: Thursday, January 25, 2018 11:00 AM
To: Richard Chidester <rchidester@gilescounty.org>; John Ross <jross@gilescounty.org>; Chris McKlarney <cmcklarney@gilescounty.org>
Cc: Evelyn Tidlow <E.Tidlow@gaiconsultants.com>; Justin Curtis <justin@aqualaw.com>; Allison, Dave <DAllison@eqt.com>; Crayne, David <DCrayne@eqt.com>
Subject: RE: MVP Responses to Giles County Questions

Good morning Mr. Chidester –

MVP has two full time hydrogeologists leading our water source protection program, Dave Allison and Dave Crayne. You can direct any questions you receive related to this issue to them. Here is their contact information, and I have included them in this email.

David J. Allison, PG
Manager, Hydrogeology
EQT Corporation
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222
(office) (412) 553-5985
(cell) (412) 328-1763

Dye, Hannah

From: Centofanti, John <JCentofanti@eqt.com>
Sent: Friday, February 02, 2018 10:02 AM
To: Thomas Jensen; Justin Curtis; Evelyn Tidlow; Dye, Hannah
Subject: MVP for review
Attachments: GNRHD_Location_1_Rev2.pdf; GNRHD_Location_2_Rev2.pdf; BSCHD_Proposed_Restriction of Perm Ease_20180104.pdf

Dear Mr. Fellerhoff,

Please find below tables that summarize areas where Mountain Valley's visual impact analysis indicate that enhanced right-of-way treatment would be beneficial in reducing potential visual impacts to each historic district:

Enhanced Right-of-Way Treatment Areas

Big Stony

Location	Milepost Range	Length (feet)	Mileage
1	200.44-200.48	135	0.03
2	200.49-200.52	219	0.04
TOTAL		354	0.07

GNRHD

Location	Milepost Range	Length (feet)	Mileage
1	211.09-211.14	264	0.05
2	211.47-211.90	2270	0.43
3	212.82-212.96	739	0.14
4	212.98-213.22	1267	0.24
TOTAL		4540	0.86

I have attached maps depicting these areas.

Thanks,

John

John J. Centofanti
Corporate Director, Environmental Affairs
EQT Corporation
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222
412-395-3305 (office)
412-417-3729 (cell)

To learn about EQT's sustainability efforts visit: https://csr.eqt.com

Mountain Valley Pipeline Project

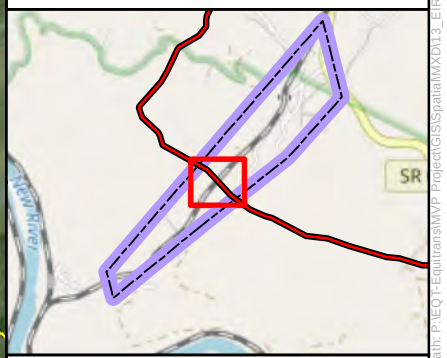
Mountain Valley PIPELINE

Proposed Restriction of Permanent Easement within Big Stony Creek Historic District

JANUARY 2018

Legend

- Milepost
- Bore Pit Location (Estimated)
- Co-Location with Power Transmission Line Easement
- Proposed reduction in Permanent Easement to 10 feet
- Issued for Construction Route
- Permanent Easement
- Big Stony Creek Historic District



Data Sources: VDHR, USGS, ESRI

N

1:2,000

NAD 1983 UTM 17N

0 50 100 200 300 400 Feet

Document Path: P:\EQT-EquitransMVP Project\GIS\Spatial\MXD\13_ER_Dec_2017\BSCHD_Proposed_Restore_Reveg_Plan_20180104.mxd

Mountain Valley Pipeline Project

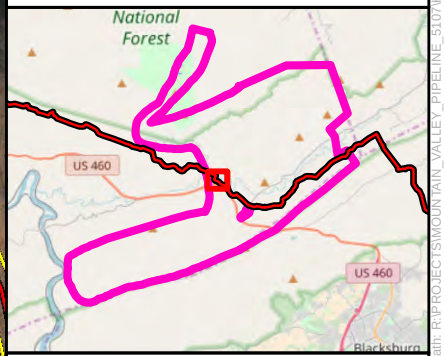
Mountain Valley PIPELINE

Figure 4.3.1-1
Proposed Enhanced ROW Treatment Areas within Greater Newport Rural Historic District
Location 1

JANUARY 2018

Legend

- Milepost
- Reduction in the Maintenance of the Permanent ROW to 10ft
- Issued for Construction Route
- Permanent ROW
- Greater Newport Rural Historic District



Data Sources: VDHR, USGS, ESRI

N

1:4,800

NAD 1983 UTM 17N

0 100 200 400 600 800 Feet

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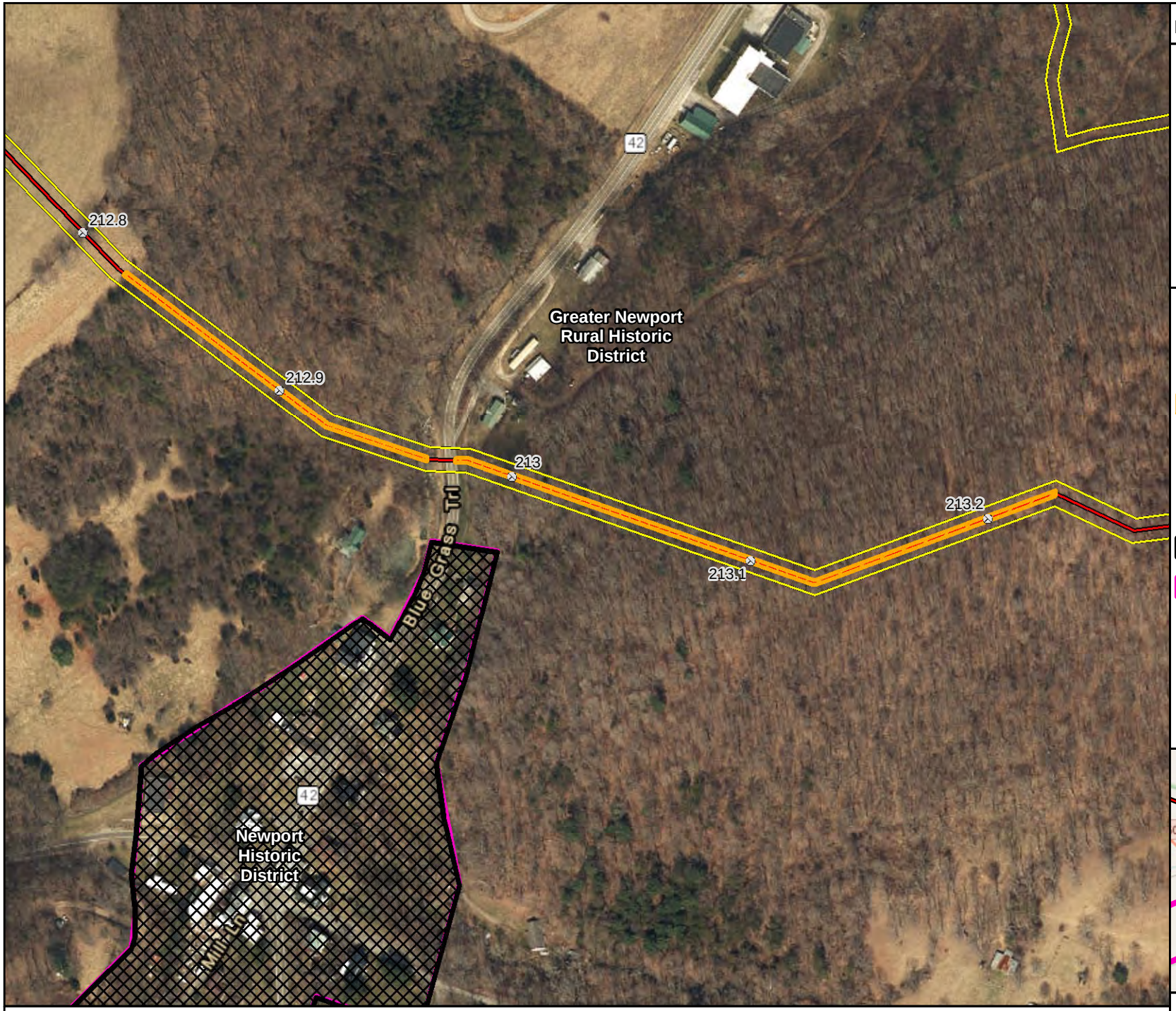


Mountain Valley Pipeline Project

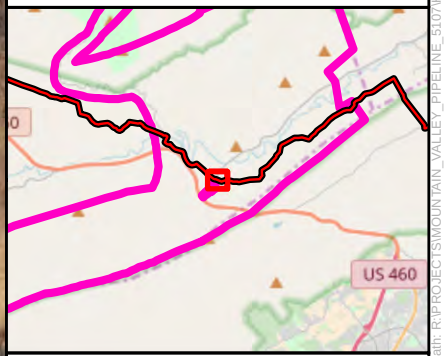
Mountain Valley PIPELINE

Figure 4.3.3-1
Proposed Enhanced ROW Treatment Areas within Greater Newport Rural Historic District
Location 2

JANUARY 2018

Legend

- Milepost
- Reduction in the Maintenance of the Permanent ROW to 10ft
- Issued for Construction Route
- Permanent ROW
- Newport Historic District
- Greater Newport Rural Historic District



Data Sources: VDHR, USGS, ESRI

N

1:3,400

NAD 1983 UTM 17N

0 100 200 400 600 800 Feet

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ATTACHMENT 3

NEWPORT HIGH SCHOOL AND AGRICULTURE BUILDING PRESERVATION FUND
TERMS AND CONDITIONS

NEWPORT COMMUNITY CENTER AND PARK
PRESERVATION FUND
TERMS AND CONDITIONS

RECITALS

A. Mountain Valley Pipeline, LLC (Mountain Valley) obtained a Certificate of Public Convenience and Necessity 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, including Giles County.

B. FERC is the lead federal agency for compliance with the National Environmental Policy Act and Section 106 of the National Historic Preservation Act (NHPA) for this undertaking.

C. Through the Section 106 process, it is has been determined that the Project will have an Adverse Effect on the Greater Newport Rural Historic District (District).

D. A Revised Historic Property Treatment Plan (Treatment Plan) has been developed to document and implement mitigation measures to avoid, minimize, and compensate for effects on the District.

E. As a compensatory mitigation measure, the Treatment Plan provides for the establishment of a Newport Community Center and Park Preservation Fund (Fund) in the amount of $500,000, to be funded by Mountain Valley and dedicated to the restoration and preservation of the Newport Community Center and Park (formerly the Newport High School and Agriculture Building) (contributing resource DHR#035-0412-0065 and 0066) (Historic Structure), an important contributing resource within the District.

F. These Newport Community Center and Park Preservation Fund Terms and Conditions (Terms and Conditions) have been prepared for the purpose of ensuring that the Fund is used solely for the purpose of providing mitigation for the identified adverse effect to the District in a manner that is consistent with the requirements and objectives of the NHPA.

G. The Giles County Board of Supervisors (County), a consulting party, has been selected as the appropriate party to administer the Fund in continuing consultation with the Virginia Department of Historic Resources (DHR).

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which the County acknowledges, County agrees as follows:

1. Consent to Be Bound to these Terms and Conditions. The County covenants, promises, and agrees that it shall hereby be bound by these Terms and Conditions, including without limitation any and all conditions or limitations pertaining to receipt and use of funds.

2. Restoration and Preservation of Historic Structure. Except as stated in Paragraph 4, the Fund shall be used solely for purposes related to the restoration and preservation of the Historic Structure in a manner that is not materially inconsistent with the Secretary of Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* and will not cause any adverse effects to the resource.

3. Continuing Consultation with DHR. The County shall administer the Fund in consultation with DHR. Consultation shall mean, at a minimum, that in advance of commencing any study, restoration, construction, or other work using moneys from the Fund, the County shall inform DHR in writing of its plans and give due consideration to the views and opinions of DHR.

4. Substitution for Historic Structure. The County may, in its discretion, use all or a portion of the moneys from the Fund for the restoration or preservation of one or more different historic structures, provided that (i) any such substitute historic structure is a contributing resource to the District and (ii) DHR has been consulted on the substitution.

IN WITNESS WHEREOF, County has caused these Terms and Conditions to be signed its behalf by the undersigned.

GILES COUNTY BOARD OF SUPERVISORS

_____

Name: _____

Title: _____

Date: _____