



2200 Energy Drive | Canonsburg, PA 15317

844-MVP-TALK | mail@mountainvalleypipeline.info

www.mountainvalleypipeline.info

March 04, 2021

By Email and US Mail

Mr. Brian Bridgewater
401 Program Manager
West Virginia Department of Environmental Protection
601 57th Street SE
Charleston, WV 25304

Re: Water Quality Certification Request

Dear Mr. Bridgewater:

Mountain Valley Pipeline, LLC (“Mountain Valley”) respectfully submits this request for water quality certification in accordance with 40 C.F.R. § 121.5. Included with this letter is the Application for Individual Water Quality 401 Certification for the State of West Virginia and supporting information.

A. Identity of Project Proponent¹

The project proponent is Mountain Valley Pipeline, LLC, which is joint venture of EQM Midstream Partners, LP; NextEra Capital Holdings, Inc.; Con Edison Transmission, Inc.; WGL Midstream; and RGC Midstream, LLC. EQM Midstream Partners will operate the pipeline and own a significant interest in the joint venture.

For the purpose of this certification request, the designated point of contact for Mountain Valley is:

Robert J. Cooper
Senior Vice President,
MVP Construction and Engineering
rcooper@equitransmidstream.com

B. Identity of the Proposed Project²

The Mountain Valley Pipeline Project (“Project”) is an approximately 303-mile, 42-inch diameter natural gas pipeline, proposed to provide timely, cost-effective access to the growing demand for natural gas for use by local distribution companies, industrial users, and power generation utilities in the Mid-Atlantic and southeastern markets, as well as potential markets in the Appalachian

¹ 40 C.F.R. § 121.5(b)(1).

² 40 C.F.R. § 121.5(b)(2).

region. The project will extend from the existing Equitrans, L.P. transmission system near Mobley in Wetzel County, West Virginia, to Transcontinental Gas Pipe Line Company, LLC's Zone 5 compressor station 165 in Pittsylvania County, Virginia. In West Virginia, the pipeline will consist of approximately 197 miles of 42-inch diameter pipeline and associated ancillary facilities. Construction activities will be located in Braxton, Doddridge, Fayette, Greenbrier, Harrison, Lewis, Monroe, Nicholas, Summers, Webster, and Wetzel Counties. Additionally, approximately 149 miles of access roads in West Virginia are anticipated for use in the overall project. This includes both existing roads and construction of new roads, as necessary.

As the Department is aware, construction on the Project commenced in February 2018 and is now substantially complete. Mountain Valley now holds all material approvals necessary to proceed with construction in the upland areas. Obtaining authorization to complete the remaining stream and wetland crossings will allow Mountain Valley to expeditiously complete construction, restore the ROW, and commence the transport and supply of natural gas. The best environmental outcome for water quality in the vicinity of the Project is for construction to be completed as soon as possible.

C. Applicable Federal Permit³

Certification is requested in connection with an application submitted jointly to the Huntington, Pittsburgh, and Norfolk Districts of the U.S. Army Corps of Engineers ("USACE") on February 19, 2021, for permit authorization under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act to impact streams and wetlands in Virginia and West Virginia. A copy of the application was provided to the Department on the date of submission.

D. Location and Nature of Discharge⁴

This certification request applies to the proposed discharge of dredged and fill material associated with Project construction in streams and wetlands subject to the USACE's jurisdiction at various locations in Braxton, Doddridge, Fayette, Greenbrier, Harrison, Lewis, Monroe, Nicholas, Summers, Webster, and Wetzel Counties. Mountain Valley anticipates withdrawing water from some streams in West Virginia, including the Elk, Gauley, and Greenbrier Rivers. The withdrawals will be used for borings, hydroseeding, dust suppression, and hydrostatic pressure testing. A permanent intake structure is not proposed for any water withdrawals. For water withdrawals in West Virginia, Mountain Valley will coordinate with the West Virginia DEP Division of Water and Waste ("DWW") and WV Department of Natural Resources ("DNR") to ensure water withdrawals comply with the DWW guidance tool and DNR time- of- year restrictions ("TOYR") or other instream restrictions. Also note that Mountain Valley has committed to not using water withdrawn from the Gauley River during the boring of the Gauley River, which is reflected in the 2020 BiOp.

³ 40 C.F.R. § 121.5(b)(3).

⁴ 40 C.F.R. § 121.5(b)(4).

Mountain Valley received Nationwide Permit 12 verification from the Pittsburgh and Huntington Districts on September 25, 2020. On February 27, 2020 the Department informed the USACE that it will not require an individual certification for the Mountain Valley Project. It is worth noting that the Nationwide Permit 12 verifications included nearly all of the proposed discharges that are included in this request, which are almost exclusively a *subset* of the aquatic impacts previously reviewed and authorized by the USACE⁵. Mountain Valley has undertaken an exhaustive effort to avoid and minimize aquatic impacts to the maximum extent practicable. Furthermore, this request does not include impacts that occurred under the previous USACE verification. Detailed information on the location and nature of discharges that are subject to this renewed request are included in Tables 1, 2, and 3 of the USACE Individual Permit Application and have been included as Attachment C (Stream Impacts) and Attachment D (Wetland Impacts)

E. Methods to Monitor and Manage Discharges⁶

The Project has been heavily scrutinized, monitored, and regulated by the State. The discharges included in this request are subject to a host of existing monitoring and management requirements.

The monitoring requirements are summarized as follows:

- All Project activities, including stream and wetland crossings, are subject to regular inspection and monitoring by the Department, Federal Energy Regulatory Commission, and, where applicable, the U.S. Forest Service.
- As required by the Department, Mountain Valley will employ enhanced Best Management Practices (“BMPs”) for the entire project by increasing the inspection frequency from the Department’s minimum requirement to inspect within 24 hours after any storm event greater than 0.5 inches per 24-hour period, to within 24 hours after any storm event greater than 0.25 inches per 24-hour period. These inspections are in addition to the regular site inspections that will occur at least once every 7 calendar days for disturbed areas and at least once every 14 days for restored areas.
- As directed by the U.S. Fish and Wildlife Service, Mountain Valley will conduct continuous instream turbidity monitoring of select streams with sensitive and endangered species crossed by the Project.

The management requirements are summarized as follows:

- Minimize clearing and grubbing of vegetation up to streams, as possible, until the time of pipeline installation.
- Only the area required for pipeline installation shall be disturbed within the proposed limits of disturbance at stream crossings.

⁵ The impacts that were not identified in the 2017 NWP12 are specifically identified in Attachment B

⁶ 40 C.F.R. § 121.5(b)(5).

- Staging areas will be located 50 feet away from the stream, where possible.
- Storing chemicals, storing equipment, washing equipment, or refueling equipment must be done in areas that are greater than 100 feet away from streams.
- Spoil placement and BMPs will be monitored at all times during stream crossing procedures; once work within a stream area is started, it will be conducted continuously to completion, with emphasis placed on minimizing the time of disturbance.
- Construction activities will be scheduled so that the trench is excavated immediately prior to pipe laying activities.
- Spoils from stream crossings must be placed at least 10 feet from the water's edge.

Construction equipment will not be allowed in the stream channel when excavation can be done from either side or a temporary crossing while working at the stream crossing.

- All stream crossings included in this request will be constructed using conventional dry-ditch open-cut techniques to create dry working conditions. Completed stream crossings using the flume or dam-and-pump methods will be stabilized before returning flow to the channel.
- All activities will be conducted in accordance with Mountain Valley's Registration No. WVR310667 under the Department's Oil & Gas Construction Stormwater General Permit ("O&G CGP") and its Department-approved Stormwater Pollution Prevention Plan ("SWPPP"). To manage and/or control stormwater discharges, Mountain Valley will take the following measures, which are modeled after EPA's construction stormwater general permit and include enhanced practices that are more protective than those required by the Department's 2013 O&G CGP:
 - Erosion and sediment control BMPs will be installed throughout the Project. Enhanced erosion and sediment controls, such as reinforced filtration devices, will be employed at crossings of and in proximity to Tier 3 and trout streams and, where appropriate, in watersheds with TMDLs. Erosion and sediment control BMPs throughout the Project will be immediately maintained and repaired as needed to remain functional. The SWPPP will be modified as necessary to add or modify BMPs to correct specific problems identified or if existing BMPs prove to be ineffective at controlling stormwater discharges.
 - Stabilization measures will be initiated as soon as practicable in areas where construction has temporarily or permanently ceased, but in no case more than 7 days after construction has permanently ceased or will not resume within 21 days. At crossings of and in proximity to Tier 3 and trout streams, seeding and mulching will be accomplished within 4 days in areas that have reached final grade and in

areas that will not be disturbed for more than 14 days. Permanent stream bank stabilization will be installed immediately following completion of pipeline installation at each stream crossing.

Please refer to Section 5.0 of the USACE Individual Permit Application for additional details on the mitigation measures that will be implemented for the discharges included in this request. Mountain Valley is prepared to discuss additional monitoring and/or management requirements that the Department feels would further enhance protection of water resources.

F. Other Approvals⁷

A list of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the Project is included in the application. Please refer to Table 9 of the USACE Individual Permit Application.

G. Prefiling Meeting Request⁸

A prefiling meeting request was submitted to the Department on January 26, 2021.⁹ A virtual prefiling meeting attended by representatives from the Department and Mountain Valley was held on February 8, 2021.

H. Certification Statement¹⁰

The undersigned states as follows: “The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.”

I. Request for Timely Action¹¹

The undersigned makes the following request: “The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.”

In further support of this request for timely action, Mountain Valley reiterates that the potential stream and wetland impacts of the activities included in this request have been thoroughly and repeatedly reviewed by the Department and other State and Federal agencies over the past five years. These reviews included (but were not limited to):

The Department’s Previous 401 Certification Activities

In 2016, Mountain Valley submitted a request for 401 certification to the Department in connection with its application for verifications from the USACE under Nationwide Permit 12

⁷ 40 C.F.R. § 121.5(b)(6).

⁸ 40 C.F.R. § 121.5(b)(7).

⁹ A copy of the prefiling meeting request letter is included with this letter as Attachment E.

¹⁰ 40 C.F.R. § 121.5(b)(8).

¹¹ 40 C.F.R. § 121.5(b)(9).

(“NWP 12”). The Department issued an individual 401 certification on March 23, 2017, imposing 19 special conditions and 21 standard conditions to ensure that discharges of dredged and fill material from the Project would comply with state water quality requirements. The Department later voluntarily withdrew that certification to avoid protracted litigation in the Fourth Circuit. In the meantime, the Department had issued a new 401 certification of the USACE’s reissued nationwide permits, including NWP 12, in April 2017. The special conditions imposed on NWP 12 in that certification largely mirrored the special conditions that had been imposed in Mountain Valley’s individual certification. Accordingly, the Department determined that it was unnecessary to issue another individual 401 certification for MVP’s discharges of dredged and fill material that would be duplicative of the special conditions on NWP 12.¹²

The Department’s Oil & Gas Construction Stormwater General Permit

Also in 2016, Mountain Valley submitted an application for registration under the Department’s 2013 O&G CGP. The Department reviewed Mountain Valley’s site-specific erosion and sediment control plans and made numerous comments requesting changes to those plans and additional information from Mountain Valley about the Project. Mountain Valley made many adjustments to its plans in response to the Department’s comments, including adding and revising erosion and sediment control BMPs. The Department granted the registration in July 2017. In October 2017, Mountain Valley submitted SWPPP Amendments 1 and 2, which increased the frequency of site inspections project-wide and upgraded the erosion and sediment controls in watersheds with TMDLs, respectively. As a result, Mountain Valley’s Department-approved SWPPP includes many practices and protections not required by the Department’s 2013 O&G CGP. Mountain Valley continues to upgrade and add BMPs in response to field conditions, precipitation events, Department inspections and notices of alleged violation, and the prolonged state of temporary stabilization caused by numerous litigation-related construction delays. As noted by Secretary Caperton, through its O&G CGP, the Department has “full control of the inspection and enforcement of this entire project—in both upland areas and at stream and wetland crossings.”¹³

FERC’s Final Environmental Impact Statement

In developing its environmental impact statement (“EIS”) for the Project, FERC considered all environmental impacts, including the potential impacts from all point and non-point source discharges on surface water and groundwater. The Department worked with FERC as a cooperating agency beginning in May 2015 and made recommendations for its consideration of environmental impacts in West Virginia. The Final EIS concluded that the dry open-cut methods Mountain Valley is proposing to use for all stream crossings included in this request will result in only temporary and localized increases in sediment-related parameters, which will be minimal

¹² See Secretary Caperton’s Letter to WVDEP Staff Regarding the Mountain Valley Pipeline (Nov. 13, 2017), available at <https://dep.wv.gov/news/Pages/Secretary-Caperton's-Letter-to-WVDEP-Staff-Regarding-the-Mountain-Valley-Pipeline.aspx>.

¹³ *Id.*

compared to natural runoff events. In addition, Mountain Valley will restore streambeds and banks to previous (or better) conditions.

The USACE's Previous Review

The USACE has previously (twice) reviewed and authorized the Project after finding that it would comply with the requirements of NWP 12, including the special conditions imposed by the Department's 401 certification. The USACE will now take a third look at Mountain Valley's discharges of dredged and fill material. While Mountain Valley expects that an individual Section 404 permit issued by the USACE will impose sufficient conditions to protect water resources, Mountain Valley commits to complying with all appropriate¹⁴ special conditions of the Department's April 24, 2019 proposed 401 certification of NWP 12.

Sincerely,

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

By:



Todd Normane
Deputy General Counsel

cc: Kathy Emery, WVDEP
Harold Ward, WVDEP
Todd Miller, USACE Norfolk
Michael Hatten, USACE Huntington
Scott Hans, USACE Pittsburgh

¹⁴ Certain special conditions are not relevant to the Project. For example, Special Condition A does not impose technical controls on discharges, but rather allows the Department to require an individual certification for certain types of projects. That condition has no application here since Mountain Valley's certification request is associated with an individual Section 404 permit.

LIST OF ATTACHMENTS

- A. Application for Individual Water Quality State 401 Certification
State of West Virginia
- B. Stream and Wetland Impacts That Were Not Included in the 2017 Application
- C. Stream Impact Tables
- D. Wetland Impact Tables
- E. MVP Pre-Filing Meeting Request (January 26, 2021)

Attachment A:
Application for Individual Water Quality State 401 Certification
State of West Virginia

*Application for
Individual Water Quality State 401 Certification
State of West Virginia*



*for
Non Coal Related Facilities*

**STATE OF WEST VIRGINIA
APPLICATION FOR 401 WATER QUALITY CERTIFICATION
FOR NON COAL RELATED ACTIVITY**

This application must be completed whenever a proposed activity requires a Clean Water Act Section 401 Individual State Water Quality Certification from the West Virginia Department of Environmental Protection (WVDEP). Section 401 of the Clean Water Act requires that any applicant for a federal license or permit to conduct an activity that will or may discharge into waters of the United States (as defined in the Clean Water Act) to present the federal authority with a certification from the appropriate state agency. Federal license and/or permits requiring 401 Certification include those from the United States Army Corps of Engineers under Section 404 of the Clean Water Act, 33 U.S.C. §1344; Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. §403; and licenses issued by the Federal Energy Regulatory Commission under the Federal Power Act, 16 U.S.C. §1791 et. seq. To determine whether you need to submit this application to the WVDEP, contact the U.S. Army Corps of Engineers District Office with jurisdiction over your permit area, and the WVDEP - Division of Water and Waste Management at (304) 926-0499 X 1599.

The WVDEP Section 401 Water Quality Certification program, is authorized by Section 401 of the Federal Clean Water Act, 33 U.S.C. §1341 and W. Va. Code §§22-1-6(d)(7) and 22-11-7(a). West Virginia Legislative Rule §47CSR5A outlines the application process and criteria for decision by the Secretary of the WVDEP. In order for the WVDEP to issue a Section 401 Certification, the project must comply with the State Water Quality Standards (§47CSR2) and not potentially result in an adverse long-term or short-term impact on water quality. Included with the Water Quality Standards is the Antidegradation Implementation Rule (§60CSR5) effective July 2, 2001. The Rule includes additional application requirements and public participation procedures. Because there is a potential for lowering of water quality, or impacts to designated uses, associated with every project being reviewed for Section 401 Certification, every applicant must provide the information required of this application.

Information provided with the application will be used to evaluate the project for certification and is a matter of public record. If the Secretary determines that the application lacks information necessary to determine whether the applicant has demonstrated the criteria set forth in Legislative Rule 47CSR5A, the WVDEP will inform the applicant in writing of the additional information that must be submitted. The application will not be accepted until it is considered complete by the Department. You will be informed in writing when your application is determined to be complete.

Please submit the following with the \$350 application fee to: Division of Water and Waste Management, Section 401 Program, 601 57th Street SE, Charleston, West Virginia 25304

- * Two (2) sets of the completed application form, or an electronic application including a map of location and scaled plan drawings and sections.

Please submit two (2) copies of this form along with the \$350 filing fee for review. Any information missing in this package will be considered incomplete. A full permit review will not be made until all information is provided. The Department of Environmental Protection will notify you of any missing and/or further information necessary for a proper and thorough review for certification.

For Agency Use Only

Date Received by Agency:	DEP Application No.:
Public Notice No.:	Filing Fee of \$350 received: Check No.:
Reviewer's Name:	Date Application Deemed Complete:

APPLICANT INFORMATION

Applicant Name:			Agent Name:		
_____			_____		
Company:		Company:			
_____		_____			
Address:		Address:			
_____		_____			
City:	State:	Zip Code:	City:	State:	Zip Code:
_____	_____	_____	_____	_____	_____
Telephone Number:			Telephone Number:		
_____			_____		
Email Address:			Email Address:		
_____			_____		

PROJECT DESCRIPTION

State the type of federal permit applicant is applying for:

_____ Individual 404/401 Certification – Corps Public Notice # _____

_____ Nationwide 404 permit requiring 401 Certification – Nationwide Permit # _____

_____ 404 permit modification requiring 401 Certification – Original Corps Public Notice # _____

_____ Section 10 of the Rivers and Harbors Act permit – Corps Public Notice # _____

_____ Federal Energy Regulatory Commission Licenses – FERC Project # _____

Type of Operation: _____

Activity proposed in stream or wetland: _____

Project Purpose: _____

Briefly describe proposed project: _____

PROJECT INFORMATION

County: See USACE IP Application Table 6	Nearest Town: See USACE IP Application Table 6	Coordinates: See USACE IP Application Section 1.4
Directions to site: include a USGS topographical map section showing location of proposed project.		
Watershed Name:	Watershed Size (acres):	
Name of Stream(s) where work will occur and receiving streams to which they drain:		
Length and width of Section 10 impacts:		
Wetlands on project site: (acres)	Wetlands impacted by proposed project: (acres)	
Briefly describe wetland functions:		
Describe the type, composition and quantity of fill material:		
See USACE IP Application Section 1.3 (General Construction Information) and Attachment A, Tables A-1, A-2, A-3, and A-4.		

NO PRACTICAL ALTERNATIVE DEMONSTRATION (See Instructions)

See IP Application Section 3.0 (Alternatives Analysis).

WETLANDS DELINEATION (See Instructions)

See IP Application Section 4.1.3 (Wetland Delineation and Stream Identification).

STREAM RESTORATION PLAN (See Instructions)

See IP Application Section 5.2.9 (Restoration of Temporary Stream Impacts [Pipeline]).

MITIGATION / COMPENSATION AGREEMENT **Include West Virginia Stream and Wetland Valuation Metric (See Instructions)**

See IP Application Section 5.3 (Compensation).

SIGNATURE – STATEMENT OF AFFIRMATION

Please read carefully before signing

Application is hereby made for a water quality certification to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true and accurate. I certify that I have the authority to undertake the activities proposed in the application. I understand and agree to allow representatives of the Department of Environmental Protection to enter upon said property in order to inspect the proposed project. I understand that the granting of other permits by local, state or federal agencies does not release me from the requirements of obtaining the certification requested herein before commencing the project.

Applicants Printed Name: _____

Applicant's Signature: Robert J. Logan Date: _____

PUBLIC NOTICE

Publication Date: _____

Expiration Date: _____ 30 Days After Date of Publication

TO WHOM IT MAY CONCERN:

State Water Quality Certification, as required by Section 401 of the Clean Water Act, has been requested of the West Virginia Department of Environmental Protection (WVDEP) for:

(Name of Project)

(Name and address of Applicant)

SCOPE OF CERTIFICATION: Pursuant to Section 401 of the Federal Clean Water Act, the State may, either certify, certify with conditions, deny or waive certification that the proposed activity will comply with Sections 301, 302, 303, 306 and 307 of the Federal Clean Water Act and other appropriate requirements of State law. When issuing certification, the WVDEP may consider the proposed activity's impact on water resources, fish and wildlife, recreation, critical habitats, wetlands and other natural resources under its jurisdiction. Procedural and interpretive regulations governing the scope of the Department's certification, public comment, hearings and appeals are in Title 47, Series 5A.

DESCRIPTION OF THE ACTIVITY: Provide a description which details the activity proposed for the wetland, river or stream to be affected.

Any other State issued permit numbers, if applicable and available:

PROJECT LOCATION: Provide a general highway map showing location of project and include mile point for rivers and streams.

INFORMATION AVAILABLE: The Water Quality Certification application is available for inspection between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, at the following location:

WV Department of Environmental Protection
Division of Water and Waste Management
401 Certification Program
601 57th Street SE
Charleston, West Virginia 25304

COMMENTS: Comments and information relating to Section 401 Water Quality Certification for this activity are hereby solicited. Such information on the activity's impact will be considered if postmarked prior to the expiration date of this notice. The need for a public hearing will be determined based on an evaluation of specific request for such hearing. All comments and information should be mailed to:

WV Department of Environmental Protection
Division of Water and Waste Management
401 Certification Program
601 57th Street SE
Charleston, West Virginia 25304

Comments and information postmarked later than the expiration date may not be considered.

Attachment B
Stream and Wetland Impacts That Were Not Included in the 2017
Application

**West Virginia Stream Impacts Added Since 2017
Individual Permit Application
Mountain Valley Pipeline Project**

Stream ID	NHD Stream Name ¹	County	USACE District	Latitude ²	Longitude ²	Flow Regime	Water Type ³	Stream Designation ⁴	HUC 8	Impact Type	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Impact Area (acres) ⁵	Permanent Impact Area (acres) ⁵	Temporary Fill (cubic yard) ⁶	Permanent Fill (cubic yard) ⁷	Figure
S-WX3	UNT to Mobley Run	Wetzel	Huntington	39.560611	-80.545823	Intermittent	RPW	Warmwater Fishery, Tier 1	05030201	ATWS	21	-	0.0024	-	12	-	4-1
S-J58	UNT to Manion Run	Wetzel	Huntington	39.462546	-80.505386	Perennial	RPW	Warmwater Fishery, Tier 2	05030201	Permanent Access Road	26	-	0.0030	-	14	-	4-28
S-K43	Cove Lick	Lewis	Huntington	39.002111	-80.595843	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	27	-	0.0043	-	21	4-121
S-VV18	UNT to Second Big Run	Lewis	Huntington	38.897028	-80.567634	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	41	-	0.0075	-	36	-	4-146
S-VV16	UNT to Second Big Run	Lewis	Huntington	38.895455	-80.566432	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	211	-	0.0145	-	70	-	4-146
S-UV11	Oil Creek	Lewis	Huntington	38.893014	-80.556192	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	25	-	-	0	-	4-148
S-L57	UNT to Barbecue Run	Braxton	Huntington	38.828310	-80.525753	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	-	26	-	0.0024	-	12	4-165
S-L57	UNT to Barbecue Run	Braxton	Huntington	38.828300	-80.525691	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road/ATWS	25	-	0.0023	-	11	-	4-165
S-E46	Strouds Creek	Webster	Huntington	38.363326	-80.616955	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Temporary Access Road	43	-	0.0296	-	143	-	4-291
S-L35	Riley Branch	Nicholas	Huntington	38.204372	-80.719778	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Temporary Access Road	52	-	0.0048	-	31	-	4-341
S-J53	UNT to Boggs Creek	Greenbrier	Huntington	37.916234	-80.744156	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Permanent Access Road	-	20	-	0.0055	-	27	4-410
S-HH8	UNT to Buffalo Creek	Greenbrier	Huntington	37.865308	-80.753802	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	ATWS	15	-	0.0007	-	3	-	4-421
S-K25/K18	UNT to Buffalo Creek	Greenbrier	Huntington	37.863772	-80.756993	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	ATWS	70	-	0.0096	-	156	-	4-421
S-UV2	Morris Fork	Greenbrier	Huntington	37.851318	-80.751436	Perennial	RPW	Warmwater Fishery, Tier 1	05050005	Permanent Access Road	-	28	-	0.0103	-	50	4-423
S-FF1	UNT to Meadow River	Greenbrier	Huntington	37.837519	-80.751898	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Temporary Access Road	-	31	-	0.0021	-	10	4-425
S-CV17	UNT to Greenbrier River	Summers	Huntington	37.681865	-80.730095	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	76	-	0.0070	-	34	-	4-464
S-K4	UNT to Keller Creek	Summers	Huntington	37.665806	-80.725709	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Temporary Access Road	-	22	-	0.0010	-	4	4-468
S-A63	Slate Run	Monroe	Huntington	37.560706	-80.709825	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Permanent Access Road	-	25	-	0.0057	-	28	4-492
S-F18	UNT to Hans Creek	Monroe	Huntington	37.538273	-80.719070	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Temporary Access Road	-	26	-	0.0107	-	52	4-496
S-MN40	UNT to Blue Lick Creek	Monroe	Huntington	37.487519	-80.681996	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	37	-	0.0010	-	16	-	4-510

Notes:

- 1 - For identified streams without a NHD (National Hydrography Dataset) name, the identified stream was given the name, "Unidentified Tributary (UNT)", of the first named receiving waterbody
- 2 - In decimal degrees
- 3 - RPW = Relatively Permanent Waters
- NRPW = Non-Relatively Permanent Waters
- 4 - See Section 1.9.2 and Section 4.2 for more information
- 5 - Acres are rounded to four decimal places.
- 6 - Temporary fill discharge into waters of the U.S. Cubic yards rounded to the nearest whole number.
- 7 - Permanent fill associated with the construction of Permanent access road and facilities. Cubic yards rounded to the nearest whole number.

**West Virginia Wetland Impacts Added Since 2017
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-UU4a	Harrison	Pittsburgh	39.253101	-80.540498	PEM	RPWWD	05020002	Pipeline ROW/ATWS	0.1268	-	-	2,046	-	Groundwater Recharge/Discharge; Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-74
W-B2a	Harrison	Pittsburgh	39.316856	-80.525315	PEM	RPWWD	05020002	ATWS	0.1953	-	-	945	-	Sediment/Toxicant Retention, Nutrient Removal	4-59
W-CV15	Harrison	Pittsburgh	39.223490	-80.548109	PEM	RPWWD	05020002	Timber Mat Crossing	0.0512	-	-	248	-	Groundwater Recharge/Discharge; Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-81
W-ME1	Wetzel	Huntington	39.561837	-80.544176	PEM	RPWWD	05030201	ATWS	0.0382	-	-	185	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Floodflow Alteration	4-1
W-ME2	Wetzel	Huntington	39.559744	-80.546756	PEM	RPWWN	05030201	ATWS	0.1036	-	-	501	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-1
W-ME3	Wetzel	Huntington	39.559075	-80.547489	PEM	RPWWN	05030201	ATWS	0.0869	-	-	421	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-1
W-E30	Webster	Huntington	38.441535	-80.550864	PEM	RPWWN	05050007	Temporary Access Road	-	-	0.0316	-	153	Sediment/Toxicant/Pathogen Retention	4-269
W-H53	Nicholas	Huntington	38.313047	-80.673265	PEM	RPWWD	05050005	Pipeline ROW	0.0039	-	-	63	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-304
W-CV13	Nicholas	Huntington	38.273139	-80.686452	PEM	RPWWN	05050005	Permanent Access Road	0.0159	-	-	77	-	Sediment/Toxicant/Pathogen Retention	4-312
W-CV12	Nicholas	Huntington	38.271829	-80.685245	PEM	RPWWD	05050005	Temporary Access Road	0.0098	-	-	47	-	Sediment/Toxicant/Pathogen Retention	4-312
W-RS04	Nicholas	Huntington	38.264804	-80.683146	PEM	NRPWW	05050005	Temporary Access Road	0.0254	-	-	123	-	Sediment/Toxicant/Pathogen Retention	4-316
W-MN4	Nicholas	Huntington	38.262968	-80.683949	PEM	RPWWD	05050005	Temporary Access Road	0.0463	-	-	224	-	Sediment/Toxicant/Pathogen Retention	4-316
W-HS1	Greenbrier	Huntington	37.986454	-80.758418	PEM	NRPWW	05050005	Pipeline ROW	-	-	0.0360	-	581	Sediment/Toxicant/Pathogen Retention	4-395
W-MN14	Monroe	Huntington	37.520227	-80.707365	PEM	RPWWD	05050002	Pipeline ROW/Access Road/ATWS	0.0390	-	-	313	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-500
W-MN15	Monroe	Huntington	37.520166	-80.707532	PEM	RPWWN	05050002	Pipeline ROW	0.0070	-	-	113	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-500
W-MN18-PEM	Monroe	Huntington	37.487662	-80.681791	PEM	RPWWD	05050002	Pipeline ROW	0.0510	-	-	823	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-510
W-MN18-PFO	Monroe	Huntington	37.487474	-80.681854	PFO	RPWWD	05050002	Pipeline ROW	-	0.1750	-	2,823	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-510
W-CV25-PSS-1	Monroe	Huntington	37.462852	-80.669557	PSS	RPWWD	05050002	Pipeline ROW	-	0.0270	-	436	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-513

**West Virginia Wetland Impacts Added Since 2017
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-MN24	Monroe	Huntington	37.462833	-80.670273	PEM	NRPWW	05050002	Pipeline ROW	0.0100	-	-	161	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-513
W-CV25-PEM-2	Monroe	Huntington	37.462746	-80.669518	PEM	RPWWD	05050002	Pipeline ROW	0.0200	-	-	323	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-513

Notes:

- 1 - In decimal degrees.
- 2 - PEM = Palustrine Emergent
- PSS = Palustrine Scrub-Shrub
- PFO = Palustrine Forested
- 3 - RPWWD = Wetlands directly abutting Relatively Permanent Waters (RPWs) that flow directly or indirectly into Traditional Navigable Waterways (TNWs)
- RPWWN = Wetlands adjacent but not directly abutting RPWs that flow directly or indirectly into TNWs
- NRPWW = Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- 4 - Construction of access roads will not result in impacts to tidal wetlands or wetlands adjacent to tidal waters. Construction, maintenance, or expansion of substation facilities will not result in discharges to non-tidal wetlands adjacent to tidal waters of the United States. Acres rounded to four decimal places.
- 5 - Temporary fill discharge into waters of the U.S. Cubic yards rounded to the nearest whole number.
- 6 - Permanent fill associated with the construction of permanent access road and facilities. Cubic yards rounded to the nearest whole number.
- 7 - Functions and Values were determined using *The Highway Methodology Workbook Supplement: Wetland Functions and Values; A Descriptive Approach*, NAEPP-360-1-30a. New England District: USACE, 1999.

Attachment C
Stream Impact Tables

Table A-1. West Virginia Stream Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Stream ID	NHD Stream Name ¹	County	USACE District	Latitude ²	Longitude ²	Flow Regime	Water Type ³	Stream Designation ⁴	HUC 8	Impact Type	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Impact Area (acres) ⁵	Permanent Impact Area (acres) ⁵	Temporary Fill (cubic yard) ⁶	Permanent Fill (cubic yard) ⁷	Figure
S-J62	Right Fork Big Elk Creek	Harrison	Pittsburgh	39.445033	-80.482635	Perennial	RPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	20	-	0.0037	-	18	-	4-35
S-B75/F49	UNT to Goose Run	Harrison	Pittsburgh	39.436571	-80.475198	Intermittent	RPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	20	-	0.0028	-	13	-	4-36
S-B74	Goose Run	Harrison	Pittsburgh	39.436245	-80.474976	Intermittent	RPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	20	-	0.0018	-	9	-	4-36
S-B79	UNT to Big Elk Creek	Harrison	Pittsburgh	39.423571	-80.476278	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Temporary Access Road	11	-	0.0004	-	2	-	4-39
S-B79	UNT to Big Elk Creek	Harrison	Pittsburgh	39.423499	-80.476392	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Permanent Access Road	-	60	-	0.0021	-	7	4-39
S-B79	UNT to Big Elk Creek	Harrison	Pittsburgh	39.423434	-80.476486	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Temporary Access Road	24	-	0.0008	-	4	-	4-39
S-J54	UNT to Little Tenmile Creek	Harrison	Pittsburgh	39.400324	-80.479967	Perennial	RPW	Warmwater Fishery, Tier 2	05020002	Permanent Access Road	-	26	-	0.0048	-	23	4-43
S-J51	Little Tenmile Creek	Harrison	Pittsburgh	39.398116	-80.477174	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Timber Mat Crossing	20	-	0.0138	-	67	-	4-43
S-A10a	Little Rockcamp Run	Harrison	Pittsburgh	39.370005	-80.484974	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Timber Mat Crossing	20	-	0.0055	-	27	-	4-49
S-B2a	UNT to Rockcamp Run	Harrison	Pittsburgh	39.359262	-80.493290	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Pipeline ROW	115	-	0.0211	-	341	-	4-51
S-B3a	Rockcamp Run	Harrison	Pittsburgh	39.358871	-80.493707	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Pipeline ROW	97	-	0.0445	-	719	-	4-51
S-A128	Rockcamp Run	Harrison	Pittsburgh	39.355569	-80.4901	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Permanent Access Road	-	29	-	0.032	-	155	4-51
S-RR22	UNT to Grass Run	Harrison	Pittsburgh	39.342166	-80.512422	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Timber Mat Crossing	20	-	0.0055	-	27	-	4-55
S-A11a	Grass Run	Harrison	Pittsburgh	39.335511	-80.522421	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Pipeline ROW	113	-	0.0311	-	502	-	4-56
S-A11a-Braid-1	Grass Run	Harrison	Pittsburgh	39.335500	-80.522502	Intermittent	RPW	Warmwater Fishery, Tier 1	05020002	Pipeline ROW	11	-	0.0015	-	7	-	4-56
S-A11a-Braid-2	Grass Run	Harrison	Pittsburgh	39.335410	-80.522360	Intermittent	RPW	Warmwater Fishery, Tier 1	05020002	Pipeline ROW	77	-	0.0088	-	143	-	4-56
S-OP8	UNT to Indian Run	Harrison	Pittsburgh	39.320959	-80.526445	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Temporary Access Road	-	41	-	0.0047	-	23	4-59
S-OP9	UNT to Indian Run	Harrison	Pittsburgh	39.320682	-80.526449	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Temporary Access Road	-	36	-	0.0025	-	12	4-59
S-B6a	Indian Run	Harrison	Pittsburgh	39.317309	-80.527175	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Temporary Access Road	30	-	0.0207	-	100	-	4-59
S-B6a	Indian Run	Harrison	Pittsburgh	39.317023	-80.526157	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Timber Mat Crossing	20	-	0.0138	-	67	-	4-59
S-B7a	UNT to Indian Run	Harrison	Pittsburgh	39.316755	-80.526222	Intermittent	RPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	20	-	0.0018	-	9	-	4-59
S-UU3	Salem Fork	Harrison	Pittsburgh	39.289870	-80.517903	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Pipeline ROW	76	-	0.1047	-	1,689	-	4-66
S-UU5	Halls Run	Harrison	Pittsburgh	39.253041	-80.540508	Perennial	RPW	Warmwater Fishery, Tier 2	05020002	Pipeline ROW	79	-	0.0073	-	117	-	4-74
S-K73	Coburn Fork	Harrison	Pittsburgh	39.243691	-80.553966	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Pipeline ROW	110	-	0.0126	-	204	-	4-77
S-K74	UNT to Coburn Fork	Harrison	Pittsburgh	39.243647	-80.553903	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Pipeline ROW	36	-	0.0021	-	10	-	4-77
S-K75	UNT to Coburn Fork	Harrison	Pittsburgh	39.243509	-80.554028	Intermittent	RPW	Warmwater Fishery, Tier 2	05020002	Pipeline ROW	96	-	0.0066	-	107	-	4-77
S-K80	UNT to Turtletree Fork	Harrison	Pittsburgh	39.225747	-80.550164	Intermittent	RPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	20	-	0.0014	-	7	-	4-80
S-CV9	UNT to Turtletree Fork	Harrison	Pittsburgh	39.22369	-80.548273	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	20	-	0.0009	-	4	-	4-81
S-K81	Turtletree Fork	Harrison	Pittsburgh	39.223263	-80.547928	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Timber Mat Crossing	30	-	0.0028	-	13	-	4-81
S-CV10	UNT to Turtletree Fork	Harrison	Pittsburgh	39.221719	-80.546951	Perennial	RPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	20	-	0.0014	-	7	-	4-81
S-A106	UNT to Kincheloe Creek	Harrison	Pittsburgh	39.168435	-80.577625	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	168	-	0.001	-	47	-	4-92
S-A105	UNT to Kincheloe Creek	Harrison	Pittsburgh	39.168266	-80.577815	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	20	-	0.0018	-	9	-	4-92
S-K94	Kincheloe Creek	Lewis	Pittsburgh	39.167831	-80.578867	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Temporary Access Road	18	-	0.0083	-	40	-	4-92
S-K82	UNT to Kincheloe Creek	Harrison	Pittsburgh	39.167753	-80.578181	Perennial	RPW	Warmwater Fishery, Tier 2	05020002	Pipeline ROW	110	-	0.0101	-	49	-	4-92
S-K94	Kincheloe Creek	Lewis	Pittsburgh	39.167575	-80.578144	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Pipeline ROW	79	-	0.0363	-	585	-	4-92
S-I67	Smoke Camp Run	Lewis	Pittsburgh	39.137145	-80.577026	Perennial	RPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	22	-	0.0040	-	20	-	4-99
S-J43	Right Fork Freemans Creek	Lewis	Pittsburgh	39.120579	-80.581328	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Timber Mat Crossing	22	-	0.0126	-	61	-	4-102
S-J44	UNT to Right Fork Freemans Creek	Lewis	Pittsburgh	39.114730	-80.586203	Perennial	RPW	Warmwater Fishery, Tier 2	05020002	Pipeline ROW	79	-	0.0073	-	117	-	4-103
S-K46	UNT to Left Fork Freemans Creek	Lewis	Pittsburgh	39.080252	-80.581430	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Pipeline ROW	93	-	0.0043	-	21	-	4-109
S-B67	Left Fork Freemans Creek	Lewis	Pittsburgh	39.079556	-80.581346	Perennial	RPW	Warmwater Fishery, Tier 1	05020002	Timber Mat Crossing	22	-	0.0061	-	29	-	4-110
S-B69	UNT to Left Fork Freemans Creek	Lewis	Pittsburgh	39.077790	-80.582932	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Temporary Access Road	86	-	0.0030	-	14	-	4-110
S-H184	UNT to Left Fork Freemans Creek	Lewis	Pittsburgh	39.069684	-80.580583	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	22	-	0.0051	-	24	-	4-111
S-H184a	UNT to Left Fork Freemans Creek	Lewis	Pittsburgh	39.069645	-80.580591	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05020002	Timber Mat Crossing	22	-	0.0051	-	24	-	4-111
S-H180	UNT to Left Fork Freemans Creek	Lewis	Pittsburgh	39.068217	-80.581025	Intermittent	RPW	Warmwater Fishery, Tier 2	05020002	Pipeline ROW	68	-	0.0203	-	327	-	4-111
S-ST18	UNT to Mobley Run	Wetzel	Huntington	39.561766	-80.540136	Intermittent	RPW	Warmwater Fishery, Tier 1	05030201	Permanent Access Road	21	-	0.0049	-	23	-	4-2
S-WX3	UNT to Mobley Run	Wetzel	Huntington	39.560611	-80.545823	Intermittent	RPW	Warmwater Fishery, Tier 1	05030201	ATWS	21	-	0.0024	-	12	-	4-1
S-A1a	North Fork Fishing Creek	Wetzel	Huntington	39.553946	-80.545046	Perennial	RPW	Warmwater Fishery, Tier 1	05030201	Pipeline ROW	80	-	0.0641	-	1,034	-	4-3
S-A3a	UNT to North Fork Fishing Creek	Wetzel	Huntington	39.551814	-80.545633	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Pipeline ROW	80	-	0.0166	-	267	-	4-4
S-J66	UNT to North Fork Fishing Creek	Wetzel	Huntington	39.546030	-80.544314	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	20	-	0.0014	-	7	-	4-5
S-A5a	UNT to Fallen Timber Run	Wetzel	Huntington	39.534241	-80.540995	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	30	-	0.0028	-	13	-	4-8
S-A6a	Fallen Timber Run	Wetzel	Huntington	39.534023	-80.540889	Perennial	RPW	Warmwater Fishery, Tier 1	05030201	Timber Mat Crossing	20	-	0.0092	-	44	-	4-9
S-A125	Price Run	Wetzel	Huntington	39.503477	-80.532902	Perennial	RPW	Warmwater Fishery, Tier 1	05030201	Timber Mat Crossing	20	-	0.0161	-	78	-	4-19
S-A124	UNT to Price Run	Wetzel	Huntington	39.503288	-80.532680	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Pipeline ROW	100	-	0.0276	-	445	-	4-19
S-A118	UNT to Price Run	Wetzel	Huntington	39.502399	-80.523520	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Pipeline ROW	79	-	0.0109	-	176	-	4-20
S-A120	Stout Run	Wetzel	Huntington	39.489914	-80.522135	Intermittent	RPW	Warmwater Fishery, Tier 1	05030201	Temporary Access Road	8	-	0.0011	-	5	-	4-23
S-A120	Stout Run	Wetzel	Huntington	39.489890	-80.522083	Intermittent	RPW	Warmwater Fishery, Tier 1	05030201	Permanent Access Road	-	26	-	0.0036	-	15	4-23
S-A120	Stout Run	Wetzel	Huntington	39.489866	-80.522029	Intermittent	RPW	Warmwater Fishery, Tier 1	05030201	Temporary Access Road	9	-	0.0012	-	6	-	4-23
S-A120	Stout Run	Wetzel	Huntington	39.489712	-80.520728	Intermittent	RPW	Warmwater Fishery, Tier 1	05030201	Timber Mat Crossing	20	-	0.0028	-	13	-	4-23
S-A119	UNT to Stout Run	Wetzel	Huntington	39.489589	-80.520532	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	134	-	0.0154	-	74	-	4-23

Table A-1. West Virginia Stream Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Stream ID	NHD Stream Name ¹	County	USACE District	Latitude ²	Longitude ²	Flow Regime	Water Type ³	Stream Designation ⁴	HUC 8	Impact Type	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Impact Area (acres) ⁵	Permanent Impact Area (acres) ⁵	Temporary Fill (cubic yard) ⁶	Permanent Fill (cubic yard) ⁷	Figure
S-QR34	UNT to Stout Run	Wetzel	Huntington	39.489140	-80.520658	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030201	Permanent Access Road	-	125	-	0.0072	-	24	4-23
S-QR34	UNT to Stout Run	Wetzel	Huntington	39.489062	-80.520519	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030201	Temporary Access Road	8	-	0.0004	-	2	-	4-23
S-J60	Sams Run	Wetzel	Huntington	39.474354	-80.511825	Perennial	RPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	20	-	0.0064	-	31	-	4-26
S-J56	Manion Run	Wetzel	Huntington	39.464315	-80.502077	Perennial	RPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	20	-	0.0046	-	22	-	4-28
S-J56	Manion Run	Wetzel	Huntington	39.464105	-80.502318	Perennial	RPW	Warmwater Fishery, Tier 2	05030201	Temporary Access Road	23	-	0.0054	-	26	-	4-28
S-J56	Manion Run	Wetzel	Huntington	39.463899	-80.502594	Perennial	RPW	Warmwater Fishery, Tier 2	05030201	Permanent Access Road	-	41	-	0.0095	-	46	4-28
S-J59	UNT to Manion Run	Wetzel	Huntington	39.462705	-80.504726	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Permanent Access Road	-	7	-	0.0005	-	2	4-28
S-J59	UNT to Manion Run	Wetzel	Huntington	39.462684	-80.504736	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Temporary Access Road	10	-	0.0007	-	3	-	4-28
S-J58	UNT to Manion Run	Wetzel	Huntington	39.462546	-80.505386	Perennial	RPW	Warmwater Fishery, Tier 2	05030201	Permanent Access Road	26	-	0.0030	-	14	-	4-28
S-K77	Traugh Fork	Doddridge	Huntington	39.229029	-80.552534	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Pipeline ROW	37	-	0.0034	-	54	-	4-80
S-K77	Traugh Fork	Doddridge	Huntington	39.228942	-80.552437	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Pipeline ROW	93	-	0.0085	-	137	-	4-80
S-K67	UNT to Big Issac Creek	Doddridge	Huntington	39.210269	-80.553179	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Pipeline ROW	77	-	0.0177	-	285	-	4-84
S-K65	UNT to Big Issac Creek	Doddridge	Huntington	39.209813	-80.552450	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Pipeline ROW	90	-	0.0165	-	267	-	4-84
S-K54	UNT to Big Issac Creek	Doddridge	Huntington	39.207673	-80.552957	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	20	-	0.0032	-	16	-	4-84
S-K58	UNT to Big Issac Creek	Doddridge	Huntington	39.205595	-80.553224	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	20	-	0.0011	-	6	-	4-84
S-K59	UNT to Big Issac Creek	Doddridge	Huntington	39.204704	-80.553272	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	20	-	0.0011	-	6	-	4-84
S-K60	UNT to Big Issac Creek	Doddridge	Huntington	39.203779	-80.553410	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030201	Timber Mat Crossing	20	-	0.0018	-	9	-	4-84
S-A110/K62	UNT to Laural Run	Doddridge	Huntington	39.201316	-80.553306	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Permanent Access Road	-	25	-	0.0040	-	13	4-85
S-A110/K62	UNT to Laural Run	Doddridge	Huntington	39.201286	-80.553425	Intermittent	RPW	Warmwater Fishery, Tier 2	05030201	Pipeline ROW	59	-	0.0095	-	154	-	4-85
S-A111	Laural Run	Doddridge	Huntington	39.200749	-80.553190	Perennial	RPW	Warmwater Fishery, Tier 1	05030201	Pipeline ROW	77	-	0.0247	-	399	-	4-85
S-J46	Fink Creek	Lewis	Huntington	39.094778	-80.584828	Perennial	RPW	Warmwater Fishery, Tier 1	05030203	Timber Mat Crossing	22	-	0.0076	-	37	-	4-106
S-J47b	UNT to Fink Creek	Lewis	Huntington	39.094003	-80.585481	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0015	-	7	-	4-106
S-I64	Leading Creek	Lewis	Huntington	39.052748	-80.582213	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0020	-	10	-	4-114
S-KK3a	UNT to Laurel Run	Lewis	Huntington	39.019605	-80.597895	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0010	-	5	-	4-119
S-KK5	UNT to Laurel Run	Lewis	Huntington	39.017783	-80.598853	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0015	-	7	-	4-119
S-KK5	UNT to Laurel Run	Lewis	Huntington	39.017738	-80.597017	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0015	-	7	-	4-119
S-KK5	UNT to Laurel Run	Lewis	Huntington	39.017718	-80.597027	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0015	-	7	-	4-119
S-KK6	UNT Laurel Run	Lewis	Huntington	39.017621	-80.596939	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0015	-	7	-	4-119
S-KK7	Laurel Run	Lewis	Huntington	39.017519	-80.597010	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0030	-	15	-	4-119
S-K45	UNT to Cove Lick	Lewis	Huntington	39.002598	-80.595591	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	ATWS	50	-	0.0011	-	6	-	4-121
S-K43	Cove Lick	Lewis	Huntington	39.002111	-80.595843	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	27	-	0.0043	-	21	4-121
S-K43	Cove Lick	Lewis	Huntington	39.002045	-80.596098	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0035	-	17	-	4-121
S-K38	UNT to Rock Run	Lewis	Huntington	38.992357	-80.592929	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0015	-	7	-	4-123
S-I63	Sand Fork	Lewis	Huntington	38.969369	-80.593138	Perennial	RPW	Non-listed mussels, Warmwater Fishery, Tier 1	05030203	Pipeline ROW	60	-	0.0275	-	444	-	4-128
S-I63	Sand Fork	Lewis	Huntington	38.969290	-80.593203	Perennial	RPW	Non-listed mussels, Warmwater Fishery, Tier 1	05030203	Permanent Access Road	-	26	-	0.0119	-	58	4-128
S-I63	Sand Fork	Lewis	Huntington	38.969239	-80.593244	Perennial	RPW	Non-listed mussels, Warmwater Fishery, Tier 1	05030203	Temporary Access Road	8	-	0.0037	-	18	-	4-128
S-H160	Indian Fork	Lewis	Huntington	38.933179	-80.584562	Perennial	RPW	Warmwater Fishery, Tier 1	05030203	Timber Mat Crossing	23	-	0.0106	-	59	-	4-135
S-L76	Indian Fork	Lewis	Huntington	38.929761	-80.575251	Perennial	RPW	Warmwater Fishery, Tier 1	05030203	Permanent Access Road	33	-	0.0115	-	56	-	4-137
S-H153	UNT to Sugar Camp Run	Lewis	Huntington	38.922846	-80.579227	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	76	-	0.0262	-	423	-	4-136
S-H145	UNT to Indian Fork	Lewis	Huntington	38.918986	-80.573838	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	91	-	0.0313	-	505	-	4-140
S-H165	UNT to Indian Fork	Lewis	Huntington	38.918602	-80.573256	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	144	-	0.0198	-	320	-	4-140
S-CV3	Threelick Run	Lewis	Huntington	38.913415	-80.571854	Perennial	RPW	Warmwater Fishery, Tier 1	05030203	Timber Mat Crossing	22	-	0.0030	-	15	-	4-142
S-CD16	UNT to Second Big Run	Lewis	Huntington	38.904135	-80.563719	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	173	-	0.0318	-	154	-	4-144
S-VV13	Second Big Run	Lewis	Huntington	38.903930	-80.563537	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	80	-	0.0275	-	133	-	4-144
S-VV11	UNT to Second Big Run	Lewis	Huntington	38.903610	-80.563186	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	7	-	0.0007	-	3	-	4-144
S-VV12	UNT to Second Big Run	Lewis	Huntington	38.903575	-80.563308	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	77	-	0.0211	-	341	-	4-144
S-VV13d	Second Big Run	Lewis	Huntington	38.902549	-80.564778	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	61	-	0.0210	-	102	-	4-144
S-VV20	UNT to Second Big Run	Lewis	Huntington	38.900233	-80.563491	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	40	-	0.0028	-	13	-	4-145
S-VV19	UNT to Second Big Run	Lewis	Huntington	38.899505	-80.563925	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	62	-	0.0043	-	21	-	4-146
S-VV13b	Second Big Run	Lewis	Huntington	38.898431	-80.568250	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	42	-	0.0143	-	69	-	4-146
S-VV18	UNT to Second Big Run	Lewis	Huntington	38.897028	-80.567634	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	41	-	0.0075	-	36	-	4-146
S-VV16	UNT to Second Big Run	Lewis	Huntington	38.896271	-80.568551	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	293	-	0.0202	-	98	-	4-146
S-VV16	UNT to Second Big Run	Lewis	Huntington	38.895455	-80.566432	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	211	-	0.0145	-	70	-	4-146
S-UV11	Oil Creek	Lewis	Huntington	38.893014	-80.556192	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	51	-	0.0351	-	567	-	4-148
S-UV11	Oil Creek	Lewis	Huntington	38.893014	-80.556192	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	25	-	-	0	-	4-148
S-VV22	UNT to Oil Creek	Lewis	Huntington	38.890411	-80.550986	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	43	-	0.0029	-	12	-	4-148
S-VV21	UNT to Oil Creek	Lewis	Huntington	38.890221	-80.553817	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	18	-	0.0012	-	5	-	4-148
S-L61	Crooked Run	Lewis	Huntington	38.880040	-80.563579	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	30	-	0.0069	-	33	4-151
S-L61	Crooked Run	Lewis	Huntington	38.879034	-80.564307	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	28	-	0.0064	-	31	4-151

Table A-1. West Virginia Stream Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Stream ID	NHD Stream Name ¹	County	USACE District	Latitude ²	Longitude ²	Flow Regime	Water Type ³	Stream Designation ⁴	HUC 8	Impact Type	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Impact Area (acres) ⁵	Permanent Impact Area (acres) ⁵	Temporary Fill (cubic yard) ⁶	Permanent Fill (cubic yard) ⁷	Figure
S-VV2	Clover Fork	Braxton	Huntington	38.862730	-80.525128	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	90	-	0.0412	-	664	-	4-159
S-VV9	UNT to Clover Fork	Lewis	Huntington	38.863254	-80.525763	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0051	-	24	-	4-158
S-L51	Barbecue Run	Braxton	Huntington	38.839355	-80.519693	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0101	-	49	-	4-161
S-J37	UNT to Barbecue Run	Braxton	Huntington	38.839133	-80.519716	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0015	-	7	-	4-162
S-L57	UNT to Barbecue Run	Braxton	Huntington	38.828310	-80.525753	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road	-	26	-	0.0024	-	12	4-165
S-L57	UNT to Barbecue Run	Braxton	Huntington	38.828300	-80.525691	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Temporary Access Road/ATWS	25	-	0.0023	-	11	-	4-165
S-L60	Left Fork Knawl Creek	Braxton	Huntington	38.824034	-80.524988	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	75	-	0.0517	-	833	-	4-165
S-LL1	Knawl Creek	Braxton	Huntington	38.823595	-80.525342	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	88	-	0.0607	-	980	-	4-165
S-IJ27	Little Knawl Creek	Braxton	Huntington	38.809593	-80.541252	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	34	-	0.0156	-	76	4-168
S-IJ32	UNT to Little Knawl Creek	Braxton	Huntington	38.809568	-80.537319	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	26	-	0.0030	-	14	4-168
S-IJ27	Little Knawl Creek	Braxton	Huntington	38.808878	-80.543272	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Permanent Access Road	-	50	-	0.0230	-	111	4-168
S-QR30	UNT to Little Knawl Creek	Braxton	Huntington	38.807940	-80.535715	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	79	-	0.0274	-	442	-	4-168
S-JJ1	UNT to Keith Run	Braxton	Huntington	38.786930	-80.530028	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0071	-	34	-	4-172
S-I60	UNT to Falls Run	Braxton	Huntington	38.781068	-80.524577	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0020	-	10	-	4-174
S-J70	Falls Run	Braxton	Huntington	38.778955	-80.525862	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	77	-	0.0530	-	854	-	4-174
S-K34	Hemp Patch Run	Braxton	Huntington	38.766123	-80.520308	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0025	-	12	-	4-178
S-K33	UNT to Hemp Patch Run	Braxton	Huntington	38.765714	-80.520032	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0010	-	5	-	4-178
S-H123	UNT to Elliott Run	Braxton	Huntington	38.761197	-80.514887	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	82	-	0.0113	-	183	-	4-178
S-H123	UNT to Elliott Run	Braxton	Huntington	38.760426	-80.513624	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	82	-	0.0113	-	182	-	4-178
S-H127	UNT to Elliott Run	Braxton	Huntington	38.755029	-80.513692	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0020	-	10	-	4-180
S-H132	Little Kanawha River	Braxton	Huntington	38.751499	-80.514919	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	120	-	0.0606	-	293	-	4-180
S-H129	UNT to Little Kanawha River	Braxton	Huntington	38.749321	-80.514337	Intermittent	RPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0010	-	5	-	4-183
S-H131	UNT to Little Kanawha River	Braxton	Huntington	38.749215	-80.514370	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05030203	Timber Mat Crossing	22	-	0.0010	-	5	-	4-183
S-H117	Stonecoal Run	Braxton	Huntington	38.731020	-80.506280	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	82	-	0.0283	-	456	-	4-188
S-L46	UNT to Laurel Run	Braxton	Huntington	38.721880	-80.499258	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	78	-	0.0267	-	431	-	4-190
S-L44	UNT to Laurel Run	Braxton	Huntington	38.716945	-80.494589	Perennial	RPW	Warmwater Fishery, Tier 2	05030203	Pipeline ROW	81	-	0.0185	-	298	-	4-193
S-I57	Mudlick Run	Braxton	Huntington	38.697413	-80.489560	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	77	-	0.0528	-	852	-	4-196
S-A96/A103	UNT to Left Fork Holly River	Webster	Huntington	38.688706	-80.478590	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	83	-	0.0114	-	185	-	4-198
S-A97	UNT to Left Fork Holly River	Webster	Huntington	38.688329	-80.478406	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	125	-	0.0229	-	370	-	4-198
S-A99	UNT to Left Fork Holly River	Webster	Huntington	38.688120	-80.478371	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	34	-	0.0039	-	19	-	4-198
S-A98	UNT to Left Fork Holly River	Webster	Huntington	38.687906	-80.478024	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW/Temporary Access Road	392	-	0.0629	-	1015	-	4-198
S-A100	Left Fork Holly River	Webster	Huntington	38.676643	-80.477940	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Timber Mat Crossing	22	-	0.0404	-	196	-	4-200
S-E78/E82/R1	UNT to Left Fork Holly River	Webster	Huntington	38.676223	-80.477663	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	102	-	0.0094	-	151	-	4-200
S-E76	UNT to Left Fork Holly River	Webster	Huntington	38.674988	-80.477360	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0015	-	7	-	4-200
S-KK2	UNT to Left Fork Holly River	Webster	Huntington	38.672226	-80.476315	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	75	-	0.0052	-	84	-	4-200
S-KK3b	UNT to Left Fork Holly River	Webster	Huntington	38.672110	-80.476515	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	100	-	0.0069	-	111	-	4-201
S-KK4b	UNT to Left Fork Holly River	Webster	Huntington	38.671976	-80.476825	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	88	-	0.0061	-	98	-	4-201
S-E74	UNT to Left Fork Holly River	Webster	Huntington	38.671971	-80.476990	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	68	-	0.0062	-	30	-	4-200
S-F40	Oldlick Creek	Webster	Huntington	38.667943	-80.479023	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Timber Mat Crossing	22	-	0.0126	-	61	-	4-201
S-S1	UNT to Oldlick Creek	Webster	Huntington	38.667020	-80.478624	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	21	-	0.0010	-	5	-	4-201
S-S4	UNT to Oldlick Creek	Webster	Huntington	38.664389	-80.484709	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Temporary Access Road	45	-	0.0021	-	10	-	4-204
S-F43	UNT to Oldlick Creek	Webster	Huntington	38.663706	-80.478644	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	101	-	0.0232	-	375	-	4-202
S-E67	Right Fork Holly Creek	Webster	Huntington	38.648021	-80.489704	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	92	-	0.1803	-	2910	-	4-206
S-B62	Narrows Run	Webster	Huntington	38.646185	-80.486813	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	ATWS	15	-	0.0103	-	50	-	4-215
S-B62	Narrows Run	Webster	Huntington	38.643910	-80.485213	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Permanent Access Road	-	29	-	0.0200	-	97	4-215
S-E71	UNT to Elk River	Webster	Huntington	38.614405	-80.506004	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	44	-	0.0020	-	33	-	4-218
S-H111	UNT to Elk River	Webster	Huntington	38.613367	-80.504620	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0020	-	10	-	4-218
S-H111	UNT to Elk River	Webster	Huntington	38.613341	-80.504620	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0020	-	10	-	4-218
S-H114	UNT to Elk River	Webster	Huntington	38.613259	-80.504243	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0010	-	5	-	4-218
S-H112	UNT to Elk River	Webster	Huntington	38.613163	-80.504012	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0015	-	7	-	4-218
S-H113	UNT to Elk River	Webster	Huntington	38.612982	-80.503647	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	74	-	0.0203	-	327	-	4-218
S-H113	UNT to Elk River	Webster	Huntington	38.612878	-80.503687	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	9	-	0.0026	-	42	-	4-218
S-H113	UNT to Elk River	Webster	Huntington	38.612874	-80.503682	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	9	-	0.0026	-	41	-	4-218
S-H110	UNT to Houston Run	Webster	Huntington	38.587200	-80.509634	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0015	-	7	-	4-222
S-T29	Houston Run	Webster	Huntington	38.579092	-80.525620	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	76	-	0.0525	-	847	-	4-230
S-A83/A91	UNT to Camp Creek	Webster	Huntington	38.557064	-80.535592	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	75	-	0.0518	-	835	-	4-235
S-A93	UNT to Camp Creek	Webster	Huntington	38.556823	-80.535751	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050007	Temporary Access Road	13	-	0.0025	-	12	-	4-235
S-A93	UNT to Camp Creek	Webster	Huntington	38.556682	-80.535572	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	105	-	0.0193	-	312	-	4-235
S-A92	UNT to Camp Creek	Webster	Huntington	38.556658	-80.535607	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	59	-	0.0175	-	282	-	4-235

Table A-1. West Virginia Stream Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Stream ID	NHD Stream Name ¹	County	USACE District	Latitude ²	Longitude ²	Flow Regime	Water Type ³	Stream Designation ⁴	HUC 8	Impact Type	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Impact Area (acres) ⁵	Permanent Impact Area (acres) ⁵	Temporary Fill (cubic yard) ⁶	Permanent Fill (cubic yard) ⁷	Figure
S-H108	Lower Laurel Fork	Webster	Huntington	38.549358	-80.539260	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	78	-	0.0251	-	405	-	4-236
S-H105	UNT to Camp Creek	Webster	Huntington	38.548824	-80.539644	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	121	-	0.0083	-	135	-	4-236
S-H107	UNT to Camp Creek	Webster	Huntington	38.548467	-80.540073	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	10	-	0.0003	-	5	-	4-236
S-H107	UNT to Camp Creek	Webster	Huntington	38.548463	-80.540050	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050007	Permanent Access Road	-	30	-	0.0010	-	3	4-236
S-H107	UNT to Camp Creek	Webster	Huntington	38.548378	-80.539980	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	90	-	0.0031	-	50	-	4-236
S-H104	Camp Creek	Webster	Huntington	38.548121	-80.540431	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	104	-	0.0360	-	580	-	4-236
S-H103	UNT to Camp Creek	Webster	Huntington	38.545817	-80.542972	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050007	Pipeline ROW	37	-	0.0034	-	16	-	4-248
S-B34	Amos Run	Webster	Huntington	38.493956	-80.560990	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	81	-	0.0561	-	904	-	4-260
S-B35	UNT to Amos Run	Webster	Huntington	38.493884	-80.560969	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	80	-	0.0037	-	59	-	4-260
S-B36	UNT to Amos Run	Webster	Huntington	38.493819	-80.560919	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	72	-	0.0033	-	53	-	4-260
S-B37	UNT to Amos Run	Webster	Huntington	38.493750	-80.560898	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	82	-	0.0038	-	61	-	4-260
S-B38	UNT to Amos Run	Webster	Huntington	38.493723	-80.560843	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	43	-	0.0020	-	32	-	4-260
S-B42	UNT to Amos Run	Webster	Huntington	38.493645	-80.560892	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	101	-	0.0046	-	75	-	4-260
S-B39b	UNT to Amos Run	Webster	Huntington	38.493532	-80.560792	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	142	-	0.0008	-	13	-	4-260
S-B45	UNT to Amos Run	Webster	Huntington	38.493394	-80.560786	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	177	-	0.0122	-	196	-	4-260
S-B39a/B46	UNT to Amos Run	Webster	Huntington	38.493363	-80.560657	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	110	-	0.0076	-	122	-	4-260
S-B39b	UNT to Amos Run	Webster	Huntington	38.493352	-80.560574	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	3	-	0.0002	-	0	-	4-260
S-B39a/B46	UNT to Amos Run	Webster	Huntington	38.493227	-80.560529	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	11	-	0.0007	-	12	-	4-260
S-O4	Lost Run	Webster	Huntington	38.483002	-80.556464	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	92	-	0.0379	-	612	-	4-263
S-O5	UNT to Laurel Creek	Webster	Huntington	38.482251	-80.555499	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050007	Timber Mat Crossing	22	-	0.0010	-	5	-	4-263
S-A81	UNT to Laurel Creek	Webster	Huntington	38.481219	-80.554668	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050007	Temporary Access Road	81	-	0.0037	-	18	-	4-263
S-A79	Laurel Creek	Webster	Huntington	38.480782	-80.554682	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050007	Timber Mat Crossing	55	-	0.0278	-	134	-	4-263
S-A80	UNT to Laurel Creek	Webster	Huntington	38.480687	-80.554061	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050007	Temporary Access Road	104	-	0.0096	-	46	-	4-263
S-E58	Little Glade Run	Webster	Huntington	38.443669	-80.551989	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0040	-	20	-	4-269
S-E55	UNT to Laurel Creek	Webster	Huntington	38.440270	-80.559955	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050007	Timber Mat Crossing	22	-	0.0010	-	5	-	4-271
S-F35	UNT to Birch River	Webster	Huntington	38.424082	-80.570710	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0025	-	12	-	4-278
S-F34	UNT to Birch River	Webster	Huntington	38.423988	-80.570680	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0025	-	12	-	4-278
S-F36a	UNT to Birch River	Webster	Huntington	38.422056	-80.569457	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Temporary Access Road	5	-	0.0006	-	11	-	4-278
S-F36a	UNT to Birch River	Webster	Huntington	38.421474	-80.570012	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Temporary Access Road	23	-	0.0027	-	13	-	4-278
S-F36a	UNT to Birch River	Webster	Huntington	38.418662	-80.573898	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Temporary Access Road	23	-	0.0027	-	13	-	4-278
S-F36a	UNT to Birch River	Webster	Huntington	38.418122	-80.574566	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Temporary Access Road	20	-	0.0023	-	3	-	4-278
S-F36b	UNT to Birch River	Webster	Huntington	38.417934	-80.576775	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Temporary Access Road	65	-	0.0300	-	145	-	4-279
S-F36b	UNT to Birch River	Webster	Huntington	38.417774	-80.576635	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Pipeline ROW	78	-	0.0359	-	580	-	4-279
S-F36b	UNT to Birch River	Webster	Huntington	38.417693	-80.576495	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Temporary Access Road	16	-	0.0074	-	36	-	4-279
S-F37	UNT to Birch River	Webster	Huntington	38.417651	-80.576431	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Temporary Access Road	20	-	0.0018	-	9	-	4-279
S-C49	UNT to Birch River	Webster	Huntington	38.416587	-80.577890	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0015	-	7	-	4-279
S-B33	UNT to Meadow Fork	Webster	Huntington	38.408941	-80.589063	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0051	-	24	-	4-281
S-B32-Braid	UNT to Meadow Fork	Webster	Huntington	38.405871	-80.591069	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0035	-	17	-	4-281
S-B32	UNT to Meadow Fork	Webster	Huntington	38.405683	-80.591116	Perennial	RPW	Warmwater Fishery, Tier 2	05050007	Timber Mat Crossing	22	-	0.0035	-	17	-	4-281
S-EF40	UNT to Meadow Fork	Webster	Huntington	38.400883	-80.597787	Intermittent	RPW	Warmwater Fishery, Tier 2	05050007	Anode Bed	52	-	0.0084	-	41	-	4-282
S-B30	UNT to Meadow Fork	Webster	Huntington	38.399733	-80.597536	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050007	Anode Bed	27	-	0.0024	-	12	-	4-282
S-B29	Meadow Fork	Webster	Huntington	38.399618	-80.597332	Perennial	RPW	Warmwater Fishery, Tier 1	05050007	Pipeline ROW	85	-	0.0136	-	220	-	4-282
S-E50	UNT to Gauley River	Webster	Huntington	38.370597	-80.611921	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	93	-	0.0085	-	138	-	4-289
S-E52	UNT to Gauley River	Webster	Huntington	38.369110	-80.611761	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0015	-	7	-	4-290
S-E50	UNT to Gauley River	Webster	Huntington	38.367280	-80.612317	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	82	-	0.0075	-	122	-	4-289
S-E49	UNT to Gauley River	Nicholas	Huntington	38.365574	-80.613141	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	88	-	0.0020	-	33	-	4-290
S-E46	Strouds Creek	Webster	Huntington	38.363374	-80.617277	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0152	-	73	-	4-291
S-E46	Strouds Creek	Webster	Huntington	38.363326	-80.616955	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Temporary Access Road	43	-	0.0296	-	143	-	4-291
S-F21	Barn Run	Nicholas	Huntington	38.355859	-80.633328	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0020	-	10	-	4-293
S-F20	Barn Run	Nicholas	Huntington	38.355800	-80.633223	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0051	-	24	-	4-293
S-IJ57	UNT to Barn Run	Nicholas	Huntington	38.352362	-80.636401	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	82	-	0.0094	-	152	-	4-293
S-IJ59	UNT to Barn Run	Nicholas	Huntington	38.348372	-80.641152	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0035	-	17	-	4-295
S-IJ60	UNT to Rockcamp Run	Nicholas	Huntington	38.343699	-80.644721	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	77	-	0.0141	-	227	-	4-296
S-IJ62	UNT to Cherry Run	Nicholas	Huntington	38.343547	-80.647035	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	79	-	0.0054	-	88	-	4-296
S-B28	Cherry Run	Nicholas	Huntington	38.340083	-80.655413	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0051	-	24	-	4-298
S-B26	UNT to Cherry Run	Nicholas	Huntington	38.339012	-80.659609	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Temporary Access Road	43	-	0.0039	-	19	-	4-299
S-J32	Big Beaver Creek	Nicholas	Huntington	38.331763	-80.670342	Perennial	RPW	Warmwater Fishery, Tier 1	05050005	Timber Mat Crossing	22	-	0.0177	-	86	-	4-301
S-A76	UNT to Big Beaver Creek	Nicholas	Huntington	38.329126	-80.671211	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	77	-	0.0106	-	172	-	4-301
S-A75	UNT to Big Beaver Creek	Nicholas	Huntington	38.326001	-80.670358	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	84	-	0.0193	-	311	-	4-302

Table A-1. West Virginia Stream Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Stream ID	NHD Stream Name ¹	County	USACE District	Latitude ²	Longitude ²	Flow Regime	Water Type ³	Stream Designation ⁴	HUC 8	Impact Type	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Impact Area (acres) ⁵	Permanent Impact Area (acres) ⁵	Temporary Fill (cubic yard) ⁶	Permanent Fill (cubic yard) ⁷	Figure
S-A74	UNT to Big Beaver Creek	Nicholas	Huntington	38.325540	-80.670150	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	75	-	0.0069	-	112	-	4-302
S-A73	UNT to Big Beaver Creek	Nicholas	Huntington	38.323815	-80.670069	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	83	-	0.0114	-	184	-	4-302
S-A72	UNT to Big Beaver Creek	Nicholas	Huntington	38.321687	-80.670952	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0020	-	10	-	4-302
S-A71	UNT to Big Beaver Creek	Nicholas	Huntington	38.321572	-80.670958	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0020	-	10	-	4-302
S-A71-Braid	UNT to Big Beaver Creek	Nicholas	Huntington	38.321548	-80.670969	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0040	-	20	-	4-302
S-A67	UNT to Big Beaver Creek	Nicholas	Huntington	38.317575	-80.671553	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	76	-	0.0121	-	196	-	4-303
S-A69	UNT to Big Beaver Creek	Nicholas	Huntington	38.317217	-80.671495	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	82	-	0.0113	-	183	-	4-303
S-A69	UNT to Big Beaver Creek	Nicholas	Huntington	38.317089	-80.671565	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	16	-	0.0022	-	36	-	4-303
S-H99	UNT to Big Beaver Creek	Nicholas	Huntington	38.312952	-80.673145	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	96	-	0.0088	-	142	-	4-304
S-H96	UNT to Big Beaver Creek	Nicholas	Huntington	38.309759	-80.675706	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Temporary Access Road	39	-	0.0018	-	9	-	4-304
S-H95	UNT to Big Beaver Creek	Nicholas	Huntington	38.309738	-80.675733	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Temporary Access Road	259	-	0.0178	-	86	-	4-304
S-A65	Big Beaver Creek	Nicholas	Huntington	38.308183	-80.675347	Perennial	RPW	Warmwater Fishery, Tier 1	05050005	Pipeline ROW	77	-	0.1240	-	2000	-	4-304
S-A64	UNT to Granny Run	Nicholas	Huntington	38.304538	-80.673827	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	54	-	0.0086	-	139	-	4-306
S-N15	UNT to Granny Run	Nicholas	Huntington	38.301571	-80.674776	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0061	-	29	-	4-306
S-N14	Granny Run	Nicholas	Huntington	38.297014	-80.676341	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0040	-	20	-	4-307
S-N14	Granny Run	Nicholas	Huntington	38.296646	-80.676258	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0040	-	20	-	4-307
S-143	UNT to Big Run	Nicholas	Huntington	38.293473	-80.677158	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0051	-	24	-	4-308
S-144	Big Run	Nicholas	Huntington	38.291332	-80.679265	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0040	-	20	-	4-308
S-145	UNT to Big Run	Nicholas	Huntington	38.290061	-80.680304	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0030	-	15	-	4-308
S-147	UNT to Gauley River	Nicholas	Huntington	38.284291	-80.685885	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	80	-	0.0037	-	59	-	4-310
S-148	UNT to Gauley River	Nicholas	Huntington	38.280116	-80.687738	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0051	-	22	-	4-310
S-J28	UNT to Little Laurel Creek	Nicholas	Huntington	38.263235	-80.687908	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	79	-	0.0091	-	147	-	4-315
S-J25	UNT to Little Laurel Creek	Nicholas	Huntington	38.256682	-80.687348	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	77	-	0.0089	-	143	-	4-317
S-J24	UNT to Little Laurel Creek	Nicholas	Huntington	38.256302	-80.687350	Perennial	RPW	Category B-2 Trout Waters, Tier 1	05050005	Pipeline ROW	76	-	0.0261	-	422	-	4-317
S-J24	UNT to Little Laurel Creek	Nicholas	Huntington	38.256248	-80.687358	Perennial	RPW	Category B-2 Trout Waters, Tier 1	05050005	Pipeline ROW	76	-	0.0261	-	421	-	4-317
S-J23-EPH	UNT to Little Laurel Creek	Nicholas	Huntington	38.234331	-80.707513	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	109	-	0.0025	-	41	-	4-326
S-J22	UNT to Little Laurel Creek	Nicholas	Huntington	38.233718	-80.708268	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	85	-	0.0058	-	94	-	4-326
S-N10	Skelt Run	Nicholas	Huntington	38.231025	-80.710633	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	78	-	0.0071	-	115	-	4-327
S-N10-Braid	Skelt Run	Nicholas	Huntington	38.230934	-80.710804	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	101	-	0.0069	-	112	-	4-327
S-EE1	UNT to Skelt Run	Nicholas	Huntington	38.228924	-80.713076	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050005	Timber Mat Crossing	22	-	0.0020	-	10	-	4-327
S-N13-Braid	UNT to Skelt Run	Nicholas	Huntington	38.226869	-80.715487	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	37	-	0.0050	-	24	-	4-328
S-N13	UNT to Skelt Run	Nicholas	Huntington	38.226851	-80.715393	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	89	-	0.0041	-	66	-	4-328
S-L41	Jims Creek	Nicholas	Huntington	38.220793	-80.717100	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	76	-	0.0349	-	564	-	4-328
S-L38	UNT to Riley Branch	Nicholas	Huntington	38.205534	-80.718246	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	75	-	0.0052	-	83	-	4-340
S-L35	Riley Branch	Nicholas	Huntington	38.204372	-80.719778	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Temporary Access Road	52	-	0.0048	-	31	-	4-341
S-L35	Riley Branch	Nicholas	Huntington	38.203887	-80.719122	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	86	-	0.0079	-	128	-	4-341
S-L35	Riley Branch	Nicholas	Huntington	38.203097	-80.719248	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	87	-	0.0080	-	129	-	4-341
S-L35	Riley Branch	Nicholas	Huntington	38.200338	-80.717177	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	79	-	0.0072	-	117	-	4-341
S-I37	UNT to Hominy Creek	Nicholas	Huntington	38.196644	-80.718856	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	40	-	0.0056	-	27	-	4-342
S-I38	UNT to Hominy Creek	Nicholas	Huntington	38.194221	-80.719357	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	77	-	0.0089	-	143	-	4-342
S-I39	UNT to Hominy Creek	Nicholas	Huntington	38.194025	-80.719298	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	79	-	0.0126	-	204	-	4-342
S-I40	UNT to Hominy Creek	Nicholas	Huntington	38.187582	-80.723025	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	82	-	0.0133	-	214	-	4-343
S-I41	UNT to Hominy Creek	Nicholas	Huntington	38.179384	-80.729497	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	78	-	0.0143	-	231	-	4-344
S-I36	Hominy Creek	Nicholas	Huntington	38.178889	-80.729790	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	77	-	0.0976	-	1575	-	4-347
S-I31	UNT to Hominy Creek	Nicholas	Huntington	38.163802	-80.730743	Ephemeral	NRPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	73	-	0.0033	-	54	-	4-355
S-N8a	UNT to Hominy Creek	Nicholas	Huntington	38.162363	-80.733602	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Timber Mat Crossing	22	-	0.0020	-	10	-	4-355
S-VV1	UNT to Hominy Creek	Nicholas	Huntington	38.161064	-80.735022	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Timber Mat Crossing	22	-	0.0020	-	10	-	4-355
S-H88	Sugar Branch	Nicholas	Huntington	38.136744	-80.730560	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	76	-	0.0697	-	1125	-	4-359
S-H71	UNT to Hominy Creek	Nicholas	Huntington	38.124315	-80.735783	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	93	-	0.0257	-	415	-	4-362
S-H67	UNT to Hominy Creek	Nicholas	Huntington	38.120580	-80.736772	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	85	-	0.0235	-	379	-	4-363
S-H64	UNT to Hominy Creek	Nicholas	Huntington	38.116279	-80.735319	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	87	-	0.0060	-	96	-	4-364
S-V3	UNT to Hominy Creek	Nicholas	Huntington	38.115823	-80.730960	Perennial	RPW	Category B-2 Trout Waters, Tier 2	05050005	Timber Mat Crossing	22	-	0.0061	-	29	-	4-365
S-EF41	UNT to Hominy Creek	Nicholas	Huntington	38.107549	-80.726284	Intermittent	RPW	Category B-2 Trout Waters, Tier 2	05050005	Pipeline ROW	82	-	0.0038	-	61	-	4-366
S-J19	UNT to Meadow Creek	Greenbrier	Huntington	38.028599	-80.743623	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0010	-	5	-	4-382
S-J20	UNT to Meadow Creek	Greenbrier	Huntington	38.023801	-80.747266	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0152	-	73	-	4-385
S-I25	UNT to Meadow Creek	Greenbrier	Huntington	38.020430	-80.753194	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	75	-	0.0086	-	139	-	4-390
S-I26	UNT to Meadow Creek	Greenbrier	Huntington	38.019129	-80.755220	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	78	-	0.0090	-	145	-	4-390
S-I27	UNT to Meadow Creek	Greenbrier	Huntington	38.018031	-80.755999	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0025	-	12	-	4-390
S-L26	UNT to Meadow River	Greenbrier	Huntington	37.981900	-80.755213	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	205	-	0.0141	-	227	-	4-397

Table A-1. West Virginia Stream Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Stream ID	NHD Stream Name ¹	County	USACE District	Latitude ²	Longitude ²	Flow Regime	Water Type ³	Stream Designation ⁴	HUC 8	Impact Type	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Impact Area (acres) ⁵	Permanent Impact Area (acres) ⁵	Temporary Fill (cubic yard) ⁶	Permanent Fill (cubic yard) ⁷	Figure
S-L26	UNT to Meadow River	Greenbrier	Huntington	37.980598	-80.754872	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	166	-	0.0114	-	184	-	4-397
S-EF38	UNT to Little Sewell Creek	Greenbrier	Huntington	37.963259	-80.733162	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0015	-	7	-	4-400
S-L24	UNT to Little Sewell Creek	Greenbrier	Huntington	37.963068	-80.733141	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0020	-	10	-	4-400
S-L27	UNT to Little Sewell Creek	Greenbrier	Huntington	37.960725	-80.732852	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Timber Mat Crossing	22	-	0.0010	-	5	-	4-401
S-L30	UNT to Little Sewell Creek	Greenbrier	Huntington	37.954276	-80.739708	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	136	-	0.0093	-	151	-	4-402
S-L22	Little Sewell Creek	Greenbrier	Huntington	37.954035	-80.739868	Perennial	RPW	Warmwater Fishery, Tier 1	05050005	Pipeline ROW	75	-	0.0517	-	834	-	4-402
S-L20	UNT to Little Sewell Creek	Greenbrier	Huntington	37.949579	-80.742646	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	96	-	0.0111	-	179	-	4-403
S-L10	UNT to Boggs Creek	Greenbrier	Huntington	37.938308	-80.747009	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	103	-	0.0071	-	115	-	4-405
S-L11	UNT to Boggs Creek	Greenbrier	Huntington	37.938229	-80.746912	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	26	-	0.0018	-	9	-	4-405
S-I21	UNT to Boggs Creek	Greenbrier	Huntington	37.918228	-80.736774	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	30	-	0.0034	-	55	-	4-409
S-I21	UNT to Boggs Creek	Greenbrier	Huntington	37.918164	-80.736852	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	77	-	0.0089	-	143	-	4-409
S-I22	UNT to Boggs Creek	Greenbrier	Huntington	37.918041	-80.736833	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	94	-	0.0043	-	70	-	4-409
S-I23a	UNT to Boggs Creek	Greenbrier	Huntington	37.917347	-80.738534	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Permanent Access Road	-	33	-	0.0030	-	10	4-409
S-IJ54	UNT to Boggs Creek	Greenbrier	Huntington	37.917125	-80.742425	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Permanent Access Road	-	31	-	0.0036	-	17	4-410
S-IJ53	UNT to Boggs Creek	Greenbrier	Huntington	37.916234	-80.744156	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Permanent Access Road	-	20	-	0.0055	-	27	4-410
S-HH8	UNT to Buffalo Creek	Greenbrier	Huntington	37.865308	-80.753802	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	ATWS	15	-	0.0007	-	3	-	4-421
S-K25/K18	UNT to Buffalo Creek	Greenbrier	Huntington	37.863772	-80.756993	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	ATWS	70	-	0.0096	-	156	-	4-421
S-K17	Buffalo Creek	Greenbrier	Huntington	37.863065	-80.757391	Perennial	RPW	Warmwater Fishery, Tier 1	05050005	Pipeline ROW	75	-	0.0432	-	698	-	4-420
S-K19	UNT to Buffalo Creek	Greenbrier	Huntington	37.860940	-80.757825	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	93	-	0.0107	-	172	-	4-421
S-K21	UNT to Buffalo Creek	Greenbrier	Huntington	37.858566	-80.755584	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	82	-	0.0189	-	304	-	4-422
S-K22	UNT to Buffalo Creek	Greenbrier	Huntington	37.858315	-80.755546	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	78	-	0.0125	-	202	-	4-422
S-UV6	UNT to Morris Fork	Greenbrier	Huntington	37.854386	-80.754981	Perennial	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	88	-	0.0161	-	260	-	4-422
S-UV2	Morris Fork	Greenbrier	Huntington	37.851318	-80.751436	Perennial	RPW	Warmwater Fishery, Tier 1	05050005	Permanent Access Road	-	28	-	0.0103	-	50	4-423
S-UV2	Morris Fork	Greenbrier	Huntington	37.851099	-80.752978	Perennial	RPW	Warmwater Fishery, Tier 1	05050005	Pipeline ROW	88	-	0.0324	-	523	-	4-423
S-U22	UNT to Meadow River	Greenbrier	Huntington	37.839558	-80.748496	Intermittent	RPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	80	-	0.0221	-	356	-	4-425
S-FF1	UNT to Meadow River	Greenbrier	Huntington	37.837560	-80.751903	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Permanent Access Road	11	-	0.0008	-	4	-	4-425
S-FF1	UNT to Meadow River	Greenbrier	Huntington	37.837519	-80.751898	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Permanent Access Road	-	31	-	0.0021	-	10	4-425
S-EE4	UNT to Red Spring Branch	Summers	Huntington	37.813881	-80.748817	Intermittent	RPW	Warmwater Fishery, Tier 2	05050004	Pipeline ROW	137	-	0.0079	-	127	-	4-429
S-M6	UNT to Red Spring Branch	Summers	Huntington	37.807650	-80.746173	Intermittent	RPW	Warmwater Fishery, Tier 2	05050004	Pipeline ROW	110	-	0.0101	-	163	-	4-430
S-J13	UNT to Patterson Creek	Summers	Huntington	37.797484	-80.733605	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	92	-	0.0085	-	137	-	4-432
S-J13	UNT to Patterson Creek	Summers	Huntington	37.796572	-80.732397	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	96	-	0.0088	-	142	-	4-432
S-J13	UNT to Patterson Creek	Summers	Huntington	37.795915	-80.731850	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050005	Pipeline ROW	124	-	0.0114	-	183	-	4-432
S-M5	Red Spring Branch	Summers	Huntington	37.792243	-80.728802	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050004	Timber Mat Crossing	22	-	0.0030	-	15	-	4-433
S-M4	UNT to Red Spring Branch	Summers	Huntington	37.786834	-80.728719	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050004	Temporary Access Road	47	-	0.0032	-	16	-	4-434
S-I13	UNT to Lick Creek	Summers	Huntington	37.782534	-80.719085	Intermittent	RPW	Warmwater Fishery, Tier 2	05050004	Timber Mat Crossing	22	-	0.0076	-	37	-	4-437
S-I14	UNT to Lick Creek	Summers	Huntington	37.781099	-80.719318	Intermittent	RPW	Warmwater Fishery, Tier 2	05050004	Timber Mat Crossing	22	-	0.0035	-	17	-	4-437
S-I15	UNT to Lick Creek	Summers	Huntington	37.779878	-80.720470	Intermittent	RPW	Warmwater Fishery, Tier 2	05050004	Timber Mat Crossing	22	-	0.0051	-	24	-	4-437
S-I16	UNT to Lick Creek	Summers	Huntington	37.779381	-80.721388	Intermittent	RPW	Warmwater Fishery, Tier 2	05050004	Timber Mat Crossing	22	-	0.0020	-	10	-	4-440
S-I12	Lick Creek	Summers	Huntington	37.775891	-80.710797	Intermittent	RPW	Warmwater Fishery, Tier 1	05050004	Permanent Access Road	-	38	-	0.0035	-	11	4-438
S-I17	UNT to Lick Creek	Summers	Huntington	37.775160	-80.728058	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050004	Pipeline ROW	78	-	0.0045	-	72	-	4-441
S-I10	UNT to Lick Creek	Summers	Huntington	37.772437	-80.713781	Intermittent	RPW	Warmwater Fishery, Tier 2	05050004	Permanent Access Road	-	26	-	0.0018	-	9	4-439
S-I19	Lick Creek	Summers	Huntington	37.772089	-80.732901	Perennial	RPW	Warmwater Fishery, Tier 1	05050004	Pipeline ROW	77	-	0.0285	-	428	-	4-441
S-I20	UNT to Lick Creek	Summers	Huntington	37.771406	-80.733241	Perennial	RPW	Warmwater Fishery, Tier 2	05050004	Pipeline ROW	92	-	0.0212	-	342	-	4-441
S-N5	UNT to Hungard Creek	Summers	Huntington	37.704240	-80.744827	Perennial	RPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	87	-	0.0040	-	65	-	4-459
S-K14	UNT to Righthand Fork Hungard Creek	Summers	Huntington	37.696788	-80.739242	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	97	-	0.0089	-	143	-	4-460
S-N3	UNT to Hungard Creek	Summers	Huntington	37.694776	-80.736952	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0025	-	12	-	4-461
S-N2	Hungard Creek	Summers	Huntington	37.694507	-80.736682	Perennial	RPW	Warmwater Fishery, Tier 1	05050003	Timber Mat Crossing	22	-	0.0101	-	49	-	4-461
S-CD23	UNT to Hungard Creek	Summers	Huntington	37.694228	-80.736099	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0045	-	22	-	4-461
S-N4	UNT to Hungard Creek	Summers	Huntington	37.693961	-80.735841	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0015	-	7	-	4-461
S-KL29	Right Fork Hungard Creek	Summers	Huntington	37.692932	-80.733839	Perennial	RPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	75	-	0.0863	-	1392	-	4-461
S-M3	Hungard Creek	Summers	Huntington	37.692868	-80.734247	Perennial	RPW	Warmwater Fishery, Tier 1	05050003	Pipeline ROW	80	-	0.0183	-	295	-	4-461
S-CV17	UNT to Greenbrier River	Summers	Huntington	37.681865	-80.730095	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	76	-	0.0070	-	34	-	4-464
S-EF53	UNT to Greenbrier River	Summers	Huntington	37.681323	-80.729672	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Temporary Access Road	51	-	0.0095	-	46	-	4-464
S-I9	UNT to Greenbrier River	Summers	Huntington	37.675977	-80.732822	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0035	-	17	-	4-465
S-K10	UNT to Greenbrier River	Summers	Huntington	37.675079	-80.734384	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Temporary Access Road	9	-	0.0013	-	6	-	4-465
S-K10	UNT to Greenbrier River	Summers	Huntington	37.675070	-80.734447	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Permanent Access Road	-	31	-	0.0043	-	21	4-465
S-K10	UNT to Greenbrier River	Summers	Huntington	37.675058	-80.734522	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Temporary Access Road	9	-	0.0013	-	6	-	4-465
S-L4	UNT to Greenbrier River	Summers	Huntington	37.673213	-80.729772	Perennial	RPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	77	-	0.0176	-	284	-	4-465
S-L2	UNT to Greenbrier River	Summers	Huntington	37.671392	-80.728311	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	88	-	0.0081	-	130	-	4-467

Table A-1. West Virginia Stream Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Stream ID	NHD Stream Name ¹	County	USACE District	Latitude ²	Longitude ²	Flow Regime	Water Type ³	Stream Designation ⁴	HUC 8	Impact Type	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Impact Area (acres) ⁵	Permanent Impact Area (acres) ⁵	Temporary Fill (cubic yard) ⁶	Permanent Fill (cubic yard) ⁷	Figure
S-L1	UNT to Kelly Creek	Summers	Huntington	37.668076	-80.723470	Perennial	RPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	76	-	0.0104	-	168	-	4-468
S-J5	Kelly Creek	Summers	Huntington	37.666864	-80.721794	Perennial	RPW	Warmwater Fishery, Tier 1	05050003	Pipeline ROW	103	-	0.0471	-	759	-	4-468
S-K4	UNT to Keller Creek	Summers	Huntington	37.665806	-80.725709	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Temporary Access Road	-	22	-	0.0010	-	4	4-468
S-J4	UNT to Keller Creek	Summers	Huntington	37.663926	-80.715460	Intermittent	RPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0025	-	12	-	4-469
S-G47	UNT to Wind Creek	Summers	Huntington	37.654112	-80.702579	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0010	-	5	-	4-471
S-G52	UNT to Wind Creek	Monroe	Huntington	37.627537	-80.695593	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0010	-	5	-	4-479
S-G49	UNT to Wind Creek	Monroe	Huntington	37.627381	-80.695679	Perennial	RPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0101	-	49	-	4-479
S-G48	Wind Creek	Monroe	Huntington	37.627308	-80.695759	Perennial	RPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0101	-	49	-	4-479
S-H61	UNT to Stony Creek	Monroe	Huntington	37.618426	-80.699138	Perennial	RPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0126	-	61	-	4-483
S-OP1	Stony Creek	Monroe	Huntington	37.600003	-80.700509	Perennial	RPW	Warmwater Fishery, Tier 2	05050003	Pipeline ROW	78	-	0.0090	-	145	-	4-487
S-IJ64	UNT to Little Stony Creek	Monroe	Huntington	37.591822	-80.705874	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050003	Timber Mat Crossing	22	-	0.0030	-	15	-	4-488
S-A63	Slate Run	Monroe	Huntington	37.560706	-80.709825	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Permanent Access Road	-	25	-	0.0057	-	28	4-492
S-A63	Slate Run	Monroe	Huntington	37.560460	-80.710233	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	88	-	0.0203	-	327	-	4-492
S-A61	UNT to Slate Run	Monroe	Huntington	37.559351	-80.709683	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Temporary Access Road	8	-	0.0012	-	6	-	4-493
S-A61	UNT to Slate Run	Monroe	Huntington	37.559334	-80.709736	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Permanent Access Road	-	26	-	0.0041	-	14	4-493
S-A61	UNT to Slate Run	Monroe	Huntington	37.559328	-80.709792	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Temporary Access Road	8	-	0.0013	-	6	-	4-493
S-A61	UNT to Slate Run	Monroe	Huntington	37.559320	-80.710037	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	81	-	0.0131	-	211	-	4-493
S-A60	Slate Run	Monroe	Huntington	37.558698	-80.709966	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	87	-	0.0358	-	578	-	4-492
S-CV26	UNT to Slate Run	Monroe	Huntington	37.556445	-80.708883	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Permanent Access Road	-	32	-	0.0044	-	21	4-493
S-D31	Indian Creek	Monroe	Huntington	37.554163	-80.710853	Perennial	RPW	Warmwater Fishery, Tier 1	05050002	Pipeline ROW	75	-	0.1120	-	1807	-	4-493
S-D29	UNT to Hans Creek	Monroe	Huntington	37.547394	-80.712099	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Timber Mat Crossing	22	-	0.0020	-	10	-	4-494
S-D25	UNT to Hans Creek	Monroe	Huntington	37.538768	-80.718855	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Timber Mat Crossing	22	-	0.0020	-	10	-	4-496
S-F18	UNT to Hans Creek	Monroe	Huntington	37.538273	-80.719070	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Permanent Access Road	-	26	-	0.0107	-	52	4-496
S-F18	UNT to Hans Creek	Monroe	Huntington	37.536872	-80.716923	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Timber Mat Crossing	22	-	0.0091	-	44	-	4-496
S-Z5	UNT to Hans Creek	Monroe	Huntington	37.524333	-80.711450	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	75	-	0.0034	-	56	-	4-499
S-Z4	UNT to Hans Creek	Monroe	Huntington	37.524302	-80.711444	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	75	-	0.0043	-	69	-	4-499
S-MN2	UNT to Hans Creek	Monroe	Huntington	37.520012	-80.707606	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	81	-	0.0130	-	210	-	4-500
S-CV19	Hans Creek	Monroe	Huntington	37.500284	-80.691498	Perennial	RPW	Warmwater Fishery, Tier 1	05050002	Pipeline ROW	77	-	0.0619	-	998	-	4-505
S-MN39	UNT to Blue Lick Creek	Monroe	Huntington	37.487733	-80.681765	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	22	-	0.0010	-	16	-	4-510
S-MN38	UNT to Blue Lick Creek	Monroe	Huntington	37.487721	-80.681929	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	22	-	0.0030	-	48	-	4-510
S-MN37	UNT to Blue Lick Creek	Monroe	Huntington	37.487584	-80.681992	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	95	-	0.0040	-	65	-	4-510
S-MN40	UNT to Blue Lick Creek	Monroe	Huntington	37.487519	-80.681996	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	37	-	0.0010	-	16	-	4-510
S-G44	UNT to Hans Creek	Monroe	Huntington	37.474870	-80.676267	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	86	-	0.0079	-	128	-	4-511
S-G43	UNT to Hans Creek	Monroe	Huntington	37.473139	-80.675738	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Timber Mat Crossing	22	-	0.0025	-	12	-	4-511
S-G42	UNT to Hans Creek	Monroe	Huntington	37.472602	-80.675456	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	79	-	0.0055	-	88	-	4-512
S-MN45	UNT to Hans Creek	Monroe	Huntington	37.462878	-80.670284	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	87	-	0.0040	-	65	-	4-513
S-CV27	UNT to Hans Creek	Monroe	Huntington	37.462850	-80.669582	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	37	-	0.0017	-	8	-	4-513
S-E43	UNT to Dry Creek	Monroe	Huntington	37.453834	-80.664417	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	92	-	0.0147	-	237	-	4-515
S-E45	UNT to Dry Creek	Monroe	Huntington	37.453798	-80.664266	Ephemeral	NRPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	108	-	0.0074	-	120	-	4-515
S-E40	Dry Creek	Monroe	Huntington	37.451003	-80.667795	Perennial	RPW	Warmwater Fishery, Tier 1	05050002	Temporary Access Road	43	-	0.0117	-	57	-	4-515
S-E40	Dry Creek	Monroe	Huntington	37.450757	-80.667719	Perennial	RPW	Warmwater Fishery, Tier 1	05050002	Pipeline ROW	82	-	0.0227	-	366	-	4-515
S-E41	UNT to Dry Creek	Monroe	Huntington	37.450692	-80.667650	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	23	-	0.0010	-	5	-	4-516
S-C38	UNT to Painter Run	Monroe	Huntington	37.426915	-80.694499	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	89	-	0.0143	-	231	-	4-521
S-C39	Painter Run	Monroe	Huntington	37.426686	-80.694499	Perennial	RPW	Warmwater Fishery, Tier 1	05050002	Pipeline ROW	109	-	0.0125	-	202	-	4-521
S-C41	UNT to Painter Run	Monroe	Huntington	37.426161	-80.694592	Intermittent	RPW	Warmwater Fishery, Tier 2	05050002	Pipeline ROW	143	-	0.0100	-	161	-	4-521
S-C40	UNT to Painter Run	Monroe	Huntington	37.425372	-80.693417	Perennial	RPW	Warmwater Fishery, Tier 2	05050002	Temporary Access Road	77	-	0.0053	-	26	-	4-521

Notes:

- 1 - For identified streams without a NHD (National Hydrography Dataset) name, the identified stream was given the name, "Unidentified Tributary (UNT)", of the first named receiving waterbody
- 2 - In decimal degrees
- 3 - RPW = Relatively Permanent Waters
- NRPW = Non-Relatively Permanent Waters
- TNW = Traditional Navigable Waters
- 4 - See Section 1.9.2 and Section 4.2 for more information
- 5 - Acres are rounded to four decimal places.
- 6 - Temporary fill discharge into waters of the U.S. Cubic yards are rounded to the nearest whole number.
- 7 - Permanent fill associated with the construction of Permanent access road and facilities. Cubic yards are rounded to the nearest whole number.

Table A-3. West Virginia Stream Impacts Summary (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

USACE District	Cowardin Class	Temporary Impact (linear ft)	Permanent Impact (linear ft)	Temporary Fill (cubic yards)	Permanent Fill (cubic yards)
Pittsburgh District	Ephemeral	617	137	500	42
	Intermittent	332	0	622	0
	Perennial	1,007	55	4,458	178
	Pittsburgh District Total	1,956	192	5,580	220
Huntington District	Ephemeral	4,966	265	4,761	92
	Intermittent	5,599	296	8,445	152
	Perennial	8,586	363	42,750	586
	Huntington District Total	19,151	924	55,956	830
All District	Ephemeral	5,583	402	5,261	134
	Intermittent	5,931	296	9,067	152
	Perennial	9,593	418	47,208	764
	All Districts Grand total	21,107	1,116	61,536	1,050

Attachment D
Wetland Impact Tables

Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-B55	Harrison	Pittsburgh	39.436246	-80.474973	PEM	RPWWD	05020002	Timber Mat Crossing	0.0054	-	-	26	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Floodflow Alteration	4-36
W-J32-PEM-1	Harrison	Pittsburgh	39.391614	-80.477085	PEM	RPWWN	05020002	Temporary Access Road	0.0417	-	-	202	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-44
W-A10a	Harrison	Pittsburgh	39.369569	-80.485054	PEM	RPWWD	05020002	Timber Mat Crossing	0.0153	-	-	74	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-49
W-B1a	Harrison	Pittsburgh	39.360192	-80.492766	PEM	NRPWW	05020002	Pipeline ROW	0.0119	-	-	192	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Floodflow Alteration	4-50
W-A40	Harrison	Pittsburgh	39.358924	-80.493367	PEM	RPWWN	05020002	Pipeline ROW/ATWS	0.3111	-	-	1,506	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Floodflow Alteration	4-51
W-A39	Harrison	Pittsburgh	39.358865	-80.490797	PEM	RPWWN	05020002	Permanent Access Road	0.0280	-	-	136	-	Sediment/Toxicant/Pathogen Retention	4-51
W-ST11	Harrison	Pittsburgh	39.338239	-80.519656	PEM	NRPWW	05020002	Temporary Access Road/ATWS	0.0228	-	-	110	-	Sediment/Toxicant/Pathogen Retention	4-56
W-ST12-PEM	Harrison	Pittsburgh	39.337471	-80.522128	PEM	RPWWD	05020002	Temporary Access Road/ATWS	0.0582	-	-	282	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Wildlife Habitat; Production Export	4-56
W-ST12-PSS	Harrison	Pittsburgh	39.337457	-80.522185	PSS	RPWWD	05020002	Temporary Access Road/ATWS	-	0.1444	-	699	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Wildlife Habitat; Production Export	4-56
W-B2a	Harrison	Pittsburgh	39.316856	-80.525315	PEM	RPWWD	05020002	ATWS	0.1953	-	-	945	-	Sediment/Toxicant Retention, Nutrient Removal	4-59
W-B4a	Harrison	Pittsburgh	39.316784	-80.526129	PEM	RPWWD	05020002	Timber Mat Crossing	0.0214	-	-	104	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-59
W-UU1	Harrison	Pittsburgh	39.290258	-80.518898	PFO	RPWWD	05020002	Pipeline ROW	-	0.0045	-	22	-	Sediment/Toxicant/Pathogen Retention	4-66
W-UU3	Harrison	Pittsburgh	39.289750	-80.518517	PFO	RPWWN	05020002	Pipeline ROW	-	0.0065	-	105	-	Sediment/Toxicant/Pathogen Retention	4-66
W-UU4a	Harrison	Pittsburgh	39.253101	-80.540498	PEM	RPWWD	05020002	Pipeline ROW/ATWS	0.1268	-	-	2,046	-	Groundwater Recharge/Discharge; Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-74
W-F52	Harrison	Pittsburgh	39.250487	-80.551891	PEM	NRPWW	05020002	Temporary Access Road	0.0625	-	-	302	-	Sediment/Toxicant/Pathogen Retention	4-76
W-F54	Harrison	Pittsburgh	39.249640	-80.550121	PEM	NRPWW	05020002	Timber Mat Crossing	0.0042	-	-	20	-	Sediment/Toxicant/Pathogen Retention	4-76
W-F53	Harrison	Pittsburgh	39.249629	-80.549909	PEM	NRPWW	05020002	Timber Mat Crossing	0.0080	-	-	39	-	Sediment/Toxicant/Pathogen Retention	4-76
W-F55	Harrison	Pittsburgh	39.249464	-80.551040	PEM	NRPWW	05020002	Timber Mat Crossing	0.0173	-	-	84	-	Sediment/Toxicant/Pathogen Retention	4-76

**Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-K43	Harrison	Pittsburgh	39.243915	-80.553961	PEM	RPWWD	05020002	Pipeline ROW	0.2086	-	-	3,365	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-77
W-K44	Harrison	Pittsburgh	39.243493	-80.554033	PEM	RPWWD	05020002	Pipeline ROW	0.0671	-	-	1,083	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration	4-77
W-CV15	Harrison	Pittsburgh	39.223490	-80.548109	PEM	RPWWD	05020002	Timber Mat Crossing	0.0512	-	-	248	-	Groundwater Recharge/Discharge; Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-81
W-J40	Lewis	Pittsburgh	39.167631	-80.578355	PEM	RPWWD	05020002	Pipeline ROW	0.2931	-	-	4,729	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration; Sediment/Shoreline Stabilization	4-92
W-J40	Lewis	Pittsburgh	39.167564	-80.578800	PEM	RPWWD	05020002	Temporary Access Road	0.1812	-	-	877	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration; Sediment/Shoreline Stabilization	4-92
W-A24	Harrison	Pittsburgh	39.165608	-80.569523	PEM	NRPWW	05020002	Temporary Access Road	0.0002	-	-	1	-	Sediment/Toxicant/Pathogen Retention	4-91
W-VV5	Lewis	Pittsburgh	39.137820	-80.576075	PEM	RPWWD	05020002	ATWS	0.0202	-	-	98	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization; Nutrient Removal/Retention/Transformation	4-99
W-IJ23	Lewis	Pittsburgh	39.131093	-80.572126	PEM	RPWWN	05020002	Temporary Access Road	0.0065	-	-	31	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-100
W-IJ24	Lewis	Pittsburgh	39.130718	-80.571966	PEM	RPWWN	05020002	Temporary Access Road	0.0041	-	-	20	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-100
W-J20	Lewis	Pittsburgh	39.116053	-80.589196	PEM	NRPWW	05020002	Permanent Access Road	0.0081	-	-	39	-	Sediment/Toxicant/Pathogen Retention	4-103
W-J23	Lewis	Pittsburgh	39.114118	-80.586522	PEM	RPWWN	05020002	Pipeline ROW	0.0130	-	-	210	-	Sediment/Toxicant/Pathogen Retention	4-103
W-K31	Lewis	Pittsburgh	39.080555	-80.581362	PEM	NRPWW	05020002	Pipeline ROW/Temporary Access Road	0.1135	-	-	549	-	Sediment/Toxicant/Pathogen Retention	4-109
W-ST14	Lewis	Pittsburgh	39.079947	-80.583108	PEM	RPWWD	05020002	Anode Bed	0.0394	-	-	191	-	Sediment/Toxicant/Pathogen Retention	4-110
W-ST15	Lewis	Pittsburgh	39.079855	-80.582499	PEM	RPWWN	05020002	Anode Bed	0.0711	-	-	344	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-110
W-B46	Lewis	Pittsburgh	39.079854	-80.581439	PEM	RPWWD	05020002	Pipeline ROW/Temporary Access Road	0.1255	-	-	607	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-110
W-B47	Lewis	Pittsburgh	39.079451	-80.581349	PEM	RPWWD	05020002	Timber Mat Crossing	0.0682	-	-	330	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-110
W-B51	Lewis	Pittsburgh	39.078107	-80.581235	PEM	NRPWW	05020002	Timber Mat Crossing	0.0035	-	-	17	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-110
W-B54	Lewis	Pittsburgh	39.073907	-80.581491	PEM	NRPWW	05020002	Timber Mat Crossing	0.0101	-	-	49	-	Sediment/Toxicant/Pathogen Retention	4-110

Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-H112	Lewis	Pittsburgh	39.066480	-80.581624	PEM	NRPWW	05020002	Pipeline ROW	0.0231	-	-	373	-	Sediment/Toxicant/Pathogen Retention	4-111
W-ME1	Wetzel	Huntington	39.561837	-80.544176	PEM	RPWWD	05030201	ATWS	0.0382	-	-	185	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Floodflow Alteration	4-1
W-ME2	Wetzel	Huntington	39.559744	-80.546756	PEM	RPWWN	05030201	ATWS	0.1036	-	-	501	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-1
W-ME3	Wetzel	Huntington	39.559075	-80.547489	PEM	RPWWN	05030201	ATWS	0.0869	-	-	421	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-1
W-A1a	Wetzel	Huntington	39.553912	-80.544941	PEM	RPWWD	05030201	Pipeline ROW	0.0038	-	-	18	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Floodflow Alteration	4-3
W-A2a	Wetzel	Huntington	39.553508	-80.545518	PEM	RPWWN	05030201	Timber Mat Crossing	0.0424	-	-	205	-	Sediment/Toxicant/Pathogen Retention	4-3
W-A4a	Wetzel	Huntington	39.544642	-80.542833	PEM	NRPWW	05030201	Timber Mat Crossing	0.0070	-	-	34	-	Sediment/Toxicant/Pathogen Retention	4-5
W-IJ31	Wetzel	Huntington	39.505764	-80.541781	PEM	RPWWN	05030201	ATWS	0.0992	-	-	480	-	Sediment/Toxicant/Pathogen Retention	4-18
W-IJ31	Wetzel	Huntington	39.505612	-80.541681	PEM	RPWWN	05030201	Permanent Access Road	-	-	0.0082	-	40	Sediment/Toxicant/Pathogen Retention	4-18
W-A27-PFO	Wetzel	Huntington	39.502389	-80.523497	PFO	RPWWD	05030201	Pipeline ROW	-	0.0547	-	882	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Floodflow Alteration	4-20
W-A27-PEM	Wetzel	Huntington	39.502356	-80.523420	PEM	RPWWD	05030201	Pipeline ROW	0.0497	-	-	802	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Floodflow Alteration	4-20
W-A35	Wetzel	Huntington	39.491159	-80.520537	PEM	NRPWW	05030201	Pipeline ROW	0.0066	-	-	107	-	Sediment/Toxicant/Pathogen Retention	4-23
W-A34	Wetzel	Huntington	39.489742	-80.520750	PEM	RPWWD	05030201	Timber Mat Crossing	0.0296	-	-	143	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Floodflow Alteration	4-23
W-WX5	Wetzel	Huntington	39.463909	-80.502672	PEM	RPWWD	05030201	Temporary Access Road	0.0011	-	-	5	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-28
W-WX4	Wetzel	Huntington	39.463864	-80.502581	PEM	RPWWD	05030201	Temporary Access Road	0.0095	-	-	46	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-28
W-K52	Doddridge	Huntington	39.236762	-80.558524	PEM	RPWWN	05030201	Permanent Access Road	0.0021	-	-	10	-	Sediment/Toxicant/Pathogen Retention	4-78
W-K52	Doddridge	Huntington	39.236727	-80.558550	PEM	RPWWN	5030201	Permanent Access Road	-	-	0.0115	-	56	Sediment/Toxicant/Pathogen Retention	4-78
W-K45	Doddridge	Huntington	39.228900	-80.552328	PEM	RPWWD	05030201	Pipeline ROW	0.0401	-	-	648	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-80

Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-K41	Doddridge	Huntington	39.208990	-80.551957	PEM	RPWWD	05030201	Timber Mat Crossing	0.0109	-	-	53	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-84
W-A23	Doddridge	Huntington	39.201188	-80.552996	PEM	RPWWD	05030201	Pipeline ROW	0.2701	-	-	4,358	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration; Sediment/Shoreline Stabilization	4-85
W-A23	Doddridge	Huntington	39.201157	-80.553264	PEM	RPWWD	05030201	Permanent Access Road	-	-	0.0579	-	280	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration; Sediment/Shoreline Stabilization	4-85
W-B57	Lewis	Huntington	39.111745	-80.587352	PEM	NRPWW	05030203	Pipeline ROW/Temporary Access Road	0.0336	-	-	163	-	Sediment/Toxicant/Pathogen Retention	4-104
W-K33-PSS	Lewis	Huntington	39.095059	-80.585064	PSS	RPWWD	05030203	Pipeline ROW	-	0.0024	-	12	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-106
W-K33-PEM	Lewis	Huntington	39.095056	-80.584787	PEM	RPWWD	05030203	Pipeline ROW	0.1544	-	-	2,490	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-106
W-K34-PEM	Lewis	Huntington	39.093945	-80.585460	PEM	RPWWD	05030203	Timber Mat Crossing	0.0253	-	-	122	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-106
W-H109	Lewis	Huntington	39.053324	-80.582020	PEM	NRPWW	05030203	Pipeline ROW	-	-	0.0027	-	13	Sediment/Toxicant/Pathogen Retention	4-114
W-I22-PEM	Lewis	Huntington	39.052952	-80.582437	PEM	RPWWD	05030203	ATWS	0.0018	-	-	9	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration	4-114
W-I22-PEM	Lewis	Huntington	39.052768	-80.582196	PEM	RPWWD	05030203	Timber Mat Crossing	0.0162	-	-	78	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration	4-114
W-I22-PEM	Lewis	Huntington	39.052760	-80.582147	PEM	RPWWD	05030203	Permanent Access Road	-	-	0.0059	-	28	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration	4-114
W-KK6	Lewis	Huntington	39.017820	-80.596977	PEM	RPWWD	05030203	Timber Mat Crossing	0.0212	-	-	103	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-119
W-I15	Lewis	Huntington	38.968609	-80.592042	PEM	RPWWN	05030203	Pipeline ROW	0.0631	-	-	1,018	-	Sediment/Toxicant/Pathogen Retention	4-128
W-I16	Lewis	Huntington	38.964758	-80.590881	PEM	NRPWW	05030203	Timber Mat Crossing	0.0177	-	-	86	-	Sediment/Toxicant/Pathogen Retention	4-129
W-I17	Lewis	Huntington	38.964195	-80.590961	PEM	NRPWW	05030203	Timber Mat Crossing	0.0017	-	-	8	-	Sediment/Toxicant/Pathogen Retention	4-129
W-I20	Lewis	Huntington	38.962362	-80.590607	PEM	NRPWW	05030203	Timber Mat Crossing	0.0379	-	-	183	-	Sediment/Toxicant/Pathogen Retention; Wildlife Habitat	4-129
W-I21	Lewis	Huntington	38.962126	-80.590741	PEM	NRPWW	05030203	Timber Mat Crossing	0.0631	-	-	306	-	Sediment/Toxicant/Pathogen Retention	4-129
W-UU7	Lewis	Huntington	38.933646	-80.585074	PEM	NRPWW	05030203	Pipeline ROW	0.0038	-	-	19	-	Sediment/Toxicant/Pathogen Retention	4-135

Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-H103	Lewis	Huntington	38.933290	-80.584765	PEM	RPWWN	05030203	ATWS	0.0037	-	-	18	-	Sediment/Toxicant/Pathogen Retention	4-135
W-H103	Lewis	Huntington	38.933290	-80.584765	PEM	RPWWN	05030203	Timber Mat Crossing	0.0050	-	-	24	-	Sediment/Toxicant/Pathogen Retention	4-135
W-H102	Lewis	Huntington	38.933168	-80.584990	PEM	RPWWN	05030203	ATWS	0.0129	-	-	62	-	Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-135
W-H107	Lewis	Huntington	38.932901	-80.584200	PEM	RPWWD	05030203	Timber Mat Crossing	0.0328	-	-	159	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-135
W-H98	Lewis	Huntington	38.925976	-80.578373	PEM	NRPWW	05030203	Permanent Access Road	-	-	0.0331	-	160	Sediment/Toxicant/Pathogen Retention	4-136
W-H98	Lewis	Huntington	38.925868	-80.578367	PEM	NRPWW	05030203	Temporary Access Road	0.0032	-	-	15	-	Sediment/Toxicant/Pathogen Retention	4-136
W-H108	Lewis	Huntington	38.918766	-80.573564	PEM	RPWWN	05030203	Timber Mat Crossing	0.0278	-	-	134	-	Sediment/Toxicant/Pathogen Retention	4-140
W-H96	Lewis	Huntington	38.913939	-80.571910	PEM	RPWWD	05030203	Timber Mat Crossing	0.0039	-	-	19	-	Sediment/Toxicant/Pathogen Retention	4-142
W-H95	Lewis	Huntington	38.913311	-80.571953	PEM	RPWWD	05030203	Timber Mat Crossing	0.0414	-	-	200	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-142
W-VV9	Lewis	Huntington	38.904701	-80.563951	PEM	RPWWD	05030203	Pipeline ROW	0.0534	-	-	259	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-144
W-CD17	Lewis	Huntington	38.904074	-80.563709	PEM	RPWWD	05030203	Timber Mat Crossing	0.0335	-	-	162	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-144
W-CD16	Lewis	Huntington	38.903722	-80.563418	PEM	RPWWN	05030203	Temporary Access Road/ ATWS	0.0023	-	-	11	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-144
W-CD16	Lewis	Huntington	38.903722	-80.563418	PEM	RPWWN	05030203	Pipeline ROW	0.0226	-	-	365	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-144
W-VV8	Lewis	Huntington	38.903514	-80.563258	PEM	RPWWD	05030203	Pipeline ROW	0.0708	-	-	1,143	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-144
W-CD18	Lewis	Huntington	38.902751	-80.564644	PEM	RPWWD	05030203	Temporary Access Road	0.0322	-	-	156	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-144
W-CD19	Lewis	Huntington	38.902618	-80.564694	PEM	RPWWD	05030203	Temporary Access Road	0.0080	-	-	39	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-144
W-CD21	Lewis	Huntington	38.901049	-80.566582	PEM	RPWWN	05030203	Temporary Access Road	0.0161	-	-	78	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-146
W-CD23	Lewis	Huntington	38.898699	-80.568306	PEM	RPWWD	05030203	Temporary Access Road	0.0349	-	-	169	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-146

Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-CD24	Lewis	Huntington	38.898648	-80.568238	PEM	RPWWD	05030203	Temporary Access Road	0.0094	-	-	45	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-146
W-CD36	Lewis	Huntington	38.898177	-80.568287	PEM	RPWWN	05030203	Temporary Access Road	0.0049	-	-	24	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-146
W-CD25	Lewis	Huntington	38.898021	-80.568159	PEM	RPWWN	05030203	Temporary Access Road	0.0100	-	-	48	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-146
W-CD26	Lewis	Huntington	38.897805	-80.568155	PEM	RPWWN	05030203	Temporary Access Road	0.0114	-	-	55	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-146
W-VV10	Lewis	Huntington	38.897282	-80.567014	PEM	NRPWW	05030203	Temporary Access Road	0.0091	-	-	44	-	Sediment/Toxicant/Pathogen Retention	4-146
W-UV17	Lewis	Huntington	38.893199	-80.556196	PFO	RPWWN	05030203	Pipeline ROW	-	0.0055	-	27	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-148
W-ST16	Lewis	Huntington	38.892534	-80.556680	PEM	RPWWN	05030203	Temporary Anode Bed	0.0711	-	-	344	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-148
W-VV11	Lewis	Huntington	38.890576	-80.554852	PEM	NRPWW	05030203	Temporary Access Road	0.0246	-	-	119	-	Sediment/Toxicant/Pathogen Retention	4-148
W-VV12	Lewis	Huntington	38.890309	-80.553784	PEM	NRPWW	05030203	Temporary Access Road	0.0277	-	-	134	-	Sediment/Toxicant/Pathogen Retention	4-148
W-VV4-PEM	Lewis	Huntington	38.863280	-80.525705	PEM	RPWWD	05030203	Timber Mat Crossing	0.0131	-	-	64	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-158
W-VV4-PFO	Lewis	Huntington	38.863238	-80.525813	PFO	RPWWD	05030203	Timber Mat Crossing	-	0.0263	-	127	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-158
W-VV3-PEM	Lewis	Huntington	38.862795	-80.525190	PEM	RPWWD	05030203	Pipeline ROW	0.0447	-	-	721	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-158
W-VV3-PFO	Braxton	Huntington	38.862691	-80.525163	PFO	RPWWD	05030203	Pipeline ROW	-	0.0160	-	259	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-158
W-H90	Braxton	Huntington	38.760419	-80.513602	PEM	RPWWD	05030203	Pipeline ROW	0.0388	-	-	627	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-179
W-QR13	Braxton	Huntington	38.751445	-80.516905	PEM	RPWWN	05030203	Temporary Access Road	0.0618	-	-	299	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-180
W-QR12	Braxton	Huntington	38.749364	-80.522081	PEM	RPWWN	05030203	Temporary Access Road	0.0881	-	-	426	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-181
W-QR11	Braxton	Huntington	38.747846	-80.521602	PEM	RPWWN	05030203	Temporary Access Road	0.0559	-	-	271	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-181
W-I11b	Braxton	Huntington	38.708869	-80.489369	PEM	NRPWW	05050007	Timber Mat Crossing	0.0098	-	-	47	-	Sediment/Toxicant/Pathogen Retention	4-194

**Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-R2	Webster	Huntington	38.667178	-80.480225	PEM	RPWWD	05050007	Temporary Access Road	0.0620	-	-	300	-	Sediment/Toxicant/Pathogen Retention	4-201
W-KK3	Webster	Huntington	38.667027	-80.478547	PEM	RPWWD	05050007	Pipeline ROW	0.0222	-	-	357	-	Sediment/Toxicant/Pathogen Retention	4-201
W-R3	Webster	Huntington	38.666869	-80.480889	PEM	NRPWW	05050007	Temporary Access Road	0.0155	-	-	75	-	Sediment/Toxicant/Pathogen Retention	4-201
W-F46	Webster	Huntington	38.664132	-80.479008	PEM	RPWWN	05050007	Timber Mat Crossing	0.0039	-	-	19	-	Sediment/Toxicant/Pathogen Retention	4-202
W-R4	Webster	Huntington	38.664021	-80.483434	PEM	NRPWW	05050007	Temporary Access Road	0.0432	-	-	209	-	Sediment/Toxicant/Pathogen Retention	4-204
W-H75	Webster	Huntington	38.607280	-80.504722	PEM	RPWWN	05050007	Pipeline ROW	0.0108	-	-	174	-	Sediment/Toxicant/Pathogen Retention	4-219
W-H79	Webster	Huntington	38.602069	-80.508493	PEM	NRPWW	05050007	Timber Mat Crossing	0.0077	-	-	125	-	Sediment/Toxicant/Pathogen Retention	4-220
W-H81	Webster	Huntington	38.599491	-80.506376	PEM	NRPWW	05050007	Timber Mat Crossing	0.0237	-	-	115	-	Sediment/Toxicant/Pathogen Retention	4-220
W-H82	Webster	Huntington	38.598415	-80.505238	PEM	NRPWW	05050007	Timber Mat Crossing	0.0128	-	-	62	-	Sediment/Toxicant/Pathogen Retention	4-221
W-H86	Webster	Huntington	38.591803	-80.508481	PEM	NRPWW	05050007	Pipeline ROW	0.0013	-	-	6	-	Sediment/Toxicant/Pathogen Retention	4-222
W-H83	Webster	Huntington	38.591372	-80.508904	PEM	NRPWW	05050007	Pipeline ROW/Temporary Access Road	0.0177	-	-	86	-	Sediment/Toxicant/Pathogen Retention	4-222
W-T4	Webster	Huntington	38.586855	-80.518697	PEM	NRPWW	05050007	Temporary Access Road	0.0403	-	-	195	-	Sediment/Toxicant/Pathogen Retention	4-224
W-H85	Webster	Huntington	38.586644	-80.510350	PEM	NRPWW	05050007	Pipeline ROW	0.0069	-	-	33	-	Sediment/Toxicant/Pathogen Retention	4-222
W-A20-PFO	Webster	Huntington	38.566923	-80.529968	PFO	NRPWW	05050007	Timber Mat Crossing	-	0.0298	-	144	-	Sediment/Toxicant/Pathogen Retention; Production Export; Wildlife Habitat	4-232
W-A20-PEM	Webster	Huntington	38.566910	-80.530098	PEM	NRPWW	05050007	Timber Mat Crossing	0.0117	-	-	57	-	Sediment/Toxicant/Pathogen Retention; Production Export; Wildlife Habitat	4-232
W-A19	Webster	Huntington	38.557156	-80.538578	PEM	RPWWD	05050007	Temporary Access Road	0.0265	-	-	128	-	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-235
W-H70	Webster	Huntington	38.557097	-80.526293	PEM	NRPWW	05050007	Permanent Access Road	-	-	0.0057	-	28	Sediment/Toxicant/Pathogen Retention	4-238
W-H71	Webster	Huntington	38.556454	-80.526913	PEM	NRPWW	05050007	Permanent Access Road	-	-	0.0205	-	99	Sediment/Toxicant/Pathogen Retention; Wildlife Habitat	4-238

Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-H72	Webster	Huntington	38.553783	-80.527760	PEM	NRPWW	05050007	Permanent Access Road	-	-	0.0064	-	31	Sediment/Toxicant/Pathogen Retention	4-237
W-H73	Webster	Huntington	38.553085	-80.528148	PEM	NRPWW	05050007	Permanent Access Road	-	-	0.0061	-	29	Sediment/Toxicant/Pathogen Retention	4-237
W-H74	Webster	Huntington	38.552748	-80.533585	PEM	NRPWW	05050007	Permanent Access Road	-	-	0.0115	-	56	Sediment/Toxicant/Pathogen Retention	4-237
W-H67	Webster	Huntington	38.549313	-80.539242	PFO	RPWWD	05050007	Pipeline ROW/Temporary Access Road	-	0.0908	-	1,465	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Production Export; Wildlife Habitat	4-236
W-H66	Webster	Huntington	38.548873	-80.539592	PFO	RPWWD	05050007	Pipeline ROW	-	0.2496	-	4,026	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Production Export; Wildlife Habitat	4-236
W-H64-PEM	Webster	Huntington	38.548175	-80.540709	PEM	RPWWD	05050007	Pipeline ROW	0.0276	-	-	133	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-236
W-H64-PSS	Webster	Huntington	38.548099	-80.540896	PSS	RPWWD	05050007	Pipeline ROW	-	0.0422	-	681	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-236
W-H64-PEM-2	Webster	Huntington	38.548058	-80.540847	PEM	RPWWD	05050007	Pipeline ROW	0.0289	-	-	466	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-236
W-H56	Webster	Huntington	38.545807	-80.542983	PEM	RPWWD	05050007	Pipeline ROW	0.0206	-	-	100	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Wildlife Habitat	4-248
W-O13	Webster	Huntington	38.533655	-80.513682	PEM	RPWWN	05050007	Permanent Access Road	-	-	0.0405	-	196	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-244
W-KL8	Webster	Huntington	38.519565	-80.545076	PEM	NRPWW	05050007	Pipeline ROW	0.0976	-	-	472	-	Sediment/Toxicant/Pathogen Retention	4-252
W-H60	Webster	Huntington	38.517850	-80.544693	PEM	NRPWW	05050007	Timber Mat Crossing	0.0495	-	-	240	-	Sediment/Toxicant/Pathogen Retention	4-253
W-H61	Webster	Huntington	38.517345	-80.545025	PEM	NRPWW	05050007	Timber Mat Crossing	0.0094	-	-	151	-	Sediment/Toxicant/Pathogen Retention; Wildlife Habitat	4-253
W-H62	Webster	Huntington	38.517147	-80.545591	PEM	NRPWW	05050007	Pipeline ROW	0.0335	-	-	162	-	Sediment/Toxicant/Pathogen Retention; Wildlife Habitat	4-253
W-B39	Webster	Huntington	38.508151	-80.559329	PEM	NRPWW	05050007	Pipeline ROW	0.0906	-	-	1,462	-	Sediment/Toxicant/Pathogen Retention	4-255
W-B31	Webster	Huntington	38.494322	-80.561155	PEM	RPWWD	05050007	Pipeline ROW	0.0515	-	-	831	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-260
W-B35	Webster	Huntington	38.493757	-80.560962	PSS	RPWWD	05050007	Pipeline ROW	-	0.0108	-	174	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-260
W-A18	Webster	Huntington	38.481237	-80.555783	PEM	RPWWD	05050007	Temporary Access Road	0.2038	-	-	986	-	Sediment/Toxicant/Pathogen Retention	4-263

Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-E28	Webster	Huntington	38.443010	-80.551309	PSS	RPWWD	05050007	Permanent Access Road	-	-	0.0084	-	40	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration; Wildlife Habitat	4-269
W-E30	Webster	Huntington	38.441535	-80.550864	PEM	RPWWN	05050007	Temporary Access Road	-	-	0.0316	-	153	Sediment/Toxicant/Pathogen Retention	4-269
W-F26	Webster	Huntington	38.428623	-80.567054	PEM	NRPWW	05050007	Timber Mat Crossing	0.0045	-	-	22	-	Sediment/Toxicant/Pathogen Retention	4-277
W-F29	Webster	Huntington	38.424050	-80.570711	PEM	RPWWD	05050007	Timber Mat Crossing	0.0071	-	-	34	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-278
W-F28	Webster	Huntington	38.423890	-80.570659	PEM	RPWWD	05050007	Timber Mat Crossing	0.0071	-	-	34	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-278
W-F40	Webster	Huntington	38.421461	-80.570007	PSS	RPWWD	05050007	Temporary Access Road	-	0.0188	-	91	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-278
W-F41	Webster	Huntington	38.417599	-80.576458	PEM	RPWWD	05050007	Temporary Access Road	0.0002	-	-	1	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-279
W-B30	Webster	Huntington	38.405713	-80.591171	PEM	RPWWD	05050007	Timber Mat Crossing	0.0429	-	-	208	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-281
W-B28	Webster	Huntington	38.399940	-80.597527	PEM	RPWWD	05050007	Pipeline ROW/Anode Bed	0.2983	-	-	4,812	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-282
W-E21	Webster	Huntington	38.370595	-80.611923	PEM	RPWWD	05050005	Pipeline ROW	0.0389	-	-	627	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-289
W-E18-PEM	Webster	Huntington	38.367359	-80.612334	PEM	RPWWD	05050005	Pipeline ROW	0.0208	-	-	101	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-290
W-E18-PSS	Webster	Huntington	38.367284	-80.612248	PSS	RPWWD	05050005	Pipeline ROW	-	0.0538	-	868	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration; Production Export; Wildlife Habitat	4-290
W-E16	Nicholas	Huntington	38.364427	-80.614459	PEM	NRPWW	05050005	Timber Mat Crossing	0.0091	-	-	44	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-291
W-E13	Webster	Huntington	38.364017	-80.616570	PFO	RPWWN	05050005	Timber Mat Crossing	-	0.0107	-	52	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-291
W-F13	Nicholas	Huntington	38.356737	-80.631888	PEM	RPWWN	05050005	Timber Mat Crossing	0.0394	-	-	191	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-293
W-F12	Nicholas	Huntington	38.356528	-80.632264	PEM	RPWWD	05050005	Timber Mat Crossing	0.0576	-	-	279	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-293
W-F11	Nicholas	Huntington	38.355680	-80.633383	PEM	RPWWN	05050005	Timber Mat Crossing	0.0652	-	-	315	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-293
W-K23	Nicholas	Huntington	38.355273	-80.633811	PEM	RPWWN	05050005	Pipeline ROW	0.0489	-	-	789	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-293

Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-K20	Nicholas	Huntington	38.354644	-80.634586	PEM	RPWWD	05050005	Timber Mat Crossing	0.0100	-	-	48	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-293
W-IJ51	Nicholas	Huntington	38.352366	-80.636369	PEM	RPWWD	05050005	Pipeline ROW	0.0410	-	-	662	-	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-293
W-IJ50	Nicholas	Huntington	38.350787	-80.637226	PEM	RPWWN	05050005	Pipeline ROW	0.0528	-	-	852	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-294
W-IJ55	Nicholas	Huntington	38.343568	-80.646491	PEM	RPWWN	05050005	Pipeline ROW	0.0218	-	-	352	-	Sediment/Toxicant/Pathogen Retention	4-296
W-B27	Nicholas	Huntington	38.339713	-80.655364	PEM	RPWWD	05050005	Timber Mat Crossing	0.0874	-	-	423	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-299
W-B26-PEM-1	Nicholas	Huntington	38.339034	-80.659282	PEM	RPWWD	05050005	Temporary Access Road	0.0273	-	-	132	-	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-299
W-B26-PEM-2	Nicholas	Huntington	38.338935	-80.659254	PEM	RPWWD	05050005	Temporary Access Road	0.0060	-	-	29	-	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-299
W-FF6-PSS	Nicholas	Huntington	38.337803	-80.658933	PSS	RPWWN	05050005	Timber Mat Crossing	-	0.0333	-	161	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Wildlife Habitat	4-299
W-FF6-PEM	Nicholas	Huntington	38.337774	-80.658995	PEM	RPWWN	05050005	Timber Mat Crossing	0.0793	-	-	384	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-299
W-FF3	Nicholas	Huntington	38.332776	-80.669068	PEM	RPWWN	05050005	Pipeline ROW	0.0444	-	-	716	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-301
W-FF4	Nicholas	Huntington	38.329122	-80.671098	PEM	RPWWD	05050005	Pipeline ROW	0.0037	-	-	18	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-301
W-A17	Nicholas	Huntington	38.327813	-80.670776	PEM	NRPWW	05050005	Pipeline ROW	0.1300	-	-	2,098	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-301
W-A15	Nicholas	Huntington	38.323735	-80.670118	PSS	RPWWD	05050005	Pipeline ROW	-	0.0891	-	1,437	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Production Export; Wildlife Habitat	4-302
W-A14	Nicholas	Huntington	38.321643	-80.670901	PFO	RPWWD	05050005	Timber Mat Crossing	-	0.0374	-	181	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Production Export; Wildlife Habitat	4-302
W-H53	Nicholas	Huntington	38.313047	-80.673265	PEM	RPWWD	05050005	Pipeline ROW	0.0039	-	-	63	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-304
W-H50	Nicholas	Huntington	38.309707	-80.676585	PEM	NRPWW	05050005	Temporary Access Road	0.0114	-	-	55	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-304
W-N25	Nicholas	Huntington	38.302028	-80.674533	PEM	RPWWD	05050005	Timber Mat Crossing	0.0104	-	-	50	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-306
W-N24	Nicholas	Huntington	38.299148	-80.675928	PEM	RPWWN	05050005	Timber Mat Crossing	0.0031	-	-	15	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-307

**Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-N22	Nicholas	Huntington	38.296941	-80.676479	PEM	RPWWN	05050005	Timber Mat Crossing	0.0030	-	-	14	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-307
W-I7	Nicholas	Huntington	38.293453	-80.677084	PFO	RPWWD	05050005	Timber Mat Crossing	-	0.0333	-	161	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Production Export; Wildlife Habitat	4-308
W-CV13	Nicholas	Huntington	38.273139	-80.686452	PEM	RPWWN	05050005	Permanent Access Road	0.0159	-	-	77	-	Sediment/Toxicant/Pathogen Retention	4-312
W-CV12	Nicholas	Huntington	38.271829	-80.685245	PEM	RPWWD	05050005	Temporary Access Road	0.0098	-	-	47	-	Sediment/Toxicant/Pathogen Retention	4-312
W-RS04	Nicholas	Huntington	38.264804	-80.683146	PEM	NRPWW	05050005	Temporary Access Road	0.0254	-	-	123	-	Sediment/Toxicant/Pathogen Retention	4-316
W-J8	Nicholas	Huntington	38.263168	-80.687930	PFO	RPWWD	05050005	Pipeline ROW	-	0.0533	-	860	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Production Export; Wildlife Habitat	4-315
W-MN4	Nicholas	Huntington	38.262968	-80.683949	PEM	RPWWD	05050005	Temporary Access Road	0.0463	-	-	224	-	Sediment/Toxicant/Pathogen Retention	4-316
W-J7	Nicholas	Huntington	38.233731	-80.708250	PFO	RPWWD	05050005	Pipeline ROW	-	0.0693	-	1,119	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration; Wildlife Habitat; Production Export	4-326
W-N18	Nicholas	Huntington	38.224246	-80.716448	PEM	NRPWW	05050005	Pipeline ROW	0.0075	-	-	36	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-328
W-L28	Nicholas	Huntington	38.203621	-80.719372	PEM	RPWWD	05050005	Pipeline ROW	0.0064	-	-	31	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-341
W-L27	Nicholas	Huntington	38.202610	-80.718505	PEM	RPWWN	05050005	Timber Mat Crossing	0.0029	-	-	14	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-341
W-I11a	Nicholas	Huntington	38.179434	-80.729511	PEM	RPWWD	05050005	Pipeline ROW	0.0579	-	-	934	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration	4-344
W-U7	Nicholas	Huntington	38.178298	-80.729744	PEM	RPWWN	05050005	ATWS	0.0666	-	-	322	-	Sediment/Toxicant/Pathogen Retention; Wildlife Habitat	4-347
W-I5	Nicholas	Huntington	38.175595	-80.730736	PEM	RPWWN	05050005	Pipeline ROW	0.0082	-	-	133	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-347
W-VV2	Nicholas	Huntington	38.161072	-80.735000	PEM	RPWWD	05050005	Timber Mat Crossing	0.0136	-	-	66	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Floodflow Alteration; Sediment/Shoreline Stabilization	4-355
W-N16	Nicholas	Huntington	38.157063	-80.738304	PEM	NRPWW	05050005	Timber Mat Crossing	0.0232	-	-	112	-	Sediment/Toxicant/Pathogen Retention	4-356
W-H41	Nicholas	Huntington	38.127873	-80.733868	PEM	RPWWN	05050005	Timber Mat Crossing	0.0151	-	-	73	-	Sediment/Toxicant/Pathogen Retention	4-362

**Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-H33	Nicholas	Huntington	38.124326	-80.735761	PEM	RPWWD	05050005	Pipeline ROW	0.0590	-	-	952	-	Groundwater Recharge/Discharge, Floodflow Alteration, Fish and Shellfish Habitat, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Sediment/Shoreline Stabilization, Production Export	4-362
W-H35	Nicholas	Huntington	38.124117	-80.736018	PEM	RPWWN	05050005	Pipeline ROW	-	-	0.0177	-	285	Sediment/Toxicant/Pathogen Retention	4-362
W-H31	Nicholas	Huntington	38.116376	-80.735285	PEM	RPWWN	05050005	Pipeline ROW	0.0139	-	-	67	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-364
W-EF31	Nicholas	Huntington	38.107483	-80.726303	PEM	RPWWD	05050005	Pipeline ROW/ATWS	0.0208	-	-	336	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-366
W-M18	Greenbrier	Huntington	38.061194	-80.720732	PEM	NRPWW	05050005	Timber Mat Crossing	0.0364	-	-	176	-	Sediment/Toxicant/Pathogen Retention	4-374
W-M20	Greenbrier	Huntington	38.060869	-80.723064	PEM	NRPWW	05050005	Pipeline ROW	0.0031	-	-	15	-	Sediment/Toxicant/Pathogen Retention	4-374
W-M23	Greenbrier	Huntington	38.060683	-80.722348	PEM	NRPWW	05050005	Pipeline ROW	0.0616	-	-	994	-	Sediment/Toxicant/Pathogen Retention	4-374
W-M22	Greenbrier	Huntington	38.060661	-80.722616	PSS	NRPWW	05050005	Pipeline ROW	-	0.0039	-	19	-	Sediment/Toxicant/Pathogen Retention; Wildlife Habitat; Production Export	4-374
W-J6	Greenbrier	Huntington	38.053361	-80.732198	PFO	RPWWD	05050005	Pipeline ROW	-	0.0744	-	1,201	-	Sediment/Toxicant/Pathogen Retention; Wildlife Habitat; Production Export	4-376
W-ST27	Greenbrier	Huntington	38.029124	-80.742585	PEM	NRPWW	05050005	Temporary Access Road	0.0075	-	-	36	-	Sediment/Toxicant/Pathogen Retention	4-382
W-KL40	Greenbrier	Huntington	38.029060	-80.736807	PEM	RPWWD	05050005	Temporary Access Road	0.0312	-	-	151	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-388
W-ST28	Greenbrier	Huntington	38.028800	-80.743155	PEM	NRPWW	05050005	Temporary Access Road	0.0310	-	-	150	-	Sediment/Toxicant/Pathogen Retention	4-382
W-IJ60	Greenbrier	Huntington	38.024335	-80.739643	PEM	RPWWN	05050005	Temporary Access Road	0.0174	-	-	84	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-387
W-IJ59	Greenbrier	Huntington	38.022031	-80.743027	PEM	RPWWN	05050005	Temporary Access Road	0.0024	-	-	12	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-387
W-IJ58-PEM-3	Greenbrier	Huntington	38.021808	-80.743351	PEM	RPWWD	05050005	Temporary Access Road	0.0056	-	-	27	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-387
W-V6	Greenbrier	Huntington	37.993269	-80.756363	PEM	RPWWN	05050005	Temporary Access Road	0.0422	-	-	204	-	Sediment/Toxicant/Pathogen Retention	4-394
W-HS1	Greenbrier	Huntington	37.986454	-80.758418	PEM	NRPWW	05050005	Pipeline ROW	-	-	0.0360	-	581	Sediment/Toxicant/Pathogen Retention	4-395

**Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-QR2	Greenbrier	Huntington	37.983978	-80.756817	PEM	RPWWD	05050005	Permanent Access Road	-	-	0.0010	-	5	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Production Export	4-397
W-QR2	Greenbrier	Huntington	37.983212	-80.756099	PEM	RPWWD	05050005	Pipeline ROW/Temporary Access Road	0.2435	-	-	3,929	-	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Production Export	4-397
W-L16	Greenbrier	Huntington	37.980653	-80.754908	PEM	RPWWD	05050005	Pipeline ROW	0.0247	-	-	398	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-397
W-L19	Greenbrier	Huntington	37.954250	-80.739757	PEM	RPWWD	05050005	Pipeline ROW/Temporary Access Road	0.1060	-	-	1,711	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-402
W-L13	Greenbrier	Huntington	37.953825	-80.740037	PEM	RPWWN	05050005	Pipeline ROW	0.0316	-	-	509	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Wildlife Habitat	4-402
W-L12	Greenbrier	Huntington	37.953736	-80.739892	PEM	RPWWN	05050005	Pipeline ROW	0.0075	-	-	36	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-402
W-L11	Greenbrier	Huntington	37.949563	-80.742715	PEM	RPWWD	05050005	Pipeline ROW	0.0194	-	-	94	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-403
W-L4	Greenbrier	Huntington	37.938675	-80.746774	PEM	RPWWN	05050005	Pipeline ROW	0.0404	-	-	196	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-405
W-L2	Greenbrier	Huntington	37.938326	-80.746878	PEM	RPWWD	05050005	Pipeline ROW/Temporary Access Road	0.0393	-	-	635	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Floodflow Alteration	4-405
W-IJ47-PEM	Greenbrier	Huntington	37.916423	-80.743551	PEM	RPWWD	05050005	Permanent Access Road	-	-	0.0113	-	55	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Production Export	4-410
W-IJ47-PEM	Greenbrier	Huntington	37.916255	-80.743867	PEM	RPWWD	05050005	Permanent Access Road	-	-	0.0520	-	252	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Production Export	4-410
W-W10	Greenbrier	Huntington	37.911495	-80.727880	PEM	NRPWW	05050005	Temporary Access Road	0.0488	-	-	236	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-412
W-K7	Greenbrier	Huntington	37.863700	-80.757095	PEM	RPWWN	05050005	Pipeline ROW	0.0078	-	-	126	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-421
W-K7	Greenbrier	Huntington	37.863527	-80.757286	PEM	RPWWN	05050005	Pipeline ROW	0.3206	-	-	5,173	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-421
W-IJ30	Greenbrier	Huntington	37.862357	-80.757476	PEM	RPWWD	05050005	Pipeline ROW	0.3236	-	-	5,221	-	Floodflow Alteration, Sediment/Toxicant/Pathogen Retention	4-421
W-UV9	Greenbrier	Huntington	37.862309	-80.757756	PEM	RPWWN	05050005	Pipeline ROW	0.1090	-	-	1,759	-	Floodflow Alteration, Sediment/Toxicant/Pathogen Retention	4-421
W-UV11	Greenbrier	Huntington	37.861173	-80.757726	PEM	RPWWN	05050005	Pipeline ROW	0.0285	-	-	138	-	Sediment/Toxicant/Pathogen Retention	4-421
W-UV10	Greenbrier	Huntington	37.861066	-80.757954	PEM	RPWWN	05050005	Pipeline ROW	0.0035	-	-	17	-	Sediment/Toxicant/Pathogen Retention	4-421

**Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-K9-PEM-1	Greenbrier	Huntington	37.860916	-80.757817	PEM	RPWWD	05050005	Pipeline ROW	0.0354	-	-	572	-	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Production Export	4-421
W-K10	Greenbrier	Huntington	37.858743	-80.755724	PEM	RPWWN	05050005	Pipeline ROW	0.0068	-	-	33	-	Sediment/Toxicant/Pathogen Retention	4-422
W-UV4	Greenbrier	Huntington	37.854391	-80.755038	PSS	RPWWD	05050005	Pipeline ROW	-	0.0885	-	1,427	-	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Production Export	4-422
W-UV8	Greenbrier	Huntington	37.851590	-80.752937	PEM	RPWWD	05050005	Pipeline ROW	0.4913	-	-	7,926	-	Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-423
W-EE4	Summers	Huntington	37.813845	-80.748769	PEM	RPWWD	05050004	Pipeline ROW	0.0453	-	-	730	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Wildlife Habitat	4-429
W-M2	Summers	Huntington	37.807721	-80.746088	PEM	RPWWD	05050004	Pipeline ROW	0.1064	-	-	1,717	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Wildlife Habitat	4-430
W-I10	Summers	Huntington	37.783907	-80.718899	PEM	NRPWW	05050005	Permanent Access Road	-	-	0.0550	-	266	Sediment/Toxicant/Pathogen Retention	4-437
W-EF40	Summers	Huntington	37.693888	-80.735663	PEM	RPWWD	05050003	Timber Mat Crossing	0.0889	-	-	430	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-461
W-MM20-PFO	Summers	Huntington	37.681648	-80.730225	PFO	RPWWD	05050003	Pipeline ROW, Temporary Access Road, ATWS	-	0.2990	-	3,773	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Floodflow Alteration	4-464
W-EF36	Summers	Huntington	37.675423	-80.732001	PEM	RPWWN	05050003	Timber Mat Crossing	0.0035	-	-	17	-	Sediment/Toxicant/Pathogen Retention	4-465
W-K2-PEM	Summers	Huntington	37.668130	-80.723493	PEM	RPWWD	05050003	Pipeline ROW	0.0140	-	-	225	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention	4-468
W-G7	Summers	Huntington	37.654106	-80.702592	PEM	NRPWW	05050003	Timber Mat Crossing	0.0121	-	-	59	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-471
W-OP1	Monroe	Huntington	37.600067	-80.700400	PEM	RPWWD	05050003	Pipeline ROW	0.1359	-	-	2,193	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation, Sediment/Shoreline Stabilization	4-487
W-A13	Monroe	Huntington	37.559410	-80.710082	PEM	RPWWD	05050002	Pipeline ROW/Temporary Access Road	0.2991	-	-	4,826	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-493
W-A13	Monroe	Huntington	37.559332	-80.709734	PEM	RPWWD	05050002	Permanent Access Road	-	-	0.0228	-	110	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-493
W-MN14	Monroe	Huntington	37.520227	-80.707365	PEM	RPWWD	05050002	Pipeline ROW/Access Road/ATWS	0.0390	-	-	313	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-500
W-MN15	Monroe	Huntington	37.520166	-80.707532	PEM	RPWWN	05050002	Pipeline ROW	0.0070	-	-	113	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-500
W-MN18-PEM	Monroe	Huntington	37.487662	-80.681791	PEM	RPWWD	05050002	Pipeline ROW	0.0510	-	-	823	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-510

**Table A-2. West Virginia Wetland Impacts (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project**

Wetland ID	County	USACE District	Latitude ¹	Longitude ¹	Cowardin Class ²	USACE Water Type ³	HUC 8	Impact Type	Temporary Impacts (acres) ⁴	Permanent Conversion Impacts (acres) ⁴	Permanent Fill Impacts (acres) ⁴	Temporary Fill (cubic yards) ⁵	Permanent Fill (cubic yards) ⁶	Wetland Functions and Values ⁷	Figure
W-MN18-PFO	Monroe	Huntington	37.487474	-80.681854	PFO	RPWWD	05050002	Pipeline ROW	-	0.1750	-	2,823	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention	4-510
W-MN1	Monroe	Huntington	37.473153	-80.675740	PEM	RPWWD	05050002	Timber Mat Crossing	0.0187	-	-	90	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal, Sediment/Shoreline Stabilization	4-512
W-G6	Monroe	Huntington	37.472534	-80.675718	PEM	RPWWD	05050002	Pipeline ROW	0.0684	-	-	1,103	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-512
W-CV25-PSS-1	Monroe	Huntington	37.462852	-80.669557	PSS	RPWWD	05050002	Pipeline ROW	-	0.0270	-	436	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-513
W-MN24	Monroe	Huntington	37.462833	-80.670273	PEM	NRPWW	05050002	Pipeline ROW	0.0100	-	-	161	-	Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation	4-513
W-CV25-PEM-2	Monroe	Huntington	37.462746	-80.669518	PEM	RPWWD	05050002	Pipeline ROW	0.0200	-	-	323	-	Groundwater Recharge/Discharge, Sediment/Toxicant/Pathogen Retention, Nutrient Removal/Retention/Transformation	4-513
W-E12	Monroe	Huntington	37.450761	-80.667516	PEM	RPWWD	05050002	Pipeline ROW	0.0041	-	-	20	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-516
W-C14	Monroe	Huntington	37.427083	-80.694569	PEM	RPWWN	05050002	Pipeline ROW	0.0113	-	-	55	-	Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-521
W-C13	Monroe	Huntington	37.426734	-80.694534	PEM	RPWWD	05050002	Pipeline ROW	0.2172	-	-	3,503	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-521
W-C17	Monroe	Huntington	37.425547	-80.693481	PEM	RPWWD	05050002	Temporary Access Road	0.0306	-	-	148	-	Groundwater Recharge/Discharge; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation	4-521

Notes:

- 1 - In decimal degrees.
- 2 - PEM = Palustrine Emergent
- PSS = Palustrine Scrub-Shrub
- PFO = Palustrine Forested
- 3 - RPWWD = Wetlands directly abutting Relatively Permanent Waters (RPWs) that flow directly or indirectly into Traditional Navigable Waterways (TNWs)
- RPWWN = Wetlands adjacent but not directly abutting RPWs that flow directly or indirectly into TNWs
- NRPWW = Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- 4 - Construction of access roads will not result in impacts to tidal wetlands or wetlands adjacent to tidal waters. Construction, maintenance, or expansion of substation facilities will not result in discharges to non-tidal wetlands adjacent to tidal waters of the United States. Acres are rounded to four decimal places.
- 5 - Temporary fill discharge into waters of the U.S. Cubic yards are rounded to the nearest whole number.
- 6 - Permanent fill associated with the construction of permanent access road and facilities. Cubic yards are rounded to the nearest whole number.
- 7 - Functions and Values were determined using *The Highway Methodology Workbook Supplement: Wetland Functions and Values; A Descriptive Approach*, NAEPP-360-1-30a. New England District: USACE, 1999.

Table A-4. West Virginia Wetland Impacts Summary (revised 3/1/2021)
Individual Permit Application
Mountain Valley Pipeline Project

USACE District	Cowardin Class	Temporary Impacts (acres)	Permanent Conversion Impacts (acres)	Permanent Fill Impacts (acres)	Temporary Fill (cubic yards)	Permanent Fill (cubic yards)
Pittsburgh District	PEM	2.2376	0.0000	0.0000	19,229	0
	PSS	0.0000	0.1444	0.0000	699	0
	PFO	0.0000	0.0110	0.0000	127	0
	Pittsburgh District Total	2.2376	0.1554	0.0000	20,055	0
Huntington District	PEM	7.9213	0.0000	0.4374	90,148	2,723
	PSS	0.0000	0.3698	0.0084	5,306	40
	PFO	0.0000	1.2251	0.0000	17,100	0
	Huntington District Total	7.9213	1.5949	0.4458	112,554	2,763
All District	PEM	10.1589	0.0000	0.4374	109,377	2,723
	PSS	0.0000	0.5142	0.0084	6,005	40
	PFO	0.0000	1.2361	0.0000	17,227	0
	All Districts Grand Total	10.1589	1.7503	0.4458	132,609	2,763

Attachment E
MVP Pre-Filing Meeting Request (January 26, 2021)



2200 Energy Drive | Canonsburg, PA 15317

844-MVP-TALK | mail@mountainvalleypipeline.info

www.mountainvalleypipeline.info

January 26, 2021

By Email and US Mail

Mr. Harold Ward
Secretary, WV Department of Environmental Protection
601 57th Street SE
Charleston, West Virginia 25304

Re: Water Quality Certification Pre-Filing Meeting Request

Dear Mr. Ward:

Mountain Valley Pipeline, LLC (Mountain Valley) intends to submit an application to the U.S. Army Corps of Engineers for a permit to cross jurisdictional streams and wetlands in West Virginia and a corresponding request to the West Virginia Department of Environmental Protection for water quality certification. In accordance with 40 C.F.R. § 121.4, Mountain Valley requests an opportunity to host a pre-filing meeting with the Department.

Please contact Matthew Hoover at mhoover@equitransmidstream.com to coordinate a meeting time that is convenient for your staff.

Respectfully submitted,
MOUNTAIN VALLEY PIPELINE, LLC
by and through its operator,
EQM Gathering Opco, LLC
By:

A handwritten signature in blue ink, appearing to read "Todd Normane".

Todd Normane
Deputy General Counsel

cc: Kathy Emery, WVDEP
Scott Mandirola, WVDEP
Brian Bridgewater, WVDEP
Michael Hatten, USACE Huntington
Scott Hans, USACE Pittsburgh
Todd Miller, USACE Norfolk