# ATTACHMENT C

# **DODDRIDGE COUNTY**

# WETLAND SWVM FORMS/WETLAND DELINEATION FORM/PHOTOS

USACE FILE NO./Project Name:		Mountain Valley Pipeline			Lat.	39.236762	Lon.	-80.558524
STREAM/SITE ID AND SITE DESCRIP	TION:				1	N-K52, Permanent Access Road		
(% stream slope, watershed size {acr	eage}, unaltered	or impairments)						
FORM OF MITIGATION:								
DATE:	8/10	)/2015	WEATHER CONDITIONS:			PRECIPITATION PAST 48 HRS:		
	PART I - Wetl	and Indicators						
Impact Wetland ID:	Impact Wetland Classification	Impacts (acreage)	Mitigation Wetland Classification					
W-K52	Emergent	0.0021	Emergent					
						PART III - Advanced	Mitigatio	ı
						Sustainable Determination Made on Advanced Mitigation (Y or N)		Y
l otal Impact	DADT "	0.0021				<b>-</b>		
Wotland Cla	PARI II -	Unit Scores	Replacement Unit(s)			Estimated		
Total Emergent	ssincation		0 0021					
Total Scrub-Shrub			0			\$126.00		
Total Forested			0			¢120100		
Total Open Water			0					

Project/Site: MVP	City/County:	Doddridge	Sampling Date: 06/02/2015
Applicant/Owner: MVP		State: WV	Sampling Point: W-K52
Investigator(s). J. Hart, D. Santillo, J. Potri	kus Section, Tow	nship, Range: N/A	
Landform (hillslope terrace etc.) Hillslope	Local relief (cond	ave convex none). Concav	7e Slope (%): 3
Cubraging (LDD on MLDA): LBRN	29 236752		NAD 83
Cilpin Rochody comple	_ Lat: 00.200702	Long: <u>60:000020</u>	Datum: 10 00
Soil Map Unit Name: Gipin-Peabody comple	x, 13 to 35 percent slopes, ve	NWI clas	sification: NOTE
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes	No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrology	<pre>/ significantly disturbed?</pre>	Are "Normal Circumstance	es" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology	<pre>/ naturally problematic?</pre>	(If needed, explain any an	swers in Remarks.)
SUMMARY OF FINDINGS – Attach si	te map showing sampling	point locations, transe	cts, important features, etc.
Hydrophytic Vogotation Procent?			
Hydric Soil Present? Yes	✓ No Is the	Sampled Area	<b>V</b>
Wetland Hydrology Present? Yes	✓ No within	a Wetland? Yes	• No
Remarks:			
Cowardin Code: PEM HGM: Slope WT: RPWWN	I		
2015 comments:Wetland plot paired with W-K52	UP. Slope wetland occurs on slope	where groundwater is dischar	ging. Water is pooling in tire ruts of
roadbed. Small drainage feature also contributes	flows.	$\sim r_{\rm O}/12/2010$ Th	processo of wotland hydrology
hydrophytic vegetation, and hydric soils was una	ble to be confirmed because the we	Is revisited on 09/16/2019. The	r matting
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary In	dicators (minimum of two required)
Primary Indicators (minimum of one is required:	check all that apply)	<u>Surface</u>	Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (P14)	Surrace	Vogetated Conceve Surface (BR)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Sparsery	Patterns (B10)
Saturation (A3)	<ul> <li>Oxidized Rhizospheres on Li</li> </ul>	ving Roots (C3) Moss Tri	m Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C	4) Drv-Sea	son Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tille	ed Soils (C6) Cravfish	Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturatio	on Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted	or Stressed Plants (D1)
Iron Deposits (B5)		🖌 Geomor	phic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow	Aquitard (D3)
Water-Stained Leaves (B9)		Microtop	ographic Relief (D4)
Aquatic Fauna (B13)		🖌 FAC-Nei	utral Test (D5)
Field Observations:			
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
Saturation Present? Yes <u>No</u>	Depth (inches):	Wetland Hydrology Pre	esent? Yes 🖌 No
(includes capillary fringe) Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous in	spections), if available:	
	<b>3</b> • <b>1</b> • • • <b>1</b> • • • <b>1</b>		
Remarks:			

Sampling Point: W-K52

	Abaaluta	Deminent	La dia atau	Deminence Test worksheet:
Tree Stratum (Plot size: 30')	% Cover	Species	Status	Dominance Test worksneet:
1				That Are OBL_EACW or EAC: 3 (A)
·· <u> </u>				
2				Total Number of Dominant
3		· · · · · · · · · · · · · · · · · · ·		Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL. FACW. or FAC: 100 (A/B)
6.				
7.				Prevalence Index worksheet:
	0	– Total Co	vor	Total % Cover of: Multiply by:
50% of total cover: 0	20% of	f total cove	r. 0	OBL species x 1 =
Sopling/Shruh Strotum (Blot size: 15')	2070 0			FACW species x 2 =
				FAC species x 3 =
1				
2		<u> </u>		FACU species         x 4 =
3		<u></u>		UPL species x 5 =
4				Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
7				Hydrophytic Vegetation Indicators:
·				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Co	ver	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>0</u>	20% of	f total cove	r: <u>0</u>	
Herb Stratum (Plot size: 5')				data in Remarks or on a separate sneet)
1. Carex vulpinoidea	25	~	OBL	Problematic Hydrophytic Vegetation' (Explain)
2 Juncus effusus	20	~	FACW	
2. Lysimachia nummularia	20	<ul> <li>✓</li> </ul>		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Microstigium vinimeum	10			be present, unless disturbed or problematic.
4. Microstigium vinimeum Denetemen digitalia	10		FAC	Definitions of Four Vegetation Strata:
5. Pensionen digitalis	<u> </u>		FAC	<b>Tree</b> – Woody plants, excluding vines, 3 in (7.6 cm) or
6. Eupatorium perfoliatum	5		FACW	more in diameter at breast height (DBH), regardless of
7. Carex lurida	5		OBL	height.
8				Conting/Chruh Woody plants avaluding vince loss
9				than 3 in, DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				
···· <u>·</u>	95			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: $47%$	5 20% of	= Total Co	ver ". <b>19</b>	of size, and woody plants less than 5.20 it tall.
50% of total cover. $-77.3$	<u>J</u> 20% 0	i lotal cove	r. <u> </u>	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 10 )				height.
1		<u></u>		
2				
3		<u> </u>		
4.				
5				Hydrophytic
с	0	- Total Ca	vor	Present? Yes V No
50% of total covor: 0	20% of	= Total Co	r. 0	
	20 % 0		I. <u> </u>	
Remarks: (Include photo numbers here or on a separate s	sheet.)			
Remaining cover in herb stratum is thatch				

Depth (inches)       Matrix       Redox Features       Type!       Loc.*       Texture       Remarks         0-8       10YR 4/2       95       10YR 5/8       C       M/PL       SC         8-14       5YR 6/2       92       10YR 5/8       C       M/PL       SC         8-14       5YR 6/2       92       10YR 5/8       C       M       CL	Profile Desc	ription: (Describe t	o the dept	th needed to docum	nent the	indicator	or confirm	n the absence of indicators.)
Cinches)         Color (moist)         %         Color (moist)         %         Type         Loc'         Texture         Remarks           0-8         10YR 4/2         95         10YR 4/6         5         C         M/PL         SC           8-14         5YR 6/2         92         10YR 5/8         8         C         M         CL	Depth	Matrix		Redox Features				
0-8         10YH 4/2         95         10YR 4/6         5         C         M/PL         SC           8-14         5YR 6/2         92         10YR 5/8         8         C         M         CL	(inches)	Color (moist)		Color (moist)		Type'	Loc <sup>2</sup>	Texture Remarks
8-14       5YR 6/2       92       10YR 5/8       8       C       M       CL	0-8	10YR 4/2	95	10YR 4/6	5	<u>C</u>	M/PL	<u> </u>
'Type: C_Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S8) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)         2 cm Muck (A10) (LRR N)       Redox Depresensions (F8)         Standy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,         MLRA 136, 122)       Piedmont Floodplain Soils (F19) muRA 136, 122)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,         Stripped Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 136, 122)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)         Type:       Depleted Soil Present? Yes Very Sole         Depth (inches):       Piedmont Floodplain Soils (F19) (MLRA 127, 147)	8-14	5YR 6/2	92	10YR 5/8	8	С	Μ	CL
'Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ?Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils?:         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F3)       Pledmont Floodplain Soils (F19)         Stratified Layers (A5)       MLRA 147, 148)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Thick Dark Surface (A12)       Redox Dark Surface (F7)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Mangenese Masses (F12) (LRR N,       MLRA 136, 122)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Striped Matrix (S6)       Red Parent Material (F21) (MLRA 148)       wetland hydrology must be present,         Striped Matrix (S6)       Red Parent Material (F21) (MLRA 148)       wetland hydrology must be present,         Type:       Depht (inches):       Hydric Soil Present? Yes N								
Image: Sufficient Contraction in the second seco								
'Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       OutlerA 147, 148)         Hydrogen Suffide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Dark Surface (F12) (LRR N,       MLRA 136)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N, <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Sandy Mucky Mineral (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of nydrophytic vegetation and         Sandy Gleyed Matrix (S4)       Indicator (F12) (MLRA 147, 147)       Indicators of hydrophytic vegetation and         Sandy Mucky Mineral (S1)       Red P								
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F3)       Piedmont Floodplain Soils (F19)         Stratified Layers (A6)       V       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F12) (LRR N,       Itor-Manganese Masses (F12) (LRR N, <sup>3</sup> Indicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 127, 147) <sup>4</sup> Indicators of problematic.         Restrictive Layer (if observed):       Type:       Hed Parent Material (F21) (MLRA 127, 147) <sup>4</sup> Indicators of problematic.         Remarks:       Wetric Soil Present? Yes       No       No				·				·
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators i       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydric Soils (A4)       Loamy Gleyed Matrix (F2)         Yet Depleted Matrix (F3)       (MLRA 136, 147)         Stratified Layers (A5)       Y         Depleted Matrix (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Dark Surface (F13) (MLRA 136, 142)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)         unless disturbed or problematic.         Restrictive Layer (if observed):       Type:         Type:       Depth (inches):         Depth (inches):       Hydric Soil Present? Yes No								
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       MLRA 147, 148)       Muck (A10) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)       Stratified Layers (A5)       ✓         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,       MLRA 147, 148)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,       Sitripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       Inless disturbed or problematic.         Remarks:       Hydric Soil Present? Yes       No       No       Remarks:       No       Remarks:						<b>.</b>		
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :								
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :								
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓ Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1) (LRR N,         Sandy Gleyed Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 147, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present,         Type:       Depth (inches								
Type:       C=Concentration, D=Depletion, KM=Reduced Mathx, MS=Masked Sand Grains.       Location:       PL=Prote Lining, M=Mathx.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)        Dark Surface (S7)        2 cm Muck (A10) (MLRA 147)         Histosol (A2)        Polyvalue Below Surface (S8) (MLRA 147, 148)        Coast Prairie Redox (A16)			ation DM		Maaka			<sup>2</sup> Leastion, DL Data Lining, M. Matrix
	Hydric Soil I	ndicators:		Reduced Matrix, Ma	s=iviaske	u Sanu Gr	ains.	Indicators for Problematic Hydric Soils <sup>3</sup> :
Instruction (m)	Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)
Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,       MLRA 136, 122)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:	Histic Ep	vipedon (A2)		Polyvalue Be	low Surfa	ace (S8) <b>(N</b>	ILRA 147,	148) Coast Prairie Redox (A16)
	Black His	stic (A3)		Thin Dark Su	rface (SS	) (MLRA 1	47, 148)	(MLRA 147, 148)
	Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix	(F2)		Piedmont Floodplain Soils (F19)
2 cm Muck (A10) (LRR N)      Redox Dark Surface (F6)      Very Shallow Dark Surface (TF12)        Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Other (Explain in Remarks)        Thick Dark Surface (A12)      Redox Depressions (F8)      Other (Explain in Remarks)        Sandy Mucky Mineral (S1) (LRR N,      Iron-Manganese Masses (F12) (LRR N,      Other (Explain in Remarks)        Sandy Gleyed Matrix (S4)      Iron-Manganese Masses (F12) (LRR 136, 122)       3Indicators of hydrophytic vegetation and        Sandy Redox (S5)      Diedmont Floodplain Soils (F19) (MLRA 136, 122)       unless disturbed or problematic.        Stripped Matrix (S6)      Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):	<u>Stratified</u>	Layers (A5)		Depleted Mat	rix (F3)			(MLRA 136, 147)
	2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (	F6)		Very Shallow Dark Surface (TF12)
	Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surfac	e (F7)		Other (Explain in Remarks)
	Thick Da	rk Surface (A12)		Redox Depre	ssions (F	-8)		
MLRA 147, 148)       MLRA 136)	Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Mass	ses (F12) <b>(</b>	LRR N,	
	MLRA	. 147, 148)		MLRA 13	6)			
	Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and
	Sandy R	edox (S5)		Piedmont Flo	odplain \$	Soils (F19)	(MLRA 14	<b>18)</b> wetland hydrology must be present,
Restrictive Layer (if observed):         Type:	Stripped	Matrix (S6)		Red Parent N	laterial (I	-21) <b>(MLR</b>	A 127, 147	7) unless disturbed or problematic.
Type:	Restrictive L	ayer (if observed):						
Depth (inches):     Hydric Soil Present?     Yes     V       Remarks:     No     No	Туре:							
Remarks:	Depth (inc	ches):						Hydric Soil Present? Yes Ves No
	Remarks:							

## Wetland Photograph Page

### Wetland ID W-K52



Photograph Direction West

Date: 06/02/2015

Comments: 2015 wetland delineation.



Photograph Direction East

Date: 09/18/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP	City/County: Harrison		Sampling Date: 06/02/2015
Applicant/Owner: MVP		State: WV	Sampling Point: W-K52 UP
Investigator(s): J. Hart, D. Santillo, J. Potrikus	Section, Township, Range: <u>N</u>	I/A	
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, convex, n	one): Convex	Slope (%): 5
Subregion (LRR or MLRA): LRRN Lat:	39.236763 Long: -8	0.558596	Datum: NAD 83
Soil Map Unit Name: Gilpin-Peabody complex,	15 to 35 percent slopes, very stony	NWI classifi	<sub>cation:</sub> None
Are climatic / hydrologic conditions on the site typical for	or this time of year? Yes No	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Norm	al Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed,	explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	nap showing sampling point locat	ions, transects	s, important features, etc.
Hydrophytic Vegetation Present?       Yes         Hydric Soil Present?       Yes         Wetland Hydrology Present?       Yes         Remarks:       Upland         Upland plot paired with W-K52. Occurs on H	No       Is the Sampled Area within a Wetland?         No       V         No       V         Is the Sampled Area within a Wetland?         Is the Sampled Area within a Wetland?         Is the Sampled Area within a Wetland?         Is the Sampled Area within a Wetland?	Yes	No
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; chec	k all that apply)	Surface Soi	Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Ve	getated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Pa	atterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)	Moss Trim L	_ines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season	Water Table (C2)

<ul> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Ae</li> <li>Water-Stained Leaves (</li> <li>Aquatic Fauna (B13)</li> </ul>	erial Imagery (B7) B9)	Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	oils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes <u>No</u>	Depth (inches):	
Water Table Present?	Yes <u>No</u>	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes No	✓ Depth (inches):	Wetland Hydrology Present? Yes No
Remarks: No hydrology			

Sampling Point: W-K52 UP

20'	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species	
	15	<u> </u>	FACW	That Are OBL, FACW, or FAC: 1	(A)
2. Carya ovata	15	<u> </u>	FACU	Total Number of Dominant	
3. Robinia pseudoacacia	15	<u> </u>	FACU	Species Across All Strata: 5	(B)
4			·	Percent of Dominant Species	
5			·	That Are OBL, FACW, or FAC:20	(A/B)
6				Brovelence Index werkeheet	
7				Total % Cover of:	
		= Total Cov	rer	ORL species	
50% of total cover: 22.5	<u>5</u> 20% of	total cover	9		
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =	
1. Rosa multiflora	20	<u> </u>	FACU	FAC species x 3 =	
2. Cornus florida	5		FACU	FACU species x 4 =	
3. Platanus occidentalis	5		FACW	UPL species x 5 =	
4. Robinia pseudoacacia	5		FACU	Column Totals: (A)	(B)
5				Provolonco Index - B/A -	
6				Hudronbutio Verstation Indicatore:	
7.	_			Hydrophytic Vegetation indicators:	
8.				1 - Rapid Test for Hydrophytic Vegetation	
9			·	2 - Dominance Test is >50%	
··	35	- Total Cov	rer .	3 - Prevalence Index is ≤3.0'	
50% of total cover: 17.5	5 20% of	total cover	7	4 - Morphological Adaptations <sup>1</sup> (Provide suppl	orting
Herb Stratum (Plot size: 5' )				data in Remarks or on a separate sheet)	
1 Microstigeum vimineum	35	~	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	)
2 Geum canadense	10		EACU		
2. Viola canadensis	10			<sup>1</sup> Indicators of hydric soil and wetland hydrology me	ust
			FACU	be present, unless disturbed or problematic.	
4			·	Definitions of Four Vegetation Strata:	
5			·	<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cr	m) or
6			·	more in diameter at breast height (DBH), regardles	ss of
7				height.	
8			·	Sapling/Shrub – Woody plants, excluding vines, I	less
9			· <u> </u>	than 3 in. DBH and greater than or equal to 3.28 f	t (1
10				m) tall.	
11			·	Herb – All herbaceous (non-woody) plants, regard	lless
	55	= Total Cov	ver	of size, and woody plants less than 3.28 ft tall.	
50% of total cover: <u>27.5</u>	<u>20%</u> of	total cover	11	<b>Woody vine</b> – All woody vines greater than 3.28 f	t in
Woody Vine Stratum (Plot size: 15 )				height.	
1			·		
2					
3					
4				Hydrophytic	
5				Vegetation	
	0	= Total Cov	er	Present? Yes No V	
50% of total cover: 0	20% of	total cover	0		
Remarks: (Include photo numbers here or on a separate s	heet.)			1	
Remaining cover in herb stratum is leaf litter					

Profile Desc	ription: (Describe t	o the depth	needed to docur	nent the in	ndicator	or confirm	the absence of i	ndicato	rs.)	
Depth	Matrix		Redo	x Features	;					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-14	10YR 4/3	100					CL			
<u> </u>						·				
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=P	ore Linir	ng, M=Matrix.	
Hydric Soil I	ndicators:						Indicator	s for Pro	oblematic Hyd	Iric Soils <sup>3</sup> :
<u> </u>	(A1)		Dark Surface	e (S7)			2 cm	Muck (A	10) <b>(MLRA 14</b>	7)
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfac	e (S8) <b>(N</b>	ILRA 147,	148) Coas	t Prairie	Redox (A16)	-
Black His	stic (A3)		Thin Dark Sι	rface (S9)	(MLRA 1	47, 148)	(M	LRA 147	7, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (F	-2)		Piedr	nont Flo	odplain Soils (F	<del>-</del> 19)
Stratified	l Layers (A5)		Depleted Ma	trix (F3)			(M	LRA 136	6, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		Very	Shallow	Dark Surface (	(TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Date	rk Surface	(F7)		Other	r (Explaii	n in Remarks)	
Thick Da	rk Surface (A12)		Redox Depre	essions (F8	3)					
Sandy M	lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	LRR N,				
MLRA	. 147, 148)		MLRA 13	6)						
Sandy G	leyed Matrix (S4)		Umbric Surfa	ice (F13) <b>(</b> I	MLRA 13	6, 122)	<sup>3</sup> Indicate	ors of hy	drophytic vege	tation and
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetlan	d hydrol	ogy must be pr	esent,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) <b>(MLR</b>	A 127, 147	') unless	disturbe	ed or problema	tic.
Restrictive L	.ayer (if observed):									
Туре:										
Depth (inc	hes):						Hydric Soil Pre	sent?	Yes	No 🖌
Remarks:							-			
No hydric ir	ndicators									
	laioatoro									

USACE FILE NO./Project Name:		Mountain	Valley Pipeline	COORDINATES:	Lat.	39.2289	Lon.	-80.552328
STREAM/SITE ID AND SITE DESCR	IPTION:					W-K45, Pipeline ROW	_	
(% stream slope, watershed size {a	creage}, unaltered	or impairments)						
FORM OF MITIGATION:								
DATE:	8/10	)/2015	WEATHER CONDITIONS:			PRECIPITATION PAST 48 HRS:		
	PART I - Wetl	and Indicators						
Impact Wetland ID:	Impact Wetland Classification	Impacts (acreage)	Mitigation Wetland Classification					
W-K45	Emergent	0.0401	Emergent					
						PART III - Advanced	Mitigatio	n
						Sustainable Determination Made on Advanced Mitigation (Y or N)		Y
Total Impact		0.0401						
	PART II - I	Unit Scores				Estimated		
Wetland C	lassification		Replacement Unit(s)			ILF Costs		
Total Emergent			0.0401			<b>.</b>		
Total Scrub-Shrub			0			\$2,406.00		
Total Forested			0					
Total Open Water			0					

Project/Site: MVP	City/C	<sub>ounty:</sub> Doddridge	Sampling Date: 06/01/2015
Applicant/Owner: MVP	,	State: WV	Sampling Point: W-K45
Investigator(s): J. Hart, D. Santillo, J. Pot	rikus Sectio	n, Township, Range: N/A	
Landform (hillslope, terrace, etc.). Floodplain	Local reli	ef (concave, convex, none). Concave	e Slope (%): 1
Subregion (LRP or MLPA): LRRN	Lat: 39.228946	Long: -80.552280	Ospe (76) Datum: NAD 83
Sublegion (LKK of MERA)	n 3 to 8 percent slopes	rarely flooded (SeB)	Batum
		NWI class	
Are climatic / hydrologic conditions on the site t	pical for this time of year? Y	es No (If no, explain ir	n Remarks.)
Are Vegetation, Soil, or Hydrolo	gy significantly distur	bed? Are "Normal Circumstances	s" present? Yes 🚩 No
Are Vegetation, Soil, or Hydrolo	gy naturally problema	tic? (If needed, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS – Attach	site map showing sam	pling point locations, transed	ets, important features, etc.
Hydrophytic Vegetation Present? Yes	V No		
Hydric Soil Present? Yes	✓ No	Is the Sampled Area	No
Wetland Hydrology Present? Yes	✓ No	within a wettand? Tes	
Remarks: Cowardin Code: PEM HGM: Riverine WT: RPWWD Wetland plot paired with W-K45UP. Riverine wetland or southeastern portion of the wetland. This stream has fit to S-K77.	ccurs in floodplain of intermittent st inge wetlands at the far SE reach,	ream. (S-K77). Intermittent stream S-K78 prov then loses channel structure and disperses ov	vides hydrologic contributions to the er flat area to form portion of wetland close
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Ind	licators (minimum of two required)
Primary Indicators (minimum of one is required	d; check all that apply)	Surface S	oil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (I	B14) Sparsely \	Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odd	or (C1) Drainage	Patterns (B10)
Saturation (A3)	<ul> <li>Oxidized Rhizosphere</li> </ul>	es on Living Roots (C3) Moss Trim	n Lines (B16)
Water Marks (B1)	Presence of Reduced	Iron (C4) Dry-Seaso	on Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction	n in Tilled Soils (C6) Crayfish E	Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C	(7) Saturation	Nisible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Ren	narks) Stunted of	r Stressed Plants (D1)
Iron Deposits (B5)		Ceomorph	nic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow A	quitard (D3)
Water-Stained Leaves (B9)		Microtopo	graphic Relief (D4)
Aquatic Fauna (B13)		FAC-Neut	ral Test (D5)
Field Observations:			
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
Saturation Present? Yes <u>No</u>	Depth (inches):	Wetland Hydrology Pres	sent? Yes V. No
Describe Recorded Data (stream gauge, mon	toring well, aerial photos, pre-	vious inspections), if available:	
Remarks:			

Sampling Point: W-K45

,	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1		·		That Are OBL, FACW, or FAC: (A)
2		·		Total Number of Dominant
3				Species Across All Strata:7 (B)
4		<u> </u>		Percent of Dominant Species
5		<u> </u>		That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalance Index workshoeti
7				Tetal % Cover of Multiply by:
	0	= Total Co	ver	
50% of total cover: U	20% of	f total cove	:	
Sapling/Shrub Stratum (Plot size: 10)	~	,		FACW species x 2 =
1. Salix nigra	5	<u> </u>	OBL	FAC species x 3 =
2				FACU species x 4 =
3		<u></u>		UPL species x 5 =
4		<u></u>		Column Totals: (A) (B)
5				Prevelence Index - R/A -
6				
7		<u>.</u>	<u> </u>	Hydrophytic Vegetation indicators.
8.				
9.				2 - Dominance Test is >50%
•	5	= Total Co	ver	3 - Prevalence Index is ≤3.0°
50% of total cover: 2.5	20% of	f total cove	r: 1	4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5')				data in Remarks or on a separate sheet)
1 Carex lurida	20	~	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Impatiens capensis	20	~	FACW	
2 Carex vulpinoidea	10	~		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Poa pratensis	10	~		be present, unless disturbed or problematic.
Futrochium fistulosum	10	· · ·		Definitions of Four Vegetation Strata:
	10	·		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
Panicum diebotomiflorum	5	- <del></del>		more in diameter at breast height (DBH), regardless of
7. <u>Patricum dicholominorum</u>	5		FACW	height.
8. Daciyiis yiomerata	5	<u> </u>		Sapling/Shrub – Woody plants, excluding vines, less
9. Bronnus mennis		<u></u>	FACU	than 3 in. DBH and greater than or equal to 3.28 ft (1
10. Sympnyotricnum praeaitum	5		F <u>ACW</u>	m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
50	100	= Total Co	ver	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>50</u>	20% of	f total cove	: 20	Woodv vine – All woodv vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15 )				height.
1				
2				
3				
4				Hydrophytic
5		<u> </u>		Vegetation
	0	= Total Co	ver	Present? Yes V No
50% of total cover: <u>0</u>	20% of	f total cove	r: <u>0</u>	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe t	o the dep	oth needed to docur	nent the	indicator	or confirn	n the absence of in	dicators.)
Depth	Matrix		Redo	x Feature	es1	2	_	
(inches)	Color (moist)		Color (moist)					Remarks
0-6	10YR 3/2	98	10YR 4/6	2	0	M/PL	<u> </u>	
6-14	10YR 3/1	95	10YR 4/6	5	<u>C</u>	M/PL	SCL	
				_				
						-		
				_				
						-		
<sup>1</sup> Type: C=C	oncentration D=Depl	etion RM	=Reduced Matrix MS	S=Maske	d Sand G	ains	<sup>2</sup> Location: PL=Po	re Lining M=Matrix
Hydric Soil	Indicators:					anto.	Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 cm M	/luck (A10) (MLRA 147)
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfa	ace (S8) <b>(I</b>	/LRA 147,	148) Coast	Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	rface (SS	9) <b>(MLRA</b>	147, 148)	(ML	RA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix	(F2)		Piedm	ont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)			(ML	RA 136, 147)
2 cm Mu	ick (A10) <b>(LRR N)</b>	(	Redox Dark	Surface (	F6)		Very S	Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Dal	K Surrac	e (F7) =0)		Other	(Explain in Remarks)
Thick Da	Ark Sunace (A12) Aucky Mineral (S1) (I	RRN	Iron-Mangan	5510115 (r 666 Maes	-o) 205 (F12) (			
	147. 148)	,	MLRA 13	6)	503 (112)	LIXIX I <b>X</b> ,		
Sandy G	eleved Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 1	36, 122)	<sup>3</sup> Indicato	rs of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain \$	、 Soils (F19)	(MLRA 14	<b>18)</b> wetland	hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Aaterial (I	F21) (MLF	A 127, 147	7) unless o	disturbed or problematic.
Restrictive I	_ayer (if observed):							
Туре:								
Depth (ind	ches):						Hydric Soil Pres	sent? Yes 🖌 No
Remarks:								

## Wetland Photograph Page

Wetland ID <u>W-K45</u> Date <u>06/01/2015</u>



Photograph Direction East

Comments:

USACE FILE NO./Project Name:		Mountain	Valley Pipeline	COORDINATES:	Lat.	39.20899	Lon.	-80.551957
STREAM/SITE ID AND SITE DESCRI	PTION:					W-K41, Timber Mat Crossing		
(% stream slope, watershed size {ac	reage}, unaltered	or impairments)						
FORM OF MITIGATION:								
DATE:	8/10	)/2015	WEATHER CONDITIONS:			PRECIPITATION PAST 48 HRS:		
	PART I - Wetl	and Indicators						
Impact Wetland ID:	Impact Wetland Classification	Impacts (acreage)	Mitigation Wetland Classification					
W-K41	Emergent	0.0109	Emergent					
						PART III - Advanced	Mitigatio	n
						Sustainable Determination Made on Advanced Mitigation (Y or N)		Y
Total Impact		0.0109						
	PART II - I	Unit Scores				Estimated		
Wetland Cl	assification		Replacement Unit(s)	-		ILF Costs		
Total Emergent			0.0109			¢054.00		
			0			\$654.00		
Total Open Water			0					

Project/Site: MVP	_	City/0	<sub>County:</sub> Doddridge		Sampling Date: 05/31/2015
Applicant/Owner: MVP		,		State: WV	Sampling Point: W-K41
Investigator(s) J. Hart, D. Sant	tillo, J. Potrikus	Secti	on Township Range N	/A	
Landform (hillslone terrace etc.):	Depression		ief (concave, convex, nor	Concave	Slope (%) · 0
Subragian (LDD or MLDA): LRR			long80	) 551987	0iope (%)
Subregion (LRR of MLRA): Cilpin Book	Lat:		Long: UC		Datum: With 00
Soil Map Unit Name: Gilpin-Peab	ouy complex, 15 i	o so percent slope		NWI classific	ation: NOTE
Are climatic / hydrologic conditions	on the site typical for	or this time of year? Y	/es No	(If no, explain in R	emarks.)
Are Vegetation, Soil	_, or Hydrology	significantly distu	bed? Are "Normal	I Circumstances" p	resent? Yes <u>V</u> No
Are Vegetation, Soil	_, or Hydrology	naturally problem	atic? (If needed, e	explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS	<ul> <li>Attach site m</li> </ul>	ap showing san	npling point locatio	ons, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes 🗸	No			
Hydric Soil Present?	Yes 🖌	No	Is the Sampled Area		Ma
Wetland Hydrology Present?	Yes 🖌	No	within a wetland?	Yes	NO
Cowardin Code: PEM HGM: Depressional WT: RPWWD Wetland plot paired with W-K41UP. contributions from short eroded drain	Depressional wetland	l occurs in flat concave and possibly a shallow	landform at head of intern groundwater table. Feature	nittent stream, recei e partially filled with	ves hydrology from precipitation, cobbles from offsite (riprap)
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of o	ne is required; checl	c all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)		True Aquatic Plants	(B14)	Sparsely Vec	etated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Od	lor (C1)	Drainage Pat	terns (B10)
Saturation (A3)		Oxidized Rhizospher	es on Living Roots (C3)	Moss Trim Li	nes (B16)
Water Marks (B1)	_	Presence of Reduce	d Iron (C4)	Dry-Season \	Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Burr	rows (C8)
Drift Deposits (B3)		Thin Muck Surface (	27)	Saturation Vi	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	—	Other (Explain in Rei	marks)	Stunted or St	ressed Plants (D1)
Iron Deposits (B5)	(DZ)			Geomorphic	Position (D2)
Inundation Visible on Aerial II	nagery (B7)			Shallow Aqui	tard (D3)
Aquatic Fauna (B13)				✓ EAC-Neutral	Test (D5)
Field Observations:					
Surface Water Present?	es No 🗸	Depth (inches):			
Water Table Present?	es 🖌 No	Depth (inches):	10		
Saturation Present?	es 🖌 No	Depth (inches):	6 Wetland H	lydrology Presen	t? Yes 🖌 No
(includes capillary fringe)				lyarology r reseri	
Describe Recorded Data (stream	gauge, monitoring w	vell, aerial photos, pre	evious inspections), if ava	ailable:	
Pomarka:					
Standing water in other port	tions of wetland				
Clanding water in other point					

Sampling Point: W-K41

Tree Stratum (Plot size:30')       % Cover Species? Status That Are OBL, FACW, or FAC:3         23          33          45          5          100	(A) (B)
1       That Are OBL, FACW, or FAC:       3         2       Total Number of Dominant       3         3       Species Across All Strata:       3         4       Percent of Dominant Species       3         5       That Are OBL, FACW, or FAC:       100	(A)
2.	(B)
3        Species Across All Strata:       3         4         Percent of Dominant Species         5        That Are OBL, FACW, or FAC:       100	(B)
4.        Percent of Dominant Species         5.        That Are OBL, FACW, or FAC:       100	( )
5.       Percent of Dominant Species         That Are OBL, FACW, or FAC:       100	
That are OBL, FACW, of FAC:	
	(A/B)
Prevalence Index worksheet:	
Comparison of the second secon	/:
$\frac{0}{200\%} = 1 \text{ otal Cover} \qquad 0 \qquad OBL \text{ species} \qquad x 1 = 100\%$	-
Sapling/Shrub Stratum (Plot size: 13 )	
1 PAC species X 3 =	
2 FACU species x 4 =	
3 UPL species x 5 =	
4 Column Totals: (A)	(B)
5 Prevalence Index = B/A =	
6 Hydrophytic Vegetation Indicators:	
7 1 - Rapid Test for Hvdrophytic Vegetatio	'n
8 2 - Dominance Test is >50%	
9 2 - Dominance real is <0.0	
0 = Total Cover 4. Morphological Adoptoticanal (Dravide	oursecting
50% of total cover: 0 20% of total cover: 0 4 - Morphological Adaptations (Provide	supporting
Herb Stratum (Plot size: 5')	eet)
1. Carex Iurida 25 ✓ OBL — Problematic Hydrophytic Vegetation' (E>	(plain)
2 Glyceria striata 15 ✓ OBI	
3 Poa pratensis 15 ✓ FAC <sup>1</sup> Indicators of hydric soil and wetland hydrolo	gy must
4 Mimulus ringens	
A minimized inigene	
5. reisicalia sagittata OBL Tree - Woody plants excluding vines 3 in (	7 6 cm) or
6. Microstigeum vinimeum 5 FAC more in diameter at breast height (DBH), reg	ardless of
7. Carex vulpinoidea 5 QBL height.	
8 Sanling/Shrub - Woody plants evolution vi	ines less
9 than 3 in. DBH and greater than or equal to 3	3.28 ft (1
10 m) tall.	
11. Herb All both accours (non-weady) plants r	ogardlass
85 = Total Cover of size, and woody plants less than 3.28 ft ta	egardiess   .
50% of total cover: 42.5 20% of total cover: 17	
Woody Vine Stratum (Plot size: 15')	3.28 ft in
1	
2	
3	
4 Uudronhutio	
5. Vegetation	
0 = Total Cover Present? Yes <u>✓</u> No	
50% of total cover: 0 20% of total cover: 0	
Remarks: (Include photo numbers here or on a separate sheet.)	
Remaining cover in herb stratum is bareground	

Profile Desc	cription: (Describe to	the dept	th needed to docum	ent the	indicator	or confirm	the absence of indicators	)
Depth	Matrix		Redox	Feature	es			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks
0-8	10YR 5/1	100			<u> </u>		SICL	
8-14"	10YR 5/1	80	10YR 4/6	5	С	Μ	CL	
8-14"	Gley 1 10GY 5/1	15					CL	
			·			·		
						·		
		<u> </u>				·		
					<u>.</u>			
$^{1}$ Type: C=C	oncentration D-Deple	tion RM-	-Reduced Matrix MS	-Maska	d Sand Gr	aine	<sup>2</sup> Location: PL-Pore Lining	M-Matrix
Hydric Soil	Indicators:			-waske		ams.	Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10	)) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Bel	ow Surfa	ace (S8) <b>(N</b>	ILRA 147,	148) Coast Prairie Re	edox (A16)
Black H	istic (A3)		Thin Dark Sur	face (SS	) (MLRA 1	47, 148)	, (MLRA 147, 1	148)
Hydroge	en Sulfide (A4)		Loamy Gleyed	d Matrix	(F2)		Piedmont Flood	plain Soils (F19)
Stratifie	d Layers (A5)		Depleted Mate	rix (F3)			(MLRA 136,	147)
2 cm Mi	uck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (	F6)		Very Shallow D	ark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dark	k Surfac	e (F7)		Other (Explain i	n Remarks)
Thick D	ark Surface (A12)		Redox Depres	ssions (F	-8)			
Sandy N	Mucky Mineral (S1) (LF	RR N,	Iron-Mangane	ese Mase	ses (F12) <b>(</b>	LRR N,		
MLR/ Sondy (	A 147, 148)		WILRA 136	)) )) (E12)		6 122)	<sup>3</sup> Indiactors of hydr	ophytic vocatation and
Sandy F	Redax (S5)		Piedmont Flor	odolain S	Soils (F19)	(MIRA 14	8) wetland hydrolog	v must be present
Stripped	d Matrix (S6)		Red Parent M	laterial (I	=21) <b>(MLR</b>	A 127. 147	) unless disturbed	or problematic.
Restrictive	Layer (if observed):				/ (	,	,	- F
Туре:								
Depth (in	ches):						Hydric Soil Present?	′es 🖌 🖌 No
Remarks:							-	

Wetland ID <u>W-K41</u> Date <u>05/31/2015</u>



Photograph Direction SE

Comments:

Project/Site: MVP	City/County	Doddridge		Sampling Date: 05/31/2015
Applicant/Owner: MVP		:	State: WV	Sampling Point: W-K41UP
Investigator(s): J. Hart, D. Santillo, J. Potrikus	Section, To	wnship, Range: N/A		
Landform (hillslope, terrace, etc.): Hillslope	Local relief (co	ncave, convex, none)	Convex	Slope (%): <u>3</u>
Subregion (LRR or MLRA): LRRN Lat	39.20904	Long: -80.5	5199	Datum: NAD 83
Soil Map Unit Name: Gilpin-Peabody complex,	15 to 35 percent slope	s, very stony	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical f	or this time of year? Yes	✓ No (If i	no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Ci	rcumstances" p	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, exp	lain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site n	nap showing samplin	g point location	s, transects	, important features, etc.
Hydrophytic Vegetation Present?       Yes         Hydric Soil Present?       Yes         Wetland Hydrology Present?       Yes	No✔Is th No✔with	e Sampled Area in a Wetland?	Yes	No
Remarks: Upland				
Upland plot paired with W-K41. Occurs on	hillside adjacent to we	land in an area d	ominated by	upland vegetation.
HYDROLOGY				
Wetland Hydrology Indicators:		Se	econdary Indica	ators (minimum of two required)

Primary Indicators (minimum of Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Inundation Visible on Aeria         Water-Stained Leaves (B9)         Aquatic Fauna (B13)	<u>f one is required; c</u> al Imagery (B7) ))	<ul> <li><u>Check all that apply</u></li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Living</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Thin Muck Surface (C7)</li> <li>Other (Explain in Remarks)</li> </ul>	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations: Surface Water Present? Water Table Present?	Yes No Yes No Yes No	<ul> <li>Depth (inches):</li> <li>Depth (inches):</li> <li>Depth (inches):</li> </ul>	Wetland Hydrology Present? Ves No V
(includes capillary fringe) Describe Recorded Data (streating) Remarks:	am gauge, monitori	ing well, aerial photos, previous inspec	tions), if available:
No hydrology			

Sampling Point: W-K41UP

	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Deminent Species
1 Platanus occidentalis	15	~	FACW	That Are OBL EACW/ or EAC: $2$ (A)
2			·	Total Number of Dominant
3			·	Species Across All Strata:6 (B)
4				
5.				Thet Are OBLE ACM/ or EAC: 33 (A/P)
6				
			·	Prevalence Index worksheet:
7			·	Total % Cover of: Multiply by:
	15	= Total Cov	rer	
50% of total cover: 7.5	20% of	total cover:	3	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =
1 Eleagnus umbellata	15	~	UPL	FAC species x 3 =
o Bosa multiflora	10	~		FACU species x 4 =
2. <u></u>	10		FACU	
3				OPL species
4				Column Totals: (A) (B)
5.				
e				Prevalence Index = B/A =
			·	Hydrophytic Vegetation Indicators:
7			·	1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9.				
	25	- Total Cov	or	3 - Prevalence Index is ≤3.0°
50% of total cover: 12 F		total covor	5	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover. <u>12.0</u>	20 /0 01			data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	05			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Dactylis glomerata	25	~	FACU	
2. Bromus inermis	20	~	UPL	4
3. Microstigeum vinimeum	20	~	FAC	'Indicators of hydric soil and wetland hydrology must
A Carex vulpinoidea	10			be present, unless disturbed of problematic.
- Solanum carolinense	10			Definitions of Four Vegetation Strata:
			FACU	<b>Tree</b> – Woody plants, excluding vines, 3 in (7.6 cm) or
6. Iritolium pratense	5		F <u>ACU</u>	more in diameter at breast height (DBH) regardless of
7. Poa pratensis	5		FAC	height.
8				
0				Sapling/Shrub – Woody plants, excluding vines, less
9			·	than 3 in. DBH and greater than or equal to 3.28 ft (1
10			·	m) tan.
11				Herb – All herbaceous (non-woody) plants, regardless
	95 .	= Total Cov	rer	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 47.5	5 20% of	total cover:	19	
Woody Vine Stratum (Plot size: 15'				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
				neight.
1				
2				
3				
4.				
5				Hydrophytic
- J			·	Present? Yes No
		= I otal Cov	ver	
50% of total cover: 0	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			
Remaining cover in herb stratum is thatch				
5				

Profile Desc	cription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	the absence	of indicators	.)	
Depth	Matrix		Redo	x Feature	S1		_			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc	Texture		Remarks	
0-2	10YR 4/3	100					CL			
2-14	10YR 4/6	100					CL			
		·								
		·								<u> </u>
		·				<u> </u>				
		·								
		·								
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM=I	Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	<sup>2</sup> Location: P	L=Pore Lining	, M=Matrix.	
Hydric Soil	Indicators:						Indic	ators for Prob	lematic Hyd	ric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10	D) (MLRA 14	7)
Histic E	oipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(N</b>	ILRA 147,	148) (	coast Prairie R	edox (A16)	
Black H	stic (A3)		Thin Dark Su	rface (S9)	) <b>(MLRA 1</b>	47, 148)		(MLRA 147,	148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)		F	Piedmont Flood	Iplain Soils (F	-19)
Stratifie	d Layers (A5)		Depleted Mar	trix (F3)				(MLRA 136,	147)	
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	-6)		\	ery Shallow D	ark Surface (	TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Dar	k Surface	e (F7)		_ (	Other (Explain i	n Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F	8)					
Sandy N	/lucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	_RR N,				
MLR	A 147, 148)		MLRA 13	6)			3.			
Sandy C	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) (	(MLRA 13	6, 122) (MI D A 44	°Inc	licators of hydr	ophytic vege	tation and
Sandy F	(edox (S5)		Pleamont Flo	odpiain S	OIIS (F19)	(WILRA 14	×8) ₩€	etiand hydrolog	ly must be pr	esent,
Surpped	aver (if observed):			laterial (F		A 127, 147	<b>)</b> ui			
Type:										
Depth (in	ches):						Hydric Soi	Present?	/es	No 🗸
Remarks:	,						-			
No hvdric i	ndicators									
,										

USACE FILE NO./Project Name:		Mountain	Valley Pipeline	COORDINATES:	Lat.	39.201188	Lon.	-80.552996
STREAM/SITE ID AND SITE DESCRIP	TION:					W-A23, Pipeline ROW		
(% stream slope, watershed size {act	reage}, unaltered	or impairments)						
FORM OF MITIGATION:								
DATE:	8/10	)/2015	WEATHER CONDITIONS:			PRECIPITATION PAST 48 HRS:		
	PART I - Wet	and Indicators						
Impact Wetland ID:	Impact Wetland Classification	Impacts (acreage)	Mitigation Wetland Classification					
W-A23	Emergent	0.2701	Emergent					
					1	PART III - Advanced	Mitigatio	n
						Sustainable Determination Made or Advanced Mitigation (Y or N)	1	Y
		0.0704						
Total impact	DADT	0.2701			I	E-tim-to-d		
Wetland Cla	PARI II - I	Unit Scores	Replacement Unit(s)			Estimated		
Total Emergent			0.2701					
Total Scrub-Shrub			0			\$16.206.0	0	
Total Forested			0		1	÷••;=••••	-	
Total Open Water			0					

Project/Site: MVP	City/County: Doddridge	Sampling Date: 05/30/2015
Applicant/Owner: MVP	State: WV	Sampling Point: W-A23
Investigator(s): S.Yarbrough, K.Lugo, R.Sparhawk, W.Shattenberg	Section, Township, Range: N/A	
Landform (hillslope, terrace, etc.): Valley bottom Lo	ocal relief (concave, convex, none): Planar	Slope (%): 0-3
Subregion (LRR or MLRA): LRRN Lat: 39.201037	Long: -80.553372	Datum: NAD 83
Soil Map Unit Name: Melvin silt Ioam (Me)	NWI classi	ification: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🗾 No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	/ disturbed? Are "Normal Circumstances	s" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If needed, explain any answ	wers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes <u>Ves</u> No	Is the Sampled Area	

Hydric Soil Present? Wetland Hydrology Present?	Yes Yes	V	No No	within a Wetland?	Yes	<ul> <li></li> </ul>	No
Remarks:							
Cowardin Code: PEM HGM: Depressional							
WT: RPWWD							

### HYDROLOGY

wetiand flydrology indicators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):	
Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Yes No Depth (inches):	Wetland Hydrology Present? Yes <u></u> No
Surface Water Present?       Yes No       Depth (inches):         Water Table Present?       Yes No       Depth (inches):         Saturation Present?       Yes No       Depth (inches):         Saturation Present?       Yes No       Depth (inches):         (includes capillary fringe)	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:

Sampling Point: W-A23

	Absolute	- Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )	% Cover	Species?	Status	Number of Dominant Species
1		<u></u>		That Are OBL, FACW, or FAC: $2$ (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Demonst of Deminent Creation
5			<u> </u>	That Are OBL FACW or FAC: 100% (A/B)
6.				
7.				Prevalence Index worksheet:
	0	= Total Cov	/er	Total % Cover of:Multiply by:
50% of total cover: 0	20% of	total cover	. 0	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =
1.				FAC species x 3 =
2				FACU species x 4 =
3		·		UPL species x 5 =
۵		· · · · · · · · · · · · · · · · · · ·		Column Totals: (A) (B)
5			<u> </u>	
		· · · · · · · · · · · · · · · · · · ·		Prevalence Index = B/A =
0 7		·		Hydrophytic Vegetation Indicators:
/				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is $\leq 3.0^{1}$
	0	= Total Cov	/er	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 0	20% of	total cover	:0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Acorus calamus	50	<u> </u>	OBL	
2. Eleocharis acicularis	25	~	OBL	<sup>1</sup> Indicators of hydric soil and watland hydrology must
3. Carex Iurida	10		<u>OBL</u>	be present, unless disturbed or problematic.
4. Juncus effusus	10		FACW	Definitions of Four Vegetation Strata:
5. Onoclea sensiblis			FACW	Seminoris of Four Vegetation Strata.
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height
8				
9		·		<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10				m) tall.
10		·		,
11	95	Table	- <u></u>	Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: $47%$	<u> </u>	= 1 otal Cov	/er 19	or size, and woody plants less than 5.26 it tail.
Weady Vine Stratum (Plat size: 15'	<u> </u>			Woody vine - All woody vines greater than 3.28 ft in
				height.
1		·	<u> </u>	
2				
3		·		
4		·		Hydrophytic
5		·		Vegetation
	0	= Total Cov	/er	Present? Yes <u>V</u> No
50% of total cover: 0	20% of	total cover	:	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Dopui	oth <u>Matrix Re</u>			x Feature	s		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks
0-3	10YR 4/2	95	10YR 4/6	5	С	PL	SiL
3-15"	10YR 4/1	90	10YR 4/6	10	C	M/PL	SiL
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soil
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)
Histic El	pipedon (A2)		Polyvalue Be	low Surfa	ace (S8) <b>(I</b>	MLRA 147,	, 148) Coast Prairie Redox (A16)
Black H	ISTIC (A3)			rface (S9	) (IVILRA ) (EQ)	147, 148)	(MLRA 147, 148) Diadesent Flagdelain Caile (F10)
Hydroge	en Sulfide (A4)		Loamy Gleye		(FZ)		
Stratilie			Depleted Ma	llix (F3) Surfaga (I	56)		(MERA 130, 147)
2 CIT MI	d Below Dark Surface	ο (Δ11)	Redux Dark	k Surface	-0) > (F7)		Other (Explain in Remarks)
Depieter Thick Dr	ark Surface (A12)	5 (ATT)	Depieted Da	k Sunace	5 (17) 58)		
Sandy A	Aucky Mineral (S1) (I	RRN	Iron-Mangan	5510115 (1 060 Maes	0) es (F12) (		
	∆ 147 148)		MIRA 13	6)	5C3 (1 12) (	(=:\:\:\	
Sandy (	Gleved Matrix (S4)		Umbric Surfa	ce (F13)	(MI RA 1:	36, 122)	<sup>3</sup> Indicators of hydrophytic vegetation ar
Sandy F	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	48) wetland hydrology must be present.
Stripped	Matrix (S6)		Red Parent	Aaterial (F	-21) (MLR	A 127, 147	7) unless disturbed or problematic.
Restrictive	Layer (if observed):				, ,		<u> </u>
Type:	,						
Depth (in	ches):						Hydric Soil Present? Yes 🖌 No
- op (							

Wetland ID <u>W-A23</u> Date <u>05/30/2015</u>



Photograph Direction NE

Comments:

Project/Site: MVP	City/County: Doddridge	Sampling Date: 05/30/2015
Applicant/Owner: MVP	State: W	V Sampling Point: W-A23 UP
Investigator(s): S.Yarbrough, K.Lugo, R.Sparhawk, W.Shattenberg	Section, Township, Range: <u>N/A</u>	
Landform (hillslope, terrace, etc.): Valley bottom	ocal relief (concave, convex, none): Plana	r Slope (%): 0
Subregion (LRR or MLRA): LRRN Lat: 39.200988	Long: -80.553308	Datum: NAD 83
Soil Map Unit Name: Melvin silt Ioam (Me)	NWI cl	assification: None
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🖌 No (If no, expla	in in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstar	nces" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If needed, explain any a	answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, tran៖	sects, important features, etc.
	<u> </u>	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	g Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled S	Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Yes No _       Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present?       Yes       No       Comparison         Saturation Present?       Yes       No       Comparison         (includes capillary fringe)       Ves       No       Comparison         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)       No       No	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:         No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective         Remarks:         No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective         Remarks:         No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:         No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective         Remarks:         No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Depth (inches):       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:       No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective         Remarks:         No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:         No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:         No indicators for wetland hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No indicators for wetland hydrology	Wetland Hydrology Present? Yes No

HYDROLOGY

Sampling Point: W-A23 UP

20'	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>50</u> ) 1	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2 3				Total Number of Dominant Species Across All Strata:2 (B)
4			·	Percent of Dominant Species
5			·	That Are OBL, FACW, or FAC: (A/B)
7.				Prevalence Index worksheet:
	0	= Total Cov	ver	Total % Cover of: Multiply by:
50% of total cover: 0	20% of	total cover	. 0	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =
1				FAC species x 3 =
2				FACU species x 4 =
3			. <u> </u>	UPL species         x 5 =           0 is a finite sector with the sector withe sector withe sector with the sector withe sector withe sector w
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7			·	1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9			·	3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cov	ver	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>0</u>	20% of	total cover		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	50	~	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Trifolium repens	35		FACU	
2. Eestuca rubra	10		FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2. Testuca Tubia	5		FACU	be present, unless disturbed or problematic.
4. 1 04 prateriois			FACU	Definitions of Four Vegetation Strata:
5			·	<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
6			·	more in diameter at breast height (DBH), regardless of
/			·	height.
8			·	Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10			·	
····	100	- Total Cov	/er	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover	20	
Woody Vine Stratum (Plot size: 15')				Woody vine – All woody vines greater than 3.28 ft in height.
1				
2				
3				
4				Hydrophytic
5			. <u> </u>	Vegetation
	0	= Total Cov	ver	Present? Yes No
50% of total cover: 0	20% of	total cover		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth Matrix Redox Features											
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	S	
0-4	10YR4/3	100				. <u> </u>	SL				
4-7	10YR3/4	95	7.5YR4/6	5	С	PL	L				
7-14	10YR4/3	90	7.5YR4/6	10	С	PL	SL				
14-20	10 YR4/1	80	5YR4/6	20	С	M/PL	L				
						·					
						·					
						·					
<sup>1</sup> Type: C-Co	ncentration D-Denk	etion RM-	Reduced Matrix MS	-Masker	Sand Gr	ains	<sup>2</sup> Location: PL -	Pore Linin	a M–Matri	x	
Hydric Soil I	ndicators:					uiiio.	Indicato	ors for Pro	blematic	A. Hydric So	oils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 cr	n Muck (A	10) <b>(MLRA</b>	147)	
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(</b>	/LRA 147,	148) Coa	st Prairie	Redox (A1	6)	
Black His	stic (A3)		Thin Dark Su	rface (S9	(MLRA	147, 148)	(1	MLRA 147	, 148)		
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		Piec	dmont Floo	odplain Soi	ls (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)			(MLRA 136, 147)				
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark \$	Surface (F	-6)		Ver	y Shallow	Dark Surfa	ce (TF12)	
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	e (F7)		Oth	er (Explair	in Remar	ks)	
Thick Da	rk Surface (A12)		Redox Depre	ssions (F	8)						
Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b>	LRR N,					
MLRA	. 147, 148)		MLRA 13	6)							
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	86, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and				
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetla	ind hydrolo	ogy must b	e present	
Stripped	Matrix (S6)		Red Parent N	laterial (F	21) <b>(MLR</b>	A 127, 147	) unles	s disturbe	d or proble	matic.	
Restrictive L	ayer (if observed):										
Туре:											
Depth (inc	:hes):						Hydric Soil P	resent?	Yes	No	~
Remarks:											
Not hydric.											