ATTACHMENT E

BRAXTON COUNTY

WETLAND SWVM FORMS/WETLAND DELINEATION FORM/PHOTOS

USACE FILE NO./Project Name:		Mountain	Valley Pipeline	COORDINATES:	Lat.	38.760419	Lon.	-80.513602
STREAM/SITE ID AND SITE DESCRI	PTION:					W-H90, Pipeline ROW		
% stream slope, watershed size {ac		or impairments)						
FORM OF MITIGATION:								
ATE:	8/10	0/2015	WEATHER CONDITIONS:			PRECIPITATION PAST 48 HRS:		
	PART I - Wet	land Indicators						
Impact Wetland ID:	Impact Wetland Classification	Impacts (acreage)	Mitigation Wetland Classification					
/-H90	Emergent	0.0388	Emergent					
						PART III - Advanced I	<i>l</i> itigatio	n
				-		Sustainable Determination Made on Advanced Mitigation (Y or N)		Y
				-				
Fotal Impact		0.0388		-				
		Unit Scores				Estimated		
	assification		Replacement Unit(s)	-		ILF Costs		
otal Emergent			0.0388	-		A		
otal Scrub-Shrub			0	-		\$2,328.00		
otal Forested			0	-				
otal Open Water			0					

Project/Site: MVP	City/County: Braxton	9	ampling Date: 05/13/2015
Applicant/Owner: MVP			Sampling Point: W-H90
Investigator(s): A.Stott, A.Grech, D. McCullough	Section, Township, Ra		
Landform (hillslope, terrace, etc.): Side-slope	ocal relief (concave, conv	/ex, none): Concave	Slope (%): <u>5-8%</u>
Subregion (LRR or MLRA): LRRN Lat: 38.760372	Lon	_{g:} -80.513651	Datum: NAD 83
Soil Map Unit Name: Buchanan channery loam, 15 to 35 percen	t slopes, extremely st	ony NWI classificat	_{ion:} None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear?Yes 🔽 No _	(If no, explain in Rer	narks.)
Are Vegetation, Soil, or Hydrology significantly	/ disturbed? Are "	Normal Circumstances" pre	sent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If ne	eded, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point l	ocations, transects, i	mportant features, etc.

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: Cowardin Code: PEM HGM: slope WT: RPWWD					

HYDROLOGY

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)	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No	Wetland Hydrology Present? Yes <u>V</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: Connects to S-H123	tions), if available:

Sampling Point: W-H90

/EGETATION (Four Strata) – Use scientific r	Sampling Point: W-H90			
20'	Absolute		nt Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u>) 1			<u>?</u> Status	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3 4				Species Across All Strata:3* (B)
5				Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
6 7.				Prevalence Index worksheet:
1. <u></u>	0	= Total Co	over	Total % Cover of: Multiply by:
50% of total cover: <u>0</u>	_	f total cove	•	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =
1. Rosa palustris	5	~	OBL	FAC species x 3 =
2				FACU species x 4 =
				UPL species x 5 =
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9	- <u> </u>			3 - Prevalence Index is ≤3.0 ¹
		= Total Co		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 2.5	<u>)</u> 20% of	f total cove	er: <u>I</u>	data in Remarks or on a separate sheet)
	20	~		Problematic Hydrophytic Vegetation ¹ (Explain)
1. Dryopteris sp.	30		_ ND	
2. Viola cucullata	15	<u> </u>	FACW	¹ Indicators of hydric soil and wetland hydrology must
3. Packera aurea	15		FACW	be present, unless disturbed or problematic.
4. Juncus effusus	10		FACW	Definitions of Four Vegetation Strata:
5. Scirpus atrovirens	5		OBL	Tree Mandy plants evoluting vince 2 in (7.6 cm) or
6. Impatiens capensis	5		F <u>ACW</u>	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7. Osmundastrum cinnamomeum	5		FACW	height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9		<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		<u> </u>		m) tall.
11	. <u> </u>			Herb – All herbaceous (non-woody) plants, regardless
	85	= Total Co	over	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>42</u> .	5_ 20% of	f total cove	er: <u>17</u>	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15')				height.
1	<u> </u>			
2				
3		<u> </u>		
4				Hudronbutio
5				Hydrophytic Vegetation
	<u>^</u>	= Total Co	over	Present? Yes 🖌 No
50% of total cover: 0		f total cove		
Remarks: (Include photo numbers here or on a separate s				
Venetation and IDI-later to construct the state of the	ا ا ا ا	م ما∼∽-'	ono- 1 1	
Vegetation not ID'd down to species level not i	nciuded II	n aomin	ance test.	

Profile Desc	ription: (Describe te	o the depth	n needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix			x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10YR 4/1	95	10YR 5/6	5	С	M/PL	SC	
8-20	10YR 4/1	100					GrSC	
						·		
						·		
					С			
¹ Type: C=Co	oncentration, D=Deple	etion. RM=F	Reduced Matrix. MS	S=Masked	Sand Gr	ains.	² Location: PL	_=Pore Lining, M=Matrix.
Hydric Soil			, -					tors for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) (/LRA 147,		oast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)) (MLRA [·]	147, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye	d Matrix (F2)		Pi	iedmont Floodplain Soils (F19)
Stratified	I Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S	•	,			ery Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Of	ther (Explain in Remarks)
	ark Surface (A12)		Redox Depre	•	,			
	lucky Mineral (S1) (L l	RR N,	Iron-Mangane		es (F12) (LRR N,		
	147, 148)		MLRA 13				2	
	leyed Matrix (S4)		Umbric Surfa	, ,	•			cators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo	•	• •	•	•	tland hydrology must be present,
	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	7) unl	ess disturbed or problematic.
	ayer (if observed):							
Туре:								
Depth (ind	ches):						Hydric Soil	Present? Yes V No
Remarks:							•	

Wetland Photograph Page

Wetland ID <u>W-H90</u> Date <u>05/13/2015</u>



Photograph Direction East

Comments:

Project/Site: MVP	City/County: Braxton	Sampling Date: 05/13/2	015
Applicant/Owner: MVP		State: <u>WV</u> Sampling Point: W-HS	
Investigator(s): A.Stott, A.Grech, D. McCullough	Section, Township, Range: <u>N/A</u>		
Landform (hillslope, terrace, etc.): Side-slope	_ Local relief (concave, convex, none)	: <u>Convex</u> Slope (%): 1	<u>0-15%</u>
Subregion (LRR or MLRA): LRRN Lat: 38.7603	345	13652 Datum: NAD	83
Soil Map Unit Name: Buchanan channery loam, 15 to 35 per	rcent slopes, extremely stony	NWI classification: None	
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes <u>V</u> No (If	no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Normal C	rcumstances" present? Yes <u>/</u> No	
Are Vegetation, Soil, or Hydrology natural	Ily problematic? (If needed, exp	lain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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 Indicat	ors:		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	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	oils (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 Ae	rial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (I	B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?		Depth (inches):	
Water Table Present?	Yes No _	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes No _	Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (str	eam gauge, monito	ring well, aerial photos, previous inspec	ctions), if available:
Remarks:			

HYDROLOGY

Sampling Point:<u>W-H90 UPL</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30'</u>)		Species?		
1 Carpinus caroliniana	5	V	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
2. Fagus grandifolia	5	~	·	That Are OBL, FACW, or FAC: (A)
		-	FACU	Total Number of Dominant
3. Acer saccharum	5	<u> </u>	FACU	Species Across All Strata: 4* (B)
4				
			·	Percent of Dominant Species
5			·	That Are OBL, FACW, or FAC: (A/B)
6			·	Prevalence Index worksheet:
7			. <u> </u>	
	15	= Total Cov	ver	Total % Cover of:Multiply by:
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 =
<u>oupling/office official</u> (Flot size)	20		F AO	FAC species x 3 =
1. Carpinus caroliniana		<u> </u>	FAC	
_{2.} Fagus grandifolia	5		F <u>ACU</u>	FACU species x 4 =
3				UPL species x 5 =
				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8			·	2 - Dominance Test is >50%
9				3 - Prevalence Index is $≤3.0^1$
	25	= Total Cov	ver	
50% of total cover: 12.5	5 20% of	total cover	5	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5')				data in Remarks or on a separate sheet)
,	30	~		Problematic Hydrophytic Vegetation ¹ (Explain)
1. Dryopteris sp.	-		ND	
2. Polystichum acrostichoides	5		FACU	Indicators of hudric coll and wetlend hudrology must
3				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				• •
				Definitions of Four Vegetation Strata:
5			·	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Ŭ
o				Sapling/Shrub – Woody plants, excluding vines, less
9			·	than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	35	= Total Cov	/er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 17.5				······································
1 5	2070 01		·	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15)				height.
1				
2				
3.				
4			·	Hydrophytic
5				Vegetation
	0	= Total Cov	ver	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)			
ND- Not determined	1000.)			
IND- NOT determined				
*Vegetation not ID'd down to species level not ir	ncluded i	n domina	nce test.	

L

Profile Desc	ription: (Describe to	the depth	needed to docum	ent the i	ndicator	or confirm	the absence of indicato	rs.)
Depth	Matrix			Features		. 2		5
(inches)	Color (moist)	<u>%</u> _	Color (moist)	<u>%</u> E	Type ¹		Texture GrSC	Remarks
0-7	10YR 5/4	95	10YR 5/6	5		Μ		
7+								Refusal:CF
. <u></u>							·	
	·							
			_					
·								
	ncentration, D=Deple	tion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: PL=Pore Linin	
Hydric Soil I								oblematic Hydric Soils ³ :
Histosol	< ,		Dark Surface		(0.0) (1)		2 cm Muck (A	, .
	ipedon (A2)		Polyvalue Bel					
Black His	()		Thin Dark Sur			47, 148)	(MLRA 147	
	n Sulfide (A4) Layers (A5)		Loamy Gleyed		-2)		(MLRA 136	odplain Soils (F19)
	ck (A10) (LRR N)		Redox Dark S	. ,	6)		•	Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Darl		,		Other (Explain	. ,
	rk Surface (A12)	~ /	Redox Depres					,
Sandy M	ucky Mineral (S1) (LF	RR N,	Iron-Mangane	se Masse	es (F12) (_RR N,		
	147, 148)		MLRA 136	i)				
	leyed Matrix (S4)		Umbric Surfac					drophytic vegetation and
	edox (S5)		Piedmont Floor					ogy must be present,
	Matrix (S6)		Red Parent M	aterial (F	21) (MLR	A 127, 147	unless disturbe	d or problematic.
	ayer (if observed):							
<u> </u>	arse frags							,
Depth (inc	hes): <u>/</u>						Hydric Soil Present?	Yes No
Remarks:								

USACE FILE NO./Project Name:		Mountain	Valley Pipeline	COORDINATES:	Lat.	38.751445	Lon.	-80.516905
STREAM/SITE ID AND SITE DESCRI	PTION:				W	-QR13, Temporary Access Road		
% 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					
/-QR13	Emergent	0.0618	Emergent					
						PART III - Advanced	Mitigatio	n
						Sustainable Determination Made on Advanced Mitigation (Y or N)		Y
Fotal Impact		0.0618						
		Jnit Scores				Estimated		
	assification		Replacement Unit(s)	-		ILF Costs		
otal Emergent			0.0618	-				
otal Scrub-Shrub			0	-		\$3,708.00		
otal Forested			0	-				
otal Open Water			0					

Project/Site: MVP City/County: Braxton Sampling Date: 04/23/2016 Applicant/Owner: MVP State: WV Sampling Point: W-QR13
Investigator(s): D Hadersbeck, J McGuirk, C Sapusek Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2
Subregion (LRR or MLRA): LRR N Lat: 38.751434 Long: -80.51688 Datum: NAD 83
Soil Map Unit Name: BuE - Buchanan channery loam, 15 to 35 percent slopes, extremely stony NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>V</u> No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, et
Hydrophytic Vegetation Present? Yes <u>Veg</u> No Is the Sampled Area
Hydric Soil Present? Yes <u>V</u> No <u>within a Wetland?</u> Yes <u>No V</u>
Wetland Hydrology Present? Yes <u>V</u> No
Remarks: Cowardin Code: PEM HGM: Depressional Water Type: RPWWN
Adjacent to Little Kanawha River
HYDROLOGY
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)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled 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) Y FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Ves Depth (inches): Wetland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

Sampling Point: W-QR13

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u>)	% Cover	Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (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)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co		
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 =
				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6			- <u> </u>	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8			<u> </u>	✓ 2 - Dominance Test is >50%
9				$_$ 3 - Prevalence Index is ≤3.0 ¹
	0	= Total Co	/er	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 0	20% of	total cover	: 0	
Herb Stratum (Plot size: 5')				data in Remarks or on a separate sheet)
1. Scirpus atrovirens	50	~	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Impatiens capensis	50	~	FACW	
3. Viola sp.	10		ND	¹ Indicators of hydric soil and wetland hydrology must
4. Packera aurea	10		FACW	be present, unless disturbed or problematic.
	10			Definitions of Four Vegetation Strata:
5. Boehmeria cylindrica			FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Conting/Chruh Waady planta avaluding vines loss
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
	130	= Total Co		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 65		total cover		
Woody Vine Stratum (Plot size: 15')	2070.01			Woody vine – All woody vines greater than 3.28 ft in
				height.
1			. <u> </u>	
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Co	/er	Present? Yes V No
50% of total cover: <u>0</u>	20% of	total cover	<u> </u>	
Remarks: (Include photo numbers here or on a separate sl	neet.)			
Indicator status not determined for Viola sp. Viol		used in a	lominanc	ce test

Profile Desc	ription: (Describe to	o the dept	h needed to docum	nent the i	ndicator	or confirm	the absence of	f indicators.)	
Depth	Matrix			Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-8	10YR 4/1	85	7.5YR 5/6	15	С	M/PL	SaSiL		
8-14	7.5TR 6/8	100					Sa		
						·			
<u> </u>						·			
·						·			
						·			
						·			
<u> </u>						·			
						·			
	oncentration, D=Deple	tion RM-	 Reduced Matrix_MS	-Maskod	Sand Gr	aine	² Location: PL -	Pore Lining, M=Matrix.	
Hydric Soil I				-waskeu		anis.		ors for Problematic Hydric	Soils ³ :
Histosol			Dark Surface	(S7)				m Muck (A10) (MLRA 147)	
	vipedon (A2)		Polyvalue Bel	. ,	ce (S8) (N	ILRA 147.		ast Prairie Redox (A16)	
Black His	• • •		Thin Dark Sur		· · ·		·	MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye	, ,	•		•	dmont Floodplain Soils (F19	9)
Stratified	Layers (A5)		Depleted Mat	rix (F3)			(1	MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		Ver	y Shallow Dark Surface (TF	12)
Depleted	Below Dark Surface	(A11)	Depleted Darl	k Surface	(F7)		Oth	er (Explain in Remarks)	
	rk Surface (A12)		Redox Depres	`	,				
	lucky Mineral (S1) (Li	RR N,	Iron-Mangane		es (F12) (LRR N,			
	147, 148)		MLRA 136	,			3		
	leyed Matrix (S4)		Umbric Surfac					ators of hydrophytic vegetat	
	edox (S5)		Piedmont Floo					and hydrology must be pres	ent,
-	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147) unies	ss disturbed or problematic.	
	ayer (if observed):								
Type:									
Depth (inc	ches):						Hydric Soil P	resent? Yes 🔽 N	o
Remarks:									

Wetland ID <u>W-QR13</u> Date <u>04/23/2016</u>



Photograph Direction West

Comments:

Project/Site: MVP	City/County: Braxton	Sampling Date: 04/23/2016
Applicant/Owner: MVP	State: WV	
Investigator(s): D Hadersbeck, J McGuirk, C Sapusek	Section, Township, Range: <u>N/A</u>	
Landform (hillslope, terrace, etc.): Swell	_ Local relief (concave, convex, none): <u>Conve</u>	x Slope (%): 2
Subregion (LRR or MLRA): LRR N Lat:	Long:	Datum: NAD 83
Soil Map Unit Name: BuE - Buchanan channery loam, 15 to 3	35 percent slopes, extremely stony NWI clas	ssification: None
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes <u>V</u> No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Normal Circumstance	es" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology natural	lly problematic? (If needed, explain any ar	nswers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locations, transe	ects, important features, etc.

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: Cowardin Code: UPI	AND	HGM:	Water Type:		

HYDROLOGY

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	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	oils (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 <u></u>	
Saturation Present? Yes <u>No</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	

Sampling Point: W-QR13-UP

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30'</u>)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				Total New Jon of Device of
3				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7		. <u> </u>		Total % Cover of: Multiply by:
		= Total Cov		
50% of total cover: 0	20% of	f 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 =
				Column Totals: (A) (B)
4				()
5				Prevalence Index = B/A =
6		<u></u>	. <u> </u>	Hydrophytic Vegetation Indicators:
7		<u></u>		1 - Rapid Test for Hydrophytic Vegetation
8		<u></u>		2 - Dominance Test is >50%
9				
	0	= Total Cov	er	3 - Prevalence Index is ≤3.0 ¹
50% of total cover:0		f total cover:		4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5')				data in Remarks or on a separate sheet)
1. Trifolium pratense	5		FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2 Achillea millifolium	5	·		
			FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Phleum pratense	20	<u> </u>	FACU	be present, unless disturbed or problematic.
4. Dactylis glomerata	25	<u> </u>	FACU	Definitions of Four Vegetation Strata:
5		<u></u>		
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
8.				noight.
		·		Sapling/Shrub – Woody plants, excluding vines, less
9		<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11		<u></u>		Herb – All herbaceous (non-woody) plants, regardless
		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5	5 20% of	f total cover:	11	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15')				height.
1				
2				
3				
4				Hydrophytic
5	0	·		Vegetation
		= Total Cov		Present? Yes No V
50% of total cover: 0	20% of	f total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
1				

Profile Desc	ription: (Describe t	o the depth	needed to docur	nent the i	ndicator	or confirm	the absen	ce of indicato	rs.)		
Depth	Matrix		Redo	x Feature	S						
(inches)	Color (moist)	%	Color (moist)	%		Loc ²	Texture		Remarks	S	
0-12	10YR 4/4	100					SiL				
·											
·											
			<u> </u>								
¹ Type: $C = C_{1}$	oncentration, D=Depl	etion RM-R	educed Matrix M	S-Masked		ains	² Location:	PL=Pore Linir	ng M-Matri	x	
Hydric Soil								icators for Pr			s ³ :
Histosol			Dark Surface	(97)				2 cm Muck (A		•	•
	bipedon (A2)		Polyvalue Be		(S8) (N	II RA 147		Coast Prairie	, .		
-	stic (A3)		Thin Dark Su		· / ·		140)	(MLRA 14)		0)	
	en Sulfide (A4)		Loamy Gleye			47, 140)		Piedmont Flo		ls (F19)	
	d Layers (A5)		Depleted Ma		- 2)			(MLRA 13)		10 (1 10)	
	ick (A10) (LRR N)		Redox Dark		6)			Very Shallow		ce (TF12)	
	d Below Dark Surface	e (A11)	Depleted Da		,			Other (Explai			
	ark Surface (A12)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Redox Depre							(0)	
	lucky Mineral (S1) (L	RR N.	Iron-Mangan			RR N.					
	A 147, 148)	,	MLRA 13		····/	,					
	Bleyed Matrix (S4)		Umbric Surfa		MLRA 13	6. 122)	3	ndicators of hy	drophytic v	egetation ar	nd
	ledox (S5)		Piedmont Flo					wetland hydrol		-	
	Matrix (S6)		Red Parent					unless disturbe	•••		
	Layer (if observed):				/ (,	,				
Type:	,										
	ches):		_				Hydric Se	oil Present?	Yes	No 🖣	~
							inguno o		100		
Remarks:											

USACE FILE NO./Project Name:	Mountain Valley Pipeline			COORDINATES:	Lat.	38.749364	Lon.	-80.522081
STREAM/SITE ID AND SITE DESCRIF	PTION:				W	/-QR12, Temporary Access Road	_	
% 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					
/-QR12	Emergent	0.0881	Emergent					
						PART III - Advanced		n
						Sustainable Determination Made on Advanced Mitigation (Y or N)		Y
Fotal Impact		0.0881						
		Unit Scores				Estimated		
Wetland Cla	assification		Replacement Unit(s)			ILF Costs		
otal Emergent			0.0881	-		¢5 000 00		
otal Scrub-Shrub			0			\$5,286.00		
otal Forested			0					
otal Open Water			0	1				

Project/Site: MVP	City/County: Braxton	Sampling Date: 04/23/2016
Applicant/Owner: MVP	State: WV	Sampling Point: W-QR12
Investigator(s): D Hadersbeck, J McGuirk, C Sapusek		
Landform (hillslope, terrace, etc.): Floodplain	ocal relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): LRR N Lat: 38.749301	Long: -80.522095	Datum: NAD 83
Soil Map Unit Name: Ch - Chavies fine sandy loam, rarely flooded	d NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🔽 No (If no, explain in R	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" p	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	is the Sampled Area	No
Remarks: Cowardin Code: PEM HGM: Depr	ressional Water Type: RPWWN	
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil	Cracks (B6)

Primary indicators (minimum o	<u>or one is required, a</u>	check all that apply)	
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 	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 So	bils (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 Aer	al Imagery (B7)		Shallow Aquitard (D3)
✓ Water-Stained Leaves (B	9)		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):	
Saturation Present? (includes capillary fringe)	Yes No _	✓ Depth (inches):	Wetland Hydrology Present? Yes <u></u> No
	am gauge, monitor	ring well, aerial photos, previous inspec	tions), if available:
Remarks:			

Sampling Point: W-QR12

EGETATION (Four Strata) – Use scientific na		pianto.		Sampling Point: <u>W-</u>	
30'		Dominant		Dominance Test worksheet:	
Tree Stratum (Plot size:) 1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2				Total Number of Dominant	()
3					<u>1</u> (B)
4 5				Percent of Dominant Species	00 (д)
				That Are OBL, FACW, or FAC:	00 (A/
6 7.				Prevalence Index worksheet:	
	0	= Total Cov	rer		ply by:
50% 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 = UPL species x 5 =	
3			·	Column Totals:	
4					
5 6				Prevalence Index = B/A =	
7				Hydrophytic Vegetation Indicators:	
8				 ✓ 1 - Rapid Test for Hydrophytic Vege ✓ 2 - Dominance Test is >50% 	etation
9				\sim 2 - Dominance Test is >50% \sim 3 - Prevalence Index is $\leq 3.0^1$	
		= Total Cov	-	4 - Morphological Adaptations ¹ (Pro	vide support
50% of total cover: 0	20% of	total cover	0	data in Remarks or on a separat	
	80	~		Problematic Hydrophytic Vegetation	
1. Scirpus atrovirens 2. Phleum pratense	15		O <u>BL</u> FACU		,
3. Dactylis glomerata	5		FACU	¹ Indicators of hydric soil and wetland hy	
4. Dichanthelium clandestinum	5		FAC	be present, unless disturbed or problem	
5. Packera aurea	5		FACW	Definitions of Four Vegetation Strata:	:
6				Tree – Woody plants, excluding vines, 3 more in diameter at breast height (DBH)	
7				height.	, regardiess
8				Sapling/Shrub – Woody plants, excludi	ina vines, les
9				than 3 in. DBH and greater than or equa m) tall.	
11.				Herb – All herbaceous (non-woody) pla	nte rogardia
	110	= Total Cov	rer	of size, and woody plants less than 3.28	
50% of total cover: <u>55</u> Woody Vine Stratum (Plot size: <u>15'</u>)	20% of	total cover	22	Woody vine – All woody vines greater t height.	han 3.28 ft in:
1 2			·		
3					
4				Hydrophytic	
5				Vegetation	
50% of total cover:0		= Total Cov total cover		Present? Yes V No	
Remarks: (Include photo numbers here or on a separate sl					
	1001.)				

Depth (inches) Matrix Redox Features 0-6 2.5Y 6/1 90 10YR 6/6 10 C M/PL SaCL 6-12 7.5YR 5/8 100
0-6 2.5Y 6/1 90 10YR 6/6 10 C M/PL SaCL 6-12 7.5YR 5/8 100
6-12 7.5YR 5/8 100
'Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 2 Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
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Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
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)
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 (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, Iron-Manganese Masses (F12) (LRR N,
MLRA 147, 148) MLRA 136)
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present,
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.
Restrictive Layer (if observed):
Туре:
Depth (inches): No
Remarks:

Wetland ID <u>W-QR12</u> Date <u>04/23/2016</u>



Photograph Direction NE

Comments:

Project/Site: MVP	City/County: E	Braxton	Sampling Date: 04/23/2016
Applicant/Owner: MVP		State: WV	_ Sampling Point: W-QR11/QR12-UP
Investigator(s): D Hadersbeck, J McGuirk, C Sapusek	Section, Town	ship, Range: <mark>N/A</mark>	
Landform (hillslope, terrace, etc.): Swell	Local relief (conca	ave, convex, none): <u>Convex</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): LRR N Lat: 38.747	7814	Long: <u>-80.521796</u>	Datum: NAD 83
Soil Map Unit Name: Ch - Chavies fine sandy loam, rarely fle	ooded	NWI classifica	_{tion:} None
Are climatic / hydrologic conditions on the site typical for this tim	e of year? Yes 🗹	No (If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology signif	icantly disturbed?	Are "Normal Circumstances" pre	esent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology natura	ally problematic?	(If needed, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	wing sampling	point locations, transects,	important features, etc.

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: Cowardin Code: UI	PLAND	HGM:	Water Type:		

HYDROLOGY

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 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 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 <u></u>	
Water Table Present? Yes No <u></u>	
Saturation Present? Yes No 🖌 Depth (inches): Wetland (includes capillary fringe)	Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if av	ailable:
Remarks:	

Sampling Point: W-QR11/QR12-UP

201	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30'</u>)	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
1			·	
2 3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5		<u></u>	<u> </u>	That Are OBL, FACW, or FAC:(A/B)
6			·	Prevalence Index worksheet:
7	0			Total % Cover of:Multiply by:
50% of total cover: 0		= Total Cov	-	OBL species x 1 =
45	20% 01	total cover		FACW species x 2 =
				FAC species x 3 =
1				FACU species x 4 =
2				UPL species
3			·	
4		<u></u>	·	Column Totals: (A) (B)
5		·	. <u> </u>	Prevalence Index = B/A =
6		·	·	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8		<u></u>	·	2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
		= Total Cov	•	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	total cover	<u> 0 </u>	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5')	_			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Trifolium pratense	5		FACU	
2. Achillea millefolium	5		FACU	The discrete section of the di
3. Phleum pratense	20	~	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Dactylis glomerata	25	~	FACU	Definitions of Four Vegetation Strata:
5				Demittoris 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			·	Sapling/Shrub – Woody plants, excluding vines, less
10.			. <u> </u>	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
11			·	,
· · · ·	55	Total Car		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5		= Total Cov		
Woody Vine Stratum (Plot size: 15')	20700		· <u> </u>	Woody vine – All woody vines greater than 3.28 ft in height.
1				
2				
3				
4.				Hadaaa ka da
5.				Hydrophytic Vegetation
	0	= Total Cov	/er	Present? Yes No V
50% of total cover: 0		total cover	-	
Remarks: (Include photo numbers here or on a separate s				

Profile Desc	ription: (Describe t	o the dept	th needed to docur	nent the indicator	or confirm	the absence of ind	dicators.)	
Depth	Matrix			x Features				
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Type ¹	Loc ²	Texture	Remark	S
0-12	10YR 4/4	100				SiL		
					_			
				<u> </u>				
¹ Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked Sand G	rains.	² Location: PL=Por	e Lining, M=Matri	x.
Hydric Soil	Indicators:					Indicators	for Problematic	Hydric Soils ³ :
Histosol	(A1)		Dark Surface	e (S7)		2 cm M	uck (A10) (MLRA	147)
Histic Ep	pipedon (A2)		Polyvalue Be	elow Surface (S8) (MLRA 147,	148) Coast F	Prairie Redox (A1	6)
Black Hi	stic (A3)		Thin Dark Su	urface (S9) (MLRA	147, 148)	(MLF	RA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedmo	ont Floodplain Soi	ls (F19)
	d Layers (A5)		Depleted Ma			(MLF	RA 136, 147)	
	ıck (A10) (LRR N)		Redox Dark				nallow Dark Surfa	
	d Below Dark Surface	e (A11)		rk Surface (F7)		Other (Explain in Remar	ks)
	ark Surface (A12)		Redox Depre	· · /				
	lucky Mineral (S1) (L	RR N,	-	ese Masses (F12)	(LRR N,			
	A 147, 148)		MLRA 13	,		3		
	Bleyed Matrix (S4)			ace (F13) (MLRA 1			s of hydrophytic v	
-	edox (S5)			odplain Soils (F19			hydrology must b	
	Matrix (S6)		Red Parent N	Material (F21) (MLI	RA 127, 147	') unless d	isturbed or proble	ematic.
Restrictive I	Layer (if observed):							
Type:								_
Depth (ind	ches):					Hydric Soil Pres	ent? Yes	No 🗹
Remarks:						1		

USACE FILE NO./Project Name:	Mountain Valley Pipeline			COORDINATES:	Lat.	38.747846	Lon.	-80.521602
STREAM/SITE ID AND SITE DESCRIP	PTION:				N	/-QR11, Temporary Access Road		
% stream slope, watershed size {ac	reage}, unaltered	or impairments)						
FORM OF MITIGATION:								
ATE:	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					
/-QR11	Emergent	0.0559	Emergent					
						PART III - Advanced	Mitigatio	n
						Sustainable Determination Made on Advanced Mitigation (Y or N)		Y
Fotal Impact		0.0559						
		Unit Scores				Estimated		
Wetland Cla	assification		Replacement Unit(s)			ILF Costs		
otal Emergent			0.0559			*****		
otal Scrub-Shrub			0	-		\$3,354.00		
otal Forested			0					
otal Open Water			0]				

Project/Site: MVP	City/County: Braxton	Sampling Date: 04/23/2016						
Applicant/Owner: MVP	WV Sampling Point: W-QR11							
Investigator(s): D Hadersbeck, J McGuirk, C Sapusek Section, Township, Range: N/A								
Landform (hillslope, terrace, etc.): Floodplain		ncave Slope (%). 1						
Subregion (LRR or MLRA): LRR N Lat: 38.7478	1 Long: -80.52163	5 Detum: NAD 83						
Soil Map Unit Name: Ch - Chavies fine sandy loam, rarely floo	-	I classification: None						
Are climatic / hydrologic conditions on the site typical for this time								
Are Vegetation, Soil, or Hydrology signific		4						
Are Vegetation, Soil, or Hydrology natural SUMMARY OF FINDINGS – Attach site map show		ny answers in Remarks.)						
Hydrophytic Vegetation Present? Yes <u>V</u> No	Is the Sampled Area							
Hydric Soil Present? Yes <u>V</u> No		es 🖌 No						
Wetland Hydrology Present? Yes <u>Ves</u> No								
Remarks: Cowardin Code: PEM HGM: D	epressional Water Type: RPWW	'N						
Adjacent to Little Kanawha River								
HYDROLOGY								
Wetland Hydrology Indicators:	Seconda	ary Indicators (minimum of two required)						
Primary Indicators (minimum of one is required; check all that an		face Soil Cracks (B6)						
		Sparsely Vegetated Concave Surface (B8)						
		Drainage Patterns (B10)						
		ss Trim Lines (B16)						
		Dry-Season Water Table (C2)						
Sediment Deposits (B2) Recent Iro	n Reduction in Tilled Soils (C6) Cra							
Drift Deposits (B3) Thin Muck	Surface (C7) Sate	uration Visible on Aerial Imagery (C9)						
Algal Mat or Crust (B4) Other (Exp		nted or Stressed Plants (D1)						
Iron Deposits (B5)		omorphic Position (D2)						
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)						
✓ Water-Stained Leaves (B9)		rotopographic Relief (D4)						
Aquatic Fauna (B13)	FAC	C-Neutral Test (D5)						
Field Observations: Surface Water Present? Yes No Depth (in								
Water Table Present? Yes No Depth (in Mater Table Present? Yes Depth (in Mater Table Present? Yes								
Saturation Present? Yes No Depth (in Saturation Present? Yes Depth (in Saturation Present? Yes Yes Saturation Present? Yes No Yes No Yes Saturation Present?	-	y Present? Yes 🖌 No						
(includes capillary fringe)	wetiand Hydrolog	y Present? fes <u>•</u> No						
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:							
Remarks:								
Remarks.								

Sampling Point: W-QR11

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30'</u>)		Species?		Number of Dominant Species	
4					(A)
					(, ,
2				Total Number of Dominant	
3				Species Across All Strata: 1	(B)
4		·	·	Percent of Dominant Species	
5					(A/B)
6					()
7				Prevalence Index worksheet:	
	0	= Total Cov		Total % Cover of: Multiply by:	
50% of total cover: 0				OBL species x 1 =	
45	20% 0	IOIAI COVEI		FACW species x 2 =	
1				FAC species x 3 =	
2				FACU species x 4 =	
3				UPL species x 5 =	
				Column Totals: (A)	(B)
4				()	_ ()
5				Prevalence Index = B/A =	
6		·		Hydrophytic Vegetation Indicators:	
7				✓ 1 - Rapid Test for Hydrophytic Vegetation	
8					
9.				✓ 2 - Dominance Test is >50%	
· ·	0	= Total Cov		$_$ 3 - Prevalence Index is $\leq 3.0^1$	
			-	4 - Morphological Adaptations ¹ (Provide supp	orting
50% of total cover: <u>0</u>	20% of	total cover		data in Remarks or on a separate sheet)	
Herb Stratum (Plot size: 5')				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Scirpus atrovirens	90	<u> </u>	OBL		1)
2. Phleum pratense	15		FACU		
3. Dactylis glomerata	5		FACU	¹ Indicators of hydric soil and wetland hydrology m	ust
4. Dichanthelium clandestinum	5	·	FAC	be present, unless disturbed or problematic.	
5. Packera aurea	5	· . <u> </u>	FACW	Definitions of Four Vegetation Strata:	
	- 5			Tree – Woody plants, excluding vines, 3 in. (7.6 c	m) or
6. Carex vulpinoidea	5	·	OBL	more in diameter at breast height (DBH), regardle	
7				height.	00 01
8					
9				Sapling/Shrub – Woody plants, excluding vines,	
		·	·	than 3 in. DBH and greater than or equal to 3.28 f m) tall.	rt (1
10		·			
11		·		Herb - All herbaceous (non-woody) plants, regard	dless
		= Total Cov		of size, and woody plants less than 3.28 ft tall.	
50% of total cover: <u>62.5</u>	5 20% of	total cover	25	Woody vine – All woody vines greater than 3.28 f	ftin
Woody Vine Stratum (Plot size: 15')				height.	11 11 1
1				lioigna	
2		·	·		
3			·		
4				Hydrophytic	
5				Vegetation	
	0	= Total Cov	ver	Present? Yes V No	
50% of total cover: 0		total cover			
Remarks: (Include photo numbers here or on a separate si			· · · · · · · · · · · · · · · · · · ·		
Remarks. (include photo numbers here of on a separate si	neet.)				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-6	2.5Y 6/1	90	10YR 6/6	10	С	M/PL	SaCL	
6-12	7.5YR 5/8	100					SaL	
·		·						
<u> </u>		·	<u> </u>				· · · · · · · · · · _ /	
. <u> </u>								
·		·	<u> </u>				· · · · · · · · · · · · · · · · · · ·	—
							· · · · · · · · · · · · · · · · · · ·	
¹ Type: C=Co	oncentration, D=Deple	etion, RM=I	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I						-	Indicators for Problematic Hydric Soils ³ :	
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Bel	low Surfac	ce (S8) (N	ILRA 147,	148) Coast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	,	F2)		Piedmont Floodplain Soils (F19)	
	l Layers (A5)		Depleted Mat	. ,			(MLRA 136, 147)	
	ck (A10) (LRR N)		Redox Dark S		,		Very Shallow Dark Surface (TF12)	
·	Below Dark Surface	(A11)	Depleted Dar		. ,		Other (Explain in Remarks)	
	rk Surface (A12)		Redox Depre		,			
	lucky Mineral (S1) (L	RR N,	Iron-Mangane		es (F12) (LRR N,		
	147, 148) leyed Matrix (S4)		MLRA 136		MI D A 12	6 122)	³ Indicators of hydrophytic vegetation and	
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Red Parent M					
	ayer (if observed):				, (
Type:								
Depth (inc	abos):						Hydric Soil Present? Yes 🖌 No	
Remarks:								

Wetland ID <u>W-QR11</u> Date <u>04/23/2016</u>



Photograph Direction SE

Comments:

USACE FILE NO./Project Name:		Mountain Valley Pipeline		COORDINATES:	Lat.	38.708869	Lon.	-80.489369
STREAM/SITE ID AND SITE DESCRI	PTION:					W-I11b, Timber Mat Crossing		
% stream slope, watershed size {ac		or impairments)				.,		
FORM OF MITIGATION:								
ATE:	8/10	0/2015	WEATHER CONDITIONS:			PRECIPITATION PAST 48 HRS:		
	PART I - Wet	land Indicators						
Impact Wetland ID:	Impact Wetland Classification	Impacts (acreage)	Mitigation Wetland Classification					
/-I11b	Emergent	0.0098	Emergent	-				
						PART III - Advanced I	Vitigatio	n
				-		Sustainable Determination Made on Advanced Mitigation (Y or N)		Y
Fotal Impact		0.0098						
		Unit Scores		-		Estimated		
	assification		Replacement Unit(s)	-		ILF Costs		
otal Emergent			0.0098	-		* =00.00		
otal Scrub-Shrub			0	-		\$588.00		
otal Forested			0	-				
otal Open Water			0					

Project/Site: MVP	City/County: Brax	ton	Sampling Date: 05/13/2015					
Applicant/Owner: MVP			Sampling Point: W-I11B					
Investigator(s): SET, SJC, GS								
Landform (hillslope, terrace, etc.): terrace			Slope (%)· 3-5%					
Subregion (LRR or MLRA): LRRN	Let: 38,708854	Long: -80,489359	clope (<u>%).</u>					
Soil Map Unit Name: Gilpin-Lily complex, 1	5 to 25 percent slopes		Datum. <u></u> Datum					
Are climatic / hydrologic conditions on the site typ								
Are Vegetation, Soil, or Hydrology		re "Normal Circumstances" p	oresent? Yes <u>No</u> No					
Are Vegetation, Soil, or Hydrology	/ naturally problematic? (f needed, explain any answe	rs in Remarks.)					
SUMMARY OF FINDINGS – Attach si	ite map showing sampling poir	t locations, transects	, important features, etc.					
Hydrophytic Vegetation Present? Yes	✓ No Is the Same							
	✓ No within a We	tland? Yes <u> </u>	No					
Remarks:								
Cowardin Code: PEM; HGM: depressional; WT: NRPWW The wetland was revisited on 10/3/2019. The presence of wetland hydrology, hydrophytic vegetation, and hydric soils was unable to be confirmed because of construction activity within the LOD. The wetland was cleared of woody vegetation within LOD as part of Project construction in 2018. Vegetation listed on this form represents the vegetative community present in the wetland prior to the start of construction.								
HYDROLOGY								
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)					
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soil	Cracks (B6)					
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)							
High Water Table (A2)								
Saturation (A3)	Oxidized Rhizospheres on Living F	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 So							
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)						
Algal Mat or Crust (B4)	Other (Explain in Remarks)		tressed Plants (D1)					
Iron Deposits (B5)			Position (D2)					
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)		Shallow Aquitard (D3) Microtopographic Relief (D4)						
Aquatic Fauna (B13)		✓ FAC-Neutral						
Field Observations:			1031 (20)					
	✓ Depth (inches):							
Water Table Present? Yes No	Depth (inches): Depth (inches):							
	Depth (inches): Depth (inches):	Wetland Hydrology Preser	nt? Yes 🖌 No					
(includes capillary fringe)	Deptn (inches).	wettand Hydrology Preser	it? tes_♥No					
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspect	ons), if available:						
Remarks:								
Remarks.								

Sampling Point: W-I11B

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u>) 1	% Cover	Species?		Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
	-		·	
2 3			·	Total Number of Dominant Species Across All Strata: 1 (B)
4 5			·	Percent of Dominant Species 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 =
4				Column Totals: (A) (B)
5		· . <u></u>		Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8			. <u> </u>	✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is $\leq 3.0^{1}$
		= Total Cov	/er	4 - Morphological Adaptations ¹ (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')				
1. Microstegium vimineum	75	~	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Mentha spicata	15		FACW	1
_{3.} Juncus effusus	15		FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Dichanthelium clandestinum	10		FAC	Definitions of Four Vegetation Strata:
5. Epilobium coloratum	5		FACW	Demittons of Four Vegetation Strata.
6. Carex vulpinoidea	5		OBL	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
7 Glechoma hederacea	5		FACU	more in diameter at breast height (DBH), regardless of height.
8 Fragaria vesca	5		FACU	noight.
9.	-		1/100	Sapling/Shrub – Woody plants, excluding vines, less
10		·	·	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
11		·	·	,
	135	= Total Cov	/er	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>67.5</u>	5 20% of	total cover	27	
Woody Vine Stratum (Plot size: 15')				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
3.				
4			. <u> </u>	
5.		·	·	Hydrophytic Vegetation
···	0	= Total Cov		Present? Yes <u>V</u> No
50% of total cover: 0		total cover	~	
Remarks: (Include photo numbers here or on a separate s			·	

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 ¹	Loc ²	Texture	Remarks
0-2	10YR 7/1	93	7.5YR 7/4	7	RM	PL	SiL	
2-16	10YR 7/2	85	7.5YR 5/8	15	RM	PL	С	Concentration nodules
						·		
						·		
						. <u> </u>		
						·		
						·		
						·		
. <u> </u>						<u> </u>		
¹ Type: C=C	oncentration, D=Deple	etion, RM=l	Reduced Matrix, MS	=Masked	I Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indica	ators for Problematic Hydric Soils ³ :
Histosol	()		Dark Surface	. ,				cm Muck (A10) (MLRA 147)
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16)								
Black Hi	stic (A3)		Thin Dark Sur	, ,	•	147, 148)		(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleyed		F2)		P	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)								
	lucky Mineral (S1) (Lf	RR N,	Kangane		es (F12) (LRR N,		
MLRA	A 147, 148)		MLRA 136	•				
Sandy G	eleyed Matrix (S4)		Umbric Surface	ce (F13) (MLRA 13	86, 122)	³ Ind	licators of hydrophytic vegetation and
	edox (S5)		Piedmont Floo	•	, ,	•	•	atland hydrology must be present,
	Matrix (S6)		Red Parent M	aterial (F	21) (MLR	A 127, 147	') un	less disturbed or problematic.
Restrictive I	_ayer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes 🔽 No
Remarks:								

Wetland Photograph Page

Wetland ID W-I11B



Photograph Direction NE

Date: 05/13/2015

Comments: 2015 wetland delineation.



Photograph Direction NE

Date: 10/03/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP	City/County: Br	axton	_ Sampling Date: 05/13/2015
Applicant/Owner: MVP		State: WV	Sampling Point: W-I11B UP
Investigator(s): SET, SJC, GS	Section, Townsl	hip, Range: <mark>N/A</mark>	
Landform (hillslope, terrace, etc.): hillslope	Local relief (concav	ve, convex, none): <u>CONVEX</u>	Slope (%): 8-15
Subregion (LRR or MLRA): LRRN La	at: <u>38.708809</u>	Long: <u>-80.489406</u>	Datum: NAD 83
Soil Map Unit Name: Gilpin-Lily complex, 15 to	25 percent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes	_ No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site	map showing sampling p	oint locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the Sa	ampled Area	

within a Wetland?

Yes No 🖌

Yes _____ No_

HYDROLOGY	
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 Livi	
Water Marks (B1) Presence of Reduced Iron (C4	,
Sediment Deposits (B2) Recent Iron Reduction in Tilled	
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) Inundation Visible on Aerial Imagery (B7)	Geomorphic Position (D2) 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 <u>No</u> <u>V</u> Depth (inches):	
Saturation Present? Yes No V Depth (inches):	Wetland Hydrology Present? Yes No _ 🗸
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous ins	pections), if available:

Hydric Soil Present?

Remarks:

Wetland Hydrology Present?

Yes _____ No ____

Sampling Point:<u>W-I11B UPL</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30</u> ')		Species?		Number of Dominant Species		
1. Acer saccharum	60	~	FACU	That Are OBL, FACW, or FAC: (A)		
			·			
			·	Total Number of Dominant		
3				Species Across All Strata: (B)		
4						
5				Percent of Dominant Species That Are OBL, FACW, or FAC:25 (A/B)		
6						
			·	Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
		= Total Cov				
50% of total cover: <u>30</u>	20% of	total cover	<u>12</u>	OBL species x 1 =		
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =		
1. Rubus allegheniensis	25	~	FACU	FAC species x 3 =		
2 Rosa multiflora	10	~	·	FACU species x 4 =		
			FACU			
3				· · · · · · · · · · · · · · · · · · ·		
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.						
	35	= Total Cov	/or	3 - Prevalence Index is ≤3.0 ¹		
50% of total cover: 17.				4 - Morphological Adaptations ¹ (Provide supporting		
	2078 01		·	data in Remarks or on a separate sheet)		
Herb Stratum (Plot size: 5'))	00			Problematic Hydrophytic Vegetation ¹ (Explain)		
1. Microstegium vimineum	90	<u> </u>	FAC			
2. Packera aurea	5		FACW	1		
3. Dichanthelium clandestinum	5		FAC	¹ Indicators of hydric soil and wetland hydrology must		
4 Epilobium spp.	5		ND	be present, unless disturbed or problematic.		
5. Smilax rotundifolia	5			Definitions of Four Vegetation Strata:		
	-	·	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or		
_{6.} Carya ovata	5		F <u>ACU</u>	more in diameter at breast height (DBH), regardless of		
7. Boehmeria cylindrica	5		FACW	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		·	·	m) tall.		
11				Herb – All herbaceous (non-woody) plants, regardless		
	120	= Total Cov	ver	of size, and woody plants less than 3.28 ft tall.		
50% of total cover: <u>60</u>	20% of	total cover	24			
Woody Vine Stratum (Plot size: 15')				Woody vine – All woody vines greater than 3.28 ft in		
				height.		
1			·			
2						
3						
4						
5				Hydrophytic		
J	0		·	Vegetation Present? Yes No		
	-	= Total Cov				
50% of total cover: 0	20% of	total cover				
Remarks: (Include photo numbers here or on a separate s	sheet.)					

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Features	;			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-14	10YR 5/4	100					SiL	
				. <u> </u>				
				·				
				. <u> </u>				
¹ Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Ind	licators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfac	e (S8) (M	LRA 147,	148)	Coast Prairie Redox (A16)
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	-2)			Piedmont Floodplain Soils (F19)
	l Layers (A5)		Depleted Ma	· · /				(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark					Very Shallow Dark Surface (TF12)
	Below Dark Surface	e (A11)	Depleted Dar					Other (Explain in Remarks)
	rk Surface (A12)		Redox Depre	•	,			
	lucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) (l	_RR N,		
	147, 148)		MLRA 13				2	
	leyed Matrix (S4)		Umbric Surfa	· / ·				Indicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo	•	. ,	•		wetland hydrology must be present,
	Matrix (S6)		Red Parent N	laterial (F2	21) (MLR/	A 127, 147)	unless disturbed or problematic.
	ayer (if observed):							
Туре:								
Depth (inc	ches):						Hydric S	oil Present? Yes No
Remarks:							•	