Project/Site: MVP		City/County: Roanoke Sampling Date: 04/08/201					
Applicant/Owner: MVP			,	State: VA	Sampling Point: W-IJ10		
	Investigator(s): E. Foster, S. Lieb, J. Niergarth Section, Township, Range: N/A						
Landform (hillslope, terrace, etc.					Slope (%): 2		
Subregion (LRR or MLRA): LR	.,. <u></u> RBN	Lange -80	131921	Glope (70)			
Soil Map Unit Name: 1A-Alderf							
Are climatic / hydrologic condition							
Are Vegetation, Soil							
Are Vegetation, Soil							
SUMMARY OF FINDING	iS – Attach site r	nap showing sam	npling point location	ons, transects	s, important features, etc.		
Hydrophytic Vegetation Preser	nt? Yes	No					
Hydric Soil Present?	is the Sampled Area		Vos V	No			
Wetland Hydrology Present?	Yes	No	within a Wetland:	103			
Remarks: Cowardin Co	de: PEM	HGM: Riverine	Water Type:	RPWWD			
Actively mowed. S	see vegetation cor		lineated by an outside		ge flags read WZ-#		
riouvery merical e	oo rogotation oo.	milenter Leene de	in outou by an outon	ao party oran	go nago road TTE #		
HYDROLOGY							
Wetland Hydrology Indicator					ators (minimum of two required)		
Primary Indicators (minimum o				Surface Soil			
Surface Water (A1)		True Aquatic Plants (			getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Ode		_	atterns (B10)		
Saturation (A3)			• ,	Moss Trim L			
Water Marks (B1)		Presence of Reduced			Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bu			
Drift Deposits (B3)		Thin Muck Surface (C			/isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)		Stressed Plants (D1) c Position (D2)		
Iron Deposits (B5)	al Imaganı (DZ)						
Inundation Visible on Aeria				Shallow Aqu	aphic Relief (D4)		
Water-Stained Leaves (B9 Aquatic Fauna (B13)	")			FAC-Neutra	• •		
Field Observations:				FAC-Neulla	1 Test (D5)		
Surface Water Present?	Yes No	Depth (inches):					
Water Table Present?	Yes No No		14				
Saturation Present?	Yes No No		<del></del>	lydrology Prese	nt? Yes ✔ No		
(includes capillary fringe)					100		
Describe Recorded Data (stream	am gauge, monitoring	well, aerial photos, pre	vious inspections), if ava	ilable:			
Remarks:							

#### **VEGETATION** (Four Strata) – Use scientific names of plants.

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: W-IJ10
Tree Stratum (Plot size:30')	Absolute <u>% Cover</u>	Dominant Species?		Dominance Test worksheet:  Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Parant of Dominant Chasins
5				Percent of Dominant Species That Are OBL, FACW, or FAC:75(A/B)
6				
7				Prevalence Index worksheet:
		= Total Cov		Total % Cover of:Multiply by:
50% of total cover: 0	20% of	total cover	r: <u> </u>	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 30' )	_			FACW species x 2 =
1. Cornus amomum	5		<u>FACW</u>	FAC 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 Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9		<u> </u>		2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹
		= Total Cov		3 - Prevalence Index is \$3.0 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>2.5</u>	20% of	total cover	:1	
Herb Stratum (Plot size: 30')				data in Remarks or on a separate sheet)
1. Symplocarpus foetidus	7		OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Hesperus matronalis	2		F <u>ACU</u>	40 P. Compaction of the state o
3. Impatiens capensis	5	<u> </u>	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Phalaris arundinacea	20		FACW	Definitions of Four Vegetation Strata:
<sub>5.</sub> Verbesina alternifolia	5		FAC	
6. Juncus effusus	10	<u> </u>	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7. Poa trivialis	20	<b>/</b>	FACW	height.
8. Dactylis glomerata	20	~	FACU	
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.				Herb – All herbaceous (non-woody) plants, regardless
	89	= Total Cov	ver	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 44.5				
Woody Vine Stratum (Plot size:15')				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				no.g.m
2				
3				
4				The decorporation
5				Hydrophytic Vegetation
	^	= Total Cov	ver	Present? Yes No
50% of total cover:0				
Remarks: (Include photo numbers here or on a separate sl	heet.)			
Disturbed, mowed vegetation. Recently mowed still living/coppice resprout.	Cornus a	momum	along sti	ream bank, would be PSS if not mowed. Stem

Sampling Point: W-IJ10

SOIL

	Matrix		Pados	Features				
Depth (inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3	10YR 4/2	100			-		SiL	
3-8	10YR 4/1	98	7.5YR 4/6	2	С	PL	SiL	
8-16	10YR 5/2	85	7.5YR 4/6		С	PL	CL	
						<del></del>		
							-	
1- 0.0							21 (1 D)	
Type: C=Co	ncentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked S	Sand Gr	ains.		L=Pore Lining, M=Matrix.  ators for Problematic Hydric Soils <sup>3</sup> :
-			Dork Surface	(87)				cm Muck (A10) (MLRA 147)
Histosol	(AT) ipedon (A2)		Dark Surface Polyvalue Bel		(\$8) (1	II RΔ 147		oast Prairie Redox (A16)
Black His			Thin Dark Su		. , .		0	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			, -,	Pi	iedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mat					(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S					ery Shallow Dark Surface (TF12)
	Below Dark Surface	e (A11)	Depleted Dar				0	ther (Explain in Remarks)
	rk Surface (A12) ucky Mineral (S1) <b>(L</b>	RR N	Redox Depre Iron-Mangane			I RR N		
	. 147, 148)	,	MLRA 136		) (i i2) <b>(</b>	,		
	leyed Matrix (S4)		Umbric Surfa	•	ILRA 13	6, 122)	<sup>3</sup> Indi	icators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain Soi	ls (F19)	(MLRA 14	<b>8)</b> we	tland hydrology must be present,
	Matrix (S6)		Red Parent M	laterial (F2	1) <b>(MLR</b>	A 127, 147	') unl	ess disturbed or problematic.
	.ayer (if observed):							
Type:								
Depth (inc	ches):		<del></del>				Hydric Soil	Present? Yes No
Remarks:								



Photograph Direction ESE

Comments:		

Project/Site: MVP		City/Cour	<sub>nty:</sub> Roanoke		Sampling Date: 04/08/2016	
Applicant/Owner: MVP					Sampling Point: W-IJ10-UP, KL1-UP	
Investigator(s): E. Foster, S	S. Lieb, J. Nierg	arth Section.	Township, Range: N			
• , ,					Slope (%): 1	
					Datum: NAD 83	
Soil Map Unit Name: 1A-Alde			Long			
•						
Are climatic / hydrologic condi	7.7	•				
					present? Yes No	
Are Vegetation, Soil	, or Hydrology	naturally problematic	? (If needed, o	explain any answe	ers in Remarks.)	
SUMMARY OF FINDIN	GS – Attach si	te map showing sampl	ing point location	ons, transects	s, important features, etc.	
Hydrophytic Vegetation Pres	ent? Yes	No_ ✔				
Hydric Soil Present?		No. 🗸	is the Sambled Area		No	
Wetland Hydrology Present?	Yes _	No	um a Wenana:	163		
Remarks: Cowardin C	ode: UPLAND	HGM:	Water Type:			
Pasture/farmland			,,			
r actor containment	'					
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum		check all that apply)		Surface Soil	_	
Surface Water (A1)	or one to required,	True Aquatic Plants (B14	1)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Odor (		Drainage Pa		
Saturation (A3)		Oxidized Rhizospheres of		Moss Trim L		
Water Marks (B1)		Presence of Reduced Iro	on (C4)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reduction in	Tilled Soils (C6)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation V	isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Remark	ks)	Stunted or S	Stressed Plants (D1)	
Iron Deposits (B5)				Geomorphic	Position (D2)	
Inundation Visible on Ae				Shallow Aqu		
Water-Stained Leaves (I	39)				aphic Relief (D4)	
Aquatic Fauna (B13) Field Observations:			<u> </u>	FAC-Neutra	T Test (D5)	
Surface Water Present?	Ves No	✓ Depth (inches):				
Water Table Present?	Ves No	Depth (inches):	_			
Saturation Present?		Depth (inches):		Hydrology Prese	nt? Yes No_ 🗸	
(includes capillary fringe)					it: TesNo	
Describe Recorded Data (str	eam gauge, monito	ring well, aerial photos, previou	us inspections), if ava	ailable:		
Remarks:						

Sampling Point: W-IJ10-UP, KL1-UP

0.01	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				、 /
5		-		Percent of Dominant Species That Are OBL FACW, or FAC: 33 (A/B)
6				That Are OBL, FACW, or FAC: 33 (A/B)
				Prevalence Index worksheet:
7	0	Tatal Car		Total % Cover of: Multiply by:
50% of total cover: 0		= Total Cov		OBL species x 1 =
	20% 01	total cover		FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15' )				FAC species x 3 =
1				FACU species x 4 =
2				
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
v	0	= Total Cov	or.	3 - Prevalence Index is ≤3.0¹
50% of total cover: 0		total cover	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5' )	2070 01	total oover		data in Remarks or on a separate sheet)
1. Anthoxanthum odoratum	30	~	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Poa trivialis	30		FACW	
	30			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Dactylis glomerata			FACU_	be present, unless disturbed or problematic.
4. Taraxacum officinale	5		FACU_	Definitions of Four Vegetation Strata:
5				<b>-</b> W
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				
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				
· · ·	95	Tatal Car		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 47.5		= Total Cov		of size, and woody plants less than 3.20 it tall.
A E !	20 /6 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
, voody vine Stratum (Flot Size)				height.
1		-		
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cov	er	Present? Yes No
50% of total cover:0	20% of	total cover	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	ription: (Describe t	o the depth	n needed to docum	ent the in	ndicator	or confirm	the absence	of indicat	ors.)		
Depth	Matrix		Redox	Features	3						
(inches)	Color (moist)	<u></u> %	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	·	Remark	KS	
0-6	2.5Y 4/3	100					SiL				
6-12	2.5Y 5/3	100					SiL				
			_								
							-				
<sup>1</sup> Type: C=Ce	oncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ins.	<sup>2</sup> Location: F	PL=Pore Lin	ning, M=Mati	rix.	
Hydric Soil		•	,							Hydric Soils	<sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck	(A10) <b>(MLR</b>	A 147)	
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(M</b>	LRA 147,			e Redox (A1		
Black Hi	stic (A3)		Thin Dark Su	face (S9)	(MLRA 1	47, 148)		(MLRA 1	47, 148)		
	en Sulfide (A4)		Loamy Gleye		<del>-</del> 2)		F		oodplain So	ils (F19)	
	d Layers (A5)		Depleted Mat	. ,				(MLRA 1			
	ick (A10) <b>(LRR N)</b>	(0.4.4)	Redox Dark S						w Dark Surfa		
	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted Dar Redox Depre				_ '	Jtner (Expi	ain in Rema	rks)	
	fucky Mineral (S1) <b>(L</b>	RR N	Iron-Mangane			RR N.					
	147, 148)	,	MLRA 136		) (i 12) <b>(i</b>	-1111 14,					
	Gleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6, 122)	<sup>3</sup> Inc	dicators of h	nydrophytic v	vegetation and	d
	Redox (S5)		Piedmont Flo						ology must b		
Stripped	Matrix (S6)		Red Parent M	aterial (F2	21) <b>(MLR</b>	A 127, 147	') ur	nless distur	oed or proble	ematic.	
Restrictive I	Layer (if observed):										
Type:											
Depth (in	ches):		<u></u>				Hydric Soi	I Present?	Yes	No	_
Remarks:							I.				

Project/Site: MVP			City/C	county: Roanoke		Sampling Date: 07/11/2015	
Applicant/Owner: MVP		City/County: Roanoke Sampling Date: 07/1 State: VA Sampling Point: W					
Investigator(s): A.Grech, J.Swilk, A.Stott Section, Township, Range: N/A							
Landform (hillslope, terrace, et						Slone (%): 0-6	
Subregion (LRR or MLRA): L	RRN					Datum: NAD 83	
Soil Map Unit Name: Alderfla	ate eilt loam	La 	nercent clones				
						cation: PFO/SS1A PUBHh	
Are climatic / hydrologic condit			•				
Are Vegetation, Soil	, or Hydro	logy	significantly distur	bed? Are "Normal	Circumstances"	present? Yes No	
Are Vegetation, Soil	, or Hydro	logy	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)	
SUMMARY OF FINDIN	GS – Attacl	site r	map showing sam	pling point location	ons, transects	s, important features, etc.	
Hadaaahada Waadada Baa	10 V		Ma				
Hydrophytic Vegetation Present?		es V	No Is the Sampled Area		./		
Wetland Hydrology Present?		es V	No	within a Wetland?	Yes	No	
Remarks:							
Cowardin Code: PEM							
HGM: Depressional							
WT: RPWWD							
HYDROLOGY							
Wetland Hydrology Indicate	ors:				Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum	of one is requi	red; che	ck all that apply)		Surface Soil	Cracks (B6)	
Surface Water (A1)		_	_ True Aquatic Plants (	B14)	Sparsely Ve	getated Concave Surface (B8)	
High Water Table (A2)			_ Hydrogen Sulfide Od		Drainage Pa	atterns (B10)	
Saturation (A3)		_		es on Living Roots (C3)	Moss Trim L	ines (B16)	
Water Marks (B1)		_	Presence of Reduced			Water Table (C2)	
Sediment Deposits (B2)			Recent Iron Reductio		Crayfish Bu		
Drift Deposits (B3)			Thin Muck Surface (C			isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		_	Other (Explain in Rer	narks)		Stressed Plants (D1)	
Iron Deposits (B5)						Position (D2)	
Inundation Visible on Ae	• • •	7)			Shallow Aqu		
Water-Stained Leaves (E	39)					aphic Relief (D4)	
Aquatic Fauna (B13)				<u>,                                      </u>	FAC-Neutra	l Test (D5)	
Field Observations:		/					
Surface Water Present?			Depth (inches):	<del>4</del> "			
Water Table Present?		No	Doptii (inches)	0.11		. 4	
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	Wetland F	lydrology Prese	nt? Yes <u>/</u> No	
Describe Recorded Data (str	eam gauge, mo	nitoring	well, aerial photos, pre	vious inspections), if ava	ilable:		
Remarks:							
S-Q20 runs through							

Sampling Point: W-Q11

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30')		Species?			
1 Salix babylonica	5		FACW	Number of Dominant Species That Are OBL, FACW, or FAC:  3 (A)	
· · · · · · · · · · · · · · · · · · ·				That Are OBE, I AGW, OF I AG (A)	
2				Total Number of Dominant	
3				Species Across All Strata:3 (B)	
4					
5				Percent of Dominant Species That Are OBL FACW or FAC: 100% (A/I	D)
		-		That Are OBL, FACW, or FAC: 100% (A/E	В)
6				Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
		= Total Cov			
50% of total cover: <u>2.5</u>	20% of	total cover:	1	OBL species x 1 =	
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =	
1				FAC species x 3 =	
				FACU species x 4 =	
2		-			
3				UPL species x 5 =	
4				Column Totals: (A) (B	s)
5					
				Prevalence Index = B/A =	
6				Hydrophytic Vegetation Indicators:	
7				1 - Rapid Test for Hydrophytic Vegetation	
8					
9.				✓ 2 - Dominance Test is >50%	
<u> </u>	0	Tatal Car		3 - Prevalence Index is ≤3.0¹	
500/ // /		= Total Cov	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporting	ng
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. Phalaris arundinacea	30		F <u>ACW</u>	Problematic Hydrophytic Vegetation (Explain)	
2. Leersia oryzoides	30	<b>✓</b>	OBL		
3. Aristida sp.	15	-	ND	<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
				be present, unless disturbed or problematic.	
4. Impatiens sp.	15		F <u>ACW</u>	Definitions of Four Vegetation Strata:	
<sub>5.</sub> Persicaria sagittata	5		OBL		
6. Dichanthelium scabriusculum	5		OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) (	
7				more in diameter at breast height (DBH), regardless of height.	)t
7				neight.	
8				Sapling/Shrub – Woody plants, excluding vines, less	s
9				than 3 in. DBH and greater than or equal to 3.28 ft (1	
10				m) tall.	
11					
	100	Tatal Car		<b>Herb</b> – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.	iS
50% of total cover: 50		= Total Cov total cover:		of size, and woody plants less than 3.20 it tall.	
	20% 01	total cover		Woody vine – All woody vines greater than 3.28 ft in	i
Woody Vine Stratum (Plot size:15')				height.	
1					
2					
3		-			
4				Hydrophytic	
5				Vegetation	
	0	= Total Cov	er	Present? Yes V No No	
50% of total cover:0		total cover:	_		
Remarks: (Include photo numbers here or on a separate s All Impatiens sp. ID'd as FACW	heet.)				

SOIL Sampling Point: W-Q11

Profile Desc	ription: (Describe to	the depth	needed to docur	nent the i	ndicator	or confirm	the absen	ce of indicators.)
Depth	Matrix			x Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-20"	10YR 3/1	95	10YR 3/4	5	С	M/PL	L	
							-	<u> </u>
						·		
							-	<u> </u>
							·	
¹Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil		,	,					licators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	/ILRA 147		Coast Prairie Redox (A16)
Black Hi			Thin Dark Su					(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			,,		Piedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Ma		-,			(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark		6)			Very Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dai	•	•			Other (Explain in Remarks)
	ark Surface (A12)	, ,	Redox Depre					, ,
Sandy M	lucky Mineral (S1) (LI	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b>	LRR N,		
MLRA	A 147, 148)		MLRA 13	6)				
Sandy G	lleyed Matrix (S4)		Umbric Surfa	ce (F13) (	MLRA 13	86, 122)	3	Indicators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8)	wetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	")	unless disturbed or problematic.
Restrictive I	ayer (if observed):							
Type:								
Depth (inc	ches):		_				Hydric S	oil Present? Yes No
							yuo	
Remarks:								



Photograph Direction NNE

Comments:	

Project/Site: MVP	City/County: Roanoke	Sampling Date: 07/11/2015
Applicant/Owner: MVP		State: VA Sampling Point: W-Q10, W-Q11 UI
Investigator(s): A.Stott, A.Grech, J. Swilk	Section, Township, Ran	
<u> </u>	•	ex, none): Convex Slope (%): 5-10%
Subregion (LRR or MLRA): LRRN		: -80.131936 Datum: NAD 83
Soil Map Unit Name: Alderflats silt loam, (	-	
Are climatic / hydrologic conditions on the site t		
Are Vegetation, Soil, or Hydrold		Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrold	gy naturally problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach	site map showing sampling point lo	cations, transects, important features, etc.
Lhadasahadia Vanatatian Brassad?	No. V	
	No V Is the Sampled within a Wetland	
	within a Wetland	d? Yes No V
Remarks: Upland	,	
•		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is require	d; 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	
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C	
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)
<ul><li>Iron Deposits (B5)</li><li>Inundation Visible on Aerial Imagery (B7)</li></ul>		Geomorphic Position (D2) Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:		
	Depth (inches):	
	Depth (inches):	
	4	land Hydrology Present? Yes No
(includes capillary fringe)		, , ,
Describe Recorded Data (stream gauge, mon	toring well, aerial photos, previous inspections)	, if available:
Remarks:		
Man made berm		

Sampling Point: W-Q10, W-Q11 UP
---------------------------------

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30')		Species?		Number of Dominant Species
1. Salix babylonica	5	<b>✓</b>	FACW	That Are OBL, FACW, or FAC: 3 (A)
2. Prunus serotina	5		FACU	(,,
•			1_7100	Total Number of Dominant Species Across All Strata: 8 (B)
3	-			Species Across All Strata: 8 (B)
4		-		Percent of Dominant Species
5	•			That Are OBL, FACW, or FAC: 37.5% (A/B)
6	-			Providence Indexessabeles (
7				Prevalence Index worksheet:
	10	= Total Cov	er	Total % Cover of: Multiply by:
50% of total cover: 5	20% of	total cover:	2	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2 =
1. Rubus allegheniensis	15	<b>/</b>	FACU	FAC species x 3 =
2. Prunus serotina	15			FACU species x 4 =
			FACU_	-
3. Rosa multiflora	15		F <u>ACU</u>	' <u> </u>
4				Column Totals: (A) (B)
5				Dravalence Index D/A
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>
00.5		= Total Cov		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>22.5</u>	20% of	total cover:	9	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5' )				• • • • • • • • • • • • • • • • • • • •
1. Dichanthelium clandestinum	20		F <u>AC</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Dactylis glomerata	10	<b>✓</b>	F <u>AC</u>	
3 Rubus occidentalis	10	<b>V</b>	UPL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Solidago sp.	5	-		be present, unless disturbed or problematic.
"		-	ND	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.				
9				Sapling/Shrub – Woody plants, excluding vines, less
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10		-		my tail.
11		-		Herb - All herbaceous (non-woody) plants, regardless
		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>22.5</u>	20% of	total cover:	9	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15')				height.
1.				
2				
2				
s		-		
4		-		Hydrophytic
5				Vegetation
	0	= Total Cov	er	Present? Yes No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			1
ND- Not determined	,			
Not determined				

Sampling Point: W-Q10, W-Q11 UPL

Profile Desc	ription: (Describe t	o the depti	h needed to docum	ent the i	ndicator	or confirn	n the absence	of indicators.)
Depth	Matrix		Redox	(Feature	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12"	10YR 3/2	100					SiL	
12-20"	2.5Y 8/1	85	2.5Y 5/6	15	С	M	SiL	
			-			· <del></del>		
						· <del></del>		
			_					
					-			-
						· ——		
<sup>1</sup> Type: C=Ce	oncentration, D=Depl	etion, RM=I	Reduced Matrix, MS	=Masked	Sand Gr	ains.	<sup>2</sup> Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil		,	, ,					ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Bel		ce (S8) (N	/ILRA 147,		oast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA	147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		F2)		P	iedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat	. ,				(MLRA 136, 147)
	ick (A10) (LRR N)	(4.4.4)	Redox Dark S					ery Shallow Dark Surface (TF12)
	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted Dar				0	ther (Explain in Remarks)
	fik Sulface (A12) fucky Mineral (S1) <b>(L</b>	RR N	Redox Depre			IRRN		
	147, 148)	ixix i <b>v</b> ,	MLRA 136		es (i iz) <b>(</b>	LIXIX IN,		
	Gleyed Matrix (S4)		Umbric Surfac	-	MLRA 13	36. 122)	<sup>3</sup> Ind	icators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					tland hydrology must be present,
	Matrix (S6)		Red Parent M					less disturbed or problematic.
Restrictive I	Layer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:								

Project/Site: MVP		Citv/C	ounty: Roanoke		Sampling Date: 04/08/2016
Applicant/Owner: MVP			5	State: VA	_ Sampling Point: W-KL1
Investigator(s): J. Cook, D.	McCullough, L. Se	exton Section			
Landform (hillslope, terrace, et				Concave	Slone (%/): 2
Subregion (LRR or MLRA): L			_		
Soil Map Unit Name: 1A - Alc					
Are climatic / hydrologic condit	tions on the site typical	for this time of year? Y	es No (If r	no, explain in Re	emarks.)
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal Ci	rcumstances" p	resent? Yes No
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, exp	lain any answer	s in Remarks.)
SUMMARY OF FINDIN	GS – Attach site r	map showing sam	pling point locations	s, transects,	important features, etc.
Hydrophytic Vegetation Pres	ent? Yes	No			
Hydric Soil Present?	Yes V	No	Is the Sampled Area	v <b>/</b>	NI-
Wetland Hydrology Present?		No No	within a Wetland?	Yes	No
Remarks: Cowardin C		HGM: Slope	Water Type: RF	PWWN	
Pasture wetland likely c		•	• •		eature is not directly
-	• •				Jpland point from W-Q11
used for this feature.	,				
HYDROLOGY					
Wetland Hydrology Indicat	ors.		Se	condary Indicat	ors (minimum of two required)
Primary Indicators (minimum		ck all that apply)	<u> </u>	_ Surface Soil (	
Surface Water (A1)		_ True Aquatic Plants (l			etated Concave Surface (B8)
High Water Table (A2)		_ Hydrogen Sulfide Ode		_ Oparisory vog _ Drainage Pat	
Saturation (A3)			es on Living Roots (C3)	_	
Water Marks (B1)		Presence of Reduced	- · · · · · · · · · · · · · · · · · · ·		Vater Table (C2)
Sediment Deposits (B2)		Recent Iron Reductio	. ,	_	
Drift Deposits (B3)		Thin Muck Surface (C	<u> </u>	_ Saturation Vis	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Ren	narks)	_ Stunted or St	ressed Plants (D1)
Iron Deposits (B5)			<u> </u>	_ Geomorphic I	Position (D2)
Inundation Visible on Ae	rial Imagery (B7)		_	_ Shallow Aquit	ard (D3)
Water-Stained Leaves (I	39)		<u> </u>		ohic Relief (D4)
Aquatic Fauna (B13)			_	_ FAC-Neutral	Test (D5)
Field Observations:					
Surface Water Present?	Yes No				
Water Table Present?	Yes No	Dopui (interios)	14		
Saturation Present?	Yes No	Depth (inches):	6 Wetland Hyd	rology Present	? Yes / No
(includes capillary fringe)  Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	<u> </u>	ole:	
,			, ,		
Remarks:					
Some standing water in	•	•	e was taken. Slope we	tland drains	down into concave land
feature, created by land	owner with gravel	fill.			

_		١٨/	1 1/	1 4
Sampling	Point:	٧V	-n	ᄓ

20'	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:30')	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Niverbay of Dansinger
3				Total Number of Dominant Species Across All Strata:  1 (B)
4				(B)
		· <del></del>		Percent of Dominant Species That Are OBL FACW or FAC: 100 (A/B)
5				That Are OBL, FACW, or FAC: 100 (A/B)
6		· <del></del>		Prevalence Index worksheet:
7		· <u></u>		Total % Cover of:Multiply by:
		= Total Cov		
	20% of	total cover:	0	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )				FACW species 30 x 2 = 60
1. Rosa multiflora	3		FACU	FAC species 7 x 3 = 21
2		. ,		FACU species19 x 4 =76
				UPL species x 5 =
3				Column Totals: 56 (A) 157 (B)
4				(b)
5		· <del></del>		Prevalence Index = B/A =2.80
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
9.				✓ 2 - Dominance Test is >50%
<u> </u>	_	= Total Cov		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 1.5				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
E!	20 /6 01	iolai covei.		data in Remarks or on a separate sheet)
Terb Stratum (Flot Size)	20			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Juncus effusus	30		F <u>ACW</u>	
2. Andropogons virginicus	3		F <u>ACU</u>	1 Indicators of hydric coil and watland hydrology must
3. Rumex crispus	7	. <u> </u>	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Solanum carolinense	5		FACU	Definitions of Four Vegetation Strata:
5. Fragarria virginiana	5		FACU	Definitions of Four Vegetation Strata.
6. Taraxacum officionale	3		FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
<u> </u>			17100	more in diameter at breast height (DBH), regardless of
7				height.
8		· <del></del>		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
	53	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>26.</u>				
Woody Vine Stratum (Plot size: 15' )	2070 01	10101 00101.		Woody vine – All woody vines greater than 3.28 ft in
				height.
1		· <del></del>		
2		· <del></del>		
3				
4		. <u> </u>		Hydrophytic
5				Hydrophytic Vegetation
	^	= Total Cov		Present? Yes V No
50% of total cover: 0		total cover:	_	
		total cover.		
Remarks: (Include photo numbers here or on a separate s	heet.)			
Heavily mowed and altered.				

Sampling Point: W-KL1

SOIL

Depth	cription: (Describe to Matrix	to the dept		ent tne i Feature		or confirm	the absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3	7.5 YR 4/2	100					SiL	
3-12	10 YR 5/2	97	10 YR 5/8	3	С	M/PL	SiL	
12-18	10YR 5/1	95	7.5 YR 5/6	5	С	M/PL	SiL	
						· ——		
						- ——		
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion. RM=	Reduced Matrix, MS	=Masked	Sand Gr	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil		0.0011, 1.001	rtoddood Matrix, Mo	_macroc	- Carra Cr	u		ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Bel	ow Surfa	. , .		<b>148)</b> C	coast Prairie Redox (A16)
Black Hi			Thin Dark Sur		•	147, 148)	_	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyer		F2)		P	riedmont Floodplain Soils (F19)
	d Layers (A5) ick (A10) <b>(LRR N)</b>		<ul><li>Depleted Mat</li><li>Redox Dark S</li></ul>		<del>-</del> 6)		V	(MLRA 136, 147) Yery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dark					Other (Explain in Remarks)
	ark Surface (A12)	. ,	Redox Depres					· ·
	lucky Mineral (S1) (L	.RR N,	Iron-Mangane		es (F12) (	LRR N,		
	A 147, 148)		MLRA 136	-	(BAL D.A. 4)	١٥ ، ١٥٥١	31	Control of hardwards the constation and
	Gleyed Matrix (S4) Redox (S5)		Umbric Surface Piedmont Floo					icators of hydrophytic vegetation and etland hydrology must be present,
	Matrix (S6)		Red Parent M					less disturbed or problematic.
	Layer (if observed):			atoriai (i	, <b>(</b>			ioco dictarsed of prosicinatio.
Type:	,							
Depth (inc	ches):						Hydric Soil	Present? Yes _ V No
Remarks:	,						_ •	
None								



Photograph Direction WNW

Comments:	

Project/Site: MVP		City/C	ounty: Roanoke		Sampling Date: 09/10/20	
Applicant/Owner: MVP						
Investigator(s): JM, HS		Section	on, Township, Range: N		_ ,	
Landform (hillslope, terrace, etc.):					Slope (%): 2-4	
Subregion (LRR or MLRA): LRR					Datum: NAD 83	
Soil Map Unit Name: Alderflat						
Are climatic / hydrologic conditions			_			
· ·	• •	•		•		
Are Vegetation, Soil						
Are Vegetation, Soil				explain any answe	,	
SUMMARY OF FINDINGS	– Attach site m	nap showing sam	pling point location	ons, transects	, important features, etc.	
Hydrophytic Vegetation Present?	Yes V	No	la the Compled Area			
Hydric Soil Present?	Yes 🗸	No	Is the Sampled Area within a Wetland?	Yes 🗸	No	
Wetland Hydrology Present?	Yes	No	Within a Wolland.			
Remarks: Cowardin Code	=====================================	HGM: Riverine	Water Type:	RPWWD		
W-B25-PEM-4 extension d	elineated 9/10/2	020 during additio				
VV B25 I LIVI 4 CALCIISIOII G	cirreated 5/10/20	ozo danng additio	nai neia sarveys.			
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum of c		k all that apply)		Surface Soil		
Surface Water (A1)	•	True Aquatic Plants (	B14)		getated Concave Surface (B8)	
High Water Table (A2)		Hydrogen Sulfide Odd		Drainage Pa		
Saturation (A3)	<u></u>		es on Living Roots (C3)	Moss Trim Li		
Water Marks (B1)		Presence of Reduced	=		Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reductio	` '	Crayfish Bur		
Drift Deposits (B3)	<u> </u>	Thin Muck Surface (C			isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)	Stunted or S	tressed Plants (D1)	
Iron Deposits (B5)				✓ Geomorphic	Position (D2)	
Inundation Visible on Aerial	Imagery (B7)			Shallow Aqu	itard (D3)	
Water-Stained Leaves (B9)				Microtopogra	aphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)	
Field Observations:						
	'es No					
		Doptin (infones)	8		_	
	′es No	Depth (inches):	Wetland H	lydrology Preser	nt? Yes V No	
(includes capillary fringe)  Describe Recorded Data (stream	gauge, monitoring v	well, aerial photos, pre	l vious inspections), if ava	ilable:		
Remarks:						

Sampling	Point: W-B25-PEM-4
Januaria	I Ullit === . =

Trop Stratum (Plot size: 30'	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				
5		-		Percent of Dominant Species That Are OBL FACW or FAC: 100% (A/B)
				That Are OBL, FACW, or FAC: 100% (A/B)
6				Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
500/ /		= Total Cov		OBL species x 1 =
4.51	20% of	total cover:	0	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15 )				
1				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Branch and Indian B/A
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>
		= Total Cov		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)
Helb Stratum (Flot Size)			ODI	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Iris pseudacorus	25		OBL	1 Toblematic Trydrophytic Vegetation (Explain)
2. Impatiens capensis	20		FACW	1
3. Bidens frondosa	10		FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Verbena hastata	15		FACW	
5. Leersia oryzoides	20	~	OBL	Definitions of Four Vegetation Strata:
6. Glyceria striata	10	-	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Carex stricta	10		OBL	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				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	110	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 55	20% of	total cover:	22	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 Present? Yes ✔ No
50% ()		= Total Cov	_	resent: res no
50% of total cover:0		total cover:		
Remarks: (Include photo numbers here or on a separate sl	heet.)			

Depth	ription: (Describe to Matrix	to the dept		nent tne indicat x Features	or or confirm	tne absence	of indicate	ors.)	
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Type	e <sup>1</sup> Loc <sup>2</sup>	Texture		Remarks	
0-6	10YR 4/3					S		Fluvial dep	osit
6-18	10YR 5/2	90	7.5YR 5/6	10 C	M/PL	SL			
							-	-	
							-	-	
	oncentration, D=Depl	letion, RM=	Reduced Matrix, MS	S=Masked Sand	Grains.			ing, M=Matrix.	
Hydric Soil	ndicators:					Indica	ators for Pr	roblematic Hy	dric Soils³:
Histosol			Dark Surface				•	A10) <b>(MLRA 1</b> 4	47)
	pipedon (A2)			low Surface (S8	•	<b>148)</b> C		e Redox (A16)	
Black Hi				rface (S9) (MLR	A 147, 148)	_	(MLRA 14		(= . a)
	n Sulfide (A4)		Loamy Gleye  Depleted Mat			P		oodplain Soils	(F19)
	d Layers (A5) ick (A10) <b>(LRR N)</b>		Redox Dark S			\/	(MLRA 13	v Dark Surface	(TF12)
	d Below Dark Surface	e (A11)		k Surface (F7)				in in Remarks)	
	ark Surface (A12)	(****)	Redox Depre					,	,
	lucky Mineral (S1) <b>(L</b>	.RR N,		ese Masses (F12	2) (LRR N,				
MLRA	A 147, 148)		MLRA 130	6)					
	lleyed Matrix (S4)			ce (F13) <b>(MLRA</b>				ydrophytic veg	
	edox (S5)			odplain Soils (F				logy must be p	
	Matrix (S6)		Red Parent M	Material (F21) (M	LRA 127, 147	') un	ess disturb	ed or problema	atic.
	_ayer (if observed):								
Type:									
Depth (inc	ches):					Hydric Soil	Present?	Yes	No
Remarks:									

# Wetland Photograph Page

Wetland ID W-B25-PEMCowardin Code PEM Date 09/10/20



Photograph Number <u>1</u>
Photograph Direction North

Comments:



Photograph Number 2

Photograph Direction NE

Comments:



Photograph Number 3

Photograph Direction SW

Comments:



Photograph Number 4

Photograph Direction NE

Comments:

Project/Site: MVP		City/County: Ro	oanoke		Sampling Date: 04/10/2015
Applicant/Owner: MVP					_ Sampling Point: W-b25-pem1
Investigator(s): C.Ansari, J.Rodrigue	z, M. Whitten				
Landform (hillslope, terrace, etc.): Slope			-		Slope (%): 3
Subregion (LRR or MLRA): LRRN			Long:80.1		Datum: NAD 83
Soil Map Unit Name: Alderflats silt loa					
Are climatic / hydrologic conditions on the					
Are Vegetation, Soil, or Hy					
Are Vegetation, Soil, or Hy					
SUMMARY OF FINDINGS – Atta				plain any answer	
			onit iocation		important reatures, etc.
Hydrophytic Vegetation Present?	Yes No	Is the Sa	mpled Area		
Hydric Soil Present?	Yes No		Wetland?	Yes	No
Wetland Hydrology Present?	Yes No				
Remarks: Cowardin Code:pem; HGM: slope	wetland: WT: rnw	wd			
The wetland was revisited on 11/2	•		ay hydronhy	utic vegetation	and hydric soils was
		-		_	i, and flydric soils was
confirmed using the USACE EMP	Regional Suppler	nent delineation r	nethodology.		
HYDROLOGY					
Wetland Hydrology Indicators:			<u>S</u>	econdary Indicat	tors (minimum of two required)
Primary Indicators (minimum of one is re-	quired; check all that a	oply)		Surface Soil (	Cracks (B6)
Surface Water (A1)	True Aqua	atic Plants (B14)			etated Concave Surface (B8)
High Water Table (A2)		Sulfide Odor (C1)	_	Drainage Pat	
Saturation (A3)	Oxidized I	Rhizospheres on Livir	g Roots (C3)	Moss Trim Lii	nes (B16)
Water Marks (B1)	Presence	of Reduced Iron (C4)	_	Dry-Season V	Vater Table (C2)
Sediment Deposits (B2)	Recent Iro	n Reduction in Tilled	Soils (C6)	Crayfish Burr	ows (C8)
Drift Deposits (B3)		Surface (C7)	_	Saturation Vis	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Ex	olain in Remarks)			ressed Plants (D1)
Iron Deposits (B5)				Geomorphic I	
Inundation Visible on Aerial Imagery	(B7)		_	Shallow Aquit	
Water-Stained Leaves (B9)			-		phic Relief (D4)
Aquatic Fauna (B13)			<u>-</u>	FAC-Neutral	Test (D5)
Field Observations:	<b>V</b> 5 4 6				
	_ No Depth (in				
	No Depth (in				
Saturation Present? Yes (includes capillary fringe)	No Depth (in	ches):	Wetland Hy	drology Presen	t? Yes <u>/</u> No
Describe Recorded Data (stream gauge,	monitoring well, aerial	photos, previous insp	ections), if availa	able:	
Remarks:	tland complex that	was disturbed fro	m aloor outtir	~~	
This wetland is part of a large wet	·			-	is a libral . 050/
The wetland within the marked bo	•	•			•
wetland and 15% upland. The are	ea to the north outs	side the 300ft con	idor continue	s the wetland	mosaic. Notes from 2015
field survey.					

Sampling	Point: W-b25	5-pem1
----------	--------------	--------

30'	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30') 1		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
2		-	· ·	Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Percent of Dominant Species
5		-		That Are OBL, FACW, or FAC: 67 (A/B)
6				
7		-		Prevalence Index worksheet:
_		= Total Cov		
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. Rubus allegheniensis	5		FACU_	FAC 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		-		
8				1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%
9				
	5	= Total Cov	er	3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 2.5	20% of	total cover	1	4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size: 5'				data in Remarks or on a separate sheet)
1. Juncus effusus	50		FACW_	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Carex Iurida	50	<b>~</b>	OBL	
3. Poa palustris	20		FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				
5				Definitions 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		-		noight.
9.		-		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.		-		
	120	= Total Cov		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 60	20% of	total cover	· 24	of Size, and woody plants less than 5.20 it tall.
Woody Vine Stratum (Plot size: 15' )	2070 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
				height.
1		-		
		-		
3		-		
4		-		Hydrophytic
5	0			Vegetation Present? Yes   ✓ No
50% of total cover: 0		= Total Cover	_	100 <u> </u>
		total cover		
Remarks: (Include photo numbers here or on a separate s	neet.)			

SOIL Sampling Point: W-b25-pem1

Profile Desc	ription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absen	ce of indicators.)
Depth	Matrix		Redo	x Feature:	S			
(inches)	Color (moist)	%	Color (moist)	%	_Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3"	10yr 4/3	100					SiCL	
3-20"	10yr 6/1	60	7.5 yr 5/8	5	С	M/PL	С	
320"	2.5y 6/6	35				. <u></u>	С	
<u> </u>	2.5y 0/0							
							-	
				-				
						·		
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion RM-	Reduced Matrix MS	S-Masked	I Sand Gr	ains	<sup>2</sup> l ocation:	PL=Pore Lining, M=Matrix.
Hydric Soil		Ction, raivi=	reduced Matrix, Me	)=IVId3NCC	T Garia Gi	airio.		licators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(\$7)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	/ILRA 147.	148)	Coast Prairie Redox (A16)
Black Hi			Thin Dark Su				,	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			, -,		Piedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)
2 cm Mu	ick (A10) (LRR N)		Redox Dark	Surface (F	6)			Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar				_	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	lucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,		
	\ 147, 148)		MLRA 13	•	MI DA 40	0 400)	3,	ladiantara afficularakada orandada arad
	ileyed Matrix (S4)		Umbric Surfa					Indicators of hydrophytic vegetation and wetland hydrology must be present,
	edox (S5) Matrix (S6)		Piedmont Floor Red Parent N					unless disturbed or problematic.
	_ayer (if observed):		Neu Faieiit ii	nateriai (i	ZI) (IVILIN	A 121, 141	<i>)</i>	unless disturbed of problematic.
Type:	-ayer (ii observed).							
	ah a a \ .						Usalaia C	oil Present? Yes V No
	ches):						nyaric S	oil Present? Yes No
Remarks:								

# **Wetland Photograph Page**

#### Wetland ID W-b25-pem1



Photograph Direction South

Date: 04/10/2015

Comments: 2015 wetland delineation.



Photograph Direction South

Date: 11/02/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP		City/C	County: Roanoke		Sampling Date: 04/10/2015
Applicant/Owner: MVP		,	State: VA	Sampling Point: W-B25-PEM-UP	
Investigator(s): C.Ansari, J.Rodri	guez, M. Whit	ten <sub>Sectio</sub>			
Landform (hillslope, terrace, etc.): Hi			· · · · · ·		Slope (%): 3
Subregion (LRR or MLRA): LRRN					Datum: NAD 83
Soil Map Unit Name: Alderflats silt					
Are climatic / hydrologic conditions or					
·		· ·			
Are Vegetation, Soil,					
Are Vegetation, Soil,				explain any answe	
SUMMARY OF FINDINGS -	Attach site m	nap showing san	npling point location	ons, transects	s, important features, etc.
Hydrophytic Vegetation Present?	Yes	No. V			
Hydric Soil Present?	Yes		Is the Sampled Area	<b>V</b> = =	N: <b>V</b>
Wetland Hydrology Present?	Yes	4	within a Wetland?	Yes	No
HYDROLOGY					
Wetland Hydrology Indicators:				<u>-                                    </u>	ators (minimum of two required)
Primary Indicators (minimum of one	-		(D4.4)	Surface Soil	
Surface Water (A1) High Water Table (A2)		True Aquatic Plants ( Hydrogen Sulfide Od		Sparsely ve Drainage Pa	getated Concave Surface (B8)
Saturation (A3)			es on Living Roots (C3)	_	
Water Marks (B1)		Presence of Reduced	-		Water Table (C2)
Sediment Deposits (B2)	_	Recent Iron Reduction		Crayfish Bur	• •
Drift Deposits (B3)	<u> </u>	Thin Muck Surface (0		-	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)				Geomorphic	` ′
Inundation Visible on Aerial Ima	gery (B7)			Shallow Aqu	
Water-Stained Leaves (B9)				· -	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutra	Trest (D5)
Field Observations: Surface Water Present? Yes	No 🗸	Depth (inches):			
		Depth (inches):			
		Depth (inches):		Hydrology Presei	nt? Yes No
(includes capillary fringe)					res no
Describe Recorded Data (stream ga	uge, monitoring v	vell, aerial photos, pre	evious inspections), if ava	ailable:	
Remarks:					
Upland plot					
İ					

Sampling Point:	W-B25-PEM-UP1
-----------------	---------------

,	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30')		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
				That the OBE, 1710W, 011710.
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:  0 (A/B)
6				. , ,
7.				Prevalence Index worksheet:
	0	= Total Cov	er er	Total % Cover of: Multiply by:
50% of total cover:0		total cover	_	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )	2070 0.	10101 00101		FACW species x 2 =
1 Pinus strobus	10	~	FACU	FAC species x 3 =
				-
2. Rubus allegheniensis	15		FACU_	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 Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	25	= Total Cov	er	
50% of total cover: <u>12.5</u>	20% of	total cover	5	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5'				data in Remarks or on a separate sheet)
1. Frageria vesca	50	<b>✓</b>	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Trifolium repens	10		FACU	
3. Andropogon virginicus	10	-	· •	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	5	-	F <u>ACU</u>	be present, unless disturbed or problematic.
4. Taraxacum officinale			F <u>ACU</u>	Definitions of Four Vegetation Strata:
5				
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				3 9
				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
		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>37.5</u>	20% of	total cover	15	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	er	Present? Yes No
50% of total cover:0	20% of	total cover	. 0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
Vegetation disturbed from recent clear cutting.				

Sampling Point: W-B25-PEM-UP

SOIL

Profile Desc	ription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirm	the abser	nce of indicators.)	
Depth	Matrix			x Features	s				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-2"	10yr 3/3	100					SL		
2-13"	10yr 5/6	100					SCL		
	-								
								·	
								<u> </u>	
1							2		
Type: C=Co	oncentration, D=Dep	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	Location	: PL=Pore Lining, M=Matrix. dicators for Problematic Hydric So	ile <sup>3</sup> ·
_			David Overtage	(07)			III	•	. Julia
Histosol			Dark Surface		(00) (14	U DA 447	4.40\	2 cm Muck (A10) (MLRA 147)	
	oipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)	
Black Hi	, ,		Thin Dark Su Loamy Gleye			47, 148)		(MLRA 147, 148)	
	n Sulfide (A4) d Layers (A5)		Loamy Gleye	,	F2)		_	Piedmont Floodplain Soils (F19)	
	ick (A10) <b>(LRR N)</b>		Redox Dark S	. ,	·c)			(MLRA 136, 147) Very Shallow Dark Surface (TF12)	
	d Below Dark Surface	Δ (Δ11)	Depleted Dar				_	Other (Explain in Remarks)	
	ark Surface (A12)	(((1))	Redox Depre						
	lucky Mineral (S1) <b>(L</b>	RR N.	Iron-Mangan			LRR N.			
	A 147, 148)	,	MLRA 13		oo ( <u>-</u> ) <b>(</b> -	,			
	Gleyed Matrix (S4)		Umbric Surfa		MLRA 13	6. 122)	3	Indicators of hydrophytic vegetation	and
	ledox (S5)		Piedmont Flo					wetland hydrology must be present,	
-	Matrix (S6)		Red Parent N					unless disturbed or problematic.	
	_ayer (if observed):			•				·	
Type: Ro	oots								
	ches): 13						Hydric S	Soil Present? Yes No _	~
Remarks:									

Project/Site: MVP		C	ity/County: Roanoke		Sampling Date: 04/09/2015	
Applicant/Owner: MVP					Sampling Point: W-B24-PS	
Investigator(s): C. Ansari, J	I. Rodriguez,	M. Whitten S	ection, Township, Range: N			
Landform (hillslope, terrace, et			·		Slope (%): 2	
Subregion (LRR or MLRA): L			Long: <u>-80</u>		Datum: NAD 83	
Soil Map Unit Name: Edney						
Are climatic / hydrologic condit					·	
Are Vegetation, Soil	, or Hydrolo	gy significantly d	isturbed? Are "Norma	I Circumstances" pi	resent? Yes No	
Are Vegetation, Soil	, or Hydrolo	gy naturally prob	lematic? (If needed,	explain any answer	s in Remarks.)	
SUMMARY OF FINDIN	GS – Attach	site map showing s	sampling point location	ons, transects,	important features, etc.	
Hydrophytic Vegetation Pres	ent? Yes	No				
Hydric Soil Present?	Yes		Is the Sampled Area		.,	
Wetland Hydrology Present?			within a Wetland?	Yes	No	
Remarks:						
Cowardin:PSS						
HGM:riverine						
WT:rpwwd						
HYDROLOGY						
Wetland Hydrology Indicate	ors:			Secondary Indicat	tors (minimum of two required)	
Primary Indicators (minimum	of one is require	d; check all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1)		True Aquatic Plan		Sparsely Veg	etated Concave Surface (B8)	
High Water Table (A2)		Hydrogen Sulfide		Drainage Patt		
Saturation (A3)			oheres on Living Roots (C3)	Moss Trim Lir		
Water Marks (B1)		Presence of Red	, ,		Vater Table (C2)	
Sediment Deposits (B2)			uction in Tilled Soils (C6)	Crayfish Burro		
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface Other (Explain in			sible on Aerial Imagery (C9) ressed Plants (D1)	
Iron Deposits (B5)		Other (Explain in	Kemarks)	Geomorphic I		
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aquit		
Water-Stained Leaves (F	• • • •				phic Relief (D4)	
Aquatic Fauna (B13)	20)			FAC-Neutral		
Field Observations:					. ,	
Surface Water Present?	Yes N	Depth (inches):_				
Water Table Present?		Depth (inches):				
Saturation Present?		Depth (inches):	_	Hydrology Present	t? Yes 🗸 No	
(includes capillary fringe)			provious inspections) if our	silable:		
Describe Recorded Data (str	eam gauge, mon	itoring well, aerial priotos	, previous inspections), ii ava	aliable:		
Remarks:						
This feature is located b	etween a roa	d and an NHD water	feature. The wetland t	ransitions to a f	PEM wetland mostly on	
the opposite side of the	creek. The ar	ea has been recently	y logged.			

Sampling	Point: W-B24-PSS	3
----------	------------------	---

201	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> )		Species?		Number of Dominant Species
1. Salix nigra	5		OBL	That Are OBL, FACW, or FAC:3 (A)
2			_	Total Number of Deminerat
3				Total Number of Dominant Species Across All Strata:3 (B)
4				(2)
				Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
5				That Are OBL, FACW, or FAC: 100 (A/B)
6	-			Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	. ——	= Total Co		
50% of total cover: 2.5	20% of	total cover	:1	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =
1. Cornus foemina	30	<b>✓</b>	<b>FACW</b>	FAC species x 3 =
2				FACU species x 4 =
				UPL species x 5 =
3				Column Totals: (A) (B)
4				Goldmin Totals (A) (B)
5				Prevalence Index = B/A =
6	· <del></del>			Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
•				✓ 2 - Dominance Test is >50%
9		Total Co		3 - Prevalence Index is ≤3.0 <sup>1</sup>
FOOV of total across 15		= Total Cover	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 15	20% 01	total cover	:	data in Remarks or on a separate sheet)
/ lot olzo:	70			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Glyceria striata	70		OBL	: robie:::aue : ryarop::/yiio rogetaue.: (_xp:a)
2. Carex lurida	10		OBL	11. d'action of house's and another discontinuous
3. Juncus effusus	5		FACW_	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 Poa trivialis	10		FACW	
5. Impatiens capensis	20		FACW	Definitions of Four Vegetation Strata:
			1 /1011	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		-		more in diameter at breast height (DBH), regardless of
7				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.				
	115	= Total Co		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 57.	5 20% of	total cover	: 23	of size, and woody plants less than 5.20 it tall.
	20 /6 01	iolai covei		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15')				height.
1				
2	· <del></del>			
3				
4				
5.				Hydrophytic
J	0	T-1-1-0		Vegetation Present? Yes   ✓ No
500/ -11-1-1		= Total Co	_	
50% of total cover:0		total cover	:	
Remarks: (Include photo numbers here or on a separate s	sheet.)			
				I

SOIL Sampling Point: W-B24-PSS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix			k Feature					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks	
0-3"	7.5yr 2.5/3	100					SiL		
3-8"	10yr 4/2	97	7.5yr 5/8	3	С	М	SL		
8-20"	Gley1 10y 5/1	95	7.5yr 5/8	5	С	M	SCL		
					-		-		
¹Type: C=Co	oncentration, D=Deple	etion. RM=	Reduced Matrix. MS	S=Masked	d Sand Gr	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil I			. toddood mating me	<u>,                                    </u>				cators for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Dark Surface (S7)					2 cm Muck (A10) (MLRA 147)	
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) (N	/ILRA 147,	148)	Coast Prairie Redox (A16)	
Black His			Thin Dark Su			147, 148)		(MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye		(F2)		_	Piedmont Floodplain Soils (F19)	
	l Layers (A5) ck (A10) (LRR N)		<ul><li>Depleted Mat</li><li>Redox Dark S</li></ul>		-c)			(MLRA 136, 147) Very Shallow Dark Surface (TF12)	
	Below Dark Surface	(A11)	Depleted Dar					Other (Explain in Remarks)	
	ark Surface (A12)	(,,,,	Redox Depre				_	Care (Explain in Remaile)	
	lucky Mineral (S1) (LF	RR N,	Iron-Mangane			LRR N,			
	147, 148)		MLRA 136	-			•		
	leyed Matrix (S4)		Umbric Surfa					ndicators of hydrophytic vegetation and	
	edox (S5) Matrix (S6)		Piedmont Flo Red Parent M					vetland hydrology must be present, inless disturbed or problematic.	
	-ayer (if observed):		Red Palent iv	iateriai (F	ZI) (IVILK	A 127, 147	r) u	inless disturbed of problematic.	
Type:	ayo. (ii obool rou).								
• • • • • • • • • • • • • • • • • • • •	ches):		_				Hydric Soil Present? Yes _ ✓ No		
Remarks:			<u></u>				Tiyano oo	100 100 100 100 100 100 100 100 100 100	
rtomarks.									

Project/Site: MVP		City/C	county: Roanoke		Sampling Date: 04/09/2015			
Applicant/Owner: MVP		State:			Sampling Point: W-B24-UP			
Investigator(s): C. Ansari, J. Rodriguez, M. Whitten  Section, Township, Range: N/A								
Landform (hillslope, terrace, etc.): Slo				Slope (%): 0				
Subregion (LRR or MLRA): LRRN				Datum: NAD 83				
Soil Map Unit Name: Edneyville fin								
Are climatic / hydrologic conditions on								
Are Vegetation, Soil, or	• •	•		•				
Are Vegetation, Soil, oil				explain any answer				
SUMMARY OF FINDINGS – A	-							
			-pg po	,,	, <b>,</b>			
Hydrophytic Vegetation Present?	Yes Yes		Is the Sampled Area					
Hydric Soil Present? Wetland Hydrology Present?	Yes	_	within a Wetland?	Yes	No			
Remarks:								
HYDROLOGY				Canandam, Indian	to an Aminimum of the annual			
Wetland Hydrology Indicators:	a raguirad, abaal	call that apply			tors (minimum of two required)			
Primary Indicators (minimum of one is	-		D4.4)	Surface Soil Cracks (B6)				
Surface Water (A1) High Water Table (A2)		True Aquatic Plants ( Hydrogen Sulfide Od		<ul><li>Sparsely Vegetated Concave Surface (B8)</li><li>Drainage Patterns (B10)</li></ul>				
Saturation (A3)			es on Living Roots (C3)					
Water Marks (B1)		Presence of Reduced	= : :	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	· <del></del>	Recent Iron Reduction	, ,	Crayfish Burr				
Drift Deposits (B3)		Thin Muck Surface (C		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or St	ressed Plants (D1)			
Iron Deposits (B5)				Geomorphic Position (D2)				
Inundation Visible on Aerial Imag	jery (B7)			Shallow Aquitard (D3)				
Water-Stained Leaves (B9)				<ul><li> Microtopographic Relief (D4)</li><li> FAC-Neutral Test (D5)</li></ul>				
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)			
Field Observations: Surface Water Present? Yes	No. V	Depth (inches):						
		Depth (inches):						
		Depth (inches):		Wetland Hydrology Present? Yes No				
(includes capillary fringe)								
Describe Recorded Data (stream gau	ige, monitoring w	vell, aerial photos, pre	vious inspections), if ava	ilable:				
Remarks:								
remarks.								

#### **VEGETATION** (Four Strata) – Use scientific names of plants.

Sampling Point: W-B24-UP1

Tree Stratum (Plot size: 30')	Absolute	Dominant		Dominance Test worksheet:		
		Species?	· · ·	Number of Dominant Species		
1. Pinus strobus	100		FACU	That Are OBL, FACW, or FAC:	1	(A)
2				Total Number of Deminent		
3				Total Number of Dominant Species Across All Strata:	4	(B)
						(-)
4				Percent of Dominant Species	25%	
5				That Are OBL, FACW, or FAC:	2370	(A/B)
6			- ——	Prevalence Index worksheet:		
7					NA. deim la alba a	
	100	= 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	2 =	_
1 Pinus strobus	15	<b>✓</b>	FACU	FAC species x 3	3 =	_
2.				FACU species x 4	4 =	
				UPL species x :		
3						
4			- ——	Column Totals: (A)	'	(D)
5				Prevalence Index = B/A =		
6						_
7				Hydrophytic Vegetation Indicat		
8				1 - Rapid Test for Hydrophyt		
				2 - Dominance Test is >50%		
9	15	T		3 - Prevalence Index is ≤3.0 <sup>1</sup>	i	
500/ of total annua		= Total Cov		4 - Morphological Adaptation	ıs¹ (Provide sup	porting
50% of total cover: 0	20% 01	total cover	:	data in Remarks or on a s	separate sheet)	
(Field Stratum)	_			Problematic Hydrophytic Veg	retation <sup>1</sup> (Expla	in)
1. Taraxacum officinale	5		F <u>ACU</u>	1 Toblematio Trydrophytio Veg	jotation (Expla	)
2				1		
3				<sup>1</sup> Indicators of hydric soil and weth be present, unless disturbed or p		must
4						
5				Definitions of Four Vegetation	Strata:	
			-	Tree - Woody plants, excluding v	vines, 3 in. (7.6	cm) or
6				more in diameter at breast height	t (DBH), regard	less of
7				height.		
8				Sapling/Shrub – Woody plants,	excluding vines	s. less
9				than 3 in. DBH and greater than		
10				m) tall.		
11.				Herb – All herbaceous (non-wood	dy) plante roas	rdlocc
	5	= Total Cov	/er	of size, and woody plants less that		liuless
50% of total cover: 0		total cover		, p		
Woody Vine Stratum (Plot size: 15' )			·	Woody vine – All woody vines g	reater than 3.28	3 ft in
1 Lonicera japonica	5	~	FAC	height.		
-			FAC			
2						
3						
4				Hydrophytic		
5				Vegetation		
	5	= Total Cov	/er	Present? Yes	No 🗸	
50% of total cover: 0		total cover	_			
Remarks: (Include photo numbers here or on a separate s						
Tremaiks. (include photo humbers here of on a separate s	neet.)					

SOIL Sampling Point: W-B24-UP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix		Redo	x Features	3						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks			
0-3"	10yr 3/3						SAC				
3-15"	10yr 5/3	97	7.5yr 5/8	3	С	М	SAC				
	1011010		7 log: 0/0								
							-				
					-	<del></del>	-				
						<del></del>					
	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils <sup>3</sup> :			
Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)			
Histic Ep	oipedon (A2)		Polyvalue Be				, 148) (	Coast Prairie Redox (A16)			
	stic (A3)		Thin Dark Su	, ,	•	147, 148)		(MLRA 147, 148)			
	en Sulfide (A4)		Loamy Gleye		F2)		F	Piedmont Floodplain Soils (F19)			
	d Layers (A5)		Depleted Ma					(MLRA 136, 147)			
	uck (A10) (LRR N)		Redox Dark					/ery Shallow Dark Surface (TF12)			
	d Below Dark Surface	(A11)	Depleted Dai				<u> </u>	Other (Explain in Remarks)			
	ark Surface (A12)	DD 11	Redox Depre			1 DD N					
	Mucky Mineral (S1) (L	KK N,	Iron-Mangan		es (F12) (	LKK N,					
	A 147, 148)			MLRA 136)							
	Gleyed Matrix (S4) Redox (S5)			Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  "Indicators of hydrophytic vegetation and wetland hydrology must be present,							
	Matrix (S6)		Red Parent N					nless disturbed or problematic.			
	Layer (if observed):		Red r arent n	viateriai (i	21) (IVILIV	A 121, 141	1) ui	liess disturbed of problematic.			
	Layer (ii observea).										
Type:	-1 \		<del></del>	Hydric Soil Present? Yes							
	ches):				I Present? Yes No						
Remarks:											

Project/Site: MVP	City/County:	Franklin	Sampling Date: 04/09/2015				
Applicant/Owner: MVP			te: VA Sampling Point: W-B24-PEM				
Investigator(s): C. Ansari, J. Rodriguez, M. Whitten  Section, Township, Range: N/A							
Landform (hillslope, terrace, etc.): Valley floor		· -	lome Slope (%): 1				
Subregion (LRR or MLRA): LRRN			D18 Datum: NAD 83				
Soil Map Unit Name: Alderflats silt loam, 0		-					
Are climatic / hydrologic conditions on the site typ							
Are Vegetation, Soil, or Hydrology	•		mstances" present? Yes No				
Are Vegetation, Soil, or Hydrolog							
SUMMARY OF FINDINGS – Attach si			any answers in Remarks.)				
	_	, penne recumence, e					
_ , , , ,	No Is the	e Sampled Area					
Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _	V No withi	n a Wetland?	Yes No				
Remarks:	NO						
Cowardin:PEM; HGM: RIVERINE; WT:	RPWWD						
Information listed on this form represer of wetland hydrology, hydrophytic vege Supplement delineation methodology.	ts the data collected in 201 tation, and hydric soils was	5. The wetland was confirmed using the	s revisited on 11/02/2019. Presence ne USACE EMP Regional				
HYDROLOGY							
Wetland Hydrology Indicators:		Secon	ndary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required;	check all that apply)	8	Surface Soil Cracks (B6)				
Surface Water (A1)	Surface Water (A1) True Aquatic Plants (B14)						
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	· · · · · · · · · · · · · · · · · · ·	Drainage Patterns (B10)				
Saturation (A3)			Moss Trim Lines (B16)				
Water Marks (B1)	Presence of Reduced Iron (	· —	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	Recent Iron Reduction in Ti		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) Geomorphic Position (D2)				
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:		<del>_</del>					
	✓ Depth (inches):						
Water Table Present? Yes No	Depth (inches):						
	Depth (inches):		ogy Present? Yes No				
(includes capillary fringe)		·					
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous i	nspections), if available:					
Remarks:							
This wetland is the emergent portion of	the down-gradient shrub w	etland during 2015	field survey.				

Sampling Point: W-B24-PEM
---------------------------

201		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species
1,				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				
5				Percent of Dominant Species That Are OBL_FACW_or_FAC: 100 (A/B)
				That Are OBL, FACW, or FAC:100 (A/B)
6	· <del></del> -			Prevalence Index worksheet:
7	0 =			Total % Cover of: Multiply by:
500/ (1.1.)		= Total Cove		OBL species x 1 =
4 F1	20% of	total cover:_	0	FACW species x 2 =
( lot oleo!				•
1				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				_ , ,
6				Prevalence Index = B/A =
				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 Cove		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 Vegetation¹ (Explain)
1. Symplocarpus foetidus	15		OBL	Problematic Hydrophytic Vegetation (Explain)
2. Solidago gigantea	65		FACW_	4
3. Poa trivialis	35	<b>~</b>	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 Taraxacum officinale	5	· ·	FACU	
5 Rumex crispus	5			Definitions of Four Vegetation Strata:
5. Rumex crispus	5		FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
6	·			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6	·			<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
6			FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
6	125 =	Total Cove	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
6	125 =	Total Cove	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in
6	125 <sub>=</sub> 5 20% of	= Total Cover:	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
6	125 <sub>=</sub> 5 20% of t	= Total Cover:	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in
6	125 <sub>=</sub> 5 20% of	= Total Cover:	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in
6	125 <sub>=</sub> 5 20% of	= Total Cover:	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in
6	125 <sub>=</sub> 5 20% of	= Total Cover:	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.
6	125 = 5 20% of	= Total Cover:		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.
6	125 = 5 20% of	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of 5 = 20%	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of 5 = 20%	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of 5 = 20%	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of 5 = 20%	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of 5 = 20%	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of 5 = 20%	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of 5 = 20%	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
6	125 = 5 20% of 5 = 20%	= Total Cover:	25	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation

SOIL Sampling Point: W-B24-PEM

Profile Desc	ription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the abse	ence of indicators.)
Depth	Matrix		Redo	x Features	S			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	
0-7"	10yr 4/3	100			MS	M/PL	SCL	<u>.                                    </u>
7-20"	10yr 5/2	85	7.5yr 5/8	15			SC	
					-		-	
					-			<u> </u>
							-	
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil		,	,					ndicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)				_ 2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su				. –	(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)		_	_ Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Ma					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark				_	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dai				_	Other (Explain in Remarks)
	ark Surface (A12)	DD N	Redox Depre			I DD N		
	Mucky Mineral (S1) <b>(L</b> <b>A 147, 148)</b>	KK N,	Iron-Mangan MLRA 13		es (F12) <b>(</b>	LKK N,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MIRA 13	6 122)		<sup>3</sup> Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
	Matrix (S6)		Red Parent N					unless disturbed or problematic.
	Layer (if observed):				, (	,	Í	
Type:								
	ches):						Hydric	Soil Present? Yes 🗸 No
Remarks:							1.7	
rtomants.								

# **Wetland Photograph Page**

#### Wetland ID W-B24-PEM



Photograph Direction North

Date: 04/09/2015

Comments: 2015 wetland delineation.



Photograph Direction NW

Date: 11/02/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP		City/C	county: Roanoke		Sampling Date: 04/09/2015			
Applicant/Owner: MVP		,	,	State: VA	Sampling Point: W-B24-PEM-UP			
Investigator(s): C. Ansari, J. Rodr	iguez, M. Wh							
Landform (hillslope, terrace, etc.): Va					Slope (%): 1			
Subregion (LRR or MLRA): LRRN					Datum: NAD 83			
Soil Map Unit Name: Alderflats silt								
Are climatic / hydrologic conditions on								
· -	7.7	-						
Are Vegetation, Soil, c								
Are Vegetation, Soil, c				explain any answe				
SUMMARY OF FINDINGS -	Attach site m	nap showing san	npling point location	ons, transects	s, important features, etc.			
Hydrophytic Vegetation Present?	Yes	No 🗸						
Hydric Soil Present?	Yes		Is the Sampled Area	Vac	No 🗸			
Wetland Hydrology Present?	Yes	4	within a Wetland?	res				
LIVERGLOOV								
HYDROLOGY				0				
Wetland Hydrology Indicators:		La Halbarta and A		·	ators (minimum of two required)			
Primary Indicators (minimum of one	-		D4.4)	Surface Soil				
Surface Water (A1) High Water Table (A2)		True Aquatic Plants ( Hydrogen Sulfide Od		Sparsely ve Drainage Pa	getated Concave Surface (B8)			
Saturation (A3)			es on Living Roots (C3)	-				
Water Marks (B1)		Presence of Reduced	-					
Sediment Deposits (B2)	_	Recent Iron Reduction		Dry-Season Water Table (C2) Crayfish Burrows (C8)				
Drift Deposits (B3)	_	Thin Muck Surface (0		-	/isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	Stressed Plants (D1)			
Iron Deposits (B5)				Geomorphic	` '			
Inundation Visible on Aerial Ima	gery (B7)			Shallow Aquitard (D3)				
Water-Stained Leaves (B9)				Microtopographic Relief (D4) FAC-Neutral Test (D5)				
Aquatic Fauna (B13)				FAC-Neutra	T Test (D5)			
Field Observations: Surface Water Present? Yes	No. 🗸	Depth (inches):						
		Depth (inches):						
		Depth (inches):		Hydrology Prese	nt? Yes No			
(includes capillary fringe)					111: 165			
Describe Recorded Data (stream ga	uge, monitoring v	vell, aerial photos, pre	evious inspections), if ava	ailable:				
Remarks:								
Upland plot								

Sampling Point: W	V-B24-PEM-UP1
-------------------	---------------

001	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4.				
5				Percent of Dominant Species That Are OBL FACW or FAC: 33 (A/B)
6		-		That Are OBL, FACW, or FAC:33 (A/B)
				Prevalence Index worksheet:
7	0	Tatal Car		Total % Cover of: Multiply by:
50% of total cover: 0		= Total Cov		OBL species x 1 =
	20% 01	total cover		FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15'  1 Rosa multiflora	5	~	EACH	FAC species x 3 =
·· <del>·</del>		-	FACU_	FACU species x 4 =
2		-		
3		-		UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6		-		Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
<u>.                                    </u>	5	= Total Cov	or.	3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 0		total cover	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5' )	2070 01	total cover		data in Remarks or on a separate sheet)
1. Allium canadense	10		FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Solidago gigantea	25			
	35		F <u>ACW</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Dactylis glomerata			F <u>ACU</u>	be present, unless disturbed or problematic.
4. Taraxacum officinale	10		F <u>ACU</u>	Definitions of Four Vegetation Strata:
5				Tara Mandada and display and display and a
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				
9.				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11		-		
	80	Total Cox		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0		<ul><li>Total Cover total cover</li></ul>	_	of size, and woody plants less than 3.20 it tall.
Woody Vine Stratum (Plot size: 15' )	20 /6 01	total cover		Woody vine - All woody vines greater than 3.28 ft in
, voody vine Stratum (Flot size)				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cov	er	Present? Yes No
50% of total cover:0	20% of	total cover	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Sampling Point: W-B24-PEM-UP

SOIL

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix		Redo	x Feature	S				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	F	Remarks
0-15"	10yr 4/3	100			С	М	Sandy cla		
15-20"	10yr 5/1	90	7.5 yr 5/8	10			Silty clay		
10 20	10y1 0/1		7.0 yr 0/0		-		Only olay		
								'	_
								•	
								'	_
								•	
								_	_
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: Pl	L=Pore Lining, N	И=Matrix.
Hydric Soil	Indicators:						Indica	ators for Proble	ematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10)	(MLRA 147)
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(N</b>	ILRA 147,	<b>148)</b> C	oast Prairie Red	dox (A16)
Black Hi	stic (A3)		Thin Dark Su					(MLRA 147, 14	48)
Hydroge	en Sulfide (A4)		Loamy Gleye				P	iedmont Floodp	lain Soils (F19)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 14	47)
2 cm Mu	ıck (A10) (LRR N)		Redox Dark	Surface (F	6)		V	ery Shallow Dar	k Surface (TF12)
Depleted	d Below Dark Surface	e (A11)	Depleted Dar	rk Surface	(F7)		0	ther (Explain in	Remarks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F	8)				
Sandy M	lucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b>	LRR N,			
MLRA	A 147, 148)		MLRA 13	6)					
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) (	MLRA 13	6, 122)	<sup>3</sup> Indi	icators of hydro	phytic vegetation and
Sandy R	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<b>l8)</b> we	tland hydrology	must be present,
Stripped	Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	<b>7)</b> unl	less disturbed o	r problematic.
Restrictive I	Layer (if observed):								
Type:			<u></u>						
Depth (inc	ches):						Hydric Soil	Present? Ye	es No <u> </u>
Remarks:							<u> </u>		
Redox con	centrations are ir	n the 15-	20 layer						
			-						

Project/Site: MVP	City/County: Roanoke		Sampling Date: 04/10/2015					
Applicant/Owner: MVP			_ Sampling Point: W-B25-PSS2					
Investigator(s): C.Ansari, J.Rodriguez, M. Whitten  Section, Township, Range: N/A								
Landform (hillslope, terrace, etc.): Slope			Slope (%): 2					
Subregion (LRR or MLRA): LRRN Lat: 3	<u> </u>		Datum: NAD 83					
Soil Map Unit Name: Alderflats silt loam, 0 to 4 pe		NWI classifica						
•								
Are climatic / hydrologic conditions on the site typical for t								
Are Vegetation, Soil, or Hydrology	_ significantly disturbed? Are "Norma	l Circumstances" pr	resent? Yes No					
Are Vegetation, Soil, or Hydrology	_ naturally problematic? (If needed, e	explain any answer	s in Remarks.)					
SUMMARY OF FINDINGS – Attach site ma	p showing sampling point location	ons, transects,	important features, etc.					
Hydrophytic Vegetation Present? Yes	No La tha Canada d Assa							
	Is the Sampled Area	Yes 🗸	No					
l ·	No within a Wetland?	res	_ NO					
Remarks:								
Cowardin Code:PSS; HGM:SLOPE; WT:RPW	/WD							
The information listed on this form represents								
9/10/2020. Presence of wetland hydrology, hy								
EMP Regional Supplement delineation metho	dology. Additional wetland areas w	ere identified d	uring the 2020 revisit.					
HYDROLOGY								
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)					
Primary Indicators (minimum of one is required; check a	ll that apply)	Surface Soil C	Cracks (B6)					
Surface Water (A1) Tr	rue Aquatic Plants (B14)	Sparsely Vege	etated Concave Surface (B8)					
High Water Table (A2)	ydrogen Sulfide Odor (C1)	Drainage Patt	erns (B10)					
Saturation (A3) O:	xidized Rhizospheres on Living Roots (C3)	Moss Trim Lin	nes (B16)					
Water Marks (B1) Pr	esence of Reduced Iron (C4)	Dry-Season V	Vater Table (C2)					
Sediment Deposits (B2) Re	ecent Iron Reduction in Tilled Soils (C6)	Crayfish Burro	ows (C8)					
Drift Deposits (B3)	nin Muck Surface (C7)	Saturation Vis	sible on Aerial Imagery (C9)					
Algal Mat or Crust (B4) O	ther (Explain in Remarks)	Stunted or Str	ressed Plants (D1)					
Iron Deposits (B5)		Geomorphic F						
Inundation Visible on Aerial Imagery (B7)		Shallow Aquit						
Water-Stained Leaves (B9)			ohic Relief (D4)					
Aquatic Fauna (B13)	<del>_</del>	FAC-Neutral	Test (D5)					
Field Observations:								
Surface Water Present? Yes No C								
Water Table Present? Yes No C								
Saturation Present? Yes No C (includes capillary fringe)	Depth (inches): 5 Wetland H	lydrology Present	? Yes V No					
Describe Recorded Data (stream gauge, monitoring well	I, aerial photos, previous inspections), if ava	ilable:						
Remarks:								
Remarks.								

Sampling	Point: W-B25-PSS2
----------	-------------------

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: 4 (A)	)
2				Total Novel and Character	
3				Total Number of Dominant Species Across All Strata:  4 (B)	١
4.					<b>'</b>
5				Percent of Dominant Species That Are OBL FACW or FAC: 100 (A)	(D)
6				That Are OBL, FACW, or FAC: (A/	/B)
				Prevalence Index worksheet:	
7	0	= Total Cov		Total % Cover of: Multiply by:	
50% of total cover: 0		total cover:		OBL species x 1 =	
451	20% 01	total cover.		FACW species x 2 =	
Sapling/Shrub Stratum (Plot size: 15 )  1. Cornus amomum	40	~	FACW	FAC species x 3 =	
	10			FACU species x 4 =	
2. Rubus allegheniensis			F <u>ACU</u>		
3. Alnus serrulata	15		<u>OBL</u>	UPL species x 5 =	
4				Column Totals: (A) (E	3)
5				Prevalence Index = B/A =	
6	-			Hydrophytic Vegetation Indicators:	
7					
8				1 - Rapid Test for Hydrophytic Vegetation	
9.				✓ 2 - Dominance Test is >50%	
v	65	= Total Cov		3 - Prevalence Index is ≤3.0 <sup>1</sup>	
50% of total cover: <u>32.5</u>				4 - Morphological Adaptations <sup>1</sup> (Provide support	ing
Herb Stratum (Plot size: 5' )	2070 01	total oover.		data in Remarks or on a separate sheet)	
1. Scirpus cyperianus	20	~	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
2. Carex lurida	55				
	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must	t
3. Juncus effusus			F <u>ACW</u>	be present, unless disturbed or problematic.	
4. Impatiens capensis	5		F <u>ACW</u>	Definitions of Four Vegetation Strata:	
5. Agrostis stolonifera	10		FACW_	<b>-</b> W	
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless	
7				height.	01
8					
9.				Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than or equal to 3.28 ft (1	
10.				m) tall.	•
11					
···.	100	= Total Cov		<b>Herb</b> – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.	SS
50% of total cover: 50		total cover:		of size, and weedy plants less than e.ze it tall.	
Woody Vine Stratum (Plot size: 15' )	2070 01	total oover.		<b>Woody vine</b> – All woody vines greater than 3.28 ft in	ı
				height.	
1					
2					
3					
4				Hydrophytic	
5	-			Vegetation	
	0	= Total Cov	er	Present? Yes V No No	
50% of total cover:0	20% of	total cover:	0		
Remarks: (Include photo numbers here or on a separate si	heet.)			1	

SOIL Sampling Point: W-B25-PSS2

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the	indicator	or confirm	n the absence	e of indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-12"	10YR 4/1	90	7.5YR 5/8	10	<u>C</u>	<u>M</u>	SC	
12-20"	10Y 6/1	85	7.5YR 5/8	15	С	М	SC	
						<del></del>		
							•	
								. <u> </u>
						-		
								· <del>-</del>
	<u> </u>							
<sup>1</sup> Type: C=Ce	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil								ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ice (S8) <b>(l</b>	<b>VILRA 147</b>		Coast Prairie Redox (A16)
Black Hi			Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		(F2)		F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 136, 147)
	ick (A10) (LRR N)	(4.4.4)	Redox Dark S	,	,			Very Shallow Dark Surface (TF12)
	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted Dar Redox Depre				(	Other (Explain in Remarks)
	fik Sulface (A12) fucky Mineral (S1) <b>(L</b>	RR N	Iron-Mangan			I RR N		
	147, 148)	ixix i <b>v</b> ,	MLRA 13		163 (1 12) (	LIXIX IV,		
	Gleyed Matrix (S4)		Umbric Surfa		(MLRA 1:	36. 122)	3Inc	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N					nless disturbed or problematic.
	Layer (if observed):					<u> </u>	Ì	·
Type:								
Depth (in	ches):						Hvdric Soi	I Present? Yes 🗸 No
Remarks:	,							
rtomanto.								

# **Wetland Photograph Page**

#### Wetland ID W-B25-PSS2



Photograph Direction South

Date: 04/10/2015

Comments: 2015 wetland delineation.



Photograph Direction North

Date: 11/02/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP		City/C	County:		Sampling Date: 04/10/2015		
Applicant/Owner: MVP				_ State: VA	Sampling Point: W-B25-PSS-UP2		
Investigator(s): C.Ansari, J.Rodri	guez, M. Whit	ten <sub>Secti</sub>					
Landform (hillslope, terrace, etc.): Slo					Slope (%): 2		
Subregion (LRR or MLRA): LRRN					Datum: NAD 83		
Soil Map Unit Name: Alderflats silt							
Are climatic / hydrologic conditions on							
Are Vegetation, Soil,		•			·		
Are Vegetation, Soil, Constant of the vegetation, Soil							
SUMMARY OF FINDINGS -							
	Attaon Site in	ap snowing san		ons, transects	, important reatures, etc.		
Hydrophytic Vegetation Present?	Yes		Is the Sampled Area				
Hydric Soil Present?	Yes		within a Wetland?	Yes	No		
Wetland Hydrology Present?  Remarks:	Yes	_ No					
HYDROLOGY							
Wetland Hydrology Indicators:					ators (minimum of two required)		
Primary Indicators (minimum of one	-			<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> </ul>			
Surface Water (A1)		True Aquatic Plants					
High Water Table (A2)		Hydrogen Sulfide Od					
Saturation (A3) Water Marks (B1)		Presence of Reduce	-				
Sediment Deposits (B2)			on in Tilled Soils (C6)				
Drift Deposits (B3)		Thin Muck Surface (		Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rei			tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aerial Ima	gery (B7)			Shallow Aquitard (D3)			
Water-Stained Leaves (B9)					aphic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:	4						
		Depth (inches):					
	No		12 Wetland I				
Saturation Present? Yes (includes capillary fringe)	No	Depth (inches):	wetland i	Hydrology Preser	nt? Yes No		
Describe Recorded Data (stream ga	uge, monitoring w	ell, aerial photos, pre	evious inspections), if ava	ailable:			
Remarks:							
Upland plot							
Area highly disturbed from red	ent clear cutti	ng.					

Sampling	Point:	W-B25-P	SS-UP2	2

Absolute % Cover 5 pecies? Status Number of Dominant Species That Are OBL, FACW, or FAC:  1. Pinus strobus  2. Total Number of Dominant Species Across All Strata:  3. Total Number of Dominant Species Across All Strata:  3. Species Across All Strata:  4. Species Across All Strata:  5. Species Across All Strata:  6. Species Across All Strata:  8. Species Across All Strata:  8. Species Across All Strata	
1. Pinus strobus  20  FACU  That Are OBL, FACW, or FAC:  0  Total Number of Dominant	
2	
Total Number of Dominant	_ (A)
Total Number of Dominant	
5. Species Across All Strata.	(D)
	_ (B)
4 Percent of Dominant Species	
5 That Are OBL, FACW, or FAC:	(A/B)
	_ (,,,,,,
6. Prevalence Index worksheet:	
7	
20 = Total Cover Total % Cover of: Multiply by:	
50% of total cover: 20% of total cover: 4 OBL species x 1 =	
Sapling/Shrub Stratum (Plot size: 15' ) FACW species x 2 =	
Capital Caracteria Caracteria (1 lot of 20.	
2 FACU species x 4 =	
LUDI anasias C	
Column Tatalar (A)	
4 Column Totals: (A)	(D)
5	
Trovalence mack = B//(=	_
6. Hydrophytic Vegetation Indicators:	
7	
9 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
$\frac{5}{25} = \text{Total Cover}$ $\frac{4}{25} - \frac{1}{2000} = 1$	innorting
50% of total cover: 2.3 20% of total cover: 1 1	
Herb Stratum (Plot size: 5' ) data in Remarks or on a separate shee	et)
1. Dactylis glomerata  50  FACU  Problematic Hydrophytic Vegetation¹ (Exp.	lain)
2. Taraxacum officinale 10 FACU	
3. Indicators of hydric soil and wetland hydrolog be present, unless disturbed or problematic.	/ must
4. Definitions of Four Vegetation Strata:	
5	
Free – Woody plants, excluding vines, 3 in. (7	
o more in diameter at breast height (DBH), rega	dless of
7	a.000 0.
7 height.	u.000 0.
8	
8 Sapling/Shrub – Woody plants, excluding vin	es, less
8 Sapling/Shrub – Woody plants, excluding vin than 3 in. DBH and greater than or equal to 3.	es, less
8 Sapling/Shrub – Woody plants, excluding vin	es, less
8	es, less 28 ft (1
8	es, less 28 ft (1
8	es, less 28 ft (1
8	es, less 28 ft (1 gardless

Sampling Point: W-B25-PSS-UP2

Profile Desc	ription: (Describe t	o the depth	n needed to docun	nent the i	ndicator o	or confirm	the absence	of indicate	ors.)		
Depth	Matrix		Redox	k Features	3						
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	(S	
0-4"	10yr 4/3	100					Silty clay				
4-11"	10yr 5/4	100					Sandy cla				
11-18"	2.5y 6/6	100					Clay				
											-
								-			
1 <sub>Turnou</sub> C. C.		otion DM [	Dadwaad Matrix MS	· Mooked	Cand Cra		<sup>2</sup> l continu D	- Doro Lini	ina M Mati	d.,	
Hydric Soil	oncentration, D=Depl	etion, Rivi=i	Reduced Matrix, MS	=IVIaskea	Sand Gra	iins.	<sup>2</sup> Location: P			nx. Hydric Soi	ls³.
Histosol			Dark Surface	(97)					A10) <b>(MLR</b>	-	
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(M</b>	LRA 147.			e Redox (A1		
Black Hi	. , ,		Thin Dark Su					(MLRA 14		-/	
	n Sulfide (A4)		Loamy Gleye			, <b> ,</b>	. P	•	oodplain So	ils (F19)	
	Layers (A5)		Depleted Mat	,			<del></del>	(MLRA 13	•	. ,	
	ick (A10) (LRR N)		Redox Dark S						v Dark Surfa		
	d Below Dark Surface	e (A11)	Depleted Dar				c	ther (Expla	in in Rema	ks)	
	ark Surface (A12)		Redox Depre								
	lucky Mineral (S1) <b>(L</b> <b>\ 147, 148)</b>	KK N,	Iron-Mangane MLRA 130		es (F12) <b>(L</b>	LKK N,					
	ileyed Matrix (S4)		Umbric Surfa	•	MI RA 13	6 122)	<sup>3</sup> Ind	icators of h	vdrophytic v	egetation a	nd
	edox (S5)		Piedmont Flo						ology must b		iiid
	Matrix (S6)		Red Parent M						ed or proble		
	_ayer (if observed):				, ,	· ·	<u>,                                      </u>		<u> </u>		
Type:											
Depth (inc	ches):						Hydric Soil	Present?	Yes	No	<b>✓</b>
Remarks:											_

Project/Site: MVP	City/County: Roanoke	Sampling Date: 04/08/2016
Applicant/Owner: MVP	State	e: VA Sampling Point: W-B25-PEM-2
Investigator(s): J. Cook, D. McCullough, L. Sexton		
Landform (hillslope, terrace, etc.): Flat		inear Slope (%): 3
Subregion (LRR or MLRA): LRR N Lat: 37.128		
Soil Map Unit Name: 1A - Alderflats silt loam, 0 to 4 percent		
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes No (If no, e	explain in Remarks.)
Are Vegetation, Soil, or Hydrology signific	cantly disturbed? Are "Normal Circur	nstances" present? Yes No
Are Vegetation, Soil, or Hydrology natura		any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho		
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes   No  Yes   No  No	within a Wetland?	Yes No
Remarks: Cowardin Code: PEM HGM: 9	Slope Water Type: RPW	WD
PEM Drainage area that flows into nearby PSS. Up  HYDROLOGY	nana point assumed nom w-b20-r	002.
Wetland Hydrology Indicators:	Secor	ndary Indicators (minimum of two required)
High Water Table (A2)	atatic Plants (B14) S In Sulfide Odor (C1) D In Reduced Iron (C4) D In Reduction in Tilled Soils (C6) C In Sek Surface (C7) S In Sulfide Odor (C1) S In Sulfide Odor (C2) S In Sulfide Odor (	urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) loss Trim Lines (B16) rry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) teomorphic Position (D2) hallow Aquitard (D3) licrotopographic Relief (D4) AC-Neutral Test (D5)

Sampling Point: W-B25-PEM-2

,	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30')		Species?		
1			· <u></u>	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
				That the OBE, Thow, of the
2				Total Number of Dominant
3		· -	· ——	Species Across All Strata: (B)
4	-			Percent of Dominant Species
5				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				OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )	2070 01	total bovol	•	FACW species x 2 =
				FAC species x 3 =
1				
2		· <del></del>		FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
				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>
2		= Total Cov	_	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'				• • • • • • • • • • • • • • • • • • • •
1. Juncus effusus	60		FACW_	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Rumex crispus	10		FAC	
3. Scirpus fluviatalis	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Impatiens capensis	20		FACW	be present, unless disturbed or problematic.
· ''			. ——	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				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.				Houte All books assure (non-unach ) mlanta manadiana
	100	= Total Cov	/or	<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		total cover		or oreo, and modely plante took than oreo than
Woody Vine Stratum (Plot size: 15')	2070 0.	10101 00101		Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4	-			Hydrophytic
5				Vegetation
	0	= Total Cov	/er	Present? Yes V No No
50% of total cover:0	20% of	total cover	: 0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
Emergent wetland flows into scrub shrub via na	row wetl	and conr	ection	

Sampling Point: W-B25-PEM-2

SOIL

Profile Desc	cription: (Describe	to the dep	h needed to docur	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix			x Feature:				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-5	10YR 4/1	98	7.5YR 4/6	2	С	M	SiL	
5-11	10YR 4/1	95	7.5YR 4/6	5	С	M/PL	SL	
11-18	10YR 6/1	90	10YR 6/8	10	С	M/PL	CL	
-							•	
		-			-			
¹Type: C=C	oncentration, D=Depl	letion RM-	Reduced Matrix MS	S-Masked	I Sand Gr	ains	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil		iction, reivi-	reduced Matrix, Me	J-Masket	oana or	airio.	Indic	cators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	e (S7)				2 cm Muck (A10) <b>(MLRA 147)</b>
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	/ILRA 147,		Coast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	ırface (S9)	(MLRA			(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		F2)		<u> </u>	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Ma		-0)		•	(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b> d Below Dark Surface	- (Δ11)	Redox Dark : Depleted Dark :					Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	ark Surface (A12)	5 (A11)	Redox Depre				— `	Other (Explain in Remarks)
	/lucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Mangan			LRR N,		
	A 147, 148)		MLRA 13					
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
Sandy F			Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	Material (F	21) <b>(MLR</b>	A 127, 147	7) ur	nless disturbed or problematic.
	Layer (if observed):							
Type:	-l\-						Herdela Cal	H Dunnand Van V
	ches):						Hydric Soi	il Present? Yes V No
Remarks:								



Photograph Direction South

Comments:			

Project/Site: MVP	City/C	county: Roanoke		Sampling Date: 06/13/2016
Applicant/Owner: MVP		,	State: VA	Sampling Point: W-ST2 PEM
Investigator(s): J.McGuirk J. Bittner C	C. Wieman Section	on Township Range N/		
Landform (hillslope, terrace, etc.): Slope				Slope (%): 2-5
Subregion (LRR or MLRA): LRR S				Datum: NAD 83
Soil Map Unit Name: 16E - Edneytown-S				· · · · · · · · · · · · · · · · · · ·
Are climatic / hydrologic conditions on the s				· · · · · · · · · · · · · · · · · · ·
Are Vegetation, Soil, or Hyd				
Are Vegetation, Soil, or Hyd	drology naturally problema	atic? (If needed, e	xplain any answei	rs in Remarks.)
SUMMARY OF FINDINGS – Atta	ch site map showing san	npling point locatio	ns, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes No			
, , , ,	Yes No	Is the Sampled Area within a Wetland?	Vos V	No
I	Yes No	within a wetiand:	163	
Remarks: Cowardin Code: PEM	HGM: Riverine	Water Type: F	RPWWD	
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is rec	uired; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	True Aquatic Plants (	B14)	Sparsely Veg	etated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		Drainage Pat	terns (B10)
Saturation (A3)	Oxidized Rhizospher	es on Living Roots (C3)	Moss Trim Li	nes (B16)
Water Marks (B1)	Presence of Reduced			Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction		Crayfish Burr	
Drift Deposits (B3)	Thin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rer	narks)		ressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Aerial Imagery	(R7)		<ul><li>✓ Geomorphic</li><li>✓ Shallow Aqui</li></ul>	
Water-Stained Leaves (B9)				phic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral	
Field Observations:				
Surface Water Present? Yes	No Depth (inches): 0	.25		
Water Table Present? Yes	No Depth (inches):	0		
Saturation Present? Yes	No Depth (inches):	0 Wetland H	ydrology Presen	t? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge,	monitoring well perial photos, pre	wious inspections) if avai	ilahle:	
Describe Resolute Data (stream gauge,	monitoring won, dental photos, pro	wiods inspections), ii dvai	iidbie.	
Remarks:				

Sampling Point: W-ST2 PEM

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
3		-		Total Number of Dominant Species Across All Strata:3 (B)
				Opedies Across Air otrata.
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:66 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
0		= Total Cov	_	OBL species x 1 =
50% of total cover: 0	20% of	total cover:	0	
Sapling/Shrub Stratum (Plot size: 15' )	_			FACW species x 2 =
1. Rosa multiflora	5		<u>FACU</u>	FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
				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>
700. ()		= Total Cov		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 2.5	20% of	total cover:	1	data in Remarks or on a separate sheet)
Terb Stratum (1 lot size:)	0.5			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Juncus effusus	25		F <u>ACW</u>	<u> </u>
2. Carex rosea	20		F <u>ACW</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Symplocarpus foetidus	15		OBL	be present, unless disturbed or problematic.
4. Carex vulpinoidea	15		OBL	Definitions of Four Vegetation Strata:
5. Carex Iurida	10		OBL	
6. Eutrochium maculatum	5		FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Verbesina alternifolia	5		FAC	more in diameter at breast height (DBH), regardless of height.
8. Glyceria striata	5	-	OBL	noight.
g Impatiens capensis	5		FACW	Sapling/Shrub – Woody plants, excluding vines, less
10. Holcus lanatus	5		FAC	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
			r <u>AC</u>	m) tan.
11				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55</u>	20% of	total cover:	22	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15')				height.
1				
2				
3				
4				Hadaan bada
5				Hydrophytic Vegetation
	0	= Total Cov	er	Present? Yes V No No
50% of total cover: 0		total cover:		
Remarks: (Include photo numbers here or on a separate si				
Tremains. (molude photo numbers here of on a separate si	noct.)			

Profile Desc	ription: (Describe to	o the depth	needed to docum	nent the in	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix	<del></del> _	Redox	K Features	3	. 2	_	
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-12	10YR 3/1	90	7.5YR 4/6	10	С	M/PL	CL	
					-			
			·					
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion. RM=R	educed Matrix. MS	=Masked	Sand Gr	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil I			, ···-					ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Bel	, ,	ce (S8) <b>(N</b>	ILRA 147,		Coast Prairie Redox (A16)
Black Hi			Thin Dark Su		. , .		,	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			, ,	P	riedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mat					(MLRA 136, 147)
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		V	ery Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		c	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	lucky Mineral (S1) <b>(Ll</b>	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,		
	\ 147, 148)		MLRA 136				2	
	leyed Matrix (S4)		Umbric Surfa					icators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	un un	less disturbed or problematic.
Restrictive I	ayer (if observed):							
Type:			_					
Depth (inc	ches):		_				Hydric Soil	Present? Yes No
Remarks:							•	

# Wetland Photograph Page

Wetland ID  $\underline{\text{W-ST2 PEM Date}} = \underline{06/13/2016}$ 



Photograph Direction West

Comments:		

Project/Site: MVP City/County: Roanoke Sampling Date: 06/13/2						
Applicant/Owner: MVP State: VA Sampling Point: W-ST2 U						
Investigator(s): J.McGuirk J. Bittner C. Wie						
Landform (hillslope, terrace, etc.): Slope			Slope (%): 5-8			
Subregion (LRR or MLRA): LRR S			Datum: NAD 83			
Soil Map Unit Name: 16E - Edneytown-Saurato	_					
Are climatic / hydrologic conditions on the site typi	ical for this time of year? Yes No	(If no, explain in F	Remarks.)			
Are Vegetation, Soil, or Hydrology						
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach si						
Hudaahutia Varatatiaa Baasat2	V No le the Sempled A					
	No V Is the Sampled A		•/			
	No within a Wetland	? Yes	No			
Remarks: Cowardin Code: UPLAND		rpe:				
Cowardin Code. OPLAND	rigivi. Water ry	pe.				
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)			
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated 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	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 Bur	rows (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-Neutra	l Test (D5)			
Field Observations:						
	Depth (inches):					
Water Table Present? Yes No _	Depth (inches):					
	Depth (inches): Wetla	and Hydrology Prese	nt? Yes No			
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspections),	if available:				
Remarks:						

### **VEGETATION** (Four Strata) – Use scientific names of plants.

Sampling	Point:	W-ST2 UP

		Indicator	Dominance Test worksheet			
<u>Cover</u>	Species?	<u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FA		()	A)
				·	(	,
			Total Number of Dominant	1	,,	<b>5</b> )
			Species Across All Strata:		(I	B)
			Percent of Dominant Species			
					0 (/	A/B)
0 =	= Total Cov	er				
20% of	total cover:	0	OBL species	x 1 =		
			FACW species	x 2 =		
			FAC species	x 3 =		
						(D)
			Column Totals:	(A)		(B)
			Prevalence Index = B/	Δ _		
				·		
			• • • •		_+:	
					ation	
0	Tatal Cau					
		_	4 - Morphological Adapta	ations <sup>1</sup> (Prov	ide suppo	rting
20% 01	total cover:		data in Remarks or or	n a separate	sheet)	
00						
				· ogotation	(=,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
10		F <u>ACW</u>	1 and and any of boundary and area	المناط المصملة منت		-4
10		FACU_				Sī
5		FACU	·			
			Definitions of Four Vegetat	ion Strata:		
			Tree - Woody plants, exclud	ing vines, 3 i	n. (7.6 cm	n) or
				eight (DBH),	regardles	s of
			height.			
			Sapling/Shrub – Woody plan	nts. excludin	a vines. le	ess
			m) tall.			
			Herb - All herbaceous (non-	woody) plant	s renardl	222
85 =	= Total Cov	er				033
			-	es greater the	an 3.28 ft	in
				J		
			height.			
			height.			
			height.			
			height.			
			y .	<u> </u>		
			height.  Hydrophytic Vegetation			
		  er	Hydrophytic			
	0 = 20% of 60 10 5 5 = 85 = 85	0 = Total Cov 20% of total cover:  0 = Total Cov 20% of total cover:  60	0 = Total Cover 20% of total cover: 0  0 = Total Cover 20% of total cover: 0  60	Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC  Prevalence Index workshee Total % Cover of:  OBL species FACW species FACU species UPL sp	Total Number of Dominant Species Across All Strata: 1  Percent of Dominant Species That Are OBL, FACW, or FAC: 10  Prevalence Index worksheet:  Total % Cover of: Multiph  OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A)  Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators of hydric soil and wetland hydrophytic Vegetation Indicators of hydrophytic Vegetation Indicators	Total Number of Dominant Species Across All Strata: 1 (  Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (  Prevalence Index worksheet:  Total % Cover of: Multiply by:  OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A)  Prevalence Index = B/A = Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  Prevalence Index is \$3.0¹  4 - Morphological Adaptations¹ (Provide suppodata in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  FACU  FACU  FACU  FACU  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardles height.  Sapling/Shrub – Woody plants, excluding vines, 18 than 3 in. DBH and greater than or equal to 3.28 ft min tall.  Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall.

Depth (inches)	Matrix	0/	Redox Features	Loc <sup>2</sup>	Toyetara		D		
(inches)	Color (moist)	<u>%</u> _	Color (moist) % Type <sup>1</sup>	LOC	Texture SiL		Remark	<u>(S</u>	
0-5	2.5Y 4/3	100							
5-14	2.5Y 5/3	100			SiL_				
					-				
						-			
						-			
		etion, RM=F	Reduced Matrix, MS=Masked Sand G	rains.	<sup>2</sup> Location: Pl				
dric Soil	ndicators:							Hydric Soil	ls³:
_ Histosol			Dark Surface (S7)			•	410) <b>(MLR</b>	•	
	pipedon (A2)		Polyvalue Below Surface (S8) (		<b>148)</b> C		Redox (A1	16)	
_ Black Hi			Thin Dark Surface (S9) (MLRA	147, 148)	5	(MLRA 14		" (540)	
	n Sulfide (A4)		Loamy Gleyed Matrix (F2)		Pi		oodplain So	ils (F19)	
	d Layers (A5) ick (A10) <b>(LRR N)</b>		<ul><li>Depleted Matrix (F3)</li><li>Redox Dark Surface (F6)</li></ul>		V	(MLRA 13	, 147) Dark Surfa	ace (TF12)	
	d Below Dark Surface	e (A11)	Depleted Dark Surface (F7)			•	in in Remai	, ,	
	ark Surface (A12)	, (, , , ,	Redox Depressions (F8)			(=/,p/a			
	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Manganese Masses (F12)	(LRR N,					
MLRA	147, 148)		MLRA 136)						
_ Sandy G	leyed Matrix (S4)		Umbric Surface (F13) (MLRA 1	36, 122)	<sup>3</sup> Indi	cators of h	ydrophytic v	egetation a	and
	edox (S5)		Piedmont Floodplain Soils (F19	) <b>(MLRA 1</b> 4	<b>18)</b> we	tland hydro	logy must b	e present,	
	Matrix (S6)		Red Parent Material (F21) (ML	RA 127, 147	7) unl	ess disturb	ed or proble	ematic.	
estrictive I	ayer (if observed):								
Type:			<u></u>						
Depth (inc	ches):		<u> </u>		Hydric Soil	Present?	Yes	No <sup>_</sup>	<u> </u>
emarks:									

Project/Site: MVP	City/County: Frank	lin	Sampling Date: 09/18/2015
Applicant/Owner: MVP			Sampling Point: W-RR04
	Section, Township, F	Range: N/A	
Landform (hillslope, terrace, etc.): Floodplain			Slope (%): 1
Subregion (LRR or MLRA): LRRN La			Datum: NAD83
Soil Map Unit Name: Edneytown-Sauratown comp		Ŭ <del></del>	
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes No	(If no, explain in R	temarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed? Ar	e "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology		needed, explain any answe	
SUMMARY OF FINDINGS – Attach site r			
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes  V  Yes	No Is the Sampl within a Wet		No
Remarks: Cowardin Code: PEM; HGM: Riverine; WT The wetland was revisited on 11/4/2019. T was unable to be confirmed because the w	he presence of wetland hydrol		etation, and hydric soils
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	ck all that apply) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)	Drainage Pa Dots (C3) Moss Trim L Dry-Season S (C6) Crayfish Bur Saturation V Stunted or S Geomorphic Shallow Aqu	getated Concave Surface (B8) tterns (B10) ines (B16) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4)
Surface Water Present? Yes No	Depth (inches): Depth (inches):  Depth (inches):	Netland Hydrology Preser	nt? Yes ✔ No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring			
	, 33.13. p.10100, p.1011000 1110p00110	,	
Remarks:			

#### **VEGETATION** (Four Strata) – Use scientific names of plants.

Sampling Point: W-RR04

Troo Stratum (Plot size: 30'	Absolute	Dominant		Dominance Test worksheet:		
Tiee Stratum (Flot size)		Species?		Number of Dominant Species	4	
1. Liriodendron tulipifera	4		<u>FACU</u>	That Are OBL, FACW, or FAC: _	4	(A)
2				Total Number of Dominant		
3		-		Species Across All Strata:	6*	(B)
4				Dancart of Dancin ant Conscion		
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	66	(A/B)
6						(,,,)
7.				Prevalence Index worksheet:		
	4	= Total Co	ver	Total % Cover of:	Multiply by:	
50% of total cover: 2	20% of			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: (A)		
4		-		Column rotals: (xy		_ (5)
5				Prevalence Index = B/A = _		_
6				Hydrophytic Vegetation Indicate	ors:	
7				1 - Rapid Test for Hydrophytic	C Vegetation	
8		-		2 - Dominance Test is >50%		
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>		
		= Total Co		4 - Morphological Adaptations	s1 (Provide sup	oorting
50% of total cover:0	20% of	total cover	r: <u> </u>	data in Remarks or on a se		oorung
Herb Stratum (Plot size: 5')				Problematic Hydrophytic Vege		n)
1. Polygonum sagittatum	30		OBL	1 Toblematic Hydrophytic vege	ctation (Explai	'')
2. Polygonum cespitosum	10		F <u>ACU</u>	1 and a section of boundaries and south		
3. Impatiens capensis	50		FACW_	<sup>1</sup> Indicators of hydric soil and wetla be present, unless disturbed or pro		iusi
4. Amphicarpaea bracteata	15		F <u>AC</u>	Definitions of Four Vegetation S		
5. Solanum carolinense	7		FACU	Definitions of Four Vegetation of	inutu.	
6. Carex lacustris	15		OBL	Tree – Woody plants, excluding vi		
7. Scirpus cyperinus	15		F <u>ACW</u>	more in diameter at breast height ( height.	(DBH), regardie	ess of
8. Cerastium arvense	25	~	FACU	lg		
g. Solidago rugosa	3	-	FAC	Sapling/Shrub – Woody plants, e.	xcluding vines,	less
10. Osmunda cinnemomea	5		F <u>ACW</u>	than 3 in. DBH and greater than or m) tall.	r equal to 3.28	π (1
11. Boehmaria cylindrica		-	FACW FACW			
The second secon	400	<del></del>		Herb – All herbaceous (non-wood)		dless
50% of total cover: 90		= Total Co total cove		of size, and woody plants less than	11 3.20 II lall.	
Woody Vine Stratum (Plot size: 15' )	20 /0 01	total cover		Woody vine - All woody vines gre	eater than 3.28	ft in
1. Symphyotrichum novi-belgii	2	~	ND	height.		
2. Woodwardia areolata	2		ND FACIAL			
3 Juncus effusus			FACW			
3. Julicus eliusus			<u>FACW</u>			
4				Hydrophytic		
5				Vegetation	NI-	
_		= Total Co		Present? Yes	No	
50% of total cover:3_	20% of	total cover	r: <u>1.2</u>			
Remarks: (Include photo numbers here or on a separate s	heet )			·		

Trees not included in assessment due to not having root zone in wetland. Sampling stratum radius modified to meet the irregular shape and small size of wetland.

#### ND - Not Determined

\*Vegetation not identified down to species not included in dominance test.

SOIL Sampling Point: W-RR04

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redox	k Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-2	10 YR 3/2	98	7.5 YR 4/4	2	<u>C</u>	<u>PL</u>	SiLo	
2-8	5 Y 4/1	95	7.5 YR 4/4	5	С	M/PL	SiL	
8-16	5 Y 4/2	93	7.5 YR 3/4	7	С	PL	SiLo	
16-20	2.5 Y 4/2	97	10 YR 5/6	3	С	PL	SiLo	
					-			
					-			
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		_=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indica	ntors for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	. ,				cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be				<b>148)</b> C	oast Prairie Redox (A16)
Black Hi			Thin Dark Su		•	47, 148)	ъ.	(MLRA 147, 148)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye  Depleted Mat		F2)		PI	iedmont Floodplain Soils (F19) (MLRA 136, 147)
	ick (A10) <b>(LRR N)</b>		Redox Dark S		-6)		Ve	ery Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar					ther (Explain in Remarks)
	ark Surface (A12)		Redox Depre	ssions (F	8)			
	lucky Mineral (S1) (L	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 136	-	(NAL DA 40	0 400\	31	Contains of hardwards for an exterior and
	Gleyed Matrix (S4) Redox (S5)		Umbric Surfa Piedmont Flo					icators of hydrophytic vegetation and tland hydrology must be present,
	Matrix (S6)		Red Parent M					ess disturbed or problematic.
	Layer (if observed):			(	/ (		,	р година
Type:			<u></u>					
Depth (inc	ches):						Hydric Soil	Present? Yes <u>✓</u> No
Remarks:							1	

# **Wetland Photograph Page**

#### Wetland ID W-RR04



Photograph Direction East

Date: 09/18/2015

Comments: 2015 wetland delineation.



Photograph Direction NE

Date: 11/04/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP			_ City/County: Fra	nklin		Sampling Date: 09/18/2015
Applicant/Owner: MVP			- , , ,			Sampling Point: W-RR04-Up
Investigator(s): JC, RK, DM			_ Section, Township			
Landform (hillslope, terrace, etc.):						Slope (%): 3
Subregion (LRR or MLRA): LRRN						
Soil Map Unit Name: Edneytown-				-		
			_			<u> </u>
Are climatic / hydrologic conditions o						
Are Vegetation, Soil,	or Hydrology	significant	ly disturbed?	Are "Normal	Circumstances"	present? Yes No No
Are Vegetation, Soil,	or Hydrology	naturally p	problematic?	(If needed, e	explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS -	Attach site n	nap showin	ng sampling po	nt locatio	ns, transect	s, important features, etc.
Hydrophytic Vogotation Procent?	Yes	No. V				
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes		Is the Sam	-		
Wetland Hydrology Present?	Yes		within a W	etland?	Yes	No
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:					Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one	e is required; chec	k all that apply	<b>'</b> )		Surface So	
Surface Water (A1)		True Aquatic			· <del></del>	egetated Concave Surface (B8)
High Water Table (A2)	_		lfide Odor (C1)		Drainage P	
Saturation (A3)	_		zospheres on Living	Roots (C3)	Moss Trim	
Water Marks (B1)	_	Presence of F	Reduced Iron (C4)		Dry-Seasor	n Water Table (C2)
Sediment Deposits (B2)		Recent Iron R	Reduction in Tilled Se	oils (C6)	Crayfish Bu	
Drift Deposits (B3)		Thin Muck Su				Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain	n in Remarks)			Stressed Plants (D1)
Iron Deposits (B5)	(57)				Geomorphi	` '
Inundation Visible on Aerial Im-	agery (B7)				Shallow Aq	
Water-Stained Leaves (B9) Aquatic Fauna (B13)					FAC-Neutra	raphic Relief (D4)
Field Observations:					1 AC-Neutra	di rest (D3)
	s No	Depth (inche	<i>is)</i> .			
Water Table Present? Yes	No	Depth (inche	es):			
	No <u>/</u>			Wetland F	lvdrology Prese	ent? Yes No_ 🗸
(includes capillary fringe)						
Describe Recorded Data (stream g	auge, monitoring	well, aerial pho	otos, previous inspec	tions), if ava	ilable:	
Remarks:						

Sampling I	Point: V	N-RR0₄	1-Up
------------	----------	--------	------

Tree Stratum (Plot size:30'	Absolute % Cover	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:
1. Acer pensylvanica		<u> </u>	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
2. Carya tomentosa	10		ND	That Are OBE, FACW, OF FAC.
3. Ulmus americana	8		FACW	Total Number of Dominant Species Across All Strate: 7* (B)
4. Lireodendron tulipifera	10			Species Across All Strata: (B)
5. Pinus strobus			FACU FACU	Percent of Dominant Species
· ·			FACU	That Are OBL, FACW, or FAC: 40% (A/B)
6. Betula lenta	30		FACU_	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov		OBL species x 1 =
		f total cover:	14.6	
Sapling/Shrub Stratum (Plot size: 15	)	4		FACW species x 2 =
1. Kalmia latifolia			FACU_	FAC species x 3 =
2. Rhododendron maxima			FAC	FACU species x 4 =
3. Acer rubrum	2		FAC	UPL species x 5 =
4. Carya tomentosa	2		ND	Column Totals: (A) (B)
5				Dravelance Index. D/A
6		-		Prevalence Index = B/A =
7				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
9	· ·			2 - Dominance Test is >50%
<u>.                                    </u>	84	= Total Cov		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% 0		f total cover:		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5'	1	i total oover.		data in Remarks or on a separate sheet)
1. Polystichum acrostichoides	/ 		FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Crystopteris fragilis	2			
3. Athyrium filix-femina			FACU_	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Attrytiditi illix-lettilia			ND	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				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				Herb – All herbaceous (non-woody) plants, regardless
	8	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of	total cover: 4 20% o	f total cover:	1.6	Was desired Allowed by San San San Share San
Woody Vine Stratum (Plot size: 15'	)			<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1. Toxicodendron radicans	3	<b>~</b>	<u>FACU</u>	noight.
2. Smilax rotundifolia	3		FAC	
			1710	
4				Hydrophytic
5				Vegetation Present? Yes No ✓
		= Total Cov		Present? Yes No
50% of	total cover: 3 20% o	f total cover:	1.2	
Remarks: (Include photo numbers here ND - Not Determined  *Vegetation not identified down to		ded in the	domina	ince test.

Sampling Point: W-RR04-Up

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the ir	ndicator	or confirm	the absenc	e of indicat	ors.)		
Depth	Matrix			x Features							
(inches)	Color (moist)	%	Color (moist)	<u></u> %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	_	Remark	S	
0-6	10 YR 4/3						L		Roo	ts	
			_								
							•				
								-			
								<del>-</del>			
								_			
1			. d d Martida Mar		010		21	DI D	M. M. t.		
Hydric Soil	oncentration, D=Depl	etion, Rivi=Re	educed Matrix, MS	s=iviasked	Sand Gra	ins.		PL=Pore Lin			lo <sup>3</sup> .
-				(0-)						-	15 .
Histosol	, ,		Dark Surface					2 cm Muck (	. , .	•	
	oipedon (A2)		Polyvalue Be				148)	Coast Prairie		6)	
Black Hi			Thin Dark Su			47, 148)		(MLRA 14			
	n Sulfide (A4)		Loamy Gleye		<del>-</del> 2)			Piedmont FI		ils (F19)	
	d Layers (A5)		Depleted Mar					(MLRA 1			
	ick (A10) (LRR N)	(* )	Redox Dark S		•			Very Shallov			
	d Below Dark Surface	(A11)	Depleted Dar				_	Other (Expla	ain in Remar	·ks)	
	ark Surface (A12)		Redox Depre								
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) <b>(</b> I	RR N,					
	A 147, 148)		MLRA 13				3,				
	Gleyed Matrix (S4)		Umbric Surfa					dicators of h		-	ind
	Redox (S5)		Piedmont Flo					etland hydro			
	Matrix (S6)		Red Parent N	nateriai (F2	21) (MLR	4 127, 147	) u	nless disturb	pea or proble	ematic.	
	Layer (if observed):										
Type:			_								
Depth (inc	ches):		_				Hydric So	il Present?	Yes	No	
Remarks:	-										
Upland Soi	ils										

Project/Site: MVP		City/C	<sub>ounty:</sub> Franklin		Sampling Date: 09/17/2015
Applicant/Owner: MVP					Sampling Point: W-RR03
Investigator(s): JC, DM, RK		Section	on, Township, Range: N/	'A	_ , •
Landform (hillslope, terrace, etc			·		Slope (%): 0
Subregion (LRR or MLRA): LR					Datum: NAD83
Soil Map Unit Name: Cullasaja					
Are climatic / hydrologic condition					
					present? Yes No
Are Vegetation, Soil					
_					, important features, etc.
	.,,				, ,
Hydrophytic Vegetation Preser	nt? Yes		Is the Sampled Area		
Hydric Soil Present? Wetland Hydrology Present?		No No	within a Wetland?	Yes	No
Remarks:	163	110			
Cowardin Code: PEM; H	GM: Riverine; WT:	RPWWD			
The wetland was revisited	d on 11/21/2019. Pi	resence of wetlar	nd hydrology, hydrol	phytic vegetati	on, and hydric soils was
confirmed using the USA					•
	· ·		0.		
HYDROLOGY					
Wetland Hydrology Indicator	rs:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum c	of one is required; check	all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	7	Γrue Aquatic Plants (I	B14)	Sparsely Veg	getated Concave Surface (B8)
High Water Table (A2)	<u> </u>	Hydrogen Sulfide Odd	or (C1)	Drainage Pa	tterns (B10)
Saturation (A3)	(	Oxidized Rhizosphere	es on Living Roots (C3)	Moss Trim Li	ines (B16)
Water Marks (B1)	<u> </u>	Presence of Reduced	Iron (C4)	Dry-Season	Water Table (C2)
Sediment Deposits (B2)	F	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bur	rows (C8)
Drift Deposits (B3)	7	Thin Muck Surface (C	<b>37</b> )	Saturation V	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	(	Other (Explain in Ren	narks)	Stunted or S	tressed Plants (D1)
Iron Deposits (B5)				Geomorphic	Position (D2)
Inundation Visible on Aeria	al Imagery (B7)			Shallow Aqu	itard (D3)
Water-Stained Leaves (BS	9)				aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:					
Surface Water Present?	Yes No		<del></del>		
Water Table Present?	Yes No	Depth (inches):	1		
Saturation Present?	Yes No	Depth (inches):	0 Wetland H	lydrology Preser	nt? Yes <u>/</u> No
(includes capillary fringe)  Describe Recorded Data (streat	am gauge, monitoring w	ell. aerial photos, pre	 vious inspections), if ava	ilable:	
(****	33.,	, , , , , ,	.,, .,,		
Remarks:					

#### VEGETATION (Four Strata) - Use scientific names of plants.

30'

Sapling/Shrub Stratum (Plot size: 15')

5. Osamunda cinnamomea

Tree Stratum (Plot size: \_\_

Herb Stratum (Plot size: \_ 1. Eupatorium perfoliatum

3. Coreopsis lanceolata

6. Vernonia gigantea

7. Solidago rugosa

9. Leersia oryzoides

10. Juncus effusus

11. Galium sp

4. Symphyotrichum laeve

8. Polygonum sagittatum

Woody Vine Stratum (Plot size: 15'

2. Carex lacustris

4.\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_

<ul> <li>Use scientific n</li> </ul>	ames of	plants.		Sampling Point: W-RF	103
<b>\</b>	Absolute			Dominance Test worksheet:	
<i>)</i> 	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:  3	(A)
				Total Number of Dominant Species Across All Strata: 4	(B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 75	(A/E
				Prevalence Index worksheet:	
	0	T		Total % Cover of: Multiply b	oy:
% of total cover: 0		= Total Cov	_	OBL species x 1 =	
% of total cover:	20% 01	total cover		FACW species x 2 =	
)				FAC species x 3 =	
		-		FACU species x 4 =	
				UPL species x 5 =	
			·		(B)
				Prevalence Index = B/A =	
				Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Vegetati	on
				2 - Dominance Test is >50%	
				3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	0	= Total Cov	/er	4 - Morphological Adaptations¹ (Provide	a sunnortir
% of total cover:0	20% of	total cover	:0	data in Remarks or on a separate sl	
)					
	15		F <u>ACW</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (E	explain)
	30		<u>OBL</u>	11. Protections of booking and an allowed booking	
	10		F <u>ACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrol be present, unless disturbed or problematic	
	15		ND	Definitions of Four Vegetation Strata:	•
	5		OBL	Definitions of Four Vegetation Strata.	
	15		FAC	Tree – Woody plants, excluding vines, 3 in.	
	20	<b>V</b>	FAC	more in diameter at breast height (DBH), re height.	gardless o
	20	<b>V</b>	OBL	g.m	
	5		OBL	Sapling/Shrub – Woody plants, excluding v	
	5		FACW_	than 3 in. DBH and greater than or equal to m) tall.	3.2011 (1
	1		ND		
		T-1-1-0		Herb – All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft t	
% of total cover: <u>70.5</u>		= Total Cover		Woody vine – All woody vines greater than	
)	5	~	FACU	height.	
				Hydrophytic	
				Vegetation   Present? Yes ✔ No	
	5 .	<ul><li>Total Cov</li></ul>	or.		

Remarks: (Include photo numbers here or on a separate sheet.)

1. Toxicodendron radicans

SOIL Sampling Point: W-RR03

Profile Desc	ription: (Describe	to the dept	h needed to docur	nent the i	indicator	or confirn	n the abs	ence of indicators.)			
Depth	Matrix		Redo	x Feature	S						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Textu		marks		
0-6	10 YR 3/1	100					Mud	<u> </u>			
6-18	2.5 Y 3/1	100					SiL	0			
								<del></del>	_		
								<del></del>			
								<del></del>			
							-				
							-				
	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gra	ains.		on: PL=Pore Lining, M=			
Hydric Soil								Indicators for Problem	-		
Histosol			Dark Surface					2 cm Muck (A10) (N			
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox			
Black Hi			Thin Dark Su			47, 148)		(MLRA 147, 148)			
	n Sulfide (A4)		Loamy Gleye		(F2)		,	Piedmont Floodplain			
	d Layers (A5) ick (A10) <b>(LRR N)</b>		Depleted Ma Redox Dark		<del>-</del> 6)			(MLRA 136, 147) Very Shallow Dark S			
	d Below Dark Surface					,	Other (Explain in Re	, ,			
	ark Surface (A12)	, , , , ,	Depleted Dark Surface (F7) Other (Explain in Remarks) Redox Depressions (F8)								
	lucky Mineral (S1) (L	.RR N,	Iron-Mangan			_RR N,					
MLRA	A 147, 148)		MLRA 13	6)							
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)		<sup>3</sup> Indicators of hydrophy	tic vegetation and		
Sandy R	tedox (S5)	Piedmont Floodplain Soils (F19) (MLRA 148									
	Matrix (S6)		Red Parent N	Material (F	21) <b>(MLR</b>	A 127, 147	7)	unless disturbed or p	roblematic.		
Restrictive I	_ayer (if observed):										
Type:											
Depth (inc	ches):						Hydrid	Soil Present? Yes	No		
Remarks:											
Very wet so	oils										

# **Wetland Photograph Page**

#### Wetland ID W-RR03



Photograph Direction East

Date: 09/17/2015

Comments: 2015 wetland delineation.



Photograph Direction SE

Date: 11/21/19

Project/Site: MVP				City/	County: Franklin	า		Sampling Date: 09/17/2015	
Applicant/Owner: MVP								sampling Point: W-RR03-Up	
Investigator(s): JC, DM, RI	K			Sect	tion, Township, Rai		· · · · · · · · · · · · · · · · · · ·		
Landform (hillslope, terrace, e								Slone (%)· 10	
Subregion (LRR or MLRA): _L								Datum: NAD 83	
Soil Map Unit Name: Cullas	aia-Tucka	La	mpley '	15 to 25 n		-			
•								·	
Are climatic / hydrologic cond				-					
Are Vegetation, Soil _	, or Hy	drology	signi	ficantly distu	urbed? Are "	"Normal	Circumstances"	present? Yes No	
Are Vegetation, Soil _	, or Hy	drology	natui	rally problen	natic? (If ne	eeded, e	xplain any answe	ers in Remarks.)	
SUMMARY OF FINDIN	IGS – Atta	ıch site ı	map sho	owing sa	mpling point l	ocatio	ns, transects	s, important features, etc.	
Hydrophytic Vegetation Pres	Vas	No	<u> </u>						
Hydric Soil Present?			No V		Is the Sampled Area		.,	N= 4	
Wetland Hydrology Present		Yes		<b>✓</b>	within a wetian	within a Wetland? Yes		No	
Remarks: Upland									
HYDROLOGY									
Wetland Hydrology Indica	tors:						Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimun	n of one is rec	quired; che	ck all that	apply)			Surface Soil		
Surface Water (A1)							Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)							Drainage Pa		
Saturation (A3)		_	_ Oxidized	d Rhizosphe	ospheres on Living Roots (C3) Moss Trimeduced Iron (C4) Dry-Season			ines (B16)	
Water Marks (B1)			_ Presenc	e of Reduce				Water Table (C2)	
Sediment Deposits (B2)	Recent	Iron Reducti	ion in Tilled Soils (0		rows (C8)				
Drift Deposits (B3) Thin Muck Sur								isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Other (Explain					emarks)			Stressed Plants (D1)	
Iron Deposits (B5)					Geomorphic				
Inundation Visible on A					uitard (D3)				
Water-Stained Leaves ( Aquatic Fauna (B13)					FAC-Neutra	aphic Relief (D4)			
					1		FAC-Neutra	Trest (D5)	
Field Observations: Surface Water Present?	Voo	No. V	Donth (	(inches):					
Water Table Present?									
Saturation Present?				Depth (inches): Wetland			Hydrology Present? Yes No		
(includes capillary fringe)	162	_ NO	_ Deptil (	(IIICHES)		elianu n	yarology Fresei	intrites No v	
Describe Recorded Data (st	ream gauge,	monitoring	well, aeria	al photos, pr	evious inspections	s), if avai	lable:		
Remarks:									
No hydrology									
İ									

Sampling Point: W-RR03-Up

,	Absolute	Dominant	Indicator	Dominance Test worksheet:	_
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species	
1. Acer rubrum	3		FAC	That Are OBL, FACW, or FAC:0 (A)	
2. Carya tomentosa	10		ND	Total Number of Dominant	
3. Carya ovata	7		FACU_	Species Across All Strata: 2* (B)	
4					
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  0 (A/I	D۱
6				That Are OBL, FACW, OF FAC.	נט
7	-			Prevalence Index worksheet:	
	20	= Total Cov		Total % Cover of: Multiply by:	
50% of total cover:10				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: (A) (E	3)
4				( ,	,
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	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporti	ng
50% of total cover: 0	20% 01	total cover:	0	data in Remarks or on a separate sheet)	
Tierb Stratum (Flot size)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
1				<u> </u>	
2				<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
3				be present, unless disturbed or problematic.	
4				Definitions of Four Vegetation Strata:	
5					
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of	
7				height.	٥,
8				October 10 book 10 boo	
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.				Herb – All herbaceous (non-woody) plants, regardles	
	0	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.	,5
50% of total cover:0		total cover:			
Woody Vine Stratum (Plot size: 15')				Woody vine – All woody vines greater than 3.28 ft in height.	
1. Rosa multiflora	5	<b>✓</b>	FACU	Holght.	
2 Parthenocissus quinquefolia	3		FACU		
3 Toxicodendron radicans	2		FACU		
4.	-				
5.	-			Hydrophytic	
J	10	= Total Cov		Vegetation Present? Yes No _  ✓	
50% of total cover: 5		total cover:	_		
Remarks: (Include photo numbers here or on a separate s		iolai covel.		1	
Vegetation heavily disturbed and stripped for ha					
vegetation neavily disturbed and stripped for ha	ı vesiiriy				

ND - Not Determined

\*Vegetation not identified down to species level not included in the dominance test.

Sampling Point: W-RR03-Up

SOIL

Depth	Matrix		Redox Features	Type <sup>1</sup> Loc <sup>2</sup>	T	B 1	_
nches)	Color (moist)	<u>%</u>	Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup>	<u>Texture</u>	Remark	
8-0	10YR 4/3	100			L	Highly com	npacted
				· · · · · · · · · · · · · · · · · · ·			
		<del></del>					
		<del></del>					
				<del></del>			
ype: C=Co	oncentration, D=Dep	letion, RM=R	educed Matrix, MS=Masked S	and Grains.		L=Pore Lining, M=Matri	
ydric Soil I	ndicators:				Indica	ators for Problematic	Hydric Soils <sup>3</sup> :
_ Histosol	(A1)		Dark Surface (S7)		2	cm Muck (A10) (MLRA	147)
	pipedon (A2)		Polyvalue Below Surface	(S8) (MLRA 147,	<b>148)</b> C	oast Prairie Redox (A1	6)
Black Hi			Thin Dark Surface (S9) (I	VILRA 147, 148)	, <u> </u>	(MLRA 147, 148)	,
_ Hydroge	n Sulfide (A4)		Loamy Gleyed Matrix (F2		P	iedmont Floodplain Soi	ls (F19)
	Layers (A5)		Depleted Matrix (F3)			(MLRA 136, 147)	
_ 2 cm Mu	ick (A10) (LRR N)		Redox Dark Surface (F6)		v	ery Shallow Dark Surfa	ice (TF12)
_ Depleted	Below Dark Surfac	e (A11)	Depleted Dark Surface (F	<del>-</del> 7)	0	ther (Explain in Remarl	ks)
_ Thick Da	ark Surface (A12)		Redox Depressions (F8)				
_ Sandy M	lucky Mineral (S1) (I	LRR N,	Iron-Manganese Masses	(F12) (LRR N,			
	A 147, 148)		MLRA 136)				
Sandy G	lleyed Matrix (S4)		Umbric Surface (F13) (M	LRA 136, 122)	<sup>3</sup> Ind	icators of hydrophytic v	egetation and
Sandy R	edox (S5)		Piedmont Floodplain Soil	s (F19) <b>(MLRA 14</b>	<b>8)</b> we	tland hydrology must be	e present,
Stripped	Matrix (S6)		Red Parent Material (F21	) (MLRA 127, 147	) unl	less disturbed or proble	ematic.
estrictive L	_ayer (if observed):						
Type:							
Depth (inc	ches):		_		Hydric Soil	Present? Yes	No_
	J. 100).		<del>-</del>		Tiyano con		
emarks: vile heavi	ly compressed a	and restricts	2d				
JIIS HEAVI	iy compressed a	ind restricte	eu.				

Project/Site: MVP	City/County: Franklin	Sampling Date: 10/17/2016
Applicant/Owner: MVP		State: VA Sampling Point: W-KL41
Investigator(s): E. Foster, J. Cook, S. Pilche	er Section, Township, Range: N	· -
Landform (hillslope, terrace, etc.): Floodplain		
Subregion (LRR or MLRA): LRR N		0.115800 Datum: NAD 83
Soil Map Unit Name: 13D-Cullasaja-Tuckasege		
•		<del></del>
Are climatic / hydrologic conditions on the site typic	-	
Are Vegetation, Soil, or Hydrology		Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed,	explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach sit	te map showing sampling point location	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	V No Is the Sampled Area	
Hydric Soil Present? Yes	is the Sampled Area	Yes 🗸 No
Wetland Hydrology Present? Yes	No within a Wetland?	res No
Remarks: Cowardin Code: PEM	HGM: Riverine Water Type:	RPWWD
	• • • • • • • • • • • • • • • • • • • •	
Former logging area. Maintained	field. Emergent fringe abutting S-RR16.	
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; of		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)		<ul><li> Microtopographic Relief (D4)</li><li>✓ FAC-Neutral Test (D5)</li></ul>
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No	Depth (inches):	
	Depth (inches): 0	
	Deptif (inches)	Hydrology Present? Yes <u>✓</u> No
(includes capillary fringe)	Depth (inches): wetland	Aydrology Present? Yes No
	ring well, aerial photos, previous inspections), if av	ailable:
Remarks:		
Tromano.		

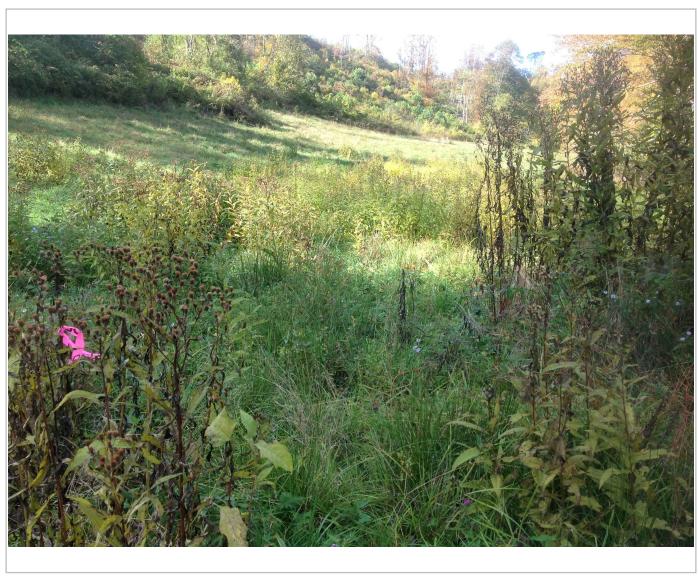
Sampling Po	nt: W-K	L41
-------------	---------	-----

Tree Stratum (Plot size: 30'	Absolute	Dominant		Dominance Test worksheet:
Tiee Stratum (Flot size)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:5 (A)
2				Total Number of Dominant
3				Species Across All Strata:5 (B)
4				Descrit of Descionat Conscion
5				Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B)
6				(42)
7				Prevalence Index worksheet:
	0 .	= Total Cov	ver	Total % Cover of: Multiply by:
50% of total cover: 0	20% of			OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2 =
1				FAC species x 3 =
				FACU species x 4 =
2		-	· ——	UPL species x 5 =
3		-		Column Totals: (A) (B)
4				(1)
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>
	0 :	= Total Cov	er er	
50% of total cover:0	20% of	total cover	0	4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size: 5')				data in Remarks or on a separate sheet)
1. Persicaria sagittata	15	<b>✓</b>	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Scirpus polyphyllus	20	~	OBL	
3. Scirpus atrovirens	15	<b>V</b>	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Persicaria pensylvanica	15		FACW	be present, unless disturbed or problematic.
5. Verbesina alternifolia	10		FAC	Definitions of Four Vegetation Strata:
6. Juncus effusus	25		FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Agrimonia parviflora	5		FACW	more in diameter at breast height (DBH), regardless of
• • • • • • • • • • • • • • • • • • • •			FACVV	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
	105	= Total Cov	er er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>52.5</u>	5_ 20% of	total cover	<u>21                                    </u>	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:15')				height.
1				
2				
3				
4.				
5.				Hydrophytic
J	0 .	Total Cox		Vegetation Present? Yes ✔ No
50% of total cover: 0		<ul><li>Total Cover total cover</li></ul>	_	
		total cover		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Sampling Point: W-KL41

SOIL

Depth	Matrix			x Features	1	_		
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup> Loc <sup>2</sup>	<u>Texture</u>		emarks
0-18	10YR 4/1	70	10YR 5/8	30	C M/PL	SiL	Gravelly, ne	eavily compressed
							-	
							-	
						-	-	
Tuno: C-Co	naantration D-Dani	otion BM	Paduaad Matrix M		Cond Croins	<sup>2</sup> Location: D	L_Boro Lining M-	Motrix
Hydric Soil II	ncentration, D=Depl	ellon, Rivi=	Reduced Matrix, Mi	S=IVIASKeu S	sand Grains.		L=Pore Lining, M=	natic Hydric Soils <sup>3</sup> :
Histosol (			Dark Surface	(\$7)			cm Muck (A10) (I	-
	ipedon (A2)				(S8) <b>(MLRA 147</b>		Coast Prairie Redo	•
Black His					MLRA 147, 148)	s	(MLRA 147, 148	
	n Sulfide (A4)		Loamy Gleye			P	riedmont Floodpla	
Stratified	Layers (A5)		Depleted Ma	trix (F3)			(MLRA 136, 147	")
	ck (A10) (LRR N)		Redox Dark	, ,			ery Shallow Dark	
	Below Dark Surface	(A11)	Depleted Da			c	Other (Explain in R	emarks)
	rk Surface (A12)	DD N	Redox Depre					
	ucky Mineral (S1) (L . 147, 148)	KK N,	iron-wangan MLRA 13		(F12) <b>(LRR N,</b>			
	leyed Matrix (S4)			-	LRA 136, 122)	<sup>3</sup> Ind	licators of hydroph	ytic vegetation and
	edox (S5)				ls (F19) <b>(MLRA 1</b>		etland hydrology m	
	Matrix (S6)				1) <b>(MLRA 127, 14</b>		less disturbed or p	
Suipped	Watrix (OO)					-		
	ayer (if observed):							
Restrictive L	ayer (if observed):					Hydric Soil	Present? Yes	_ <b>✓</b> No
Restrictive L Type: Depth (inc	ayer (if observed):		_			Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):		_			Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):		_			Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u>v</u> No
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	✓ No
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	✓ No
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	✓ No
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present? Yes	<u> </u>



Photograph Direction SE

Comments:		

Project/Site: MVP	City/County: Franklin		Sampling Date: 10/17/2016
Applicant/Owner: MVP			Sampling Point: W-KL41-UP
Investigator(s): E. Foster, J. Cook, S. Pilcher			
Landform (hillslope, terrace, etc.): Hillslope			Slope (%): 5-10
Subregion (LRR or MLRA): LRR N L			Datum: NAD 83
Soil Map Unit Name: 13D-Cullasaja-Tuckasegee			
Are climatic / hydrologic conditions on the site typica	al for this time of year? Yes No	(If no, explain in	n Remarks.)
Are Vegetation, Soil, or Hydrology _			
Are Vegetation, Soil, or Hydrology _			
SUMMARY OF FINDINGS – Attach site			
		<u> </u>	
	No V Is the Sampled A		
	No within a Wetland?	? Yes	No
Remarks: Cowardin Code: UPLAND	<u>_</u>	ne.	
	•	ρο.	
Maintained field, old logging area.			
HYDROLOGY			
Wetland Hydrology Indicators:		•	dicators (minimum of two required)
Primary Indicators (minimum of one is required; ch			Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)		Vegetated Concave Surface (B8)
	Hydrogen Sulfide Odor (C1)	-	Patterns (B10)
	<ul><li>Oxidized Rhizospheres on Living Roots (</li><li>Presence of Reduced Iron (C4)</li></ul>		n Lines (B16)
Water Marks (B1) Sediment Deposits (B2)	<ul> <li>Recent Iron Reduction in Tilled Soils (C6)</li> </ul>	•	on Water Table (C2) Burrows (C8)
Sediment Deposits (B2) Drift Deposits (B3)	Thin Muck Surface (C7)	·	n Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)		r Stressed Plants (D1)
Iron Deposits (B5)	Cirior (Explain in Nomano)		hic Position (D2)
Inundation Visible on Aerial Imagery (B7)			Aquitard (D3)
Water-Stained Leaves (B9)			ographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neu	
Field Observations:			, ,
Surface Water Present? Yes No	Depth (inches):		
	Depth (inches):		
		and Hydrology Pres	sent? Yes No_ 🗸
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitorin	ig well, aeriai priotos, previous inspections), i	i avaliable:	
Remarks:			

Sampling	Point:	W-KL	41-ل	JΡ
Sambilliu	rollit.	**	、	

Tree Stratum (Plot size: 30'	Absolute	Dominant		Dominance Test worksheet:
Tiee Stratum (1 lot size)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Description of Description of Organiza
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)
6				(VD)
7				Prevalence Index worksheet:
	0 .	= Total Cov	er	Total % Cover of: Multiply 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 =
				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4		-		(1)
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>
	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')				
1. Agrostis gigantea	20		F <u>ACW</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Phleum pratense	20	<b>✓</b>	FACU	
3. Poa pratensis	20	<u> </u>	FACU	¹Indicators of hydric soil and wetland hydrology must
4. Solanum carolinense	10		FACU	be present, unless disturbed or problematic.
5. Taraxacum officinale	5	-	FACU	Definitions of Four Vegetation Strata:
6. Daucus carota	5		UPL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7 Trifolium repens	15	-	FACU	more in diameter at breast height (DBH), regardless of
8 Verbesina alternifolia			FAC	height.
<u> </u>		-	1 // /	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
	100	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover:50	20% of	total cover:	20	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15' )				height.
1				
2				
3				
4				Livelyambyetia
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 si				
The manual (more and manual of the absolute of	,			

Depth	Matrix		needed to document the indicator or c  Redox Features			•	
(inches)	Color (moist)	<u>%</u>	Color (moist) % Type <sup>1</sup> L	oc <sup>2</sup> Text		Remarks	
0-6	10YR 3/4	100		Si	CL_		
	-				· · · · · · · · · · · · · · · · · · ·		
	-						
	-						
				<del></del>			
		letion, RM=R	educed Matrix, MS=Masked Sand Grains	. <sup>2</sup> Locat	ion: PL=Pore Lini		
Hydric Soil I	ndicators:				Indicators for Pi	oblematic H	ydric Soils³:
Histosol	(A1)		Dark Surface (S7)		2 cm Muck (	410) <b>(MLRA</b>	147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLR	A 147, 148)	Coast Prairie	Redox (A16	)
Black Hi	, ,		Thin Dark Surface (S9) (MLRA 147,	148)	(MLRA 14		
	n Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Flo		s (F19)
	l Layers (A5)		Depleted Matrix (F3)		(MLRA 13		
	ick (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallow		
	Below Dark Surface	e (A11)	Depleted Dark Surface (F7)		Other (Expla	in in Remark	s)
	ark Surface (A12)		Redox Depressions (F8)				
	lucky Mineral (S1) (L	.RR N,	Iron-Manganese Masses (F12) (LRR	N,			
	147, 148)		MLRA 136)	20)	31		
	edox (S5)		<ul><li>Umbric Surface (F13) (MLRA 136, 1</li><li>Piedmont Floodplain Soils (F19) (ML</li></ul>		<sup>3</sup> Indicators of h wetland hydro		
	Matrix (S6)		Red Parent Material (F21) (MLRA 12		unless disturb		
	_ayer (if observed):		Red Falent Material (F21) (MERA 12	27, 147)	นกเยรร นเรเนาม	ed of problef	ilalic.
	efusal, compress						
		cu	<del>-</del>				/
Depth (inc	ches): 0		_	Hydr	ic Soil Present?	Yes	No
Remarks:							

Project/Site: MVP		City/C	ounty: Franklin		Sampling Date: 04/04/2015
Applicant/Owner: MVP		•	,		Sampling Point: W-D4
Investigator(s): A. Bensted, J.	Kraus, A. Larsor	) Section	n. Township, Range: N/	<u> </u>	
Landform (hillslope, terrace, etc					Slone (%): 2%
Subregion (LRR or MLRA): LF					
Soil Map Unit Name: Peaks-A					
Are climatic / hydrologic condition		•		•	,
Are Vegetation, Soil	, or Hydrology	significantly disturb	ped? Are "Normal	Circumstances" p	resent? Yes No
Are Vegetation, Soil	, or Hydrology	naturally problema	tic? (If needed, e	explain any answe	rs in Remarks.)
SUMMARY OF FINDING	3S – Attach si	te map showing sam	pling point location	ns, transects	, important features, etc.
Lludranhutia Vagatatian Draga	ent? Yes	✓ No.			
Hydrophytic Vegetation Prese Hydric Soil Present?	Yes	<del>-</del>	Is the Sampled Area	./	
Wetland Hydrology Present?		✓ No	within a Wetland?	Yes	No
Remarks:					
Cowardin Code: PEM; H	GM: Slope; W	I: RPWWN			
Information listed on this of wetland hydrology, hy Supplement delineation	drophytic vege	ts the data collected in tation, and hydric soils	n 2015. The wetland s was confirmed us	d was revisited ing the USACE	on 11/21/2019. Presence E EMP Regional
HYDROLOGY					
Wetland Hydrology Indicato	rs:			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)		True Aquatic Plants (I	314)	Sparsely Veg	getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odd	or (C1)	Drainage Pat	terns (B10)
Saturation (A3)		Oxidized Rhizosphere	es on Living Roots (C3)	Moss Trim Li	nes (B16)
Water Marks (B1)		Presence of Reduced		Dry-Season \	Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Burr	` '
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)		ressed Plants (D1)
Iron Deposits (B5)				Geomorphic	· ·
Inundation Visible on Aer				Shallow Aqui	` ′
Water-Stained Leaves (B	9)				phic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:	V N-	V Danille (Sankara)			
Surface Water Present?		Depth (inches):	12		
Water Table Present?		Doptii (inorico)			
Saturation Present? (includes capillary fringe)	Yes No _	Depth (inches):	Wetland H	lydrology Presen	t? Yes <u>/</u> No
Describe Recorded Data (stre	am gauge, monito	ring well, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:					
Wetland located at toesle	ope in a heavily	grazed pasture. Valle	ey bottom adjacent	to wetland con	tains two intermittent and
a perennial stream- Nort	h Fork Blackwa	ater River (2015).			

Sampling	Point: W-D4
Sambillu	FUILL VV D-

Tree Stratum (Plot size: 30'	Absolute	Dominant		Dominance Test worksheet:		
Tiec ottatum (Flot size.	% Cover			Number of Dominant Species	0	
1				That Are OBL, FACW, or FAC:	2	(A)
2				Total Number of Dominant		
3				Species Across All Strata:	2	(B)
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC:	100	(A/B)
6						,
7				Prevalence Index worksheet:		
	0 .	= Total Cov	ver	<del></del>	ultiply by:	
50% of total cover:0	20% of	total cover	: <u> </u>	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)		
4						_ ` ′
5				Prevalence Index = B/A =		=
6				Hydrophytic Vegetation Indicators	:	
7				1 - Rapid Test for Hydrophytic V	egetation	
8		-	<del></del>	✓ 2 - Dominance Test is >50%		
9	_			3 - Prevalence Index is ≤3.0 <sup>1</sup>		
		= Total Cov		4 - Morphological Adaptations <sup>1</sup> (	Provide sup	oorting
50% of total cover: 0	20% of	total cover	:0	data in Remarks or on a sepa		J
Herb Stratum (Plot size: 5')	00	,		Problematic Hydrophytic Vegeta	,	n)
1. Juncus effusus	30		F <u>AC</u>	resistant tryatophysic regula	tion (Explain	,
2. Carex sp.	30		F <u>AC</u>	<sup>1</sup> Indicators of hydric soil and wetland	hydrology n	ouet
3. Trifolium pratense	10		FACU_	be present, unless disturbed or probl		iusi
4				Definitions of Four Vegetation Stra		
5		-				
6				Tree – Woody plants, excluding vine		
7				more in diameter at breast height (DI height.	5π), regardie	288 01
8						
9				Sapling/Shrub – Woody plants, excluding 3 in. DBH and greater than or e		
10				m) tall.	quai io 3.20	11 (1
11.		-	-	, i		
	70	= Total Cov		<b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than 3		dless
50% of total cover: 35		total cover		or size, and woody plants less than e	7.20 It tail.	
Woody Vine Stratum (Plot size: 15' )	2070 01	total oovel	·	Woody vine – All woody vines great	er than 3.28	ft in
				height.		
1						
2						
3			<del></del>			
4				Hydrophytic		
5				Vegetation Present? Yes ✓ N	1	
0		= Total Cov	_	resent? res N	lo	
50% of total cover: 0		total cover	:0			
Remarks: (Include photo numbers here or on a separate s Carex not identifiable to species due to early ph		and cattle	a arazina	assumed to be EAC (2015)		
Carex not identifiable to species due to early pri	endidgy a	and Calli	e grazing	, assumed to be 1 AC (2013).		

SOIL Sampling Point: W-D4

Profile Desc	ription: (Describe t	o the dept	h needed to docur	nent the i	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6"	10YR 4/1	90	7.5YR 4/6	10	С	M/PL	SaLo	
6-11"	10YR 4/1	98	10YR 3/6	2	С	M/PL	SaLo	C,M
11-15"	10YR 4/1	80	10YR 4/6	20	С	M/PL	SaLo	C,M
					-			
¹Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:							ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	. ,				cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		. , .		, <b>148)</b> C	coast Prairie Redox (A16)
Black Hi			Thin Dark Su			147, 148)	_	(MLRA 147, 148)
	n Sulfide (A4) I Layers (A5)		Loamy Gleye  Depleted Ma		(F2)		P	iedmont Floodplain Soils (F19)
	ick (A10) <b>(LRR N)</b>		Redox Dark		<del>-</del> 6)		V	(MLRA 136, 147) ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dai	,	,			Other (Explain in Remarks)
	ark Surface (A12)	` ,	Redox Depre					,
	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan		es (F12) (	(LRR N,		
	147, 148)		MLRA 13				3	
	ileyed Matrix (S4)		Umbric Surfa					icators of hydrophytic vegetation and
	edox (S5) Matrix (S6)		Piedmont Florage Red Parent M					Itland hydrology must be present, less disturbed or problematic.
	_ayer (if observed):		rear arener	natoriai (i	ZI) (MZI	127, 14	, un	reses disturbed of problematic.
Type:	,							
Depth (inc	ches):						Hydric Soil	Present? Yes V No
Remarks:	,							

# **Wetland Photograph Page**

#### Wetland ID W-D4



Photograph Direction West

Date: 04/04/2015

Comments: 2015 wetland delineation.



Photograph Direction NW

Date: 11/21/19

Project/Site: MVP	City	<sub>/County:</sub> Franklin		Sampling Date: 04/04/2015			
Applicant/Owner: MVP				Sampling Point: W-D4-UP1			
Investigator(s): A. Bensted, J. Kraus, A.				_ ,			
Landform (hillslope, terrace, etc.): Toeslope				Slope (%)· 2%			
Subregion (LRR or MLRA): LRRN				Datum: NAD83			
Soil Map Unit Name: Comus-Maggodee-							
Are climatic / hydrologic conditions on the site							
Are Vegetation, Soil, or Hydrole							
Are Vegetation, Soil, or Hydrole							
SUMMARY OF FINDINGS – Attach							
Sommart of Thebros - Attach			nis, transcots	, important reatures, etc.			
	s No	Is the Sampled Area					
	s No	within a Wetland?	Yes	No			
Wetland Hydrology Present? Yes Remarks:	s No						
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)			
Primary Indicators (minimum of one is require	ed; check all that apply)		Surface Soil (	Cracks (B6)			
Surface Water (A1)	True Aquatic Plants	s (B14)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfide C	dor (C1)	Drainage Patterns (B10)				
Saturation (A3)	Oxidized Rhizosphe	eres on Living Roots (C3)	Moss Trim Li	nes (B16)			
Water Marks (B1)	Presence of Reduc	` '	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		ion in Tilled Soils (C6)					
Drift Deposits (B3)	Thin Muck Surface		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in R	emarks)		ressed Plants (D1)			
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	)		<pre> Geomorphic Position (D2) Shallow Aquitard (D3)</pre>				
Water-Stained Leaves (B9)	,		Microtopographic Relief (D4)				
Aquatic Fauna (B13)			FAC-Neutral				
Field Observations:							
Surface Water Present? Yes N	lo Depth (inches):						
Water Table Present? Yes N	lo Depth (inches):						
	lo Depth (inches):	Wetland H	lydrology Presen	t? Yes No			
(includes capillary fringe)  Describe Recorded Data (stream gauge, mor	nitoring well, aerial photos, p	I revious inspections), if ava	ilable:				
Remarks:							

Sampling	Point: W-D4-UP1	

Tree Stratum (Plot size: 30'	Absolute		Indicator	Dominance Test worksheet:			
Tree Stratum (1 lot size)	% Cover	Species?	Status	Number of Dominant Species			
				That Are OBL, FACW, or FAC:0 (A	(A)		
2				Total Number of Dominant			
3					(B)		
4				Develop of Deminant Charles			
5				Percent of Dominant Species That Are OBL, FACW, or FAC:0% (/	A/B)		
6				, , ,	, , , _ ,		
7				Prevalence Index worksheet:			
	0	= Total Co	ver	Total % Cover of: Multiply 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 =			
				FACU species x 4 =			
2				UPL species x 5 =			
3				Column Totals: (A)	(B)		
4				Column Totals (A)	(D)		
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>			
	0	= Total Co	ver	1 <del>-</del>	untin or		
50% of total cover:0	20% of	total cover	r: <u> </u>	4 - Morphological Adaptations <sup>1</sup> (Provide suppo	orung		
Herb Stratum (Plot size: 5' )				data in Remarks or on a separate sheet)			
1. Poa sp.	30		ND	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	)		
2. Trifolium pratense	25	<u> </u>	FACU				
3. Plantago major	15	~	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology mu	ıst		
4. Fragaria virginiana	5		FACU	be present, unless disturbed or problematic.			
5. Cardamine parviflora			FACU FACU	Definitions of Four Vegetation Strata:			
6. Taraxacum officinale	5			Tree – Woody plants, excluding vines, 3 in. (7.6 cm	n) or		
	5	-	F <u>ACU</u>	more in diameter at breast height (DBH), regardless of			
7. Stellaria media			<u>UPL</u>	height.			
8				Sapling/Shrub – Woody plants, excluding vines, le	ess		
9				than 3 in. DBH and greater than or equal to 3.28 ft			
10				m) tall.			
11				Herb – All herbaceous (non-woody) plants, regardl	less		
	90	= Total Co	ver	of size, and woody plants less than 3.28 ft tall.	.000		
50% of total cover: 45	20% of	total cover	r: <u>18</u>	Was designed. All over the constant has 0.00 ft			
Woody Vine Stratum (Plot size: 15')				Woody vine – All woody vines greater than 3.28 ft height.	. III		
1. Rosa multiflora	5	<b>~</b>	FACU	no.g.m			
2							
3	·						
4.		-					
_		-		Hydrophytic			
5	5			Vegetation Present? Yes No ✓			
500 () 2.5		= Total Co		Tresent: TesNO			
50% of total cover: 2.5		total cove	r: <u> </u>				
Remarks: (Include photo numbers here or on a separate s		i F	۸ ا ا م د ا ا	וחו			
Poa not identifiable to species due to grazing. A	ıı otner sı	becies F	AUU or U	IPL.			
					ļ		

SOIL Sampling Point: W-D4-UP1

Profile Desc	ription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the abs	sence of indicat	ors.)	
Depth	Matrix			x Features	-					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Text		Remark	
0-12"	10YR 4/2	50					Sal	_o No	redox. Gra	avel in soil.
	10YR 4/3	50								
							-			
							-	· · · · · · · · · · · · · · · · · · ·		
							-			
										_
1Type: C=C	oncentration, D=Depl	etion PM-	Peduced Matrix MS	S-Macked	Sand Gra	nine	<sup>2</sup> l ocati	on: PL=Pore Lin	ing M-Matr	iv
Hydric Soil		elion, Kivi=	Neduced Matrix, Mc	3=IVIASKEU	i Sanu Gia	11115.	LUCAII	Indicators for P	roblematic	Hvdric Soils <sup>3</sup> :
Histosol			Dark Surface	(S7)				2 cm Muck (		-
	oipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	LRA 147.	148)	Coast Prairie		
	stic (A3)		Thin Dark Su				,	(MLRA 14	•	-,
	en Sulfide (A4)		Loamy Gleye			, -,		Piedmont FI		ils (F19)
	d Layers (A5)		Depleted Ma		,			(MLRA 1	36, 147)	, ,
2 cm Mu	ıck (A10) (LRR N)		Redox Dark	Surface (F	·6)			Very Shallov	w Dark Surfa	ace (TF12)
	d Below Dark Surface	(A11)	Depleted Dar					Other (Expla	ain in Remar	ks)
	ark Surface (A12)		Redox Depre							
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) <b>(I</b>	_RR N,				
	A 147, 148)		MLRA 13		MI DA 40	0 400\		31	da da d'	
	Gleyed Matrix (S4)		Umbric Surfa				10)	<sup>3</sup> Indicators of h		-
-	Redox (S5) I Matrix (S6)		Piedmont Floor Red Parent N					wetland hydro unless disturb		
	Layer (if observed):		Red Falelit is	viateriai (F	21) (WILK	A 127, 147	') 	uniess distuit	bed of proble	emanc.
	obble/gravel									
, ·								- 0 - !! D 10	V	N
	ches): <u>12</u>						Hydri	c Soil Present?	Yes	No
Remarks:	50/50 · · · · · · · · · · · · · · · · · · ·									
Soil mixed,	, 50/50 matrix col	ors.								

Project/Site: MVP	City/County: Franklin	Sampling Date: 04/06/2015	
Applicant/Owner: MVP	Sampling Point: W-D7		
Investigator(s): A.Bensted, A. Larson, J. Kraus			
• , ,	Local relief (concave, convex, none): Convex	Slone (%): 2%	
Subregion (LRR or MLRA): LRRN			
•	45 percent slopes, very stony NWI classif	·	
	cal for this time of year? Yes No (If no, explain in		
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Normal Circumstances"	present? Yes No No	
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach sit	e map showing sampling point locations, transect	s, important features, etc.	
Hydrophytic Vegetation Present? Yes	No Is the Sampled Area		
Hydric Soil Present? Yes	No.		
Wetland Hydrology Present? Yes	No within a Wetland? Yes	No	
Remarks:			
Cowardin Code: PEM			
HGM: Riverine			
WT: RPWWD			
Intermittent stream runs through wetland	d, surface water present beyond plot.		
HYDROLOGY			
Wetland Hydrology Indicators:	Secondary India	cators (minimum of two required)	
Primary Indicators (minimum of one is required; of	check all that apply) Surface So	il Cracks (B6)	
Surface Water (A1)		egetated Concave Surface (B8)	
High Water Table (A2)		Patterns (B10)	
Saturation (A3)		Lines (B16)	
Water Marks (B1)	Presence of Reduced Iron (C4) Dry-Season	n Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6) Crayfish Bu	ırrows (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)	Geomorphi	ic Position (D2)	
Inundation Visible on Aerial Imagery (B7)	Shallow Aq	uitard (D3)	
Water-Stained Leaves (B9)	Microtopog	ographic Relief (D4)	
Aquatic Fauna (B13)	FAC-Neutra	al Test (D5)	
Field Observations:			
	Depth (inches):		
	Depth (inches):8		
	Depth (inches):0 Wetland Hydrology Prese	ent? Yes V No No	
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspections), if available:		
Remarks:			

Sampling Point: W-D7

201	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30' )		Species?	<u>Status</u>	Number of Dominant Species
1. Platanus occidentalis	15		FACW	That Are OBL, FACW, or FAC:5 (A)
2				
				Total Number of Dominant Species Across All Strata: 6 (B)
3				Species Across All Strata:6 (B)
4		· <del></del>		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 83% (A/B)
6				
7				Prevalence Index worksheet:
	15	= Total Co	vor	Total % Cover of: Multiply by:
50% of total cover: 7.5				OBL species x 1 =
4.51	20% 01	lotal cover		FACW species x 2 =
Capining/Cirias Ciratam (1 lot 0.20)	45			-
1. Lindera benzoin	15		FAC	FAC species x 3 =
2. Rosa multiflora	5		<u>FACU</u>	FACU species x 4 =
3				UPL species x 5 =
				Column Totals: (A) (B)
4				( , ( , ,
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
40		= Total Co		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:10	20% of	total cover	r: <u>      4                              </u>	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5'				. ,
1. Carex lurida	70	~	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Microstegium vimineum	20		FAC	
<u></u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				_
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				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.				Houte All books assure (non-unach ) mlanta manadiana
	90	= Total Co	vor	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45		total cove		of size, and woody plants loss than 6.25 it tall.
4-1	20 /6 01	lotal cover		Woody vine – All woody vines greater than 3.28 ft in
vvoody vine ottatam (i lot size)	40			height.
1. Lonicera japonica	10		FAC	
2				
3				
4				Hydrophytic
5		· <del></del>		Vegetation
		= Total Co		Present? Yes No
50% of total cover: 5	20% of	total cover	r: <u>      2                              </u>	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Sampling Point: W-D7

SOIL

Profile Desc	ription: (Describe	to the depth	n needed to docum	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	k Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-20"	2.5Y 3/1	100					LoSa	No redox. High organics.
								<u> </u>
	_							
								<u> </u>
								_
1							2	
	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indi	cators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfac	ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (I	F2)		_	Piedmont Floodplain Soils (F19)
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)			Very Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		_	Other (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	ssions (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)				
	leyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> lr	ndicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					vetland hydrology must be present,
	Matrix (S6)		Red Parent N					inless disturbed or problematic.
	ayer (if observed):			`	, ,	<u> </u>	1	·
Type:	,							
	shaa).						Usadaia Ca	oil Present? Yes V No No
Depth (inc	cnes):						Hyaric Sc	oil Present? Yes No
Remarks:								
In top layer	, sand particles	100% cov	ered with organ	ics.				



Photograph Direction West

Comments:	

Project/Site: MVP		City/C	County: Franklin		Sampling Date: 04/06/2015			
Applicant/Owner: MVP			Sampling Point: W-D7 UP1					
Investigator(s): A. Bensted, J. Kraus, A. Larson Section, Township, Range: N/A								
Landform (hillslope, terrace, etc.): Toes					Slope (%): 1%			
Subregion (LRR or MLRA): LRRN					Datum: NAD83			
Soil Map Unit Name: Hayesville loan								
Are climatic / hydrologic conditions on th			_					
Are Vegetation, Soil, or H		· ·						
Are Vegetation, Soil, or F								
SUMMARY OF FINDINGS – At	-			explain any answe				
SUMMART OF FINDINGS – AT	tach site in	ap snowing san		ons, transects	, important reatures, etc.			
Hydrophytic Vegetation Present?	Yes		Is the Sampled Area					
Hydric Soil Present?	Yes		within a Wetland?	Yes	No			
Wetland Hydrology Present?  Remarks:	Yes	_ No						
Upland								
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indica	tors (minimum of two required)			
Primary Indicators (minimum of one is	required; check	call that apply)		Surface Soil	Cracks (B6)			
Surface Water (A1)		True Aquatic Plants (	(B14)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)		Hydrogen Sulfide Od	lor (C1)	Drainage Patterns (B10)				
Saturation (A3)		Oxidized Rhizospher	es on Living Roots (C3)	oots (C3) Moss Trim Lines (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)	ils (C6) Crayfish Burrows (C8)				
Drift Deposits (B3)		Thin Muck Surface (		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Other (Explain in Rei	marks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)				Geomorphic	, ,			
Inundation Visible on Aerial Image	ry (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):						
		Depth (inches):						
		Depth (inches):		lydrology Presen	t? Yes No ✔			
(includes capillary fringe)					it: lesNo			
Describe Recorded Data (stream gaug	e, monitoring w	vell, aerial photos, pre	evious inspections), if ava	iilable:				
Remarks:								

Sam	pΙ	ing	Point:	W-D7	UP1
_	-		_		

Tree Stratum (Plot size: 30')	Absolute	Dominant		Dominance Test worksheet:		
1 Liriodendron tulipifera	% Cover 15	Species? ✓	FACU	Number of Dominant Species	2	(4)
2 Juniperus virginiana	15			That Are OBL, FACW, or FAC:		(A)
<u></u>			FACU_	Total Number of Dominant	_	
3				Species Across All Strata:	7	(B)
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC:	29%	(A/B)
6				Bassalana Indonesia Indonesia		
7				Prevalence Index worksheet:		
		= Total Cov	er		Multiply by:	
50% of total cover:15	20% of	total cover:	6	OBL species x 1		
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2	=	_
1. Rosa multiflora	30		FACU_	FAC species x 3	=	_
2. Lindera benzoin	10	<b>✓</b>	FAC	FACU species x 4	=	_
3				UPL species x 5	=	_
4				Column Totals: (A)		(B)
						_ , ,
5				Prevalence Index = B/A = _		_
6				Hydrophytic Vegetation Indicate	rs:	
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		4 - Morphological Adaptations	1 (Provide sur	porting
50% of total cover: 20	20% of	total cover:	8	data in Remarks or on a se		
Herb Stratum (Plot size: 5' )					•	
<sub>1.</sub> Fragaria virginiana	15		FACU_	Problematic Hydrophytic Vege	itation (Expla	iin)
2. Galium aparine	5	<b>✓</b>	FACU_			
3				<sup>1</sup> Indicators of hydric soil and wetla		must
4				be present, unless disturbed or pro		
5				Definitions of Four Vegetation S	trata:	
				Tree – Woody plants, excluding vi	nes, 3 in. (7.6	cm) or
6				more in diameter at breast height (	DBH), regard	less of
7				height.		
8				Sapling/Shrub – Woody plants, e.	xcluding vines	s, less
9				than 3 in. DBH and greater than or	equal to 3.28	3 ft (1
10				m) tall.		
11				Herb - All herbaceous (non-wood)	y) plants, rega	ırdless
	20	= Total Cov	er	of size, and woody plants less that	1 3.28 ft tall.	
50% of total cover: 10	20% of	total cover:	4	Woody vine – All woody vines gre	ator than 2.29	e ft in
Woody Vine Stratum (Plot size: 15')				height.	ater than 5.20	) 11 111
1. Lonicera japonica	25		FAC			
2.						
3.						
4.						
5.	-			Hydrophytic		
J	25	Tatal Cau		Vegetation Present? Yes	No 🗸	
50% of total cover: 12.5		= Total Cov				
<del>-</del>		total cover.				
Remarks: (Include photo numbers here or on a separate s		d Dag an	المامات	antidontifiable to avanian		
Half plot used for tree stratum due to proximity t	o wetiano	a. Poa sp	. in piot r	not identifiable to species.		

SOIL Sampling Point: W-D7 UP1

Profile Desc	cription: (Describe t	o the depth	needed to docur	nent the i	ndicator	or confirm	the abs	ence of indicate	ors.)	
Depth	Matrix		Redo	x Features	S					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Textu	ire	Remarks	_
0-15"	10YR 3/6	100			RM	M	LoS	a	No red	ox
							-			
								<u> </u>		
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion. RM=R	educed Matrix, MS	S=Masked	Sand Gra	ins.	<sup>2</sup> Locatio	on: PL=Pore Lin	ing, M=Matrix	
Hydric Soil			,					Indicators for P	roblematic H	ydric Soils <sup>3</sup> :
Histosol			Dark Surface	(S7)					A10) <b>(MLRA</b>	-
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	LRA 147.	148)		Redox (A16	
	istic (A3)		Thin Dark Su		. , .		,	(MLRA 14	•	,
	en Sulfide (A4)		Loamy Gleye	, ,	•	,,			oodplain Soils	s (F19)
	d Layers (A5)		Depleted Ma	,	,		-	(MLRA 13		
	uck (A10) (LRR N)		Redox Dark	. ,	6)				v Dark Surfac	e (TF12)
	d Below Dark Surface	(A11)	Depleted Dai				-		in in Remark	
Thick Da	ark Surface (A12)		Redox Depre	essions (F8	3)					
Sandy N	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	_RR N,				
	A 147, 148)		MLRA 13							
	Gleyed Matrix (S4)		Umbric Surfa					<sup>3</sup> Indicators of h		-
-	Redox (S5)		Piedmont Flo					wetland hydro		-
	l Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b> .	<b>4</b> 127, 147	7)	unless disturb	ed or problen	natic.
	Layer (if observed):									
Туре: <u>С</u>			<u> </u>							
Depth (in	<sub>ches):</sub> 15						Hydrid	Soil Present?	Yes	No <u> </u>
Remarks:							ı			

Project/Site: MVP		City/C	<sub>county:</sub> Franklin		Sampling Date: 04/08/2016		
Applicant/Owner: MVP				State: VA	Sampling Point: W-EF3		
Investigator(s): D Hadersbe	eck, J Swilik, J Po				_		
Landform (hillslope, terrace, etc					Slope (%): 4		
Subregion (LRR or MLRA): L							
Soil Map Unit Name: 20E-Hay							
Are climatic / hydrologic conditi							
· · · · ·		· · · · · · · · · · · · · · · · · · ·			resent? Yes No		
Are Vegetation, Soil					s in Remarks.) , important features, etc.		
			ipinig point locatio	, ii ai i 30013,	, important reatures, etc.		
Hydrophytic Vegetation Prese			Is the Sampled Area				
Hydric Soil Present?	Yes		within a Wetland?	Yes	No		
Wetland Hydrology Present?		No					
Remarks: Cowardin Co	ode: PEM	HGM: Slope	Water Type:	RPWWD			
Western portion of	of wetland is upsk	pe and not disturbe	ed. Eastern portion of	of wetland is im	pacted by road		
compaction and mechan	nical disturbance (	road ruts). Fallen tr	ees and branches v				
of the wetland with wate	r flow beneath the	debris to the roads	side stream.				
HYDROLOGY							
Wetland Hydrology Indicato	ors:			Secondary Indicat	tors (minimum of two required)		
Primary Indicators (minimum	of one is required; che	eck all that apply)		Surface Soil Cracks (B6)			
Surface Water (A1)	•	_ True Aquatic Plants (	B14)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		_		Drainage Pat			
Saturation (A3)			es on Living Roots (C3)	Moss Trim Lir			
Water Marks (B1)		Presence of Reduced	-	Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Burrows (C8)			
Drift Deposits (B3)	_	_ Thin Muck Surface (C	27)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	_	_ Other (Explain in Rer	narks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)				Geomorphic Position (D2)			
Inundation Visible on Aer	rial Imagery (B7)			Shallow Aquitard (D3)			
Water-Stained Leaves (B	39)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:							
Surface Water Present?	Yes No		2				
Water Table Present?	Yes V No	Depth (inches):	10				
Saturation Present?		Depth (inches):	4 Wetland H	lydrology Present	t? Yes <u> </u>		
(includes capillary fringe)  Describe Recorded Data (stre	an gauge monitorin	a well parial photos pro	vious inspections) if ava	ilabla:			
Describe Recorded Data (stre	am gauge, monitoring	y well, aerial priolos, pre	vious irispections), ii ava	liable.			
Remarks:							
Wetland appears source	ed from groundwa	ter.					

Sampling Point: W-EF3

20'	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	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)
		-		opedes Adioss Ali otiata.	(D)
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC:100	(A/B)
6				Prevalence Index worksheet:	
7					
		= Total Co		Total % Cover of: Multiply by:	
50% of total cover:0	20% of	total cove	r: <u> </u>	OBL species x 1 =	
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2 =	_
1. Acer negundo	4		FAC	FAC species x 3 =	_
2				FACU species x 4 =	_
		-		UPL species x 5 =	
3				Column Totals: (A)	
4				(1)	_ (5)
5				Prevalence Index = B/A =	
6				Hydrophytic Vegetation Indicators:	
7				1 - Rapid Test for Hydrophytic Vegetation	
8					
9				2 - Dominance Test is >50%	
<u> </u>		= Total Co	vor	3 - Prevalence Index is ≤3.0 <sup>1</sup>	
50% of total cover: 2				4 - Morphological Adaptations <sup>1</sup> (Provide supp	porting
E!	20 /6 01	lotal cove		data in Remarks or on a separate sheet)	
TIEID Stratuiii (Flot Size.	20	.,	E4 014/	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	n)
1. Packera aurea	20		FACW_		,
2. Carex lurida	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology m	auct
3. Scirpus atrovirens	20		OBL	be present, unless disturbed or problematic.	iust
4. Impatiens capensis	5		FACW	Definitions of Four Vegetation Strata:	
5. Solidago gigantea	7		FACW	Definitions of Four Vegetation Otrata.	
6. Dichanthelium clandestinum	4		FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 d	
· ·		-		more in diameter at breast height (DBH), regardle	ess of
		-		height.	
8		-		Sapling/Shrub – Woody plants, excluding vines,	
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, regar	dless
	66	= Total Co	ver	of size, and woody plants less than 3.28 ft tall.	
50% of total cover: 33	20% of	total cove	r:13.2	Manda di Allanda di Al	£4 :
Woody Vine Stratum (Plot size:15')				<b>Woody vine</b> – All woody vines greater than 3.28 height.	πin
1				Trongm.	
2					
3					
4				Hydrophytic	
5				Vegetation	
_		= Total Co	_	Present? Yes No	
50% of total cover:0	20% of	total cove	r: <u> </u>		
Remarks: (Include photo numbers here or on a separate s	heet.)				

Sampling Point: W-EF3

SOIL

Profile Desc	ription: (Describe t	o the depth	n needed to docum	ent the ir	ndicator	or confirm	the absence	of indicato	rs.)	
Depth	Matrix		Redox	c Features	<u> </u>					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>		Remarks	
0-4	10YR 4/2	100					SiL			
4-10	2.5Y 3/2	93	7.5YR 4/6	7	С	M	SiL			
10-14	2.5Y 4/1	90	7.5YR 4/6	10	С	М	SiL			
						·		-		
								-		
1Type: C-C	oncentration, D=Deple	etion RM-F	Reduced Matrix MS	-Maskad	Sand Gr	aine	<sup>2</sup> Location: PL	-Pore Linir	na M–Matriy	-
Hydric Soil		Cuon, ruii–i	Toddoca Matrix, Mc	- Maskea	Oarid Oi	airio.			oblematic Hy	dric Soils³:
Histosol			Dark Surface	(S7)					.10) <b>(MLRA 1</b> 4	
	oipedon (A2)		Polyvalue Be	. ,	ce (S8) <b>(N</b>	ILRA 147,			Redox (A16)	,
Black Hi			Thin Dark Su		. , .			(MLRA 147		
	en Sulfide (A4)		Loamy Gleye						odplain Soils (	F19)
Stratified	d Layers (A5)		Depleted Mat					(MLRA 136	5, 147)	
2 cm Mu	ıck (A10) (LRR N)		Redox Dark S	Surface (F	6)		Ve	ery Shallow	Dark Surface	(TF12)
	d Below Dark Surface	(A11)	Depleted Dar				Ot	ther (Explain	n in Remarks)	
	ark Surface (A12)		Redox Depre							
	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,				
	A 147, 148)		MLRA 136				3			
	Gleyed Matrix (S4)		Umbric Surfa					-	drophytic vege	
	Redox (S5)		Piedmont Flo					-	ogy must be p	
	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	7) uni	ess disturbe	ed or problema	itic.
	Layer (if observed): edrock Layer									
· · · ·			<del></del>				l		/	
	ches): 14		<u>—</u>				Hydric Soil	Present?	Yes	No
Remarks:										



Photograph Direction NNE

Comments:		

Project/Site: MVP	City/C	County: Franklin		Sampling Date: 04/08/2016	
Applicant/Owner: MVP				Sampling Point: W-EF3-UP	
Investigator(s): D Hadersbeck, J Swilik			<u> </u>	_ ,	
Landform (hillslope, terrace, etc.): Swell	<u> </u>			Slope (%): 5	
Subregion (LRR or MLRA): LRR N					
Soil Map Unit Name: 20E-Hayesville loam,					
Are climatic / hydrologic conditions on the site	e typical for this time of year?	∕es	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydro					
Are Vegetation, Soil, or Hydro			explain any answe		
SUMMARY OF FINDINGS – Attack	- · ·	•			
	· · · · · · · · · · · · · · · · · · ·			· · ·	
	es No es No	Is the Sampled Area			
	es No	within a Wetland?	Yes	No	
Remarks: Cowardin Code: UPLAN		Water Type:			
HYDROLOGY					
Wetland Hydrology Indicators:				tors (minimum of two required)	
Primary Indicators (minimum of one is requi			Surface Soil		
Surface Water (A1)	True Aquatic Plants		<ul><li>Sparsely Vegetated Concave Surface (B8)</li><li>Drainage Patterns (B10)</li></ul>		
High Water Table (A2)	Hydrogen Sulfide Od	res on Living Roots (C3)	=		
Saturation (A3) Water Marks (B1)	Oxidized Knizospher	= : :	B) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8)		
Sediment Deposits (B2)	Recent Iron Reduction	` '			
Drift Deposits (B3)	Thin Muck Surface (		-	sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)	Other (Explain in Re			ressed Plants (D1)	
Iron Deposits (B5)			Geomorphic	Position (D2)	
Inundation Visible on Aerial Imagery (B	7)		Shallow Aqui	tard (D3)	
Water-Stained Leaves (B9)				phic Relief (D4)	
Aquatic Fauna (B13)			FAC-Neutral	Test (D5)	
Field Observations:	4/				
	No Depth (inches):				
	No Depth (inches):				
Saturation Present? Yes (includes capillary fringe)	No Depth (inches):	Wetland H	lydrology Presen	t? Yes No	
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos, pre	evious inspections), if ava	ilable:		
Domorko					
Remarks:					

Sampling Point: W-EF3-UP

20'	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30' )		Species?		Number of Dominant Species
1. Liriodendron tulipifera	20		<u>FACU</u>	That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Deminent
3				Total Number of Dominant Species Across All Strata:3 (B)
4				(2)
		-		Percent of Dominant Species That Are OBL FACW or FAC: 33 (A/B)
5				That Are OBL, FACW, or FAC: 33 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov		
50% of total cover:10	20% of	total cover	:4	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2 =
1. Rosa multiflora	50		FACU_	FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
		-		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				
	50	= Total Cov	/er	3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 25				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
E!	2070 01	total cover		data in Remarks or on a separate sheet)
riero Stratum (Fiot Size)	5			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Packera aurea			F <u>ACW</u>	
2. Lonicera japonica	10		F <u>AC</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Hesteris matronalis	5		FACU_	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				John Marie St. Four Pogetation Strata.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				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
	20	= Total Cov	er er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 10	20% of	total cover	. 4	W 1 2 4 4 4 4 6 6 6 6 7
Woody Vine Stratum (Plot size: 15')				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				neight.
_				
3		-		
4				Hydrophytic
5				Vegetation
	0	= Total Cov	er er	Present? Yes No
50% of total cover: 0	20% of	total cover	. 0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox	k Features	3						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	(S	
0-12	7.5YR 4/4	100					SiC				
								_			
								_			
					-			_			
								_			
1							21				
Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ins.		PL=Pore Lin			3.
-				(0-1)			ina			-	S :
Histosol			Dark Surface		- (00) (1)	I DA 447		2 cm Muck	. , .	•	
	oipedon (A2)		Polyvalue Be				148)	Coast Prairi		6)	
Black Hi	n Sulfide (A4)		Thin Dark Su Loamy Gleye			47, 140)		(MLRA 14 Piedmont Fl		ilo (E10)	
	I Layers (A5)		Depleted Mat		<b>-2</b> )		_	(MLRA 1		115 (F 19)	
	ck (A10) <b>(LRR N)</b>		Redox Dark S		6)			Very Shallo		ace (TF12)	
	Below Dark Surface	(A11)	Depleted Dar	•	,			Other (Expla		. ,	
	rk Surface (A12)	( /	Redox Depre					( )		-/	
	lucky Mineral (S1) <b>(L</b> l	RR N,	Iron-Mangane			RR N,					
	147, 148)		MLRA 130								
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(I</b>	MLRA 13	6, 122)	<sup>3</sup> lı	ndicators of h	nydrophytic v	egetation ar	nd
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) \	wetland hydro	ology must b	e present,	
Stripped	Matrix (S6)		Red Parent M	1aterial (F2	21) <b>(MLR</b>	A 127, 147	<b>')</b> (	unless disturl	bed or proble	ematic.	
Restrictive I	ayer (if observed):										
Type:			<u> </u>								
Depth (inc	ches):		_				Hydric So	oil Present?	Yes	No	_
Remarks:							1				

Project/Site: MVP	City/County: Franklin	Sampling Date: 04/05/2016				
Applicant/Owner: MVP		State: VA Sampling Point: W-IJ1				
Investigator(s): E. Foster, S. Zabowski Lieb, J. Niergar						
Landform (hillslope, terrace, etc.): Slope		Concave Slope (%): 2				
Subregion (LRR or MLRA): LRR P Lat: 37.092						
Soil Map Unit Name: 39C-Wintergreen loam, 8 to 15 percent						
Are climatic / hydrologic conditions on the site typical for this time						
Are Vegetation, Soil, or Hydrology signifi						
Are Vegetation, Soil, or Hydrology natura		lain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes No	In the Complet Area					
Hydric Soil Present? Yes V No	is the Sampled Area	Yes ✔ No				
Wetland Hydrology Present? Yes No						
Remarks: Cowardin Code: PEM HGM: 9	Slope Water Type: RF	PWWD				
Evidence of past logging disturbance	•					
HYDROLOGY						
Wetland Hydrology Indicators:	Se	econdary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that a		Surface Soil Cracks (B6)				
	atic Plants (B14)	Sparsely Vegetated Concave Surface (B8)				
4	Sulfide Odor (C1)	Drainage Patterns (B10)				
1 <del></del>	Rhizospheres on Living Roots (C3)	_ Moss Trim Lines (B16)				
	of Reduced Iron (C4)	Dry-Season Water Table (C2)				
	on Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)				
	k Surface (C7)	Saturation Visible on Aerial Imagery (C9)				
	plain in Remarks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)		✓ Geomorphic Position (D2)				
Inundation Visible on Aerial Imagery (B7)	<u>v</u>	✓ Shallow Aquitard (D3)				
Water-Stained Leaves (B9)	<u> </u>	Microtopographic Relief (D4)				
Aquatic Fauna (B13)	_	FAC-Neutral Test (D5)				
Field Observations:						
Surface Water Present? Yes No Depth (i						
Water Table Present? Yes No Depth (i						
Saturation Present? Yes No Depth (i	nches): 0 Wetland Hyd	Irology Present? Yes No				
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aeria	photos, previous inspections), if availal	ole:				
, , , , , , , , , , , , , , , , , , , ,						
Remarks:						

Sampling	Doint:	W-	IJ	1
Sambinu	Point.	v v	·	

Troo Stratum (Plot size: 30'	Absolute		Indicator	Dominance Test worksheet:		
Tiee Stratum (Fiot Size)		Species?		Number of Dominant Species		
1. Acer rubrum	10		FAC	That Are OBL, FACW, or FAC:3 (A)		
2				Total Nevel on of Developer		
3				Total Number of Dominant Species Across All Strata: 4 (B)		
				Opecies Across Air citata.		
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC:75 (A/B)		
6				Prevalence Index worksheet:		
7						
	10	= Total Cov	er	Total % Cover of: Multiply by:		
50% of total cover:5	20% of	total cover:	2	OBL species x 1 =		
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2 =		
1. Lindera benzoin	15	<b>~</b>	FAC	FAC species x 3 =		
2. Rosa multiflora	5	~		FACU species x 4 =		
			FACU_			
3				UPL species x 5 =		
4				Column Totals: (A) (B)		
5				Provolence Index D/A		
6				Prevalence Index = B/A =		
				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>		
	20	= Total Cov	er	4 - Morphological Adaptations¹ (Provide supporting		
50% of total cover:10	20% of	total cover:	4			
Herb Stratum (Plot size: 5')				data in Remarks or on a separate sheet)		
1. Glyceria striata	50	<b>~</b>	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
2. Dichanthelium clandestinum	5		FAC			
3. Ranunculus repens				<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
			FAC	be present, unless disturbed or problematic.		
4. Juncus effusus	5		FACW_	Definitions of Four Vegetation Strata:		
5						
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or		
7				more in diameter at breast height (DBH), regardless of height.		
				noight.		
0				Sapling/Shrub – Woody plants, excluding vines, less		
8				Capinig/Ciriab Woody plants, excitating vines, less		
9				than 3 in. DBH and greater than or equal to 3.28 ft (1		
•				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9		= Total Cov	erer	than 3 in. DBH and greater than or equal to 3.28 ft (1		
9	65	= Total Cov		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
9	65	= Total Cov		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in		
9	65 20% of	= Total Cov total cover:		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
9	65 5 20% of	= Total Cov total cover:		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in		
9	65 5 20% of	= Total Cov total cover:		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in		
9	65 5 20% of	= Total Cov total cover:		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in		
9	65 20% of	= Total Cov total cover:		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.		
9	65 20% of	= Total Cov total cover:		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in		
9	65 5 20% of	= Total Cov total cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic		
9	65 5 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cov total cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		
9	65 20% of 0 20% of 20% of	= Total Cover:	13	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation		

Sampling Point: W-IJ1

SOIL

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)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6	10YR 3/1	100	7.5YR 4/6	15_	С	M/PL	SiL	
	- <u></u> -							
·								
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	=Masked	Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indica	ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
Histic Ep	pipedon (A2)		Polyvalue Bel	ow Surfac	ce (S8) <b>(N</b>	ILRA 147,	<b>148)</b> C	Coast Prairie Redox (A16)
Black Hi			Thin Dark Sui			47, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		<del>-</del> 2)		P	Piedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mat		0)			(MLRA 136, 147)
	ick (A10) <b>(LRR N)</b> d Below Dark Surface	(//11)	Redox Dark S Depleted Dark	`	,			ery Shallow Dark Surface (TF12) Other (Explain in Remarks)
	ark Surface (A12)	(A11)	Redox Depre					The (Explain in Remarks)
	lucky Mineral (S1) <b>(L</b>	RR N.	Iron-Mangane			LRR N.		
	\ 147, 148)	,	MLRA 136		, ,	,		
Sandy G	Sleyed Matrix (S4)		Umbric Surfac	ce (F13) <b>(</b> I	MLRA 13	6, 122)	<sup>3</sup> Ind	licators of hydrophytic vegetation and
Sandy R	ledox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	<b>8)</b> we	etland hydrology must be present,
	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	) un	less disturbed or problematic.
	_ayer (if observed):							
туре: <u>В</u> є			_					
Depth (inc	<sub>ches):</sub> 6		_				Hydric Soil	Present? Yes No
Remarks:								



Photograph Direction WSW

Comments:			

Project/Site: MVP	City/County: Franklin Sampling Date: 04/06/2			
Applicant/Owner: MVP	, ,	State: VA Sampling Point: W-IJ2-PSS		
	o, J. Niergarth Section, Township, Range: N			
		nne): Concave Slope (%): 2		
Subregion (LRR or MLRA): LRR P		0.027058 Datum: NAD 83		
Soil Map Unit Name: 39C-Wintergreen loam, 8		NWI classification: None		
Are climatic / hydrologic conditions on the site typ	cal for this time of year? Yes No			
Are Vegetation, Soil, or Hydrology	-	Il Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology		explain any answers in Remarks.)		
-		ons, transects, important features, etc.		
	,	· · · · · · · · · · · · · · · · · · ·		
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _	Is the Sampled Area			
Wetland Hydrology Present? Yes _	V No within a Wetland?	Yes No		
Remarks: Cowardin Code: PSS	HGM: Slope Water Type:	DDMAND		
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required;	chack all that apply)			
Surface Water (A1)	True Aquatic Plants (B14)	Surface Soil Cracks (B6)		
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	<ul><li>Sparsely Vegetated Concave Surface (B8)</li><li>✓ Drainage Patterns (B10)</li></ul>		
Saturation (A3)	<ul><li>Oxidized Rhizospheres on Living Roots (C3)</li></ul>	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) Aquatic Fauna (B13)		<ul><li> Microtopographic Relief (D4)</li><li>✓ FAC-Neutral Test (D5)</li></ul>		
Field Observations:				
	Pepth (inches):			
	Depth (inches): 6			
		Hydrology Present? Yes <u>✓</u> No		
(includes capillary fringe)	ring well, aerial photos, previous inspections), if ava	ailahle:		
Describe reserved Data (stream gaage, memte	ing well, derial priotos, proviodo inspections), il avi	andoro.		
Remarks:				

Sampling Point: W-IJ2-PSS

0.01	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species _	
1				That Are OBL, FACW, or FAC:5	(A)
2				Total Nicobas of Descional	
3				Total Number of Dominant Species Across All Strata:  5	(B)
1		-			(2)
				Percent of Dominant Species That Are OBL_FACW_or_FAC: 100	(A (D)
5				That Are OBL, FACW, or FAC:	(A/B)
6	-	-		Prevalence Index worksheet:	
<i>1</i>	0	T-1-1-0		Total % Cover of: Multiply by:	
50% of total cover: 0		= Total Cov total cover:	_	OBL species x 1 =	
4 E l	20% 01	total cover		FACW species x 2 =	
Caping/Chiab Chatam (1 lot 5/20)	30		ODL	FAC species x 3 =	
1. Alnus serrulata			OBL		
2. Lindera benzoin	10		FAC	FACU species x 4 =	
3. Sambucus nigra	10		<u>OBL</u>	UPL species x 5 =	_
4	-			Column Totals: (A)	_ (B)
5					
6				Prevalence Index = B/A =	-
		-		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>	
0.5		= Total Cov		4 - Morphological Adaptations <sup>1</sup> (Provide supp	oorting
50% of total cover: 25	20% of	total cover	10	data in Remarks or on a separate sheet)	3
Herb Stratum (Plot size: 5'				Problematic Hydrophytic Vegetation (Explai	n)
1. Glyceria striata	30		OBL	Froblematic Hydrophytic Vegetation (Explai	11)
2. Impatiens capensis	15		F <u>ACW</u>	1	
3. Potentilla simplex	10		FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology n be present, unless disturbed or problematic.	nust
4		-			
		-		Definitions of Four Vegetation Strata:	
5		-		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 c	cm) or
6	-			more in diameter at breast height (DBH), regardle	ess of
7		-		height.	
8				Sapling/Shrub – Woody plants, excluding vines,	less
9				than 3 in. DBH and greater than or equal to 3.28	
10	-			m) tall.	
11	-			Herb – All herbaceous (non-woody) plants, regar	dless
	55	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.	u.000
50% of total cover: 27.5	20% of	total cover:	11	Manada da Allana da Cara da Ca	6.1.
Woody Vine Stratum (Plot size: 15' )				<b>Woody vine</b> – All woody vines greater than 3.28 height.	ft in
1.				Tioight.	
2	-				
3.					
		-			
4	-			Hydrophytic	
5		-		Vegetation Present?  Yes _ ✓ No	
		= Total Cov	_	Fresent? Tes NO	
50% of total cover: 0	20% of	total cover:	0		
Remarks: (Include photo numbers here or on a separate s	heet.)				

Sampling Point: W-IJ2-PSS

SOIL

	ription: (Describe t	o the depti			icator or co	nfirm the	absence	of indicators.)	
Depth (inches)	Matrix Color (moist)	<u></u> %	Redox Color (moist)	Features -	Type <sup>1</sup> Lo	<u>c²</u>	exture	Remarks	
0-7	7.5YR 3/2	95	7.5YR 5/8		C M/		SiL	Many organics	
7-16	10YR 4/2	60	7.5YR 5/8	40	C M/	<u> </u>	SSiL		
								-	
								-	
	ncentration, D=Depl	etion, RM=I	Reduced Matrix, MS	=Masked S	and Grains.	<sup>2</sup> Lo		L=Pore Lining, M=Matrix.	
Hydric Soil I				(0-1)				ators for Problematic Hydric Soils <sup>3</sup>	:
Histosol	(A1) ipedon (A2)		Dark Surface Polyvalue Bel		(CO) (MI DA	147 149		cm Muck (A10) <b>(MLRA 147)</b> coast Prairie Redox (A16)	
Black His			Polyvalue Bei		. , .		, \	(MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye	, , ,		,	P	riedmont Floodplain Soils (F19)	
	Layers (A5)		Depleted Mat	, ,				(MLRA 136, 147)	
	ck (A10) (LRR N)	(4.44)	Redox Dark S	, ,				ery Shallow Dark Surface (TF12)	
	l Below Dark Surface rk Surface (A12)	e (A11)	Depleted Dark Redox Depres		7)			Other (Explain in Remarks)	
	ucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane		(F12) <b>(LRR</b>	N,			
	147, 148)		MLRA 136		. , ,				
	leyed Matrix (S4)		Umbric Surfac					icators of hydrophytic vegetation and	
	edox (S5)		Piedmont Flo					etland hydrology must be present,	
	Matrix (S6) ayer (if observed):		Red Parent M	iateriai (FZ i	) (IVILKA 12	, 147)	un	less disturbed or problematic.	
Type: Ro									
Depth (inc						Н	ydric Soil	Present? Yes V No No	
Remarks:									



Photograph Direction NNW

Comments:	

Project/Site: MVP		City/0	<sub>County:</sub> Franklin		Sampling Date: 04/06/2016		
Applicant/Owner: MVP		State: VA	Sampling Point: W-IJ2-PEM				
Investigator(s): E. Foster, S. Zabowski-Lieb, J. Niergarth Section, Township, Range: N/A							
Landform (hillslope, terrace, etc					Slope (%): 2		
Subregion (LRR or MLRA): LI					Datum: NAD 83		
Soil Map Unit Name: 39C-Wir							
Are climatic / hydrologic conditi							
Are Vegetation, Soil	, or Hydrology	significantly distu	rbed? Are "Normal	l Circumstances" p	present? Yes No		
Are Vegetation, Soil	, or Hydrology	naturally problem	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDING	3S – Attach site	map showing san	npling point location	ons, transects	, important features, etc.		
Hydrophytic Vegetation Prese	ent? Yes	No					
Hydric Soil Present?	Yes V	No	Is the Sampled Area	Yes 🗸	N-		
Wetland Hydrology Present?			within a Wetland?	res	No		
Remarks: Cowardin Co		HGM: Slope	Water Type:	DD/W/WD			
	AGC. I LIVI	Tiolii. Glope	water type.	III WWWD			
HYDROLOGY							
Wetland Hydrology Indicato	ors:			·	tors (minimum of two required)		
Primary Indicators (minimum	of one is required; che			Surface Soil	` '		
Surface Water (A1)	_	_ True Aquatic Plants			getated Concave Surface (B8)		
High Water Table (A2)	_	_ Hydrogen Sulfide Oc		<u>✓</u> Drainage Par			
Saturation (A3)	_		res on Living Roots (C3)	Moss Trim Li			
Water Marks (B1)	_	Presence of Reduce	, ,	-	Water Table (C2)		
<ul><li>Sediment Deposits (B2)</li><li>Drift Deposits (B3)</li></ul>	_	Thin Muck Surface (	on in Tilled Soils (C6)	Crayfish Buri	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	_	_ Other (Explain in Re					
Iron Deposits (B5)		_ Other (Explain in No.	manoj	<ul><li>✓ Stunted or Stressed Plants (D1)</li><li>✓ Geomorphic Position (D2)</li></ul>			
Inundation Visible on Aer	ial Imagery (B7)			✓ Shallow Aquitard (D3)			
Water-Stained Leaves (B				Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:							
Surface Water Present?	Yes No	Depth (inches):	1				
Water Table Present?	Yes No	Depth (inches):	0				
Saturation Present?	Yes No	Depth (inches):	0 Wetland H	Hydrology Presen	t? Yes <u>/</u> No		
(includes capillary fringe)  Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, pre	evious inspections), if ava	nilable:			
	gg-,g	,, р, р					
Remarks:							

Sampling Point:	W-I	J2-	PΕ	M
-----------------	-----	-----	----	---

, ,	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')		Species?		
1				Number of Dominant Species That Are OBL, FACW, or FAC:4 (A)
				(N)
2				Total Number of Dominant
3	-			Species Across All Strata: 4 (B)
4		·		Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				
7				Prevalence Index worksheet:
	0	= Total Cov	ver	Total % Cover of: Multiply by:
50% of total cover:0		f total cover	_	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2 =
1 Alnus serrulata	5	~	OBL	FAC species x 3 =
· V			ODL	FACU species x 4 =
2				
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Provolonce Index = P/A =
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>
		= Total Cov		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 2.5	20% of	f total cover	:1	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5' )				, , ,
1. Leersia oryzoides	40		OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Juncus effusus	20	~	FACW	
3. Carex vulpinoidea	20	~	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Impatiens capensis	15	· -	FACW	be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
5. Ludwigia alternifolia	10		FACW_	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Mimulus ringens	5		OBL	more in diameter at breast height (DBH), regardless of
7				height.
8				
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
				m) tall.
10	-	-		,
11	110			Herb – All herbaceous (non-woody) plants, regardless
		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55</u>	20% of	f total cover	:	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15')				height.
1,				
2				
3				
4				
<u>-</u>				Hydrophytic
5		. ———		Vegetation Present? Yes ✔ No
•		= Total Cov	_	riesent? Tes NO
50% of total cover:0	20% of	f total cover	:0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
Acorus calamus dominant toward open ended a	ırea			
·				

Sampling Point: W-IJ2-PEM

	xture Remarks
Λ 11 1ΛVD 2/2 1ΛΛ No.	
0-11 10YR 3/2 100 N	fuck Trace sand
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Loc	ation: 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)
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)     Depleted Below Dark Surface (A11)     Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Depleted Below Bark Surface (A11) Depleted Bark Surface (17) Redox Depressions (F8)	Other (Explain in Remarks)
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)	<sup>3</sup> 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):	
Type: Rock	
Depth (inches): 11 Hyd	dric Soil Present? Yes No
Remarks: Soil indicator A10 is for use in LRR N. W-IJ2 is within the LRR P but very close to	LRR N.



Photograph Direction ENE

Comments:		

Project/Site: MVP		City/County: Fra	ınklin	(	Sampling Date: 04/06/2016	
Applicant/Owner: MVP			Sta		Sampling Point: W-IJ1,2-UF	
Investigator(s): E. Foster, S. Zabows	ski-Lieb, J. Nierga					
Landform (hillslope, terrace, etc.): Slope				Convex	Slone (%): 2	
Subregion (LRR or MLRA): LRR P					Datum: NAD 83	
Soil Map Unit Name: 39C-Wintergreen I						
·						
Are climatic / hydrologic conditions on the	* *	•				
Are Vegetation, Soil, or Hy	drologysigni	ficantly disturbed?	Are "Normal Circ	umstances" pre	esent? Yes V No No	
Are Vegetation, Soil, or Hy	drologynatu	rally problematic?	(If needed, explai	in any answers	s in Remarks.)	
SUMMARY OF FINDINGS – Atta	ach site map sh	owing sampling po	int locations,	transects,	important features, etc.	
Hydrophytic Vegetation Present?	Yes No	v				
Hydric Soil Present?	Yes No	Is the Sai	npled Area	V	No. V	
Wetland Hydrology Present?	Yes No	within a \	vetiand?	Yes	NO	
Remarks: Cowardin Code: UPL			ater Type:			
Cowardin Code. OPL	AND HGW.	VV	ater Type.		ļ	
					ļ	
HYDROLOGY						
Wetland Hydrology Indicators:			Sec	ondary Indicate	ors (minimum of two required)	
Primary Indicators (minimum of one is re	quired; check all that	apply)		Surface Soil C		
Surface Water (A1)	True Aq	uatic Plants (B14)			etated Concave Surface (B8)	
High Water Table (A2)		en Sulfide Odor (C1)		Drainage Patte		
Saturation (A3)		d Rhizospheres on Living	Roots (C3)	Moss Trim Line	es (B16)	
Water Marks (B1)	Present	e of Reduced Iron (C4)				
Sediment Deposits (B2)	Recent	Iron Reduction in Tilled S	oils (C6)	Crayfish Burro	ws (C8)	
Drift Deposits (B3)	Thin Mu	ck Surface (C7)		Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (E	explain in Remarks)			essed Plants (D1)	
Iron Deposits (B5)				Geomorphic P		
Inundation Visible on Aerial Imagery	(B7)			Shallow Aquita		
Water-Stained Leaves (B9)			· · · · · · · · · · · · · · · · · · ·	Microtopograp	, ,	
Aquatic Fauna (B13)				FAC-Neutral T	est (D5)	
Field Observations: Surface Water Present? Yes	No V Depth	(inches):				
Water Table Present? Yes	No Depth	(inches):				
	No Depth		Wetlend Hydra	Janu Drasanti	2 Van Na V	
Saturation Present? Yes (includes capillary fringe)	No _ • Depth	inches):	wetiand Hydro	logy Present	? Yes No	
Describe Recorded Data (stream gauge,	monitoring well, aeria	al photos, previous inspe	ctions), if available	<b>:</b> :		
Domonlos						
Remarks:						

5amonno Point W 101,2 01	Sampling	Point <sup>1</sup>	W-IJ1	,2-UP
--------------------------	----------	--------------------	-------	-------

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30')		Species?		Number of Dominant Species
1 Juglans nigra	20	V	FACU	That Are OBL, FACW, or FAC: 3 (A)
2. Celtics occidentalis	10			That Ale OBE, I AOW, OF I AO.
	10		FACU_	Total Number of Dominant
3. Acer rubrum	10		FAC	Species Across All Strata: 7 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 43 (A/B)
6				(**2)
7.	-			Prevalence Index worksheet:
1	40	T		Total % Cover of: Multiply by:
20		= Total Cov	_	OBL species x 1 =
50% of total cover: 20	20% of	total cover:	8	
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2 =
1. Lindera benzoin	20		FAC	FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
				Column Totals: (A) (B)
4		-		(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		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 10	20% of	total cover:	4	
Herb Stratum (Plot size: 5'				data in Remarks or on a separate sheet)
1. Poa pratensis	30	<b>✓</b>	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Allium veneale	10		FACU	
3 Persicaria virginiana	10		FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Fersicana virginiana			FAC	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6.				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
7				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
	50	= Total Cov	or	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 25		total cover:		of olzo, and woody planto loop than olzo it tall.
4.51	20 /0 01	total cover.		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 Present? Yes No ✓
		= Total Cov	_	riesent: resNo
50% of total cover:0	20% of	total cover		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe to	o the depth	needed to docur	nent the in	dicator o	or confirm	the abse	ence of indicate	ors.)	
Depth	Matrix		Redo	x Features	1					
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Textur		Remarks	
0-12	10YR 4/4	100					SL			
				-			-			
1- 0.0							2			
	oncentration, D=Deple	etion, RM=Re	educed Matrix, MS	S=Masked	Sand Gra	ins.		n: PL=Pore Lini		
Hydric Soil I							ır	ndicators for Pi		-
Histosol	, ,		Dark Surface		(00) (1)			2 cm Muck (	, .	•
	ipedon (A2)		Polyvalue Be				148) _	Coast Prairie	•	)
Black Hi	stic (A3) n Sulfide (A4)		Thin Dark Su			47, 148)		(MLRA 14 Piedmont Flo		· (F10)
	Layers (A5)		Loamy Gleye Depleted Ma		-2)		_	Pledilloni Pid (MLRA 13		S (F 19)
	ck (A10) <b>(LRR N)</b>		Redox Dark \$		3)			•	/ Dark Surfac	e (TF12)
	Below Dark Surface	(A11)	Depleted Dar				_	Other (Expla		, ,
	rk Surface (A12)	,	Redox Depre				_			-,
	lucky Mineral (S1) <b>(L</b> l	RR N,	Iron-Mangan			RR N,				
	147, 148)		MLRA 13							
Sandy G	leyed Matrix (S4)		Umbric Surfa					<sup>3</sup> Indicators of h	ydrophytic ve	getation and
	edox (S5)		Piedmont Flo					wetland hydro	logy must be	present,
	Matrix (S6)		Red Parent N	Naterial (F2	21) <b>(MLR</b>	<b>4</b> 127, 147	7)	unless disturb	ed or problen	natic.
	ayer (if observed):									
Туре: <u>Ro</u>			_							
Depth (ind	thes): <u>12</u>		_				Hydric	Soil Present?	Yes	No
Remarks:							1			

Project/Site: MVP		City/C	<sub>county:</sub> Franklin		Sampling Date: 04/06/2016
Applicant/Owner: MVP	State: VA	Sampling Point: W-GH2			
Investigator(s): K. Larsen,	S Therkildson .I.	Rittner Castin			Gamping Form
• ,,					
Landform (hillslope, terrace, e	tc.): Tioodpiairi				
Subregion (LRR or MLRA): L					Datum: NAD 83
Soil Map Unit Name: 7D-Cliff	ord fine sandy loam	, 15 to 25 percent slope	es	NWI classific	<sub>ation:</sub> None
Are climatic / hydrologic condi	tions on the site typica	al for this time of year? Y	es No	(If no, explain in R	emarks.)
Are Vegetation . Soil	. or Hvdrologv	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes No
Are Vegetation, Soil _				explain any answe	
_	-		•	•	, important features, etc.
I hadron hadio Vonetation Duce		, Ne			
Hydrophytic Vegetation Pres Hydric Soil Present?	sent? Yes <u>✔</u> Yes ✔	No	Is the Sampled Area		
Wetland Hydrology Present?		No No	within a Wetland?	Yes	No
December					
Remarks: Cowardin C	ode: PSS	HGM: Riverine	Water Type:	RPWWD	
HYDROLOGY					
Wetland Hydrology Indicat	ors:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum		eck all that apply)		Surface Soil	
Surface Water (A1)	•	True Aquatic Plants (	B14)		getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Par	
Saturation (A3)		Oxidized Rhizosphere		Moss Trim Li	
Water Marks (B1)		Presence of Reduced	= : : :		Water Table (C2)
Sediment Deposits (B2)	<del>-</del>	Recent Iron Reductio	, ,	Crayfish Buri	
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Ren			tressed Plants (D1)
Iron Deposits (B5)				Geomorphic	Position (D2)
Inundation Visible on Ae	erial Imagery (B7)			Shallow Aqui	tard (D3)
Water-Stained Leaves (	B9)			phic 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):	8		
Saturation Present?	Yes No	Depth (inches):	5 Wetland H	lydrology Presen	t? Yes <u>✓</u> No
(includes capillary fringe)		a wall as sial abotas and		llabla.	
Describe Recorded Data (str	eam gauge, monitorin	ig weii, aeriai photos, pre	vious inspections), if ava	iliable:	
Remarks:					
	ream banks with	various shrubs (e.g.,	, Alnus serrulata) int	termixed with o	ppen areas dominated by
Scirpus atrovirens.		· · · · · · · · · · · · · · · · · · ·	,		•
İ					

_	_	١٨.		ഥവ
Sampling	Point:	٧V	'-GI	$\neg$ $\angle$

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Descions
3				Total Number of Dominant Species Across All Strata:  3 (B)
4				
5				Percent of Dominant Species That Are OBL FACW or FAC: 100 (A/B)
				That Are OBL, FACW, or FAC:(A/B)
		-		Prevalence Index worksheet:
7	0	T-1-1-0		Total % Cover of: Multiply by:
50% of total cover: 0		= Total Cov		OBL species x 1 =
	20% 01	total cover		FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15' )	40		ODI	FAC species x 3 =
1. Salix nigra			OBL	
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				
7				Hydrophytic Vegetation Indicators:
8		-		1 - Rapid Test for Hydrophytic Vegetation
9.				✓ 2 - Dominance Test is >50%
J	40	= Total Cov		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 20		total cover:		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5' )	20 /6 01	total cover.		data in Remarks or on a separate sheet)
1. Dichanthelium clandestinum	20	~	ΓΛC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	25		F <u>AC</u>	
2. Scirpus atrovirens			OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Solidago gigantea	10		FACW_	be present, unless disturbed or problematic.
4. Carex lurida	10		FACW_	Definitions of Four Vegetation Strata:
5. Junius effusus	5		OBL	
6. Rubus alleghaniensis	5		FACU_	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				
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				
11	75	T 0		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>37.5</u>		= Total Cov		of size, and woody plants less than 3.28 it tall.
1.51	<u>)                                    </u>	total cover		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	er	Present? Yes V No No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Sampling Point: W-GH2

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence	of indicators	s.)	
Depth	Matrix		Redox	x Features	3					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-4	10YR 3/3	100					SL			
4-8	10YR 3/2	70	2.5YR 3/6	30	С	М	SL			
8-12	2.5YR 3/2	100					CoSL	Co	bbly sand	loam
	2.0111 0/2								bbiy daria	- Iouiii
					-					
					'					_
				-	-			-		
	-				-					
										_
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion. RM=F	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: P	L=Pore Lining	ı. M=Matrix.	_
Hydric Soil			toudood manny me	· · · · · · · · · · · · · · · · · · ·	<u> </u>			ators for Pro		Iric Soils³:
Histosol			Dark Surface	(S7)				cm Muck (A1	_	
	pipedon (A2)		Polyvalue Be	. ,	ce (S8) <b>(N</b>	ILRA 147.		coast Prairie R		,
Black Hi			Thin Dark Su		. , .			(MLRA 147,		
	en Sulfide (A4)		Loamy Gleye			, -,	Р	iedmont Floo		<del>-</del> 19)
	d Layers (A5)		Depleted Mat		,			(MLRA 136,		,
	ick (A10) (LRR N)		Redox Dark S		6)		V	ery Shallow D		(TF12)
Depleted	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		c	ther (Explain	in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)					
Sandy M	lucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masse	es (F12) <b>(</b>	LRR N,				
MLRA	\ 147, 148)		MLRA 136	6)						
Sandy G	Gleyed Matrix (S4)		Umbric Surfa					icators of hyd	rophytic vege	tation and
	Redox (S5)		Piedmont Flo					tland hydrolog	gy must be pr	resent,
	Matrix (S6)		Red Parent M	faterial (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> un	less disturbed	l or problemat	tic.
	Layer (if observed):									
Туре: <u></u> Ro										
Depth (inc	ches): <u>12</u>		<u></u>				Hydric Soil	Present?	Yes 🗸	No
Remarks:							l			



Photograph Direction SSE

Comments:		

Project/Site: MVP	City/County: Fra	nklin	_ Sampling Date: 04/06/2016
Applicant/Owner: MVP	State: VA	Sampling Point: W-GH2-Up	
Investigator(s): K. Larsen, S. Therkildson,		<u> </u>	
Landform (hillslope, terrace, etc.): Floodplain			Slope (%): 3
Subregion (LRR or MLRA): LRR P		Jana: -79.983325	Datum: NAD 83
Soil Map Unit Name: 7D-Clifford fine sandy loa			
Are climatic / hydrologic conditions on the site type			
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 si	te map showing sampling po	int locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes _	No_ V		
	No. V	npled Area	No 🗸
	No within a V	vetiand? fes	NO
Remarks: Cowardin Code: UPLAND		ater Type:	
Upland plot for W-GH2. Grass field with		• •	
Opiand plot for W-GH2. Grass field with	i disturbed vegetation and soils	) <b>.</b>	
HYDROLOGY			
Wetland Hydrology Indicators:		<u>-                                    </u>	cators (minimum of two required)
Primary Indicators (minimum of one is required;		Surface Soi	` '
Surface Water (A1)	True Aquatic Plants (B14)		egetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)		atterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living		
Water Marks (B1)	Presence of Reduced Iron (C4)		Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled S		
Drift Deposits (B3) Algal Mat or Crust (B4)	Thin Muck Surface (C7) Other (Explain in Remarks)		Visible on Aerial Imagery (C9) Stressed Plants (D1)
Iron Deposits (B5)	Other (Explain in Remarks)		c Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aq	
Water-Stained Leaves (B9)			raphic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutra	. ,
Field Observations:			,
	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
	Depth (inches):	Wetland Hydrology Prese	ent? Yes No 🗸
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previous inspe	ctions), if available:	
Remarks:			

#### VEGETATION (Four Strata) - Use scientific names of plants.

30'

Sapling/Shrub Stratum (Plot size: 15' )

Tree Stratum (Plot size: \_\_

Herb Stratum (Plot size: \_ 1. Taraxacum officinale

2. Poa pratensis

3. Stellaria media

4. Prunella vulgaris

6. Geranium maculatum

7. Plantago lanceolata

\_\_\_)

50% of total cover: \_\_\_0

Absolute Dominant Indicator

% Cover Species? Status

50% of total cover: 49 20% of total cover: 19.6

50% of total cover: 0 20% of total cover: 0

Vegetation

Present?

0 = Total Cover

50% of total cover: 0 20% of total cover: 0

es of plants.	Sampling Poi	nt:W-GH2-L	Jp
solute Dominant Indicator			
Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
	Total Number of Dominant Species Across All Strata:	1	(B)
	Percent of Dominant Species That Are OBL, FACW, or FAC:	0	(A/B)
	Prevalence Index worksheet:		
	Total % Cover of:	Multiply by:	
0 = Total Cover	OBL species x		
20% of total cover: 0	FACW species x 2	· ·	
	FAC species x 3		_
	-	3 = 4 =	_
	=		_
	<u> </u>	5 =	
	Column Totals: (A)		(B)
	Prevalence Index = B/A =		_
	Hydrophytic Vegetation Indicat		
	1 - Rapid Test for Hydrophyti	ic Vegetation	
<del></del> <del></del>	2 - Dominance Test is >50%		
0 = Total Cover	3 - Prevalence Index is ≤3.0¹		
20% of total cover: 0	4 - Morphological Adaptation	s <sup>1</sup> (Provide sup	porting
	data in Remarks or on a s	•	
5 FACU	Problematic Hydrophytic Veg	getation <sup>1</sup> (Expla	iin)
5 FACU	_		
5 UPL	<sup>1</sup> Indicators of hydric soil and wetl		must
5 FACU	be present, unless disturbed or p		
70 ✓ FACU	Definitions of Four Vegetation	Strata:	
5 FACU	Tree – Woody plants, excluding v		
3 FACU	<ul><li>more in diameter at breast height height.</li></ul>	(DBH), regard	less of
	Sapling/Shrub – Woody plants, than 3 in. DBH and greater than 6 m) tall.		
98 = Total Cover	Herb – All herbaceous (non-wood of size, and woody plants less that		ardless
20% of total cover: 19.6	Woody vine – All woody vines gr height.	reater than 3.28	3 ft in
	- - -		
	Hydrophytic		

Remarks: (Include photo numbers here or on a separate sheet.)

5. Schedonorus arundinaceus

Woody Vine <u>Stratum</u> (Plot size: \_\_\_\_\_\_)

Yes \_\_\_\_ No \_\_

Depth (inches)	Matrix		Redox Features				
	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc	<sup>2</sup> Text	ure	Remarks	
0-5	7.5YR 3/4	100		SL	.0		
5-18	5YR4/6	100		SL	 .o		
		· <del></del> -					
		· <del></del>					
		· <del></del> _					
		· <del></del> -					
				2,			
	oncentration, D=Depl Indicators:	letion, RM=Re	educed Matrix, MS=Masked Sand Grains.		on: PL=Pore Lini Indicators for P		
Histosol			Dark Surface (S7)			410) <b>(MLRA</b> 1	
	oipedon (A2)		Polyvalue Below Surface (S8) (MLRA	147, 148)		Redox (A16)	•
	stic (A3)		Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 14		
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	,		oodplain Soils	(F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 13		
	uck (A10) (LRR N)	(* ( )	Redox Dark Surface (F6)			Dark Surface	, ,
	d Below Dark Surface ark Surface (A12)	e (A11)	<ul><li>Depleted Dark Surface (F7)</li><li>Redox Depressions (F8)</li></ul>		Other (Expla	in in Remarks	)
	Aucky Mineral (S1) <b>(L</b>	RR N	Iron-Manganese Masses (F12) (LRR N	I			
	A 147, 148)	,	MLRA 136)	-,			
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	2)	<sup>3</sup> Indicators of h	ydrophytic veg	getation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLR.		wetland hydro		
	Matrix (S6)		Red Parent Material (F21) (MLRA 127)	, 147)	unless disturb	ed or problem	atic.
estrictive	Layer (if observed):						
Type:			<del>-</del>				/
Type: Depth (in	ches):		<del>-</del> -	Hydri	c Soil Present?	Yes	No
Type: Depth (in			<del>-</del> -	Hydri	c Soil Present?	Yes	No
Type: Depth (in			<del>-</del>	Hydri	c Soil Present?	Yes	No <u>/</u>
Type: Depth (in			<del>-</del>	Hydri	c Soil Present?	Yes	_ No <u> </u>
Type: Depth (in			<del>-</del> -	Hydri	c Soil Present?	Yes	_ No <u> </u>
Type: Depth (in			<del>-</del> -	Hydri	c Soil Present?	Yes	_ No <u> </u>
Type: Depth (in			<del>-</del>	Hydri	c Soil Present?	Yes	_ No <u> </u>
Type: Depth (in			_	Hydri	c Soil Present?	Yes	No <u>/</u>
Type: Depth (in			<del>-</del>	Hydri	c Soil Present?	Yes	No <u>/</u>
Type: Depth (in			<u>-</u>	Hydri	c Soil Present?	Yes	_ No <u> </u>
Type: Depth (in			<del>-</del>	Hydri	c Soil Present?	Yes	_ No <u> </u>
Type: Depth (in				Hydri	c Soil Present?	Yes	No V
Type: Depth (in				Hydri	c Soil Present?	Yes	No V
Type: Depth (in				Hydri	c Soil Present?	Yes	No <u>V</u>
Type: Depth (in				Hydri	c Soil Present?	Yes	. No <u>/</u>
Type: Depth (in				Hydri	c Soil Present?	Yes	No V
Туре:				Hydri	c Soil Present?	Yes	No V
Type: Depth (in				Hydri	c Soil Present?	Yes	No V
Type: Depth (in				Hydri	c Soil Present?	Yes	No V
Type: Depth (in				Hydri	c Soil Present?	Yes	No V
Type: Depth (in				Hydri	c Soil Present?	Yes	No V
Type: Depth (in				Hydri	c Soil Present?	Yes	No V

Project/Site: MVP		City/C	<sub>ounty:</sub> Franklin		Sampling Date: 08/13/2015
Applicant/Owner: MVP					Sampling Point: W-II8
Investigator(s): A. Lands, K. L	arsen, L. Sexton				<u> </u>
Landform (hillslope, terrace, etc			· · · · · · ·		Slope (%): 3%
Subregion (LRR or MLRA): LF					
Soil Map Unit Name: Clifford-					
Are climatic / hydrologic condition					
, ,	**	•		•	present? Yes No
Are Vegetation, Soil					
_					, important features, etc.
			.pg po	,	, important routuros, otor
Hydrophytic Vegetation Prese			Is the Sampled Area		
Hydric Soil Present?	Yes		within a Wetland?	Yes	No
Wetland Hydrology Present?	Yes	No			
Remarks: Cowardin: PEM; HGM: D	)enressional: W.T. [	SD/W/WD			
The wetland was revisite	•		d hydrology bydroni	ovtic vogotatio	n and hydric soils was
					-
confirmed using the USA	=	Supplement delir	leation methodology	. A portion of	the wetland was
obstructed by elevated ti	mbermat.				
HYDROLOGY					
Wetland Hydrology Indicato	rs:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum o	of one is required; check	k all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)		True Aquatic Plants (		Sparsely Veg	getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odd		Drainage Pa	
Saturation (A3)			es on Living Roots (C3)	Moss Trim Li	
Water Marks (B1)		Presence of Reduced			Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Buri	
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Ren	narks)		tressed Plants (D1)
Iron Deposits (B5)					Position (D2)
Inundation Visible on Aeri				Shallow Aqui	
Water-Stained Leaves (B	Э)				aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:			4		
Surface Water Present?	Yes No		4		
Water Table Present?	Yes No	Deptil (illicites)	<del></del>		
Saturation Present?	Yes No	Depth (inches):	0 Wetland H	lydrology Presen	nt? Yes V No No
(includes capillary fringe)  Describe Recorded Data (stre	am gauge, monitoring v	vell, aerial photos, pre	vious inspections), if ava	ilable:	
,			, ,,		
Remarks:					
					w. Denoted Depressional
because no defined char			rine as there is flow	and channel t	oward end (see stream
S-ii7). Wetland extends 6	entire width of corrid	dor.			

## **VEGETATION** (Four Strata) – Use scientific names of plants.

Sampling Point: W-II8

Tree Stratum (Plot size: 30')	Absolute	Dominant		Dominance Test worksheet:	
/ lot oleo	% Cover	Species?	<u>Status</u>	Number of Dominant Species	3 <sub>(A)</sub>
1				That Are OBL, FACW, or FAC:	3 (A)
2				Total Number of Dominant	3 (B)
3				Species Across All Strata:	3 (B)
4				Percent of Dominant Species	00 (Δ/B)
5				That Are OBL, FACW, or FAC:1	00 (A/B)
6				Prevalence Index worksheet:	
· ·	0 -	= Total Cov		Total % Cover of: Multip	oly 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 =	
3				UPL species x 5 =	
4				Column Totals: (A)	(B)
5				Developed Index D/A	
6				Prevalence Index = B/A =	
7				Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vege	etation
8				✓ 2 - Dominance Test is >50%	Hallon
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	_	= Total Cov	ver	4 - Morphological Adaptations <sup>1</sup> (Pro	wide supporting
50% of total cover:0	20% of	total cover	:0	data in Remarks or on a separat	
Herb Stratum (Plot size: 5')	4.0			Problematic Hydrophytic Vegetation	,
1. Eupatorium perfoliatum	10		FACW_	1 Tobicinate Hydrophytic Vegetation	(Explain)
2. Juncus effusus	40		FACW_	<sup>1</sup> Indicators of hydric soil and wetland hydric	drology must
3. Scirpus polyphyllus	30		<u>OBL</u>	be present, unless disturbed or problem	
4. Polygonum ssp.	5		ND	Definitions of Four Vegetation Strata:	
5. Leersia orzoides	40		OBL	Tree – Woody plants, excluding vines, 3	in (7.6 cm) or
6				more in diameter at breast height (DBH)	
7				height.	
8				Sapling/Shrub – Woody plants, excludi	ng vines, less
9				than 3 in. DBH and greater than or equa	ıl to 3.28 ft (1
10				m) tall.	
11	105			Herb - All herbaceous (non-woody) plan	
50% of total cover: 62.5	125	= Total Cov	ver 25	of size, and woody plants less than 3.28	itt tall.
Woody Vine Stratum (Plot size: 15' )	20% 01	total cover		Woody vine – All woody vines greater t	han 3.28 ft in
				height.	
1					
			<del></del>		
3					
5		•		Hydrophytic	
o		= Total Cov		Vegetation Present?  Yes   ✓ No	<u> </u>
50% of total cover: 0		total cover	_		
Remarks: (Include photo numbers here or on a separate si					
, ,	,				

SOIL Sampling Point: W-II8

Profile Desc	ription: (Describe t	o the dep	th needed to docur	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix	-	Redo	x Feature	S			-
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3"	10YR 4/2	100					SaLo	
3-6"	10YR 4/2	98	10YR 4/6	2	С	M	SaLo	
6-12"	10YR 4/2	90	10YR 4/6	10	С	M	LoSa	
12-16"	10YR 4/2	60	10YR 4/6	40	С	М	LoSa	
	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.
Hydric Soil I								ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface		(00) (1			2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148) (	Coast Prairie Redox (A16)
Black Hi  ✓ Hydroge	stic (A3) n Sulfide (A4)		Thin Dark Su Loamy Gleye			47, 148)	_	(MLRA 147, 148) Piedmont Floodplain Soils (F19)
	l Layers (A5)		Depleted Ma		1 2)			(MLRA 136, 147)
	ick (A10) <b>(LRR N)</b>		Redox Dark		<del>-</del> 6)		\	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Da				0	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	lucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,		
	<b>147, 148)</b> sleyed Matrix (S4)		MLRA 13 Umbric Surfa		MIRA 13	6 122)	<sup>3</sup> Inc	licators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
-	Matrix (S6)		Red Parent N					lless disturbed or problematic.
Restrictive I	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes No
Remarks:								



Photograph Direction South

Date: 08/13/2015

Comments: 2015 wetland delineation.



Photograph Direction NW

Date: 11/05/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP	City/County: Frank	lin	_ Sampling Date: 08/13/2015
Applicant/Owner: MVP			Sampling Point: W-ii8-upl
Investigator(s): A. Lands, K. Larsen, L. Sext			
Landform (hillslope, terrace, etc.): Slope		•	Slope (%): 10%
Subregion (LRR or MLRA): LRRN			Datum: NAD83
Soil Map Unit Name: Clifford-Hickoryknob co			
Are climatic / hydrologic conditions on the site typica	_		
Are Vegetation, Soil, or Hydrology _			
Are Vegetation, Soil, or Hydrology _			
SUMMARY OF FINDINGS – Attach site	map showing sampling point	t locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the Sample		
Hydric Soil Present? Yes	No V Is the Sample within a Wetl		No 🗸
	No	idilu: 163	
Remarks:	<u> </u>		
Upland plot for W-ii8. Open cut field near	depressional wetland on slope	west of wetland	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; ch	neck all that apply)	Surface Soi	
Surface Water (A1)	True Aquatic Plants (B14)		egetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)		atterns (B10)
Saturation (A3)	<ul> <li>Oxidized Rhizospheres on Living Ro</li> </ul>		
Water Marks (B1)	Presence of Reduced Iron (C4)		Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils		
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation \	/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic	Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aqu	uitard (D3)
Water-Stained Leaves (B9)			raphic Relief (D4)
Aquatic Fauna (B13)	<del>_</del> _	FAC-Neutra	al Test (D5)
Field Observations:			
	Depth (inches):		
	Depth (inches):		
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Netland Hydrology Prese	nt? Yes No
Describe Recorded Data (stream gauge, monitoring	ig well, aerial photos, previous inspectio	ns), if available:	
Remarks: Field is mowed, so vegetation is not typic	and of apon fields		
Piela is mowed, so vegetation is not typic	al of open fields.		

Sampling F	oint: W-ii8-up	١
------------	----------------	---

30'	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30')		Species?		Number of Dominant Species
1			<u> </u>	That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  0 (A/B)
6				That Are OBE, I AGW, OF I AG.
7				Prevalence Index worksheet:
· · ·	0	= Total Cov	/er	Total % Cover of: Multiply by:
50% of total cover: 0				OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )		10101 00101		FACW species x 2 =
				FAC species x 3 =
1			· ——	FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A =
6			·	Hydrophytic Vegetation Indicators:
7			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
8			<u> </u>	2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0¹
	0	= Total Cov	/er	4 - Morphological Adaptations <sup>1</sup> (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. Festuca arundinacea	60		F <u>ACU</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Bromus inermis	25	<b>✓</b>	UPL	
3. Plantego lanceolata	5		UPL	¹Indicators of hydric soil and wetland hydrology must
4 Viola sororia	5		F <u>AC</u>	be present, unless disturbed or problematic.
5. Solanum carolinense	5		FACU	Definitions of Four Vegetation Strata:
6. Trifolium repens	25		FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
			1 700	more in diameter at breast height (DBH), regardless of
7				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	405		· ——	Herb – All herbaceous (non-woody) plants, regardless
00.4	125	= Total Cov	er OF	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 62.5	<u> </u>	total cover	25	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15')				height.
1				
1			<del></del>	
2			- <u></u>	
2				Hydrophytic
2				Hydrophytic Vegetation
2				1 * * *
2			_	Vegetation
2	0 20% of	= Total Cov	_	Vegetation
2	0 20% of	= Total Cov	_	Vegetation
2	0 20% of	= Total Cov	_	Vegetation
2	0 20% of	= Total Cov	_	Vegetation
2	0 20% of	= Total Cov	_	Vegetation
2	0 20% of	= Total Cov	_	Vegetation
2	0 20% of	= Total Cov	_	Vegetation
2	0 20% of	= Total Cov	_	Vegetation

SOIL Sampling Point: W-ii8-upl

Profile Desc	ription: (Describe to	the depth r	eeded to docun	nent the in	dicator o	or confirm	the abs	sence of indicators.)
Depth	Matrix			K Features	1			
(inches)	Color (moist)		Color (moist)	<u></u> %	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Textu</u>	
0-18"	10YR3/4	100					Silty o	clay
							-	
<sup>1</sup> Type: C=Co	ncentration, D=Deple	tion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	ains.		on: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:				<del></del>			Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	ipedon (A2)	-	Polyvalue Be	. ,	e (S8) <b>(M</b>	LRA 147.	148)	Coast Prairie Redox (A16)
Black His		-						(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye				_	Piedmont Floodplain Soils (F19)
Stratified	Layers (A5)	_	Depleted Mat	rix (F3)				(MLRA 136, 147)
2 cm Mu	ck (A10) (LRR N)	_	Redox Dark S	Surface (F6	5)		_	Very Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		_	Other (Explain in Remarks)
	rk Surface (A12)	-	Redox Depre	ssions (F8	)			
	ucky Mineral (S1) (LF	RR N,	Iron-Mangan	ese Masse	s (F12) <b>(I</b>	_RR N,		
	147, 148)		MLRA 13	•				
	leyed Matrix (S4)	_	Umbric Surfa					<sup>3</sup> Indicators of hydrophytic vegetation and
-	edox (S5)	-	Piedmont Flo					wetland hydrology must be present,
	Matrix (S6)	_	Red Parent N	1aterial (F2	21) <b>(MLR</b>	A 127, 147	7)	unless disturbed or problematic.
	ayer (if observed):							
	ck/gravel		_					
Depth (inc	<sub>:hes):</sub> <u>13</u>		=				Hydrid	c Soil Present? Yes No
Remarks:							•	

Project/Site: MVP	City/County: Franklin	Sampling Date: 04/06/2016
Applicant/Owner: MVP	State: VA Sampling Point: W-IJ6	
Investigator(s): E. Foster, S. Zabowski-Lieb	J. Niergarth Section Township Range: N/	· -
Landform (hillslope, terrace, etc.): Floodplain		
Subregion (LRR or MLRA): LRR P		.00502 Datum: NAD 83
Soil Map Unit Name: 23A-Iotla-Maggodee-Coles		
Are climatic / hydrologic conditions on the site typic	-	·
Are Vegetation, Soil, or Hydrology _	significantly disturbed? Are "Normal	Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology _	naturally problematic? (If needed, e	explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site	map showing sampling point locatio	ns, transects, important features, etc.
Hudronhutia Vanatatian Danasata	, Na	
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No Is the Sampled Area	
Wetland Hydrology Present? Yes	No within a Wetland?	Yes No
Remarks: Cowardin Code: PEM	HGM: Riverine Water Type: F	
Cowardin Code. PEM	ngw. Riverine water Type. i	RPVVVD
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; cl	neck 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)
\	✓ Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
	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:	V Double (Sachara)	
	Depth (inches): 12	
Water Table Present? Yes V No	Bopui (monoo)	
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):6 Wetland H	lydrology Present? Yes No
	ng well, aerial photos, previous inspections), if avai	ilable:
Domorko		
Remarks: Disturbed by cows		
Biotarboa by dows		

EGETATION (Four Strata) – Use scientific	names of	plants.		Sampling Point: W-IJ6
20'	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30' )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
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	_			Prevalence Index worksheet:
7		= Total Cov		Total % Cover of: Multiply by:
50% of total cover:			_	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )		1010.		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				Provolence Index - D/A
6				Prevalence Index = B/A =
7				Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation
8				1 - Rapid Test for Hydrophytic Vegetation     2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cov	_	4 - Morphological Adaptations¹ (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')	4.0	_		Problematic Hydrophytic Vegetation¹ (Explain)
1. Carex vulpinoidea	10		OBL	Troblematio Tryarophytic Vegetation (Explain)
2. Poa trivialis	10		FACW_	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Juncus effusus	10		FACW_	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				Sapling/Shrub - Woody plants, excluding vines, less
9	_			than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10 11.				
· · · · · · · · · · · · · · · · · · ·	30	= Total Cov		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 1		total cover:		
Woody Vine Stratum (Plot size: 15' )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				neight.
2.				
3				
4				Hydrophytic
5				Hydrophytic Vegetation
	0	= Total Cov	er	Present? Yes No
50% of total cover:	0 20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate	sheet.)			
70% bare ground				

Sampling Point: W-IJ6

Depth	Matrix			x Features	1 . 3	_		_	
(inches)	Color (moist)	<u>%</u>	Color (moist)		pe <sup>1</sup> Loc <sup>2</sup>	<u>Texture</u>		Remarks	
0-6	10YR 3/2	95	7.5YR 4/6	5C	M/PL	SL			
6-16	2.5Y 4/2	100				S			
		· .					'		
		· <del></del> ·							
		· ·					-		
		· <del></del> ·							
							-		
	oncentration, D=Dep	letion, RM=l	Reduced Matrix, MS	S=Masked Sar	ıd Grains.			ng, M=Matrix.	2
ydric Soil I								oblematic Hy	
_ Histosol			Dark Surface			· · · · · · · · · · · · · · · · · · ·	,	A10) <b>(MLRA 1</b>	47)
	ipedon (A2)			,	88) <b>(MLRA 147</b> ,	148) (		Redox (A16)	
_ Black His					.RA 147, 148)	-	MLRA 14		(F10)
	n Sulfide (A4) I Layers (A5)		Loamy Gleye Depleted Ma				MLRA 13)	odplain Soils	(F19)
	ck (A10) <b>(LRR N)</b>		Redox Dark	` '		V		Dark Surface	(TF12)
	Below Dark Surface	e (A11)	_	k Surface (F7)				in in Remarks)	
Thick Da	rk Surface (A12)	, ,	Redox Depre				` .	,	
_ Sandy M	lucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Mangan	ese Masses (F	12) <b>(LRR N,</b>				
	147, 148)		MLRA 13	•					
	leyed Matrix (S4)			ce (F13) <b>(MLF</b>				drophytic veg	
	edox (S5)				F19) <b>(MLRA 1</b> 4			logy must be p	
Strinned	Matrix (S6)		Red Parent N	/laterial (F21) <b>(</b>	MLRA 127, 147	<b>7)</b> un	less disturb	ed or problema	atic.
Restrictive L	ayer (if observed):								
estrictive L Type:	ayer (if observed):								
estrictive L Type: Depth (inc			_			Hydric Soil	Present?	Yes	No
Restrictive L Type: Depth (inc	ayer (if observed):		_			Hydric Soil	Present?	Yes _ 🗸	. No
Restrictive L Type: Depth (inc	ayer (if observed):		_			Hydric Soil	Present?	Yes 🔽	No
Type: Depth (inc	ayer (if observed):		_			Hydric Soil	Present?	Yes 🗸	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes	No
Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes	No
Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes 🗸	. No
Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes 🗸	No
Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes V	No
Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes 🗸	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes_V	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes	. No
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes 🗸	. No
Restrictive L	ayer (if observed):					Hydric Soil	Present?	Yes	No
Restrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes 🗸	No
Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes 🗸	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes 🗸	. No
estrictive L Type: Depth (inc	ayer (if observed):					Hydric Soil	Present?	Yes 🗸	. No



Photograph Direction SSE

Comments:			

Project/Site: MVP	City/Cou	<sub>ınty:</sub> Franklin		Sampling Date: 04/06/2016		
Applicant/Owner: MVP		,		Sampling Point: W-IJ6,7,8-UP		
Investigator(s): E. Foster, S. Zabowski-Lieb	o, J. Niergarth Section	Township Range N				
Landform (hillslope, terrace, etc.): Floodplain				Slone (%): 0		
Subregion (LRR or MLRA): LRR P						
Soil Map Unit Name: 23A-Iotla-Maggodee-Cole						
Are climatic / hydrologic conditions on the site typi	cal for this time of year? Yes	No	(If no, explain in	Remarks.)		
Are Vegetation, Soil, or Hydrology	significantly disturbe	d? Are "Normal	Circumstances"	present? Yes No		
Are Vegetation, Soil, or Hydrology	naturally problemation	? (If needed, e	explain any answ	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach sit	te map showing samp	ling point location	ons, transect	s, important features, etc.		
Hydrophytic Vegetation Present? Yes	No. V					
	No 🗸	the Sampled Area	Vaa	No 🗸		
	No	vithin a Wetland?	res	No		
Remarks: Cowardin Code: UPLAND	HGM:	Water Type:				
		,				
HYDDOLOGY						
HYDROLOGY			Casandani India	natora (minimum of two required)		
Wetland Hydrology Indicators:	ah a ah all dhad anah A			cators (minimum of two required)		
Primary Indicators (minimum of one is required;		4)	· <del></del>	Surface Soil Cracks (B6)		
Surface Water (A1)	True Aquatic Plants (B1			egetated Concave Surface (B8)		
High Water Table (A2) Saturation (A3)	<ul><li>Hydrogen Sulfide Odor</li><li>Oxidized Rhizospheres</li></ul>		Drainage P	atterns (B10)		
Water Marks (B1)	Oxidized Knizospheres Presence of Reduced Ir	-		n Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Reduction i	, ,	Crayfish Bu			
Drift Deposits (B3)	Thin Muck Surface (C7)			Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in Rema			Stressed Plants (D1)		
Iron Deposits (B5)	_ 、.	,		Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery (B7)			Shallow Aq			
Water-Stained Leaves (B9)			Microtopog	raphic Relief (D4)		
Aquatic Fauna (B13)			FAC-Neutra	al Test (D5)		
Field Observations:						
	Depth (inches):					
	Depth (inches):					
	✓ Depth (inches):	Wetland H	lydrology Prese	ent? Yes No		
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previo	ous inspections), if ava	ilable:			
Damarka						
Remarks:						
				J		

Sampling	Point: W-IJ6,7,8-UP
----------	---------------------

20'		ominant I		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30')	% Cover S	Species?	Status	Number of Dominant Species
1,				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Deminant
3				Total Number of Dominant Species Across All Strata: 4 (B)
4				(B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
	=	Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 0	20% of to	tal cover:_	0	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15'				FACW species x 2 =
1				FAC species x 3 =
				FACU species x 4 =
2				UPL species x 5 =
3				
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
0		Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 0	20% of to	ital cover:_	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5')				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Dactylis glomerata	30	I	-ACU	Froblematic Hydrophytic vegetation (Explain)
2. Trifolium repens	30	<b>/</b>	FACU	
3. Taraxacum officinale	20	<u> </u>	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Plantago lanceolata	20	<u> </u>	JPL	be present, unless disturbed or problematic.
·· <u>·</u>				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				Sanling/Shrub Woody plants, evaluding 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.				
	100 =	T O		Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 50		Total Cove		of size, and woody plants less than 3.28 ft tall.
	20% of to	tal cover:_		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 Present? Yes No ✓
0		Total Cove	_	resent: res No
50% of total cover: 0	20% of to	tal cover:_	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe to	o the depth r	needed to docum	nent the in	dicator o	or confirm	the abse	ence of indicate	ors.)	
Depth	Matrix		Redo	x Features	1					
(inches)	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-14	10YR 4/4	100					SiL			_
			_							_
										_
										_
	oncentration, D=Deple	etion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	ins.		n: PL=Pore Lini		
Hydric Soil I	ndicators:						In	ndicators for Pr	oblematic H	ydric Soils³:
Histosol	, ,	-	Dark Surface				_		A10) <b>(MLRA</b> 1	•
	pipedon (A2)	-	Polyvalue Be				148) _	_ Coast Prairie		)
Black Hi		-	Thin Dark Su			47, 148)		(MLRA 14		(= · - ·
	n Sulfide (A4)	-	Loamy Gleye		-2)		_		oodplain Soils	(F19)
	Layers (A5) ck (A10) (LRR N)	-	Depleted Material Redox Dark States		3)			(MLRA 13	/ Dark Surface	o (TE12)
	Below Dark Surface	(A11)	Nedox Dark \	,	•		_		in in Remarks	, ,
	ark Surface (A12)		Redox Depre				_	01101 (2xpia	iii iii reomane	,,
	lucky Mineral (S1) <b>(L</b> l	RR N,	 Iron-Mangan			.RR N,				
	147, 148)		MLRA 13							
	leyed Matrix (S4)	-	Umbric Surfa					<sup>3</sup> Indicators of h		_
	edox (S5)	-	Piedmont Flo					wetland hydro		
	Matrix (S6)		Red Parent N	Material (F2	21) <b>(MLR</b>	127, 147	<u>')</u>	unless disturb	ed or problem	natic.
	ayer (if observed):									
Type:			_							
	ches):		_				Hydric	Soil Present?	Yes	_ No
Remarks:										

Project/Site: MVP		City/C	<sub>ounty:</sub> Franklin		Sampling Date: 04/07/2015
Applicant/Owner: MVP					Sampling Point: W-E7
Investigator(s): S Ryan, A Mei					
Landform (hillslope, terrace, etc					
Subregion (LRR or MLRA): LR					
Soil Map Unit Name: Comus-					
Are climatic / hydrologic condition			_		
· · · · · · · · · · · · · · · · · · ·		· ·			resent? Yes No
Are Vegetation, Soil					
-					, important features, etc.
Hydrophytic Vegetation Prese	nt? Vos 🗸	No		·	
Hydric Soil Present?		No	Is the Sampled Area		No
Wetland Hydrology Present?		No	within a Wetland?	Yes	No
Remarks: Cowardin Code: PEM; HGM: Information listed on this form hydrophytic vegetation, and h wetland was covered by timb identified during the 2019 rev construction completion.	Depressional; WT: R represents data coll lydric soils was confirermat. W-E7 was pre- isit. It can be anticipa	RPWWD lected in 2015. The warmed using the USAC evicusly confirmed by ated that wetland criter	etland was revisited on E EMP Regional Suppl the USACE during 201 ria will persist in the add	11/7/2019. Prese ement delineatior 6 field reviews. Ad ditionally mapped	ence of wetland hydrology, n methodology. A portion of the dditional areas of wetland were wetland area after
HYDROLOGY					
Wetland Hydrology Indicato	rs:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum o	of one is required; che	ck all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	<del>_</del>	_ True Aquatic Plants (	B14)	Sparsely Veg	etated Concave Surface (B8)
High Water Table (A2)	<del>_</del>	_ True Aquatic Plants ( _ Hydrogen Sulfide Ode	or (C1)	<u>✓</u> Drainage Pat	terns (B10)
Saturation (A3)	<u> </u>	Oxidized Kriizospriere	es on Living Roots (C3)	Moss Trim Li	nes (B16)
Water Marks (B1)		Presence of Reduced		-	Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Burr	
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)		ressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Aeri	al Imagany (P7)			Geomorphic	
Water-Stained Leaves (B				Shallow Aqui	phic Relief (D4)
Aquatic Fauna (B13)	<i>3)</i>			FAC-Neutral	` ` '
Field Observations:				17.0 1404141	1001 (100)
Surface Water Present?	Vas No V	_ Depth (inches):			
Water Table Present?		_ Depth (inches):			
Saturation Present?		Depth (inches):		lydrology Presen	t? Yes ✔ No
(includes capillary fringe)				,	. 105 NO
Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:					

## **VEGETATION** (Four Strata) – Use scientific names of plants.

Sampling Point: W-E7

Tree Stratum (Plot size: 30'	Absolute	Dominant		Dominance Test worksheet:	
Tiec otratum (Flot size.	% Cover			Number of Dominant Species	1
1				That Are OBL, FACW, or FAC:	1 (A)
2				Total Number of Dominant	_
3				Species Across All Strata:	1 (B)
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC:10	0% (A/B)
6				Prevalence Index worksheet:	
7				Total % Cover of: Multip	nly by:
		= Total Co	_	OBL species x 1 =	
50% of total cover:0_	20% of	total cover	:0		
Sapling/Shrub Stratum (Plot size: 15' )				FACW species x 2 = FAC species x 3 =	
1					
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 Hydrophytic Vege	tation
8				✓ 2 - Dominance Test is >50%	
9				3 - Prevalence Index is ≤3.0¹	
_		= Total Co		4 - Morphological Adaptations <sup>1</sup> (Pro	vide supporting
50% of total cover: 0	20% of	total cover	:0	data in Remarks or on a separat	
Herb Stratum (Plot size: 5' )				Problematic Hydrophytic Vegetation	,
1. Juncus effusus	65		F <u>ACW</u>	1 Toblematic Hydrophytic Vegetation	(Explair)
2. Trifolium pratense	15		F <u>ACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydric	drology must
3. Phleum pratense	15		F <u>ACU</u>	be present, unless disturbed or problem	
4. Carex sp.	10		ND	Definitions of Four Vegetation Strata:	
5					
6				<b>Tree</b> – Woody plants, excluding vines, 3 more in diameter at breast height (DBH)	
7				height.	, rogaraiooo oi
8				Sanling/Shrub Woody planta avaludi	na vinos loss
9				Sapling/Shrub – Woody plants, excludi than 3 in. DBH and greater than or equa	I to 3.28 ft (1
10				m) tall.	,
11				Herb – All herbaceous (non-woody) plar	nts, regardless
		= Total Co		of size, and woody plants less than 3.28	
50% of total cover: <u>52.5</u>	20% of	total cover	: 21	Woody vine – All woody vines greater t	han 3 28 ft in
Woody Vine Stratum (Plot size: 15' )				height.	11a11 3.20 It III
1					
2					
3					
4				Hydrophytic	
5				Vegetation	
	0 .	= Total Co	ver .	Present? Yes No _	_
50% of total cover:0	20% of	total cover	: 0		
Remarks: (Include photo numbers here or on a separate s	heet.)				

Sampling Point: W-E7

SOIL

Depth	Matrix		Redox	Loc <sup>2</sup>	Toytura	Domorko				
inches) 0-6"	Color (moist) 10YR 4/1	90	Color (moist) 5YR 3/4	<u>%</u> 10	Type <sup>1</sup>	M/PL	Texture CL		Remarks With san	ıd.
		- — —	311(3/4							
6-14"	10YR 4/1	100					CL		With san	id
	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked	Sand G	rains.	<sup>2</sup> Location: P	L=Pore Lin	ing, M=Matrix.	drio Coilo <sup>3</sup> :
-	Indicators:		Dark Surface	(97)					roblematic Hy	
Black Hi Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M MLRA Sandy G Sandy R Stripped Cestrictive I Type: R0	pipedon (A2) stic (A3) stic (A3) stic (A4) d Layers (A5) d Below Dark Surface ark Surface (A12) ducky Mineral (S1) (I A 147, 148) Gleyed Matrix (S4) stedox (S5) Matrix (S6) Layer (if observed):	LRR N,	Dark Surface Polyvalue Bel Thin Dark Sur Loamy Gleyer Pepleted Matt Redox Dark S Depleted Darl Redox Depret Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floc Red Parent M	ow Surface (S9) d Matrix (I rix (F3) Surface (F6 k Surface ssions (F8 ese Masse b) ce (F13) ( codplain Se	(MLRA F2) 6) (F7) 3) es (F12) MLRA 1 poils (F19	147, 148) (LRR N, 36, 122) ) (MLRA 14	148) C P V C 3Ind 8) we	coast Prairie (MLRA 14 iedmont FI (MLRA 13 ery Shallov other (Explair icators of hetland hydro less disturb	oodplain Soils	(F19) (TF12) etation and present,

# **Wetland Photograph Page**

#### Wetland ID W-E7



Photograph Direction West

Date: 04/07/2015

Comments: 2015 wetland delineation.



Photograph Direction NNW

Date: 11/07/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP				City	y/County: Fra	nklin		_ Sampling Date:	04/07/2015	
Applicant/Owner: MVP								<sub>int:</sub> W-E7/E10 Upl		
Investigator(s): S Ryan, A N	/lengel, L Sex	ton		Se	ction. Townshi	p. Range: N/		' ' '		
= ::				I relief (concave, convex, none): Convex			Slope (%): 2%			
Subregion (LRR or MLRA): L				.947264	 Datu					
Soil Map Unit Name: Comus									····· <u>·</u>	
Are climatic / hydrologic condit					_					
				-				present? Yes	✓ No	
Are Vegetation, Soil									NO	
Are Vegetation, Soil	-							ers in Remarks.)		
SUMMARY OF FINDING	GS – Attach	site m	nap sho	wing sa	ampling po	int locatio	ons, transect	s, important f	eatures, etc.	
Hydrophytic Vegetation Present? Yes			No/ Is the			anlad Araa				
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?		Yes	No 🗸		
Wetland Hydrology Present?	Yes		No	<u> </u>					_	
Remarks: Upland										
HYDROLOGY										
Wetland Hydrology Indicate	ors:						Secondary Indic	cators (minimum o	f two required)	
Primary Indicators (minimum		d: chec	k all that a	apply)			Surface Soi		<u> </u>	
Surface Water (A1)	•	•	True Aqu		ts (B14)					
High Water Table (A2)			_ Hydrogen Sulfide Odor (C1)				Drainage Patterns (B10)			
Saturation (A3)			Oxidized	Rhizosph	neres on Living	Roots (C3)	- ' '			
Water Marks (B1)			Presence of Reduced Iron (C4)				Dry-Season Water Table (C2)			
Sediment Deposits (B2)		_	Recent Ir	on Reduc	ction in Tilled S	oils (C6)	Crayfish Burrows (C8)			
Drift Deposits (B3)				k Surface			Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)			Other (Ex	kplain in F	Remarks)		Stunted or Stressed Plants (D1)			
Iron Deposits (B5)						Geomorphic Position (D2)				
Inundation Visible on Aer				Shallow Aquitard (D3)						
Water-Stained Leaves (E Aquatic Fauna (B13)					Microtopographic Relief (D4) FAC-Neutral Test (D5)					
Field Observations:							FAC-Neutra	ai Test (D3)		
Surface Water Present?	Yes No	, ,	Depth (ii	nches):						
Water Table Present?	Yes No	· ·	Depth (ii	nches):						
Saturation Present?	Yes No					Wetland Hydrology Present? Yes No_ 🗸			No 🗸	
(includes capillary fringe)  Describe Recorded Data (stre						ctions) if ava	ilahla:			
Describe Necolded Data (Sile	am gauge, mom	itoring v	well, aeriai	i priotos, <sub>l</sub>	previous irispec	oliolis), ii ava	illable.			
Remarks:										
İ										

Sampling	Point: W-E7/E10	Upl
----------	-----------------	-----

,	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
				Species Across Air Strata (b)
4				Percent of Dominant Species That Are OBL_FACW_or FAC: 0% (A/B)
5			<del></del>	That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
1	0	· <del></del>		Total % Cover of: Multiply by:
50% -11-1-1		= Total Co		OBL species x 1 =
50% of total cover:0	20% 01	total cover	:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15' )				FAC species x 3 =
1				•
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				
7				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
9	-			2 - Dominance Test is >50%
	0	= Total Cov	/er	3 - Prevalence Index is ≤3.0¹
50% of total cover: 0		total cover	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5' )				data in Remarks or on a separate sheet)
1. Trifolium pratense	45	<b>/</b>	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Phleum pratense	40	~	FACU	
3. Fragaria sp.	5			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Poa sp.	15		ND ND	be present, unless disturbed or problematic.
· ·			ND	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				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
	105	= Total Cov	/er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>52.5</u>	20% of	total cover	: <u>21</u>	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15' )				height.
1			_	
2				
3				
4				
5.	-			Hydrophytic Vegetation
	0	= Total Cov		Present? Yes No
50% of total cover: 0		total cover	-	
Remarks: (Include photo numbers here or on a separate s		10101 00101	•	
ND - Species not determined. Entries labeled N		ot includ	ed in don	ninance test
The opening not determined. Littles labeled in	~ WOIG II	ot intoludi	54 iii 4011	

Sampling Point: W-E7/E10 Upl

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redox	k Features	3	-		
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-4"	10YR 4/1	90	5YR 4/3	10	<u>C</u>	M	CL	With sand
					-			
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion. RM=R	educed Matrix. MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil I			<del>,</del>					ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	ILRA 147,		oast Prairie Redox (A16)
Black Hi			Thin Dark Su				<i>,</i> —	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			,	Pi	iedmont Floodplain Soils (F19)
Stratified	Layers (A5)		Depleted Mat					(MLRA 136, 147)
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		V	ery Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		0	ther (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,		
	\ 147, 148)		MLRA 136				2	
	leyed Matrix (S4)		Umbric Surfa					icators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					tland hydrology must be present,
	Matrix (S6)		Red Parent M	faterial (F	21) <b>(MLR</b>	A 127, 147	') unl	ess disturbed or problematic.
	ayer (if observed):							
Type: Ro			_					
Depth (inc	ches): <u>4</u>		_				Hydric Soil	Present? Yes No
Remarks:							•	

Project/Site: MVP		City/C	<sub>county:</sub> Franklin		Sampling Date: 04/07/2015	
Applicant/Owner: MVP					Sampling Point: W-E8	
Investigator(s): S Ryan, A Menge	I, L Sexton					
Landform (hillslope, terrace, etc.):		<del></del>			Slope (%): 4%	
Subregion (LRR or MLRA): LRRF					Datum: NAD 83	
Soil Map Unit Name: Comus-Ma			-			
Are climatic / hydrologic conditions	on the site typical fo	or this time of year? Y	es No (I	f no, explain in R	emarks.)	
Are Vegetation, Soil					_	
Are Vegetation, Soil						
SUMMARY OF FINDINGS						
Lludrophytic Vagatation Dragont?		No				
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes		Is the Sampled Area			
Wetland Hydrology Present?	Yes V	No	within a Wetland?	Yes	No	
Remarks:						
Cowardin Code: PEM; HGN	1: Depressional;	WT: RPWWD				
The wetland was revisited of			d hydrology, hydroph	ytic vegetatio	n, and hydric soils was	
confirmed using the USACE			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		•	
by timbermat.	- =g	омрр.оо и о				
HYDROLOGY						
i				Socondary Indica	store (minimum of two required)	
Wetland Hydrology Indicators:			· ·		ators (minimum of two required)	
Primary Indicators (minimum of o				Surface Soil		
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave						
VHigh Water Table (A2)Hydrogen Sulfide Odor (C1)Drainage Patterns (B10)VSaturation (A3)VOxidized Rhizospheres on Living Roots (C3)Moss Trim Lines (B16)						
Saturation (A3)			=	Moss Trim L		
Water Marks (B1)		Presence of Reduced			Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur		
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface (C Other (Explain in Ren			isible on Aerial Imagery (C9) tressed Plants (D1)	
Iron Deposits (B5)	_	Other (Explain in Ken	iiaiks)		Position (D2)	
Inundation Visible on Aerial I	magery (R7)		-	Shallow Aqu	` '	
Water-Stained Leaves (B9)	magery (br)		-		aphic Relief (D4)	
Aquatic Fauna (B13)			-	FAC-Neutral		
Field Observations:			<u> </u>		1001 (20)	
	es No	Depth (inches):				
	es / No		11			
				ydrology Preser	nt? Yes ✔ No	
(includes capillary fringe)	35 INU	Depth (inches)	vveiland ny	yarology Fresei	it! Tes NO	
Describe Recorded Data (stream	gauge, monitoring w	vell, aerial photos, pre	vious inspections), if avail	lable:		
Remarks:						

Sampling Point: W-E8

201	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	% Cover Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC: 2 (A)
2		T. (IN) I (D)
3		Total Number of Dominant Species Across All Strata: 2 (B)
		(b)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 100% (A/B)
6		Prevalence Index worksheet:
7		
	0 = Total Cover	Total % Cover of: Multiply by:
	20% of total cover:0	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15' )		FACW species x 2 =
1		FAC species x 3 =
		FACU species x 4 =
2		UPL species x 5 =
3		Column Totals: (A) (B)
4		_ Column Totals (A) (B)
5		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		
9		2 - Dominance Test is >50%
<u> </u>	0 = Total Cover	3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:	20% of total cover: 0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
E!	20 % of total cover.	data in Remarks or on a separate sheet)
Tions circuit (Field Size)	40 <b>✓</b> FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Juncus effusus	<u> </u>	-
2. Phalaris arundinacea	10F <u>ACW_</u>	Indicators of hydric soil and wetland hydrology must
3. Microstegium vimineum		<ul> <li>be present, unless disturbed or problematic.</li> </ul>
4		- Definitions of Four Vegetation Strata:
5		Definitions of Four Vegetation Strata.
6		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		more in diameter at breast height (DBH), regardless of
7		_ 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
	= Total Cover	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 35	5 20% of total cover: 14	- Mandu vine All woods vines greater than 2.20 ft in
Woody Vine Stratum (Plot size: 15' )		Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		-
		-
4		Hydrophytic
5	^	_ Vegetation Present? Yes ✔ No
	= Total Cover	rieseitt: ies NO
50% of total cover: 0		_
Remarks: (Include photo numbers here or on a separate	sheet.)	
Approx 30% of plot exposed soil, un-vegetated	l.	

SOIL Sampling Point: W-E8

Profile Desc	cription: (Describe t	to the dep	th needed to docur	nent the i	indicator	or confirr	n the ab	sence of	indicators.)
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Text		Remarks
0-5"	10YR 4/1	95	2.5YR 4/8	5	С	M/PL	С	L	
5-12"	10YR 4/2	85	7.5YR 4/6	15	С	M/PL	C		
						<u> </u>			
	-								
						· ——	-		_
						· ——			
	·								
	oncentration, D=Depl	letion, RM:	Reduced Matrix, M	S=Masked	d Sand Gr	ains.	<sup>2</sup> Locat		Pore Lining, M=Matrix.
Hydric Soil	Indicators:							Indicator	s for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)				2 cm	Muck (A10) (MLRA 147)
Histic Ep	oipedon (A2)		Polyvalue Be	low Surfa	ice (S8) (N	/ILRA 147	, 148)	Coas	st Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	ırface (S9	) <b>(MLRA</b> 1	147, 148)		(M	LRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		(F2)			Piedi	mont Floodplain Soils (F19)
	d Layers (A5)		Depleted Ma						ILRA 136, 147)
	ıck (A10) <b>(LRR N)</b>		Redox Dark		•				Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Da		. ,			Othe	r (Explain in Remarks)
	ark Surface (A12)		Redox Depre						
	Mucky Mineral (S1) (L	.RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,			
	A 147, 148)		MLRA 13		(B. 11 D. 14 A			3, ,,	
	Gleyed Matrix (S4)		Umbric Surfa				40)		ors of hydrophytic vegetation and
-	Redox (S5)		Piedmont Flo						nd hydrology must be present,
	Matrix (S6)		Red Parent N	viateriai (F	·21) (IVILR	A 127, 14	<i>'</i> )	uniess	s disturbed or problematic.
	Layer (if observed):								
Type: No									
Depth (in	ches):						Hydri	ic Soil Pre	esent? Yes V No No
Remarks:									
upper 12 ir	nches.								



Photograph Direction SW

Date: 04/07/2015

Comments: 2015 wetland delineation.



Photograph Direction SW

Date: 11/07/19

Comments: 2019 wetland delineation confirmation.

Project/Site: MVP		City/County: Franklin		Sampling Date: 04/07/2015
Applicant/Owner: MVP		, ,		Sampling Point: W-E8/E9 Upl
Investigator(s): S Ryan, A Mengel, L Sexton		Section Township Rang		
Landform (hillslope, terrace, etc.): Toeslope		, , ,	•	Slone (%): 2%
Subregion (LRR or MLRA): LRRP L				Datum: NAD83
Soil Map Unit Name: Comus-Maggodee-Elsin		_		
Are climatic / hydrologic conditions on the site typical	I for this time of ye	ar? Yes No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly	disturbed? Are "No	ormal Circumstances	" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally pro	oblematic? (If need	ded, explain any ansv	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site	map showing	sampling point lo	cations, transect	ts, important features, etc.
Hydrophytic Vegetation Present? Yes	No_			
	No	Is the Sampled A		No
	No	within a Wetland	r res	NO
Remarks:		1		
Upland				
HYDROLOGY				
Wetland Hydrology Indicators:			·	cators (minimum of two required)
Primary Indicators (minimum of one is required; che			Surface So	, ,
Surface Water (A1)	True Aquatic P			egetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfi		Drainage F	
Saturation (A3)		spheres on Living Roots (		
Water Marks (B1)		educed Iron (C4)	· ·	n Water Table (C2)
Sediment Deposits (B2)		duction in Tilled Soils (C6		
Drift Deposits (B3)	_ Thin Muck Surf			Visible on Aerial Imagery (C9) Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	_ Other (Explain	in Remarks)		ic Position (D2)
Inundation Visible on Aerial Imagery (B7)			Shallow Ac	
Water-Stained Leaves (B9)				graphic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutr	
Field Observations:				
Surface Water Present? Yes No	Denth (inches	١٠.		
Water Table Present? Yes No				
Saturation Present? Yes No _			and Hydrology Pres	ent? Yes No_ 🗸
(includes capillary fringe)				siii: 190 <u>——</u> 110 <u>——</u>
Describe Recorded Data (stream gauge, monitoring	g well, aerial photo	os, previous inspections),	if available:	
Remarks:				
Nomana.				

Sampling Point	· W-E8/E9	Upl
----------------	-----------	-----

20'	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30')	% Cover	Species?	Status	Number of Dominant Species
1,				That Are OBL, FACW, or FAC:0 (A)
2				Total Niverbay of Dansinger
3				Total Number of Dominant Species Across All Strata: (B)
4				(B)
		-		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
	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 =
				FACU species x 4 =
2				UPL species x 5 =
3				
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
		-		2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
0		= Total Cov		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 0	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5')		_		Problematic Hydrophytic Vegetation (Explain)
1. Trifolium pratense	50		F <u>ACU</u>	Problematic Hydrophytic Vegetation (Explain)
2. Phleum pratense	40	<b>✓</b>	FACU	
3. Juncus effusus	5		FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Fragaria virginiana	5		FACU	be present, unless disturbed or problematic.
				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				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
	100	Tatal Car		I of cize and weedy plante leec than 2.29 ft tall
50% of total agreety 50		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover:50		= Total Cov total cover:		of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in
50% of total cover: 50 Woody Vine Stratum (Plot size: 15')				
	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15' )	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15' ) 12	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:15') 123	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:15') 1234	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic
Woody Vine Stratum (Plot size:15') 1 2 3	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size:15') 12345	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic
Woody Vine Stratum (Plot size: 15' )  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 15' )  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 15' )  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size:15')  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 15' )  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 15' )  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 15' )  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 15' )  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 15' )  1	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation

Sampling Point: W-E8/E9 Upl

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the ir	ndicator	or confirm	the absence	of indicators.	)	
Depth	Matrix		Redox	K Features	<u> </u>	. 2	_			
(inches)	Color (moist)	%	Color (moist)	<u> </u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	•	Remarks	
0-20"	10YR 4/3	95	2.5YR 4/8	5	<u>C</u>	M	CL		With sand	
			_					•		
					-					
							·			
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion. RM=Re	educed Matrix. MS	=Masked	Sand Gr	ains.	<sup>2</sup> Location: Pl	L=Pore Lining,	M=Matrix.	
Hydric Soil I			, , , , , , , , , , , , , , , , , , , ,					tors for Probl		c Soils³:
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10	) (MLRA 147)	,
	pipedon (A2)		Polyvalue Bel		e (S8) <b>(N</b>	ILRA 147,		oast Prairie Re		
Black Hi			Thin Dark Su				, <u> </u>	(MLRA 147, 1		
	n Sulfide (A4)		Loamy Gleye			, ,	Pi	iedmont Flood		9)
	Layers (A5)		Depleted Mat					(MLRA 136, 1		ŕ
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		V	ery Shallow Da	ark Surface (T	F12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		0	ther (Explain ir	n Remarks)	
	ark Surface (A12)		Redox Depre							
	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,				
	\ 147, 148)		MLRA 136				2			
	leyed Matrix (S4)		Umbric Surfa					icators of hydro		
	edox (S5)		Piedmont Flo					tland hydrology		
	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	') unl	ess disturbed	or problematic	
	ayer (if observed):									
Туре: <u>No</u>			_							_
Depth (inc	ches):		_				Hydric Soil	Present? Y	es l	No V
Remarks:							•			

Project/Site: MVP	City/C	<sub>county:</sub> Franklin		Sampling Date: 08/31/2016
Applicant/Owner: MVP	State: VA	Sampling Point: W-EF51		
Investigator(s): D Hadersbeck, S Their	rkildson, K Pulver <sub>Sectio</sub>	on, Township, Range: N/A		
Landform (hillslope, terrace, etc.): Floodp		· · · · · ·		Slope (%): 2-4
Subregion (LRR or MLRA): LRR P				Datum: NAD 83
Soil Map Unit Name: 8E-Clifford-Hickoryk				
Are climatic / hydrologic conditions on the si				
• •	•		•	·
Are Vegetation, Soil, or Hyd				
Are Vegetation, Soil, or Hyd			xplain any answer	
SUMMARY OF FINDINGS – Attac	ch site map showing sam	ipling point location	ns, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes No	Is the Sampled Area		
Hydric Soil Present?	Yes No	within a Wetland?	Yes 🗸	No
Wetland Hydrology Present?	Yes No			
Remarks: Cowardin Code: PEM	HGM: Riverine	Water Type: F	RPWWD	
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is requ	uired: check all that apply)	·	Surface Soil (	
Surface Water (A1)	True Aquatic Plants (			jetated Concave Surface (B8)
High Water Table (A2)	Sparsery veg Drainage Pat			
Saturation (A3)	Hydrogen Sulfide Ode Oxidized Rhizosphere	es on Living Roots (C3)	Moss Trim Li	
Water Marks (B1)	Presence of Reduced			Water Table (C2)
Vater Marks (B1) Sediment Deposits (B2)	Recent Iron Reductio		Crayfish Burr	
Drift Deposits (B3)	Thin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Ren			ressed Plants (D1)
Iron Deposits (B5)		-	✓ Geomorphic	
Inundation Visible on Aerial Imagery (	B7)	·	Shallow Aqui	
Water-Stained Leaves (B9)	,			phic Relief (D4)
Aquatic Fauna (B13)			✓ FAC-Neutral	
Field Observations:				· ,
Surface Water Present? Yes	No Depth (inches):			
	No Depth (inches):			
Saturation Present? Yes	No Depth (inches):	10 Wetland Hy	ydrology Presen	t? Yes 🗸 No
(includes capillary fringe)  Describe Recorded Data (stream gauge, n	nonitoring well porial photos pro	vious increations) if avail	labla	
Describe Recorded Data (stream gauge, ii	normoring well, aerial priotos, pre	vious irispections), ii avaii	iable.	
Remarks:				

### ٧

over er: 0  FAC OBL FACW	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet:  Total % Cover of:  Multiply by:  OBL species  FACW species  FAC species  FACU species  FACU species  FACU species  FACU species  FACU species  FACU species  FACU species  FACU species  FACU species  FACU species  FACU species  Total % Cover of:  FACW species  FACW species  FACU spe
over er: 0  FAC OBL FACW	Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Total % Cover of:  Multiply by:  OBL species  FACW species  FAC species  FACU species  Value  FACU species
over er: 0  FAC OBL FACW	Species Across All Strata: 2 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/E  Prevalence Index worksheet:  Total % Cover of: Multiply by:  OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) (B)  Prevalence Index = B/A = Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  V 2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
over er: 0  FAC OBL FACW	Percent of Dominant Species That Are OBL, FACW, or FAC:    Prevalence Index worksheet:   Total % Cover of:
over er: 0  FAC OBL FACW	That Are OBL, FACW, or FAC: 100 (A/E  Prevalence Index worksheet:
over er: 0  FAC OBL FACW	That Are OBL, FACW, or FAC: 100 (A/E  Prevalence Index worksheet:
over er: 0  FAC OBL FACW	Total % Cover of: Multiply by:  OBL species
over er: 0  FAC OBL FACW	Total % Cover of: Multiply by:  OBL species
over er: 0  FAC OBL FACW	OBL species
over er: 0 FAC OBL FACW	FACW species x 2 =
over er: 0 FAC OBL FACW	FAC species
over er: 0 FAC OBL FACW	FACU species x 4 =
FAC OBL FACW	UPL species x 5 =
FAC OBL FACW	Column Totals: (A) (B)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation  ✓ 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
FAC OBL FACW	Prevalence Index = B/A =
FAC OBL FACW	Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supportir data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
FAC OBL FACW	Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supportir data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
FAC OBL FACW	1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supportir data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
FAC OBL FACW	2 - Dominance Test is >50%     3 - Prevalence Index is ≤3.0¹     4 - Morphological Adaptations¹ (Provide supportine data in Remarks or on a separate sheet)     Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
FAC OBL FACW	3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supportine data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
FAC OBL FACW	4 - Morphological Adaptations¹ (Provide supportir data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
F <u>AC</u> OBL FACW	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)  Indicators of hydric soil and wetland hydrology must
OBL FACW	Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
OBL FACW	- Indicators of hydric soil and wetland hydrology must
FACW	
ODI	
OBL	Definitions of Four Vegetation Strata:
	_
	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of
	height.
	- Continu/Chruth Woody plants avaluding visco loss
	<ul> <li>Sapling/Shrub – Woody plants, excluding vines, less</li> <li>than 3 in. DBH and greater than or equal to 3.28 ft (1</li> </ul>
	m) tall.
	<ul> <li>Herb – All herbaceous (non-woody) plants, regardless</li> </ul>
over	of size, and woody plants less than 3.28 ft tall.
er: <u>18</u>	- Mantagina Allegantesian protesta de O 00 (1)
	Woody vine – All woody vines greater than 3.28 ft in height.
FAC	
	-
	─
over	Present? Yes V No No
<u> </u>	

Sampling Point: W-EF51

	ription: (Describe t	to the depti			tor or confirm	the absence	of indicator	rs.)	
Depth (inches)	Matrix Color (moist)	<u></u> %	Redox Color (moist)	x Features % Typ	e <sup>1</sup> Loc <sup>2</sup>	Texture		Remarks	
0-2	7.5yr 3/1	100	Color (molot)		0	CL		romano	
2-12	7.5yr 4/1	90	7.5yr 5/6	10 C	M/PL	SCL	F	Restrictive la	aver
			7.0y1 0/0	<u> 10</u> <u> </u>				iconicuve ic	ayo:
							-		
1Tupo: C-Co	noontration D-Dani	etion DM-I	Poducod Matrix, MS		Croins	<sup>2</sup> Location: D	I – Doro Linin	a M-Motriy	
Hydric Soil I	ncentration, D=Depl	etion, Rivi=i	Reduced Matrix, MS	s=Masked Sand	Grains.	<sup>2</sup> Location: P		g, M=Matrix. oblematic Hyd	Iric Soils <sup>3</sup> :
Histosol			Dark Surface	(S7)				10) <b>(MLRA 14</b>	
	ipedon (A2)			low Surface (S8	) (MLRA 147,		•	Redox (A16)	.,
Black His				rface (S9) (MLF		, <u> </u>	(MLRA 147		
	n Sulfide (A4)		Loamy Gleye			P		odplain Soils (F	<del>-</del> 19)
	Layers (A5)		Depleted Mat	, ,			(MLRA 136		(== ( 0 )
	ck (A10) <b>(LRR N)</b> I Below Dark Surface	· (A11)	Redox Dark S	Surface (F6) k Surface (F7)				Dark Surface ( n in Remarks)	(TF12)
	rk Surface (A12)	5 (A11)	Redox Depre				illei (Expiaii	i iii Neillaiks)	
	lucky Mineral (S1) <b>(L</b>	.RR N,		ese Masses (F1	2) <b>(LRR N,</b>				
	147, 148)		MLRA 136						
	leyed Matrix (S4)			ce (F13) <b>(MLR</b>				drophytic vege	
	edox (S5)			odplain Soils (F				ogy must be pr	
	Matrix (S6)  ayer (if observed):		Red Parent N	Material (F21) (N	ILRA 127, 147	r) un	less disturbe	d or problema	tic.
	ourse fragments								
Depth (inc						Hydric Soil	Present?	Yes 🗸	No
Remarks:						Tiyano con			
rtemants.									



Photograph Direction NNW

Comments:		

Project/Site: MVP	City/Co	<sub>unty:</sub> Franklin		Sampling Date: 08/31/2016			
Applicant/Owner: MVP				Sampling Point: W-EF51-UI			
Investigator(s): J. Cook, S. Pilcher, K. Pul			<u> </u>	_ ,			
Landform (hillslope, terrace, etc.): Slope				Slope (%): 1			
Subregion (LRR or MLRA): LRR P				Datum: NAD 83			
Soil Map Unit Name: 8E-Clifford-Hickoryknob							
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Ye	s No (	If no, explain in R	emarks.)			
Are Vegetation, Soil, or Hydrolog	y significantly disturbe	ed? Are "Normal	Circumstances" p	present? Yes V No			
Are Vegetation, Soil, or Hydrolog							
SUMMARY OF FINDINGS – Attach s							
Hydrophytic Vegetation Present? Yes	No_ 🗸		·	· · · · · · · · · · · · · · · · · · ·			
	No. V	Is the Sampled Area	V				
	No	within a Wetland?	res	NO			
Remarks: Cowardin Code: UPLAND		Water Type:					
	TIOW.	water Type.					
None				ļ			
HYDROLOGY			0 1 1 1				
Wetland Hydrology Indicators:			<u> </u>	ators (minimum of two required)			
Primary Indicators (minimum of one is required			Surface Soil Cracks (B6)				
Surface Water (A1)	True Aquatic Plants (B		Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfide Odor		Drainage Patterns (B10) oots (C3) Moss Trim Lines (B16)				
Saturation (A3)	Oxidized Rhizospheres Presence of Reduced	-					
Water Marks (B1) Sediment Deposits (B2)	Recent Iron Reduction	` '	Dry-Season Water Table (C2) s (C6) Crayfish Burrows (C8)				
Sediment Deposits (B2) Drift Deposits (B3)	Thin Muck Surface (C7			sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Rema			tressed Plants (D1)			
Iron Deposits (B5)	Outor (Explain in North	arnoj		Position (D2)			
Inundation Visible on Aerial Imagery (B7)			Shallow Aqui				
Water-Stained Leaves (B9)				aphic Relief (D4)			
Aquatic Fauna (B13)			FAC-Neutral				
Field Observations:							
Surface Water Present? Yes No	Depth (inches):						
Water Table Present? Yes No	Depth (inches):						
Saturation Present? Yes No	Depth (inches):	Wetland H	lydrology Presen	nt? Yes No			
(includes capillary fringe)  Describe Recorded Data (stream gauge, monit	oring well porial photos, provi	ious inspections) if ava	ilabla:				
Describe Necorded Data (Stream gauge, month	oning well, aerial photos, previ	ious irispections), ii ava	liable.				
Remarks:							
None							

Sampling Point: W-EF51-UP

Trac Street (Plat size 30'	Absolute	Dominant		Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size:)  1 Liriodendron tulipifera	<u>% Cover</u> 50	Species? ✓	FACU	Number of Dominant Species	1	(0)
2. Acer rubrum	25	<u> </u>		That Are OBL, FACW, or FAC:	<u> </u>	(A)
3			FAC	Total Number of Dominant Species Across All Strata:	6	(B)
4						,
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	17	(A/B)
6				That Ale OBE, I AOW, OI I AO.		(7,10)
7				Prevalence Index worksheet:		
·-	75	= Total Cov	or.	Total % Cover of:	Multiply by:	
50% of total cover: 37.5				OBL species x 1	=	
Sapling/Shrub Stratum (Plot size: 15' )	2070 01	total oover.		FACW species x 2		
1. Oxydendron arboreum	15	~	UPL	FAC species x 3		
2. Liriodendron tulipifera	10			FACU species x 4		
<u> </u>			FACU_	UPL species x 5		
3						
4		. <u></u>		Column Totals: (A)		_ (B)
5				Prevalence Index = B/A =		
6				Hydrophytic Vegetation Indicate		_
7	-					
8				1 - Rapid Test for Hydrophytic	vegetation	
9				2 - Dominance Test is >50%		
<u> </u>	25	= Total Cov		3 - Prevalence Index is ≤3.0 <sup>1</sup>		
50% of total cover: 12.5				4 - Morphological Adaptations	<sup>1</sup> (Provide sup	porting
Herb Stratum (Plot size: 5' )	2070 01	10101 00101.	<del></del> _	data in Remarks or on a se	eparate sheet)	,
1. Quercus alba	5	<b>✓</b>	FACU	Problematic Hydrophytic Vege	etation¹ (Expla	in)
2 Pinus strobus	3					
			FACU_	<sup>1</sup> Indicators of hydric soil and wetla	nd hydrology i	must
3				be present, unless disturbed or pre-		
4				Definitions of Four Vegetation S	Strata:	
5						,
6				<b>Tree</b> – Woody plants, excluding vi more in diameter at breast height		
7				height.	(DBH), Tegardi	1633 01
8						
9				Sapling/Shrub – Woody plants, e than 3 in. DBH and greater than o		
10				m) tall.	r equal to 3.20	, 11 (1
				,		
11	8	T-1-1-0		Herb – All herbaceous (non-wood	y) plants, rega	ırdless
50% of total cover: 4		= Total Cov total cover:		of size, and woody plants less tha	11 3.20 II laii.	
	20% 01	total cover.	1.0	Woody vine – All woody vines gre	eater than 3.28	3 ft in
Woody Vine Stratum (Plot size:15')				height.		
1						
2						
3						
4				Hydrophytic		
5	-			Vegetation	_	
	0	= Total Cov	er	Present? Yes	No 🔽	
50% of total cover:0	20% of	total cover:	0			
Remarks: (Include photo numbers here or on a separate s	heet.)					

Profile Desc	ription: (Describe t	o the depth i	needed to docum	nent the ir	ndicator o	or confirm	the abse	ence of indicate	ors.)	
Depth	Matrix		Redo	x Features	i		_			
(inches)	Color (moist)		Color (moist)	<u></u> %	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Textur</u>		Remarks	
0-4	2.5Y 4/4	100					SiL	·		_
			_							
										-
										_
							-			_
	oncentration, D=Deple	etion, RM=Re	educed Matrix, MS	S=Masked	Sand Gra	ins.		n: PL=Pore Lini		
Hydric Soil I	ndicators:						Ir	ndicators for P	roblematic H	ydric Soils³:
Histosol		•	Dark Surface				_		A10) <b>(MLRA</b>	•
	pipedon (A2)	•	Polyvalue Be				148) _		Redox (A16)	)
Black Hi			Thin Dark Su			47, 148)		(MLRA 14		(540)
	n Sulfide (A4) I Layers (A5)		Loamy Gleye Depleted Mat		-2)		_	Pleamont Fit (MLRA 13	oodplain Soils	(F19)
	ck (A10) <b>(LRR N)</b>	•	Redox Dark \$		6)				v Dark Surfac	e (TF12)
	Below Dark Surface	(A11)	Depleted Dar				_		in in Remarks	, ,
Thick Da	ark Surface (A12)		Redox Depre					_ ` .		,
	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan		es (F12) <b>(L</b>	RR N,				
	\ 147, 148)		MLRA 13					3		
	leyed Matrix (S4)	•	Umbric Surfa				-	<sup>3</sup> Indicators of h		-
	edox (S5)		Piedmont Flo					wetland hydro		
	Matrix (S6)  ayer (if observed):		Red Parent N	nateriai (F∠	21) (WLR)	4 127, 147	)	unless disturb	ea or problem	natic.
	parse fragments									
			_				Uhadaia	Cail Duananto	Vaa	No. 1/
Depth (inc	cnes): -		_				Hydric	Soil Present?	Yes	No
Remarks:	ad aoil									
Good uplar	iu soii									

Project/Site: MVP		City/Count	<sub>y:</sub> Franklin		Sampling Date: 10/20/2016		
Applicant/Owner: MVP				State: VA	Sampling Point: W-KL43a,b		
Investigator(s): E. Foster, J	. Cook, S. Pilcher	Section, To	ownship, Range: N				
Landform (hillslope, terrace, et					Slope (%); 0-2		
Subregion (LRR or MLRA): L			Long: <u>-79</u>		Datum: NAD 83		
Soil Map Unit Name: 7D - Cli							
Are climatic / hydrologic condi		•					
					resent? Yes No		
Are Vegetation, Soil	-			explain any answe			
SUMMARY OF FINDIN	GS – Attach site	map showing samplir	ng point location	ons, transects	, important features, etc.		
Hydrophytic Vegetation Pres	ent? Yes	, No					
Hydric Soil Present?	Yes V	, Is t	he Sampled Area hin a Wetland?	Voc. V	No		
Wetland Hydrology Present?	Yes Yes	No	nin a welland?	res			
Remarks: Cowardin C	ode: PFM	HGM: Riverine	Water Type:	RPWWD			
		sediment deposition. H			ed by cattle. This data		
form describes condition	•	·		•	-		
Tomi docembes contained	io in two wonding t	oogmonio alongolao o l	KLO I, Idoolog V	r re roa ana vi	NE 100.		
HYDROLOGY							
Wetland Hydrology Indicat		1 11 11 1 1 1		·	tors (minimum of two required)		
Primary Indicators (minimum	of one is required; che			Surface Soil	` '		
Surface Water (A1)	_	_ True Aquatic Plants (B14)		Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	_	_ Hydrogen Sulfide Odor (C		Drainage Patterns (B10)			
Saturation (A3)	_	<ul><li>Oxidized Rhizospheres on</li><li>Presence of Reduced Iron</li></ul>		Moss Trim Li	Water Table (C2)		
Water Marks (B1) Sediment Deposits (B2)	_	Recent Iron Reduction in		Crayfish Buri			
Orift Deposits (B3)	<del>-</del>	_ Thin Muck Surface (C7)	Tilled Solis (Co)		sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	<del>-</del>	<ul><li>Other (Explain in Remarks</li></ul>	;)		ressed Plants (D1)		
Iron Deposits (B5)	_		• )	Geomorphic			
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aqui			
Water-Stained Leaves (I	B9)				phic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:	-						
Surface Water Present?	Yes No		_				
Water Table Present?	Yes No	Depth (inches):6	_				
Saturation Present?	Yes No	Depth (inches):0	Wetland I	Hydrology Presen	t? Yes <u>/</u> No		
(includes capillary fringe)  Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, previous	inspections), if ava	ailable:			
(***	33.,	, , , , , , , , , , , , , , , , , , , ,	,				
Remarks:							

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')		Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				T. III. 1 (5)
3				Total Number of Dominant Species Across All Strata:  3 (B)
4				Openies / toross / tir etrata.
				Percent of Dominant Species That Are OBL_FACW_or FAC: 100 (A/B)
5		-		That Are OBL, FACW, or FAC: (A/B)
6			· ——	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
0		= Total Cov		OBL species x 1 =
50% of total cover: 0	20% of	total cover:	. 0	
Sapling/Shrub Stratum (Plot size: 15' )	_	,		FACW species x 2 =
1. Salix nigra	5		OBL	FAC 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 Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cov		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 2.5	20% of	total cover:	1	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5' )				
1. Scirpus polyphyllus	10		OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Carex crinita	10		OBL	
3. Leersia oryzoides	20	<b>V</b>	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Persicaria pensylvanica	15		FACW	
5. Juncus effusus	10	-	FACW	Definitions of Four Vegetation Strata:
· ·				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				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
	65	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>32.5</u>	20% of	total cover:	13	W
Woody Vine Stratum (Plot size: 15')				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1.				noight.
2			·	
3		-		
4			· ——	Hydrophytic
5		-		Vegetation Present? Yes   ✓ No
		= Total Cov	_	rieseitt! Tes No
50% of total cover:0		total cover:	. 0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Sampling Point: W-KL43a,b

Profile Desc	ription: (Describe to	o the depth	needed to docun	nent the in	ndicator	or confirm	the absence	e of indicators.)	
Depth	Matrix		Redo	x Features	i				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-2	5YR 4/6	100					Sa		
2-6	5YR 4/1	75	5YR 3/4	25	С	M/PL	Sa		
									_
					-		-		
			_			· <u></u>			
								-	_
	-								
<sup>1</sup> Type: C=Ce	oncentration, D=Deple	etion. RM=R	educed Matrix. MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.	
Hydric Soil		50011, TUVI—TU	oddodd Widinx, Wie	<del>J-MacRea</del>	oana on	unio.		cators for Problematic Hydric Soils <sup>3</sup> :	
Histosol			Dark Surface	(S7)				2 cm Muck (A10) <b>(MLRA 147)</b>	
	oipedon (A2)		Polyvalue Be		e (S8) <b>(N</b>	ILRA 147,		Coast Prairie Redox (A16)	
Black Hi			Thin Dark Su				, <u> </u>	(MLRA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	<del>-</del> 2)		<u>~</u> F	Piedmont Floodplain Soils (F19)	
	d Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)	
	ıck (A10) (LRR N)		Redox Dark S	•	,			Very Shallow Dark Surface (TF12)	
	d Below Dark Surface	(A11)	Depleted Dar				_ (	Other (Explain in Remarks)	
	ark Surface (A12)	DD N	Redox Depre			I DD N			
	lucky Mineral (S1) <b>(L</b> l <b>\ 147, 148)</b>	KK N,	Iron-Mangan		S (F 12) (	LKK N,			
	Gleyed Matrix (S4)		Umbric Surfa		MIRA 13	6 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and	
	Redox (S5)		Piedmont Flo					etland hydrology must be present,	
	Matrix (S6)		Red Parent N					nless disturbed or problematic.	
	Layer (if observed):			`	, ,	<u> </u>	<u>.</u>	·	
Type: Cl	<del>-</del> , gravel								
Depth (in	ches): 6		<del></del>				Hydric Soi	il Present? Yes 🖊 No	
Remarks:			<del></del> '				,		_
	dplain, coarse fra	aments ar	nd cobble						
		J							



Photograph Direction West

Comments:			

Project/Site: MVP			City/Cou	<sub>ınty:</sub> Franklin		Sampling Date: 10	0/20/2016		
Applicant/Owner: MVP				-			W-KL42;KL43-UP		
Investigator(s): E. Foster, J	. Cook, S. Pilc	her	Section	Township, Range: N					
Landform (hillslope, terrace, et						Slope	· (%): 5-10		
Subregion (LRR or MLRA): L				Long: <u>-79</u>					
Soil Map Unit Name: 7D - Cli									
Are climatic / hydrologic condit									
•	-						,		
Are Vegetation, Soil			-				No		
Are Vegetation, Soil	, or Hydroloo	gy na	aturally problemation	c? (If needed, e	explain any answe	rs in Remarks.)			
SUMMARY OF FINDIN	GS – Attach s	site map s	showing samp	ling point location	ons, transects	, important fea	tures, etc.		
Hydrophytic Vegetation Pres	ent? Yes	No	· .						
Hydric Soil Present?		No	. 🗸   '	s the Sampled Area vithin a Wetland?	Vac	No			
Wetland Hydrology Present?		No		vitilii a vvetialiu:	165	NO			
Remarks: Cowardin C	ode: UPLAND	HGI	M:	Water Type:					
Heavily utilized b									
Tieavily utilized b	y cattle.								
HYDROLOGY							1		
Wetland Hydrology Indicat						ators (minimum of ty	vo required)		
Primary Indicators (minimum	of one is required			4)	Surface Soil	` ,	(50)		
Surface Water (A1)			Aquatic Plants (B1		Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)		-	ogen Sulfide Odor		Drainage Patterns (B10) Moss Trim Lines (B16)				
Saturation (A3) Water Marks (B1)			ence of Reduced I	on Living Roots (C3)		Water Table (C2)			
Sediment Deposits (B2)		· · · · · · · · · · · · · · · · · · ·	ent Iron Reduction i	` '	Crayfish Bur				
Drift Deposits (B3)			Muck Surface (C7)		· ·	isible on Aerial Imaç	gery (C9)		
Algal Mat or Crust (B4)			r (Explain in Rema			tressed Plants (D1)			
Iron Deposits (B5)		_	( )	-,		Position (D2)			
Inundation Visible on Ae	rial Imagery (B7)				Shallow Aqu				
Water-Stained Leaves (E						aphic Relief (D4)			
Aquatic Fauna (B13)					FAC-Neutral	Test (D5)			
Field Observations:		_							
Surface Water Present?	Yes No	Dep	th (inches):						
Water Table Present?	Yes No	Dep	th (inches):						
Saturation Present?	Yes No	Dep	th (inches):	Wetland H	Hydrology Preser	nt? Yes	No		
(includes capillary fringe)  Describe Recorded Data (str	eam gauge, moni	toring well, a	erial photos, previo	ous inspections), if ava	ailable:				
,				, ,					
Remarks:									

30'	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30')		Species?		Number of Dominant Species
1. Carpinus caroliniensis	10		FAC	That Are OBL, FACW, or FAC:1 (A)
2. Acer rubrum	5		FAC	Total Number of Dominant
3. Liriodendron tulipifera	20		FACU_	Species Across All Strata:3 (B)
4. Nyssa sylvatica	5		FAC	Barrant of Barrinant Caracina
5. Carya glabra	5		FACU_	Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)
6. Quercus alba	20		FACU	
7.				Prevalence Index worksheet:
	65	= Total Cov	er	Total % Cover of: Multiply by:
50% of total cover: <u>32.5</u>	20% of	total cover:	13	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: (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				3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cov	_	4 - Morphological Adaptations¹ (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. Microstegium vimineum	10		F <u>AC</u>	Problematic Hydrophytic vegetation (Explain)
2				1
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Definitions 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				neight.
9.				Sapling/Shrub – Woody plants, excluding vines, less
			-	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				
11	10		-	Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 5		= Total Cov total cover:	_	of size, and woody plants less than 3.28 ft tall.
	20% 01	total cover.		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	er	Present? Yes No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe to	o the depth	needed to docum	nent the ir	ndicator	or confirm	the absenc	e of indicato	ors.)		
Depth	Matrix			x Features	3						
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	(S	
0-6	5YR 3/4	100					SiCL				
							_	_			
								_			
								_			
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion, RM=R	Reduced Matrix, MS	S=Masked	Sand Gra	ins.		PL=Pore Lini			
Hydric Soil						· · · · · · · · · · · · · · · · · · ·	Indi	cators for Pr	oblematic	Hydric Soi	ls³:
Histosol	(A1)		Dark Surface	(S7)				2 cm Muck (A	410) <b>(MLR</b>	A 147)	
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(M</b>	LRA 147,		Coast Prairie			
Black H	istic (A3)		Thin Dark Su					(MLRA 14			
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	=2)		_	Piedmont Flo	odplain So	ils (F19)	
Stratified	d Layers (A5)		Depleted Mat	trix (F3)				(MLRA 13	6, 147)		
	uck (A10) (LRR N)		Redox Dark S					Very Shallow			
	d Below Dark Surface	(A11)	Depleted Dar					Other (Expla	in in Remai	rks)	
	ark Surface (A12)		Redox Depre								
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) <b>(I</b>	₋RR N,					
	A 147, 148)		MLRA 13	•			3.				
	Gleyed Matrix (S4)		Umbric Surfa					ndicators of hy			ınd
	Redox (S5)		Piedmont Flo					vetland hydro			
	Matrix (S6)		Red Parent N	Material (F2	21) <b>(MLR</b>	A 127, 147	<b>′)</b> u	ınless disturb	ed or proble	ematic.	
	Layer (if observed):	_									
	efusal, compactio	n	<del></del>								
Depth (in	ches): 0-6		<u>—</u>				Hydric So	il Present?	Yes	No	<u> </u>
Remarks:											