Project/Site: Atlantic Coast Pig	eline		City/C	county: Greensville		Sampling Date: 3/18/2015	
Applicant/Owner: Dominion						Sampling Point: wgra039f_w	
Investigator(s): GB, AS				on, Township, Range: No			
Landform (hillslope, terrace, et						Slone (%)·2	
Subregion (LRR or MLRA): $\frac{P}{P}$ Soil Map Unit Name: $\frac{Wooding}{P}$	ton fine sandy	Lati	n 2 percent slopes	Long:	NA// 1 'C'	PFO1A	
Are climatic / hydrologic condit							
Are Vegetation, Soil	, or Hydro	ology	significantly distur	bed? Are "Normal	I Circumstances" pr	esent? Yes 🔽 No	
Are Vegetation, Soil	, or Hydro	ology	naturally problema	atic? (If needed, e	explain any answers	s in Remarks.)	
SUMMARY OF FINDIN	GS – Attac	h site m	nap showing sam	pling point location	ons, transects,	important features, etc.	
Lludrophytic Variation Drag	ant? V	·/	No				
Hydrophytic Vegetation Present?	ant. Y	es <u> </u>	No No	Is the Sampled Area			
Wetland Hydrology Present?			No	within a Wetland?	Yes		
Remarks:							
Data point taken for a season	any saturateu i	FFO Wella	and iii a 23-year-oid pi	ne piantation located in a	a broad concavity of	ra gernie siope.	
HYDROLOGY							
Wetland Hydrology Indicate	ors:				Secondary Indicate	ors (minimum of two required)	
Primary Indicators (minimum	of one is requi	red; chec	k all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1)		Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)		Drainage Patte	erns (B10)				
Saturation (A3)		Moss Trim Lin					
Water Marks (B1)			Presence of Reduced		Dry-Season Water Table (C2)		
Sediment Deposits (B2)			Recent Iron Reductio		Crayfish Burro		
Drift Deposits (B3)			Thin Muck Surface (C			ible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		_	Other (Explain in Rer	narks)		essed Plants (D1)	
Iron Deposits (B5)	mial lasa mam . /D	<b>-</b> 7\			Geomorphic F	, ,	
Inundation Visible on Ae		7)			Shallow Aquita		
Water-Stained Leaves (E	39)					phic Relief (D4)	
Aquatic Fauna (B13) Field Observations:					FAC-Neutral T	est (D5)	
	Voo	No V	Donth (inches)				
Surface Water Present?			Depth (inches): Depth (inches):	16			
Water Table Present?				10	h	0 V <b>V</b> N-	
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	wetland F	Hydrology Present	? Yes <u> </u>	
Describe Recorded Data (stre	eam gauge, m	onitoring v	well, aerial photos, pre	vious inspections), if ava	nilable:		
Remarks:	4 bish		la a la la constanta de la	taan taka satka da aan aasaa sa			
water table difficult to interpre	t as nigh orgar	ic matter	noids water which dra	ins into pit when excavat	ung		

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover 65	Species?	Status FAC	Number of Dominant Species
1. Pinus taeda		Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2				Total Number of Dominant
3	-			Species Across All Strata: 6 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33333333 (A/B)
6				That Are ODE, I AGW, OF I AG.
7.				Prevalence Index worksheet:
	65	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 32.5		total cover:	13	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )	2070 01			FACW species8
1 llex opaca	8	Yes	FACU	FAC species152 x 3 =456
2. Magnolia virginiana	8	Yes	FACW	FACU species 8 x 4 = 32
3. Clethra alnifolia	8	Yes	FAC	UPL species $0 \times 5 = 0$
	7	Yes	FAC	168 504
4. Acer rubrum				Column Totals: (A) (B)
5. Liquidambar styraciflua	2	No	FAC	Prevalence Index = B/A = 3
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	33	= Total Cover	•	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:16.5		total cover:	6.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:5				data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
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				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Continue/Charle Woody plants avaluating vines less
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.				
	0	= Total Cover		<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		total cover:	0	
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
1 Smilax rotundifolia	70	Yes	FAC	height.
·				
2				
3				
4				Hydrophytic
5				Vegetation
	70	= Total Cover	r	Present? Yes No
50% of total cover: 35	20% of	total cover:	14	
Remarks: (Include photo numbers here or on a separate s	heet.)			L
` '	,			

Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR 3/1	100					SL	
5-11	10YR 4/1	100					SCL	
			40)/D 4/0					
12-20	10YR 5/1	95	10YR 4/6	5	C	M	SCL	
	_							
	_							
1Typo: C-C	oncontration D_Dor	olotion PM	I=Reduced Matrix, MS	-Mackad	Sand Gra	nine	<sup>2</sup> Location: D	PL=Pore Lining, M=Matrix.
Hydric Soil		Dietion, Kiv	=Reduced Matrix, MS	=iviaskeu	Sanu Gra	11115.		ators for Problematic Hydric Soils <sup>3</sup> :
•			Dorle Curfoso	(07)				
Histosol			Dark Surface	. ,	o (CO) /M	II D A 447		2 cm Muck (A10) (MLRA 147)
	pipedon (A2) istic (A3)		Polyvalue Bel Thin Dark Sur				140)	Coast Prairie Redox (A16) (MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			47, 140)	Б	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat		(2)		<u> </u>	(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark S		3)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	·e (Δ11)	Depleted Dark	•				Other (Explain in Remarks)
	ark Surface (A12)	<i>(</i> /(11)	Redox Depres				_ `	ziror (Explain in Remains)
	/Jucky Mineral (S1) (	I RR N.	Iron-Mangane			RR N		
	A 147, 148)	,	MLRA 136		o (i 12) <b>(i</b>			
	Gleyed Matrix (S4)		Umbric Surfac	•	/ILRA 13	6. 122)	<sup>3</sup> Ind	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					lless disturbed or problematic.
	Layer (if observed)	:		(-	, (		<del>,</del>	
Type: no								
							Hydric Soil	I Present? Yes No
Depth (in	cnes):						Hydric Soil	Present? TesNo
Remarks:								



Photo 1 Wetland data point wgra039f\_w facing east



Photo 2
Wetland data point wgra039f\_w facing south

Project/Site: Atlantic Coast Pi	peline		City/Cou	nty: Greensville		Sampling Date: 3/18/2015		
Applicant/Owner: Dominion						Sampling Point: wgra039_u		
Investigator(s): GB, AS				Township, Range: No				
Landform (hillslope, terrace, e								
candioini (illisiope, terrace, e	ic.). <u>31 11 17 1</u>	36 69473	_ Local reliei 685	(concave, convex, noi	61116339	Slope (76) WGS 1984		
Subregion (LRR or MLRA): 1	no candy loam. O t	_ Lat: 00:00470	000	Long:	01110000	Datum: WGS 1984		
Soil Map Unit Name: Slagle fi								
Are climatic / hydrologic condi	tions on the site ty	pical for this time	of year? Yes	No	(If no, explain in R	emarks.)		
Are Vegetation, Soil	, or Hydrolog	y signific	antly disturbe	d? Are "Norma	Circumstances" p	oresent? Yes No		
Are Vegetation, Soil	, or Hydrolog	y natural	lly problemation	? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDIN	GS – Attach s	ite map show	ving samp	ling point location	ons, transects	, important features, etc.		
Hydrophytic Vegetation Pres	sent? Yes	✓ No_						
Hydric Soil Present?	Yes	No •	Is	the Sampled Area	Vee	No		
Wetland Hydrology Present?	Yes	No No	/ w	vithin a Wetland?	res	NO		
Remarks:								
Upland data point taken abov concave area.	e a slope break fo	r a seasonally sa	turated PFO w	vetland located in a pii	ne plantation, belo	w slope break is a broad, slight		
HYDROLOGY								
Wetland Hydrology Indicat	ors:				Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum	of one is required				Surface Soil	, ,		
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 Ro								
Water Marks (B1)		Presence				Water Table (C2)		
Sediment Deposits (B2)				n Tilled Soils (C6)	Crayfish Buri			
Drift Deposits (B3)			Surface (C7)			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Ex	piain in Remai	rks)		tressed Plants (D1)		
Iron Deposits (B5)	rial Imagary (P7)					Position (D2)		
Inundation Visible on Ae					Shallow Aqui			
Water-Stained Leaves (I Aquatic Fauna (B13)	59)				FAC-Neutral	aphic Relief (D4)		
Field Observations:				1	I AC-Neutral	1631 (D3)		
Surface Water Present?	Voc. No.	Depth (in	ahaa):					
Water Table Present?		Depth (in						
		Depth (in			ludrala au Draca	t2 Van Na V		
Saturation Present? (includes capillary fringe)	res No	Depth (in	cnes):	wetiand r	lydrology Presen	t? Yes No		
Describe Recorded Data (str	eam gauge, monit	oring well, aerial	photos, previo	ous inspections), if ava	ilable:			
Remarks:								
no hydrology indicators prese	ent							

5amoiina Point "9'4000_'	Sampling	Point: wgra039_	u
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	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	% Cover 65	Species? Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2				
3				Total Number of Dominant Species Across All Strata:  4 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
6				Prevalence Index worksheet:
7	65			Total % Cover of: Multiply by:
50% of total cover: 32.5	. ——— '	= Total Cove	r 13	OBL species x 1 = 0
15	20% of	total cover:		FACW species x 1 = 4
Sapling/Shrub Stratum (Plot size:)	20	Voo	FACIL	129 414
1. Ilex opaca	20	Yes	FACU	26 104
2. Clethra alnifolia	8	Yes	FAC	FACU species x 4 =0
3. Acer rubrum	5	No	FAC	UPL species X 5 =
4. Rhus copallinum	4	No	FACU	Column Totals: (A) 522 (B)
5. Pinus taeda	3	No	FAC	Prevalence Index = B/A = 3.14
6. Magnolia virginiana	2	No	FACW	Trevalence mack = B/TC =
7. Quercus alba	2	No	FACU	Hydrophytic Vegetation Indicators:
8. Liquidambar styraciflua	2	No	FAC	1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
v	46	= Total Cove		3 - Prevalence Index is ≤3.01
50% of total cover: 23		total cover:	9.2	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)
Tierb Giratain (Flot Size.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1				
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				Trace Manchemberts analysis a 2 in (7.0 and) an
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				Continue (Charles Meaning and a suple discouring a local
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.				Hart All bark assess (see succed by closely as a readless
	0	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0		total cover:	0	
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
1 Smilax rotundifolia	55	Yes	FAC	height.
2				
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cover		Present? Yes No No
50% of total cover:27.5	20% of	total cover:	11	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth (inches)		то шорг				iii tiic aba	sence of indicators.)
(IIICHES)	Matrix Color (moist)	%	Redo: Color (moist)	x Features % Ty	ype <sup>1</sup> Loc <sup>2</sup>	Textu	ure Remarks
0-2	10YR 3/2	100	Color (moist)	<u> 70 I)</u>	ype Loc	SL	
2-7	10YR 4/4	100				SL	
7-24	10YR 5/3	100				SC	L
						_	
						-	
	<u> </u>				·		
					,	-	5 )
						_	<del></del>
	· -						
	Concentration, D=Dep	oletion, RM=	Reduced Matrix, MS	S=Masked Sar	nd Grains.		on: PL=Pore Lining, M=Matrix.
•	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :
Histoso			Dark Surface				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)				S8) (MLRA 147		Coast Prairie Redox (A16)
	Histic (A3)			. , .	LRA 147, 148)		(MLRA 147, 148)
	en Sulfide (A4) ed Layers (A5)		Loamy Gleye Depleted Material				Piedmont Floodplain Soils (F19) (MLRA 136, 147)
	luck (A10) <b>(LRR N)</b>		Redox Dark \$				Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	ce (A11)	Depleted Dar		)		Other (Explain in Remarks)
	Oark Surface (A12)	,	Redox Depre		,		
	Mucky Mineral (S1) (	LRR N,	Iron-Mangan		F12) <b>(LRR N,</b>		
	A 147, 148)		MLRA 13				
	Gleyed Matrix (S4)		Umbric Surfa				<sup>3</sup> Indicators of hydrophytic vegetation and
	Redox (S5)				(F19) <b>(MLRA</b> 1		wetland hydrology must be present,
	d Matrix (S6)		Red Parent N	laterial (F21)	(MLRA 127, 14	47)	unless disturbed or problematic.
Restrictive	Layer (if observed)	:					
Type: n							
Depth (ii	nches):					Hydri	c Soil Present? Yes No
Remarks:							
rtorriarito.							
rtomanto.							
tomano.							
remaine.							
iomano.							
tomano.							
tomaine.							
toliulio.							
tonune.							



Photo 1 Upland data point wgra039\_u facing east



Photo 2 Upland data point wgra039\_u facing north

Project/Site: SERP		City/C	ounty: Greensville		_ Sampling Date: 8/15/2014			
Applicant/Owner: Dominion				State: VA	Sampling Point: wgra011f_w			
Investigator(s): GB, LE, SK			on, Township, Range: No					
Landform (hillslope, terrace, etc.): depr								
Subregion (LRR or MLRA): P								
Soil Map Unit Name: Woodington fine	sandy loam, 0 to	2 percent slopes		NWI classifi	cation: PFO1C			
Are climatic / hydrologic conditions on t	he site typical for	this time of year? Y	es No	(If no, explain in I	Remarks.)			
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	l Circumstances"	present? Yes No			
Are Vegetation, Soil, or								
SUMMARY OF FINDINGS – A								
Hydrophytic Vegetation Present?	Voc V	No						
Hydric Soil Present?		No	Is the Sampled Area	V	No			
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO			
Remarks:	·	· · ·						
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indic	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)		egetated Concave Surface (B8)			
High Water Table (A2)		atterns (B10)						
Saturation (A3)	(	Oxidized Rhizosphere	es on Living Roots (C3)	✓ Moss Trim I	_ines (B16)			
<u>✓</u> Water Marks (B1)	1	Presence of Reduced	I Iron (C4)	Dry-Season	Water Table (C2)			
Sediment Deposits (B2)	1	Recent Iron Reductio	n in Tilled Soils (C6)					
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)			
Iron Deposits (B5)	(57)				Position (D2)			
Inundation Visible on Aerial Imag	ery (B7)			Shallow Aquitard (D3)				
Water-Stained Leaves (B9) Aquatic Fauna (B13)				Microtopographic Relief (D4) ✓ FAC-Neutral Test (D5)				
Field Observations:				TAO Neutre	11 1031 (D3)			
	No 🗸	Depth (inches):						
		Depth (inches):						
		Depth (inches):		Hydrology Prese	nt? Yes 🗸 No			
(includes capillary fringe)				-	NC. 103NO			
Describe Recorded Data (stream gau	ge, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ailable:				
Remarks:								
thick mat of sphagnum, buttressed trui	nks							

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	
1 Liquidambar styraciflua	15	Yes	FAC	Number of Dominant Species That Are OBL_FACW_or FAC: 7 (A)
1	8	Yes	FAC	That Are OBL, FACW, or FAC: (A)
2. Acer rubrum				Total Number of Dominant
3. Quercus nigra	7	Yes	FAC	Species Across All Strata: 7 (B)
4. Magnolia virginiana	3	No	FACW	\ /
		-		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				
	33	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 16.5		total cover:	6.6	OBL species12 x 1 =12
15	20 /0 01	total cover		FACW species 23 x 2 = 46
Sapiing/Shrub Stratum (Plot size:)		.,	= 4 014/	20 447
1. Vaccinium corymbosum	15	Yes	FACW	FAC species x 3 =
2. Itea virginica	7	Yes	OBL	FACU species x 4 =
3. Magnolia virginiana	5	No	FACW	UPL species0 x 5 =0
	4	No	FAC	7/ 175
4. Clethra alnifolia			FAC	Column Totals: (A) (B)
5.				Prevalence Index = B/A = 2.36
6.				Trevalence mack = B/TC =
•				Hydrophytic Vegetation Indicators:
7				✓ 1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
· ·	31	- Total Cover		3 - Prevalence Index is ≤3.0 <sup>1</sup>
500/ - (1-1-1 15-5		= Total Cover	6.2	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:15.5	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				
1. Carex prasina	5	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
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				- comment of the control of the cont
•				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		<del></del>		more in diameter at breast height (DBH), regardless of
7				height.
8				One Provident None de alente controlle de la c
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		<del></del>		iii) taii.
11				Herb – All herbaceous (non-woody) plants, regardless
	5	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5		total cover:	1	
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
vvoody vine Stratum (1 lot size.	<b>E</b>	Voo	EAC	height.
1. Smilax rotundifolia	5	Yes	FAC	
2				
3.				
4		<del></del>		Hydrophytic
5				Vegetation
	5	= Total Cover		Present? Yes No
50% of total cover: 2.5		total cover:		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3	10YR 2/2	100					SCL	
3-7	10YR 4/1	98	10YR 4/6	2	С	PL	SCL	
7-18	10YR 5/1	97	10YR 4/6	3	С	PL/M	SC	
					-			
1- 0 0				<del></del> .			2	
Hydric Soil		oletion, RIV	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.  ators for Problematic Hydric Soils <sup>3</sup> :
-								
Histosol	, ,		Dark Surface		/O=: ==			2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Bel				148) C	Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Sui			47, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		-2)		P	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S					/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dar				c	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (	LRR N,	Iron-Mangane		s (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 136	•				
	Gleyed Matrix (S4)		Umbric Surfac					licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	<b>')</b> un	lless disturbed or problematic.
	Layer (if observed)	:						
Type: cla	ay							
Depth (in	iches): 7						Hydric Soil	Present? Yes No
Remarks:							I .	



Photo 1
Wetland data point WGRA011f\_w facing south



Photo 2
Wetland data point WGRA011f\_w facing north

Project/Site: SERP	City/County: Greensville		Sampling Date: 8/15/2014			
Applicant/Owner: Dominion		State: VA	_ Sampling Point: wgra011_u			
Investigator(s): GB, LE, SK	Section, Township, Range:					
	Local relief (concave, convex,					
Subregion (LRR or MLRA): P						
Soil Map Unit Name: Woodington fine sandy loam, 0	to 2 percent slopes	NWI classifica	ation:			
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes No	_ (If no, explain in Re	emarks.)			
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Non	nal Circumstances" pr	resent? Yes V No			
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach site						
Hydrophytic Vegetation Present? Yes <u>✓</u>	No Is the Sampled Are					
	No. 4/		No 🗸			
	within a Wetland?	Yes	NO			
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)			
Primary Indicators (minimum of one is required; che	ock all that apply)	Surface Soil C				
			etated Concave Surface (B8)			
	Surface Water (A1)					
	Drainage Patt  B) Moss Trim Lin					
· ·	<ul><li>Oxidized Rhizospheres on Living Roots (C</li><li>Presence of Reduced Iron (C4)</li></ul>		Vater Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)					
Drift Deposits (B3)	_ Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	_ Other (Explain in Remarks)	Stunted or Str	ressed Plants (D1)			
Iron Deposits (B5)		Geomorphic F	Position (D2)			
Inundation Visible on Aerial Imagery (B7)		Shallow Aquita				
Water-Stained Leaves (B9)		✓ Microtopographic Relief (D4)				
Aquatic Fauna (B13)		<u>✓</u> FAC-Neutral 1	Test (D5)			
Field Observations:						
	Depth (inches):					
	Depth (inches):		/			
Saturation Present? Yes No	Depth (inches): Wetlan	d Hydrology Present	? Yes V No			
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspections), if	vailable:				
Remarks:						

Sampling Point: wgra017	l_u	_u
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•	Absolute	Dominant In	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Pinus taeda	35	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2. Acer rubrum	10	No	FAC	Total Number of Dominant
3. Liquidambar styraciflua	10	No	FAC	Species Across All Strata: 4 (B)
4. Quercus nigra	5	No	FAC	
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  100 (A/B)
6				That Ale OBE, I AOW, OI I AO.
7				Prevalence Index worksheet:
	60	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 30		total cover:_	12	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )			-	FACW species10 x 2 =20
1 Acer rubrum	15	Yes	FAC	FAC species106 x 3 =318
2. Liquidambar styraciflua	12	Yes	FAC	FACU species 3 x 4 = 12
3. Vaccinium corymbosum	7	No	FACW	UPL species0 x 5 =0
	4	No	FAC	Column Totals: 119 (A) 350 (B)
4. Clethra alnifolia	<u>.</u>			Column Totals (A) (B)
5. Magnolia virginiana	3	No	FACW	Prevalence Index = B/A =2.94
6. Ilex opaca	3	No	FACU	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>
	44	= Total Cove	r	
50% of total cover: 22	20% of	total cover:_	8.8	4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2				
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4	-			be present, unless disturbed or problematic.
T				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
	0	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of	total cover:_	0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30				height.
1. Smilax rotundifolia	15	Yes	FAC	
2				
3				
4				
5.				Hydrophytic Vegetation
<u> </u>	15	= Total Cove		Present? Yes No No
50% of total cover: 7.5		total cover:_	3	
0070 01 total 00701.		total cover		
Remarks: (Include photo numbers here or on a separate si	neet.)			

Depth	Matrix		Redox Features	<del>,</del>	
nches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>		Remarks
0-6	10YR 2/2	100 		SL	
6-14	10YR 3/2	100		SL	
14-20	10YR 4/1	100	<del></del>	SL	_
					_
	· ·				
	•				
				_	
				<del>_</del>	
		pletion, RM=Re	educed Matrix, MS=Masked Sand Grains.		PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:			Indi	cators for Problematic Hydric Soils <sup>3</sup> :
Histoso			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 1		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) (LRR N)	(0.4.4)	Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	ed Below Dark Surfa	ce (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)	(LDD N	Redox Depressions (F8)		
	Mucky Mineral (S1) ( <b>A 147, 148)</b>	(LKK N,	Iron-Manganese Masses (F12) (LRR N MLRA 136)	,	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)	3 <sub>ln</sub>	ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA		vetland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127,		inless disturbed or problematic.
	Layer (if observed	):		1,	misse distance of problematic.
Type:	.,	,			
Depth (in	ochae):		_	Hydric So	oil Present? Yes No
			_	Tiyunc 30	on resent: res No
temarks:					



Photo 1 Upland data point WGRA011\_u facing north



Photo 2
Upland data point WGRA011\_u facing east

Project/Site: Atlantic Coast Pip	peline	City/C	ounty: Greensville	s	Sampling Date: 3/18/2015
Applicant/Owner: Dominion				State: VA	Sampling Point: wgra011f_w2
Investigator(s): GB, AS		Section			
Landform (hillslope, terrace, et					Slone (%): 2
Subregion (LRR or MLRA): P Soil Map Unit Name: Wooding	ton fine sandy loam	0 to 2 percent slopes	Long	NA/ 1 100 A	None
Are climatic / hydrologic condit		· ·			
					esent? Yes No
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answers	in Remarks.)
SUMMARY OF FINDIN	GS – Attach sit	e map showing sam	pling point location	ons, transects,	important features, etc.
Hydrophytic Vegetation Pres	ent? Ves	✓ No			
Hydric Soil Present?	Yes	✓ No	Is the Sampled Area	. V	No
Wetland Hydrology Present?		✓ No	within a Wetland?	Yes	
Remarks:					
Wetland data point for the sw mosaic of localized depressio				ation; mapped exten	it includes a large flat with a
HYDROLOGY					
Wetland Hydrology Indicate	ors:			Secondary Indicato	ors (minimum of two required)
Primary Indicators (minimum	of one is required; of	check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)		True Aquatic Plants (	B14)	Sparsely Vege	tated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odd		✓ Drainage Patte	erns (B10)
Saturation (A3)		Oxidized Rhizosphere		Moss Trim Line	
Water Marks (B1)		Presence of Reduced		<del></del>	ater Table (C2)
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Burro	` '
Drift Deposits (B3)		<ul><li>Thin Muck Surface (C</li><li>Other (Explain in Ren</li></ul>			ble on Aerial Imagery (C9) essed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)		Other (Explain in Ren	iaiks)	Geomorphic Po	, ,
Inundation Visible on Ae	rial Imagery (R7)			Shallow Aquita	
Water-Stained Leaves (F				Microtopograp	
Aquatic Fauna (B13)	10)			FAC-Neutral T	` '
Field Observations:				<u> </u>	
Surface Water Present?	Yes No	Depth (inches):			
Water Table Present?		Depth (inches):			
Saturation Present?		Depth (inches):	^	lydrology Present?	? Yes ✔ No
(includes capillary fringe)					
Describe Recorded Data (str	eam gauge, monitor	ing well, aerial photos, pre	vious inspections), if ava	ıılable:	
Remarks:					
Surface is saturated from 0"-6	s", water is perched	above a heavy sandy clay	layer, surface water is pr	resent in some areas	S.

•	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species _
1. Pinus taeda	30	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2. Acer rubrum	20	Yes	FAC	Total Number of Dominant
3. Liquidambar styraciflua	10	No	FAC	Species Across All Strata: 5 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  100 (A/B)
6				That Ale OBE, FACW, OF FAC.
7.				Prevalence Index worksheet:
	60	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 30		total cover:_	12	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )	2070 01	total cover		FACW species10 x 2 =20
1. Acer rubrum	15	Yes	FAC	FAC species 105 x 3 = 315
2. Liquidambar styraciflua	10	Yes	FAC	FACU species5
	5	No	FACW	UPL species
3. Magnolia virginiana	5			120 255
4. Vaccinium corymbosum		No	FACW	Column Totals:(A)(B)
5. Ilex opaca	5	No	FACU	Prevalence Index = B/A =2.95
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
<u> </u>	40	= Total Cove		✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 20		total cover:	8	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)
/				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1				
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) or
7				more in diameter at breast height (DBH), regardless of height.
8.				1.0.9
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				m) tall.
11	0			Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover:_	0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. Smilax rotundifolia	20	Yes	FAC	
2				
3				
4				
5.				Hydrophytic Vegetation
<u> </u>	20	= Total Cove	<u> </u>	Present? Yes No
50% of total cover: 10		total cover:	4	
Remarks: (Include photo numbers here or on a separate sl		total oover		
Remarks. (include prioto numbers here of on a separate si	ieet.)			

Depth	Matrix	<u></u>		K Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6	10YR 3/1	100					SL	
6-20	10YR 4/2	70	10YR 4/6	30	С	M	SC	
				<del></del>				
								-
	-							
		letion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	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 E <sub>l</sub>	pipedon (A2)		Polyvalue Be	low Surface	(S8) (N	ILRA 147,	<b>148)</b> C	Coast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	rface (S9) (	MLRA 1	47, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F2	2)		P	Piedmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		✓ Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S	Surface (F6)	)		V	ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	k Surface (I	F7)			Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre	ssions (F8)				
	/ucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Mangane			LRR N,		
	A 147, 148)	•	MLRA 130		` ',	,		
	Gleyed Matrix (S4)		Umbric Surfa	•	LRA 13	6. 122)	<sup>3</sup> Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					less disturbed or problematic.
	Layer (if observed):			iatoriai (i 2	., (		, u	need distanced of problematic.
Type: sa	ndy clay							
Depth (in	ches): <u></u>		<u></u>				Hydric Soil	Present? Yes No
Remarks:								



Photo 1 Wetland data point wgra011f\_w2 facing east



Photo 2
Wetland data point wgra011f\_w2 facing north

Project/Site: Atlantic Coast Pipeline	City/County: Greensville	Sampling Date: 3/18/2015		
Applicant/Owner: Dominion		State: VA Sampling Point: wgra011_u2		
	Section, Township, Range			
Landform (hillslope, terrace, etc.): slope				
Subregion (LRR or MLRA): P				
Soil Map Unit Name: Woodington fine sandy loam, 0	to 2 percent slopes	NWI classification: None		
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes No	(If no, explain in Remarks.)		
Are Vegetation , Soil , or Hydrology	significantly disturbed? Are "No	rmal Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology				
		ations, transects, important features, etc.		
Lindraphytic Vocatation Present?	No le the Sampled Ar			
Hydrophytic Vegetation Present? Yes  Hydric Soil Present? Yes	No. 4			
	No within a Wetland?	Yes No		
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; che	ack all that apply)	Surface Soil Cracks (B6)		
	_ True Aquatic Plants (B14) _ Hydrogen Sulfide Odor (C1)	<ul><li>Sparsely Vegetated Concave Surface (B8)</li><li>Drainage Patterns (B10)</li></ul>		
	_ Oxidized Rhizospheres on Living Roots (0			
· · ·	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)		
	Recent Iron Reduction in Tilled Soils (C6)			
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:				
	Depth (inches):			
	Depth (inches):	_		
Saturation Present? Yes No   (includes capillary fringe)	Depth (inches): Wetlan	nd Hydrology Present? Yes No		
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspections), if	available:		
Remarks:				
no hydrology indicators present				

00	Absolute	Dominant In	dicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status .	Number of Dominant Species
1. Pinus taeda	65	Yes	FAC	That Are OBL, FACW, or FAC:3 (A)
2. Quercus nigra	4	No	FAC	
3. Liquidambar styraciflua	4	No	FAC	Total Number of Dominant
4. Quercus nigra	3	No	FAC	Species Across All Strata:3 (B)
		No	FACU	Percent of Dominant Species
5. Quercus alba			1,400	That Are OBL, FACW, or FAC:100 (A/B)
6				
7.				Prevalence Index worksheet:
	78	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 39		total cover:	15.6	OBL species0 x 1 =0
15	20 /0 01	total cover		FACW species 5 x 2 = 10
Sapling/Shrub Stratum (Plot size: 15	15	Yes	FAC	FAC species 114 x 3 = 342
1. Liquidambar styraciflua				7 20
2. Ilex opaca	5	No	FACU	FACU species x 4 =
3. Magnolia virginiana	3	No	FACW	UPL species x 5 =
4. Acer rubrum	3	No	FAC	Column Totals:126
5. Vaccinium corymbosum	2	No	FACW	
			171011	Prevalence Index = B/A =3.01
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
9.				2 - Dominance Test is >50%
J	28	Tatal Cause		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 14		= Total Cover	5.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
F	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation (Explain)
1				Problematic Hydrophytic vegetation (Explain)
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				Tree Meady plants analysis a visco 2 in (7 C am) an
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				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:	20% of	total cover:	0	
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
1 Smilax rotundifolia	20	Yes	FAC	height.
1. Chimax retarranena				
2				
3				
4.				
5.				Hydrophytic
J	20			Vegetation Present?  Yes No
10		= Total Cover	4	1103cm: 103 NO
50% of total cover:10	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features		
(inches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc		e Remarks
0-3	10YR 4/3	100		SL	
3-11	10YR 5/6	100		SCL	
				SCL	<u> </u>
11-22	10YR 4/6	100		SCL	
				<del></del>	<del>_</del> -
				<del></del>	<u> </u>
1Type: C-C	oncentration D-Der	Netion RM-Re	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
Hydric Soil		detion, Rivi=Re	educed Matrix, MS=Masked Sand Grains.		dicators for Problematic Hydric Soils <sup>3</sup> :
•			Danis Confess (CZ)		
Histosol			Dark Surface (S7)	447 440\	_ 2 cm Muck (A10) (MLRA 147)
	pipedon (A2) istic (A3)		<ul><li>Polyvalue Below Surface (S8) (MLRA</li><li>Thin Dark Surface (S9) (MLRA 147, 14</li></ul>		Coast Prairie Redox (A16) (MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	+0)	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surfac	- Δ(Δ11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)	e (ATT)	Redox Depressions (F8)		_ Other (Explain in Kemarks)
	Mucky Mineral (S1) (	I RR N	Iron-Manganese Masses (F12) (LRR N	J	
	A 147, 148)	LIXIX IV,	MLRA 136)	٠,	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	)) 3	<sup>3</sup> Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLR		wetland hydrology must be present,
	Matrix (S6)		Red Parent Material (F21) (MLRA 127		unless disturbed or problematic.
	Layer (if observed)	•	Near arent Material (121) (MERA 121	, 147)	unicos distarsed of prosicinatio.
Type: no		-			
			<del>_</del>		
Depth (in	ches):		_	Hydric	Soil Present? Yes No
Remarks:					



Photo 1 Upland data point wgra011\_u2 facing north



Photo 2
Upland data point wgra011\_u2 facing east

Project/Site: SERP		City/C	ounty: Greensville		_ Sampling Date: 8/15/2014
Applicant/Owner: Dominion				State: VA	Sampling Point: wgra011f_w
Investigator(s): GB, LE, SK			on, Township, Range: No		
Landform (hillslope, terrace, etc.): depr					
Subregion (LRR or MLRA): P					
Soil Map Unit Name: Woodington fine	sandy loam, 0 to	2 percent slopes		NWI classifi	cation: PFO1C
Are climatic / hydrologic conditions on t	he site typical for	this time of year? Y	es No	(If no, explain in I	Remarks.)
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	l Circumstances"	present? Yes No
Are Vegetation, Soil, or					
SUMMARY OF FINDINGS – A					
Hydrophytic Vegetation Present?	Voc V	No			
Hydric Soil Present?		No	Is the Sampled Area	V	No
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO
Remarks:	·	· · ·			
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is	required; check	all that apply)		•	l Cracks (B6)
Surface Water (A1)	•	True Aquatic Plants (	B14)		egetated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Od			atterns (B10)
Saturation (A3)	(	Oxidized Rhizosphere	es on Living Roots (C3)	✓ Moss Trim I	_ines (B16)
<u>✓</u> Water Marks (B1)	1	Presence of Reduced	I Iron (C4)	Dry-Season	Water Table (C2)
Sediment Deposits (B2)	1	Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Bu	rrows (C8)
Drift Deposits (B3)		Thin Muck Surface (C	,		/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	<u> </u>	Other (Explain in Ren	narks)		Stressed Plants (D1)
Iron Deposits (B5)	(57)				Position (D2)
Inundation Visible on Aerial Imag	ery (B7)			Shallow Aqu	
Water-Stained Leaves (B9) Aquatic Fauna (B13)				✓ FAC-Neutra	raphic Relief (D4)
Field Observations:				TAO Neutre	11 1031 (D3)
	No 🗸	Depth (inches):			
		Depth (inches):			
		Depth (inches):		Hydrology Prese	nt? Yes 🗸 No
(includes capillary fringe)				-	NC. 103NO
Describe Recorded Data (stream gau	ge, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ailable:	
Remarks:					
thick mat of sphagnum, buttressed trui	nks				

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	
1 Liquidambar styraciflua	15	Yes	FAC	Number of Dominant Species That Are OBL_FACW_or FAC: 7 (A)
1	8	Yes	FAC	That Are OBL, FACW, or FAC: (A)
2. Acer rubrum				Total Number of Dominant
3. Quercus nigra	7	Yes	FAC	Species Across All Strata: 7 (B)
4. Magnolia virginiana	3	No	FACW	\ /
		-		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				
	33	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 16.5		total cover:	6.6	OBL species12 x 1 =12
15	20 /0 01	total cover		FACW species 23 x 2 = 46
Sapiing/Shrub Stratum (Plot size:)		.,	= 4 014/	20 447
1. Vaccinium corymbosum	15	Yes	FACW	FAC species x 3 =
2. Itea virginica	7	Yes	OBL	FACU species x 4 =
3. Magnolia virginiana	5	No	FACW	UPL species0 x 5 =0
	4	No	FAC	7/ 175
4. Clethra alnifolia			FAC	Column Totals: (A) (B)
5.				Prevalence Index = B/A = 2.36
6.				Trevalence mack = B/TC =
•				Hydrophytic Vegetation Indicators:
7				✓ 1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
· ·	31	- Total Cover		3 - Prevalence Index is ≤3.0 <sup>1</sup>
500/ - (1-1-1 15-5		= Total Cover	6.2	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:15.5	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				
1. Carex prasina	5	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
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				- comment of the control of the cont
•				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		<del></del>		more in diameter at breast height (DBH), regardless of
7				height.
8				One Provident None de alente controlle de la c
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		<del></del>		iii) taii.
11				Herb – All herbaceous (non-woody) plants, regardless
	5	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5		total cover:	1	
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
vvoody vine Stratum (1 lot size.	<b>E</b>	Voo	EAC	height.
1. Smilax rotundifolia	5	Yes	FAC	
2				
3.				
4		<del></del>		Hydrophytic
5				Vegetation
	5	= Total Cover		Present? Yes No
50% of total cover: 2.5		total cover:		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3	10YR 2/2	100					SCL	
3-7	10YR 4/1	98	10YR 4/6	2	С	PL	SCL	
7-18	10YR 5/1	97	10YR 4/6	3	С	PL/M	SC	
					-			
1- 0 0				<del></del> .			2	
Hydric Soil		oletion, RIV	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.  ators for Problematic Hydric Soils <sup>3</sup> :
-								
Histosol	, ,		Dark Surface		/O=: ==			2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Bel				148) C	Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Sui			47, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		-2)		P	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S					/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dar				c	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (	LRR N,	Iron-Mangane		s (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 136	•				
	Gleyed Matrix (S4)		Umbric Surfac					licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	<b>')</b> un	lless disturbed or problematic.
	Layer (if observed)	:						
Type: cla	ay							
Depth (in	iches): 7						Hydric Soil	Present? Yes No
Remarks:							l .	



Photo 1
Wetland data point WGRA011f\_w facing south



Photo 2
Wetland data point WGRA011f\_w facing north

Project/Site: SERP	City/County: Greensville		Sampling Date: 8/15/2014
Applicant/Owner: Dominion		State: VA	_ Sampling Point: wgra011_u
Investigator(s): GB, LE, SK	Section, Township, Range:		
	Local relief (concave, convex,		hy Slope (%): 1
Subregion (LRR or MLRA): P			
Soil Map Unit Name: Woodington fine sandy loam, 0	to 2 percent slopes	NWI classifica	ition:
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes No	_ (If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Non	nal Circumstances" pr	esent? Yes V No
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach site			
Hydrophytic Vegetation Present? Yes <u>✓</u>	No Is the Sampled Are		
	No. 4/		No 🗸
	within a Wetland?	Yes	_ NO
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is required; che	ock all that apply)	Surface Soil C	
	_ True Aquatic Plants (B14)		etated Concave Surface (B8)
	_ Hydrogen Sulfide Odor (C1)	Sparsely vege Drainage Patt	
	<ul><li>_ Oxidized Rhizospheres on Living Roots (C.</li></ul>	-	
· ·	Presence of Reduced Iron (C4)		Vater Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burro	
Drift Deposits (B3)	_ Thin Muck Surface (C7)	Saturation Vis	ible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_ Other (Explain in Remarks)	Stunted or Str	essed Plants (D1)
Iron Deposits (B5)		Geomorphic F	Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquita	
Water-Stained Leaves (B9)			phic Relief (D4)
Aquatic Fauna (B13)		✓ FAC-Neutral 1	Test (D5)
Field Observations:			
	Depth (inches):		
	Depth (inches):		
Saturation Present? Yes No	Depth (inches): Wetlan	d Hydrology Present	? Yes No
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspections), if	vailable:	
Remarks:			

Sampling Point: wgra01	1_	u
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•	Absolute	Dominant In	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Pinus taeda	35	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2. Acer rubrum	10	No	FAC	Total Number of Dominant
3. Liquidambar styraciflua	10	No	FAC	Species Across All Strata: 4 (B)
4. Quercus nigra	5	No	FAC	
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  100 (A/B)
6				That Ale OBE, I AOW, OI I AO.
7				Prevalence Index worksheet:
	60	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 30		total cover:_	12	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )			-	FACW species10 x 2 =20
1 Acer rubrum	15	Yes	FAC	FAC species106 x 3 =318
2. Liquidambar styraciflua	12	Yes	FAC	FACU species 3 x 4 = 12
3. Vaccinium corymbosum	7	No	FACW	UPL species0 x 5 =0
	4	No	FAC	Column Totals: 119 (A) 350 (B)
4. Clethra alnifolia	<u>.</u>			Column Totals (A) (B)
5. Magnolia virginiana	3	No	FACW	Prevalence Index = B/A =2.94
6. Ilex opaca	3	No	FACU	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>
	44	= Total Cove	r	
50% of total cover: 22	20% of	total cover:_	8.8	4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2				
3.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4	-			be present, unless disturbed or problematic.
T				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
	0	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of	total cover:_	0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. Smilax rotundifolia	15	Yes	FAC	_
2				
3				
4				
5.				Hydrophytic Vegetation
<u> </u>	15	= Total Cove		Present? Yes V No No
50% of total cover: 7.5		total cover:_	3	
Remarks: (Include photo numbers here or on a separate s		total oover		
Remarks. (include prioto numbers here of on a separate s	neet.)			

Depth	Matrix		Redox Features	_	
nches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>		Remarks
0-6	10YR 2/2	100		SL	
6-14	10YR 3/2	100		SL	
14-20	10YR 4/1	100		SL	•
	· -			_	
				_	
					• -
	· ·				
	-			_	
		pletion, RM=Re	educed Matrix, MS=Masked Sand Grains.		PL=Pore Lining, M=Matrix.
-	Indicators:				cators for Problematic Hydric Soils <sup>3</sup> :
Histoso			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 14		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	'	Piedmont Floodplain Soils (F19)
	ed Layers (A5) uck (A10) <b>(LRR N)</b>		<ul><li>Depleted Matrix (F3)</li><li>Redox Dark Surface (F6)</li></ul>	,	(MLRA 136, 147) Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	ce (Δ11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	oark Surface (A12)	ce (ATT)	Redox Depressions (F8)	`	Other (Explain in Remarks)
	Mucky Mineral (S1) <b>(</b>	I RR N	Iron-Manganese Masses (F12) (LRR N,		
	A 147, 148)		MLRA 136)		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA		etland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127, 1		nless disturbed or problematic.
	Layer (if observed)	):			·
Туре:					
	nches):		_	Hvdric Soi	il Present? Yes No
Remarks:			_	, , , , , , , , , , , , , , , , , , , ,	
ciliaiks.					



Photo 1 Upland data point WGRA011\_u facing north



Photo 2
Upland data point WGRA011\_u facing east

Project/Site: Atlantic Coast Pip	peline	City/C	ounty: Greensville		Sampling Date: 3/18/2015
Applicant/Owner: Dominion		•		State: VA	Sampling Point: wgra011f_w2
Investigator(s): GB, AS		Section			- ,
Landform (hillslope, terrace, et					Slone (%)·2
Subregion (LRR or MLRA): P Soil Map Unit Name: Wooding	ton fine sandy loam	0 to 2 percent slopes	Long	<b>NA</b> 1	. None
Are climatic / hydrologic condit		-			
					esent? Yes No
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answers	in Remarks.)
SUMMARY OF FINDIN	GS – Attach sit	te map showing sam	pling point location	ons, transects,	important features, etc.
Hydrophytic Vegetation Pres	ent? Ves	✓ No			
Hydric Soil Present?	Yes	✓ No	Is the Sampled Area	. v	No
Wetland Hydrology Present?		✓ No	within a Wetland?	res	NO
Remarks:					
Wetland data point for the sw mosaic of localized depressio				ation; mapped exten	t includes a large flat with a
HYDROLOGY					
Wetland Hydrology Indicat	ors:			Secondary Indicato	ors (minimum of two required)
Primary Indicators (minimum	of one is required;	check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)		True Aquatic Plants (I			tated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odd		✓ Drainage Patte	
Saturation (A3)		Oxidized Rhizosphere		Moss Trim Line	
Water Marks (B1)		Presence of Reduced			ater Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Burro	` '
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface (C Other (Explain in Ren			ble on Aerial Imagery (C9) essed Plants (D1)
Iron Deposits (B5)		Other (Explain in Neil	iaiks)	Geomorphic Po	* *
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aquita	
Water-Stained Leaves (F				Microtopograpi	
Aquatic Fauna (B13)	,			FAC-Neutral T	` '
Field Observations:	_				
Surface Water Present?	Yes No _	✓ Depth (inches):			
Water Table Present?		Depth (inches):			
Saturation Present?	Yes 🔽 No _	Depth (inches):	0 Wetland H	lydrology Present?	? Yes <u>/</u> No
(includes capillary fringe)  Describe Recorded Data (str	oom gougo monito	ring wall parial photos pro	vious inspections) if ave	ilabla	
Describe Recorded Data (Str	eam gauge, monitor	ning well, aerial priotos, pre	vious irispections), ii ava	liable.	
Remarks:					
Surface is saturated from 0"-6	6", water is perched	above a heavy sandy clay	layer, surface water is pr	esent in some areas	S.

•	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species _
1. Pinus taeda	30	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2. Acer rubrum	20	Yes	FAC	Total Number of Dominant
3. Liquidambar styraciflua	10	No	FAC	Species Across All Strata: 5 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  100 (A/B)
6				That Ale OBL, FACW, OF FAC.
7.				Prevalence Index worksheet:
	60	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 30		total cover:_	12	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )	2070 01	total cover		FACW species10 x 2 =20
1. Acer rubrum	15	Yes	FAC	FAC species 105 x 3 = 315
2. Liquidambar styraciflua	10	Yes	FAC	FACU species5
	5	No	FACW	UPL species
3. Magnolia virginiana	5			120 255
4. Vaccinium corymbosum		No	FACW	Column Totals:(A)(B)
5. Ilex opaca	5	No	FACU	Prevalence Index = B/A =2.95
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
<u> </u>	40	= Total Cove		✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 20		total cover:	8	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)
/				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1				
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) or
7				more in diameter at breast height (DBH), regardless of height.
8.				1.0.9
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				m) tall.
11	0			Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover:_	0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. Smilax rotundifolia	20	Yes	FAC	
2				
3				
4				
5.				Hydrophytic Vegetation
<u> </u>	20	= Total Cove	<u> </u>	Present? Yes No
50% of total cover: 10		total cover:	4	
Remarks: (Include photo numbers here or on a separate sl		total oover		
Remarks. (include prioto numbers here of on a separate si	ieet.)			

Depth	Matrix			k Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6	10YR 3/1	100					SL	
6-20	10YR 4/2	70	10YR 4/6	30	С	M	SC	
				<del></del>				
								-
	-							
		letion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	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 E	pipedon (A2)		Polyvalue Be		e (S8) (N	ILRA 147,	<b>148)</b> C	Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su				, <u> </u>	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, ,	Р	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat		,			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S		)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar					Other (Explain in Remarks)
	ark Surface (A12)	- ( )	Redox Depre	,				
	Mucky Mineral (S1) <b>(L</b>	RR N.	Iron-Mangane			RR N		
	A 147, 148)	,	MLRA 136		, (i) <b>(</b> .			
	Gleyed Matrix (S4)		Umbric Surfa	•	II RA 13	6 122)	3Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					less disturbed or problematic.
	Layer (if observed):		Ned Falentiv	iateriai (i Z	i) (IVILIX	A 121, 141	, un	less disturbed of problematic.
Type: sa	ndv clav							
Depth (in	ches): <u>6</u>						Hydric Soil	Present? Yes V No V
Remarks:							· L	



Photo 1 Wetland data point wgra011f\_w2 facing east



Photo 2
Wetland data point wgra011f\_w2 facing north

Project/Site: Atlantic Coast Pipeline	City/County: Greensville	Sampling Date: 3/18/2015			
Applicant/Owner: Dominion		State: VA Sampling Point: wgra011_u2			
	Section, Township, Range				
Landform (hillslope, terrace, etc.): slope					
Subregion (LRR or MLRA): P					
Soil Map Unit Name: Woodington fine sandy loam, 0	to 2 percent slopes	NWI classification: None			
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes No	(If no, explain in Remarks.)			
Are Vegetation , Soil , or Hydrology	significantly disturbed? Are "No	rmal Circumstances" present? Yes No			
Are Vegetation, Soil, or Hydrology					
		ations, transects, important features, etc.			
Lindraphytic Vocatation Present?	No le the Sampled Ar				
Hydrophytic Vegetation Present? Yes  Hydric Soil Present? Yes	No. 4				
	No within a Wetland?	Yes No			
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; che	ack all that apply)	Surface Soil Cracks (B6)			
	., .,				
	_ True Aquatic Plants (B14) _ Hydrogen Sulfide Odor (C1)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> </ul>			
	_ Oxidized Rhizospheres on Living Roots (0				
· · ·	Presence of Reduced Iron (C4)	oots (C3) Moss Frim Lines (B16) Dry-Season Water Table (C2)			
	Recent Iron Reduction in Tilled Soils (C6)				
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:					
	Depth (inches):				
	Depth (inches):				
Saturation Present? Yes No   (includes capillary fringe)	Depth (inches): Wetlan	nd Hydrology Present? Yes No			
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspections), if	available:			
Remarks:					
no hydrology indicators present					

Sampling Point: wgra011\_u2

00	Absolute	Dominant In	dicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status .	Number of Dominant Species
1. Pinus taeda	65	Yes	FAC	That Are OBL, FACW, or FAC:3 (A)
2. Quercus nigra	4	No	FAC	
3. Liquidambar styraciflua	4	No	FAC	Total Number of Dominant
4. Quercus nigra	3	No	FAC	Species Across All Strata:3 (B)
		No	FACU	Percent of Dominant Species
5. Quercus alba			1,400	That Are OBL, FACW, or FAC:100 (A/B)
6				
7.				Prevalence Index worksheet:
	78	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 39		total cover:	15.6	OBL species0 x 1 =0
15	20 /0 01	total cover		FACW species 5 x 2 = 10
Sapling/Shrub Stratum (Plot size: 15	15	Yes	FAC	FAC species 114 x 3 = 342
1. Liquidambar styraciflua				7 20
2. Ilex opaca	5	No	FACU	FACU species x 4 =
3. Magnolia virginiana	3	No	FACW	UPL species x 5 =
4. Acer rubrum	3	No	FAC	Column Totals:126
5. Vaccinium corymbosum	2	No	FACW	
			171011	Prevalence Index = B/A =3.01
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
9.				2 - Dominance Test is >50%
J	28	Tatal Cause		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 14		= Total Cover	5.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
F	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation (Explain)
1				Problematic Hydrophytic vegetation (Explain)
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				Tree Meady plants analysis a visco 2 in (7 C am) an
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				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:	20% of	total cover:	0	
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
1 Smilax rotundifolia	20	Yes	FAC	height.
1. Chimax retarranena				
2				
3				
4.				
5.				Hydrophytic
J	20			Vegetation Present?  Yes No
10		= Total Cover	4	1103CHL 103 NO
50% of total cover:10	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features		
(inches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc		e Remarks
0-3	10YR 4/3	100		SL	
3-11	10YR 5/6	100		SCL	
				SCL	<u> </u>
11-22	10YR 4/6	100		SCL	
				<del></del>	<del>_</del> -
				<del></del>	<u> </u>
1Type: C-C	oncentration D-Der	Netion RM-Re	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
Hydric Soil		detion, Rivi=Re	educed Matrix, MS=Masked Sand Grains.		dicators for Problematic Hydric Soils <sup>3</sup> :
•			Danis Confess (CZ)		
Histosol			Dark Surface (S7)	447 440\	_ 2 cm Muck (A10) (MLRA 147)
	pipedon (A2) istic (A3)		<ul><li>Polyvalue Below Surface (S8) (MLRA</li><li>Thin Dark Surface (S9) (MLRA 147, 14</li></ul>		Coast Prairie Redox (A16) (MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	+0)	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surfac	- Δ(Δ11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)	e (ATT)	Redox Depressions (F8)		_ Other (Explain in Kemarks)
	Mucky Mineral (S1) (	I RR N	Iron-Manganese Masses (F12) (LRR N	J	
	A 147, 148)	LIXIX IV,	MLRA 136)	٠,	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	)) 3	<sup>3</sup> Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLR		wetland hydrology must be present,
	Matrix (S6)		Red Parent Material (F21) (MLRA 127		unless disturbed or problematic.
	Layer (if observed)	•	Near arent Material (121) (MERA 121	, 147)	unicos distarsed of prosicinatio.
Type: no		-			
			<del>_</del>		
Depth (in	ches):		_	Hydric	Soil Present? Yes No
Remarks:					



Photo 1 Upland data point wgra011\_u2 facing north



Photo 2
Upland data point wgra011\_u2 facing east

Project/Site: SERP		City/C	ounty: Greensville		Sampling Date: 8/11/2014
Applicant/Owner: DOMINION					Sampling Point: wgra001f_w
Investigator(s): GB, LE, SK			on, Township, Range: No		
Landform (hillslope, terrace, etc.)					Slope (%):2
Subregion (LRR or MLRA): P					
Soil Map Unit Name: Roanoke Id	oam, 0 to 2 percent slop	es, frequently floode	d	NWI classific	cation: PFO1A
Are climatic / hydrologic condition	ns on the site typical for	this time of year? Y	es No	(If no, explain in R	emarks.)
Are Vegetation, Soil	, or Hydrology	significantly disturb	ped? Are "Normal	I Circumstances" p	present? Yes No
Are Vegetation, Soil					
-					, important features, etc.
Hydrophytic Vegetation Presen	t? Yes <u></u>	No			
Hydric Soil Present?	Yes V	No	Is the Sampled Area	Voc. V	No
Wetland Hydrology Present?		No	within a Wetland?	res	NO
Remarks:					
Wetland data point for a saturate OHWM and is considered to be					
HYDROLOGY					
Wetland Hydrology Indicators	S:			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)	7	Γrue Aquatic Plants (I	B14)	Sparsely Ve	getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odd		✓ Drainage Pa	tterns (B10)
Saturation (A3)			es on Living Roots (C3)	Moss Trim Li	` '
Water Marks (B1)		Presence of Reduced			Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bur	
Drift Deposits (B3)		Γhin Muck Surface (C			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_ (	Other (Explain in Ren	narks)	<del></del>	tressed Plants (D1)
Iron Deposits (B5)	L l(DZ)			Geomorphic	
Inundation Visible on Aeria	• • • •			Shallow Aqu	
Water-Stained Leaves (B9) Aquatic Fauna (B13)	)			✓ FAC-Neutral	aphic Relief (D4)
				FAC-Neuliai	Test (D3)
Field Observations: Surface Water Present?	Yes No	Donth (inches)			
	Yes No		4	h. da da a a a Bara a a a	V V
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	Wetland F	Hydrology Preser	nt? Yes No
Describe Recorded Data (strea	m gauge, monitoring we	ell, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:  NHD stream line within fails to n	and stroom oritoria				
NAD stream line within fails to in	ieet stream chiena				

Sampling	Point: wgra001f_	w

•	Absolute	Dominant In	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover 25		Status	Number of Dominant Species
1. Nyssa biflora		Yes	FACW	That Are OBL, FACW, or FAC:10 (A)
2. Acer rubrum	25	Yes	FAC	Total Number of Dominant
3. Magnolia virginiana	10	No	FACW	Species Across All Strata: 10 (B)
4. Betula nigra	10	No	FACW	Personal of Personal Countries
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  100 (A/B)
6				
7.				Prevalence Index worksheet:
	70	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 35		total cover:_	14	OBL species12
Sapling/Shrub Stratum (Plot size: 15 )		_		FACW species83 x 2 =166
1 llex verticillata	20	Yes	FACW	FAC species90
2. Acer rubrum	10	Yes	FAC	FACU species8
3. Clethra alnifolia	10	Yes	FAC	UPL species
4. llex opaca	8	No	FACU	Column Totals: 193 (A) 480 (B)
				Column Totals (A) (B)
5. Liquidambar styraciflua		No	FAC	Prevalence Index = B/A =2.48
6. Magnolia virginiana	5	No	FACW	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>
	58	= Total Cove	r	
50% of total cover: 29	20% of	total cover:	11.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:				data in Remarks or on a separate sheet)
1. Saururus cernuus	12	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Woodwardia areolata	8	Yes	FACW	
3. Osmundastrum cinnamomeum	5	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4				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
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 12.5	20% of	total cover:	5	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. Smilax rotundifolia	25	Yes	FAC	
2. Lonicera japonica	15	Yes	FAC	
3.				
4.				
5.				Hydrophytic Vegetation
J	40	Total Cava		Present? Yes No No No
50% of total cover: 20		= Total Cover total cover:	8	
		total cover		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Depth	<u>Matrix</u>			x Features		. 2		<b>5</b>
(inches) 0-6	Color (moist) 10YR 4/2	<u>%</u> 95	Color (moist) 10YR 4/6	- <u>%</u> 5	Type <sup>1</sup> C	Loc <sup>2</sup>	Texture SCL	Remarks
6-18	10YR 4/1	95	10YR 4/6	5	С	PL/M	SCL	
		-			-			
					-			
		-						
								-
	<u> </u>							
								<u> </u>
vpe: C=C	Concentration, D=Dep	letion. RM	l=Reduced Matrix. M	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: P	PL=Pore Lining, M=Matrix.
	Indicators:				<u> </u>		Indic	ators for Problematic Hydric Soils <sup>3</sup> :
_ Histoso			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)
	listic (A3)		Thin Dark Su				,	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye	, ,	•	, ,	F	Piedmont Floodplain Soils (F19)
	ed Layers (A5)		✓ Depleted Ma		·			(MLRA 136, 147)
_ 2 cm M	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		\	/ery Shallow Dark Surface (TF12)
_ Deplete	ed Below Dark Surfac	e (A11)	Depleted Da	rk Surface	(F7)		C	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (I	LRR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 13	•				
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent I	Material (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> un	nless disturbed or problematic.
	Layer (if observed):							
Type: no	one							
Depth (in	nches):						Hydric Soi	l Present? Yes No
emarks:							1	



Photo 1
Wetland data point WGRA001f\_w facing west



Photo 2
Wetland data point WGRA001f\_w facing east

City/County: Greensville   Sampling Date: 8/11/2014   Sampling Date: 8/11/2014   Sampling Date: 8/11/2014   Spicarous   State: VA   Sampling Date: 8/11/2014   Sampling Date: 8/11/2014   Sampling Date: 8/11/2014   Spicarous   State: VA   Sampling Date: 8/11/2014   Sampling Date: 8/11/2014   Sampling Date: 8/11/2014   State: VA   Sampling Doint Division (LRR or MLRA): P   Lat: 36.68739537   Long: 77.60227247   Datum: WGS 1984   State: VA
Nestigator(s): GB, LE, SK  Section, Township, Range: No PLSS in this area  andform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): none Slope (%): 4  subregion (LRR or MLRA): P Lat: 36.68739537 Long: -77.60227247 Datum; WGS 1984  biol Map Unit Name: Roanoke loam, 0 to 2 percent slopes, frequently flooded NWI classification:  ver climatic / hydrologic conditions on the site typical for this time of year? Yes V No (If no, explain in Remarks.)  ver Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes V No ver Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SSUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No V Wetland Hydrology Indicators:  Upland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Synares Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trin Lines (B16) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trin Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Prift Deposits (B3) Thin Muck Surface (C7) Saturation (Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Corner for the Capture of Capture (C9) Iton Deposits (B3) Corner for Capture (C9) Iton Deposits (B3) Corner for Explain in Remarks) Surface Soil Cracks (Parts (D1) Surfa
andform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): 4 bibregion (LRR or MLRA): P Lat: 36.68739537 Long: -77.60227247 Datum: WGS 1984  loil Map Unit Name: Roanoke loam, 0 to 2 percent slopes, frequently flooded wre climate / hydrologic conditions on the site typical for this time of year? Yes V No (If no, explain in Remarks.)  rere vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes V No wre Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No V Wetland Hydrology Indicators:  Upland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)  Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)  Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)  Water Marks (B1) Presence of Reduced Iron (C4) Drainage Patterns (B10)  Saturation (A3) Saturation (A3) Presence of Reduced Iron (C4) Drainage Patterns (B10)  Water Marks (B1) Presence of Reduced Iron (C4) 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) Surface (D1)  Geomorphic Position (D2)
Subregion (LRR or MLRA): P Lat: 36.68739537 Long: -77.60227247 Datum: WGS 1984 coil Map Unit Name: Roanoke loam, 0 to 2 percent slopes, frequently flooded NWII classification: Late climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)  Are "Normal Circumstances" present? Yes No No (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Ves
NWI classification:    Intercell   Interce
re climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)  re Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No  re Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No  Hydric Soil Present? Yes No  Wetland Hydrology Present? Yes No  Wetland Hydrology Present? Yes No  Wetland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)  Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)  High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)  Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)  Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)  Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)  Drift Deposits (B3) Thin Muck Surface (C7)
Are "Normal Circumstances" present? Yes Nome vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No No Wetland Hydrology Present? Yes No Wetland? Yes No Wetland Hydrology Indicators:  Upland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)  Surface Water (A1) True Aquatic Plants (B14) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)  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) Secondary Indicators (minimum of two required)  Promary Indicators (minimum of two required)  Surface Soil Cracks (B6)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes Vo No Vetand Hydrology Present? Yes No Vetand Hydrology Indicators:  Upland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)  Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)  High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)  Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)  Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)  Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)  Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)  Algal Mat or Crust (B4) Other (Explain in Remarks) Sturted or Stressed Plants (D1)  Geomorphic Position (D2)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Upland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Hydrogen Sulfide Odor (C1)  Saturation (A3)  Oxidized Rhizospheres on Living Roots (C3)  Saturation (A3)  Vater Marks (B1)  Presence of Reduced Iron (C4)  Sediment Deposits (B3)  Thin Muck Surface (C7)  Algal Mat or Crust (B4)  Is the Sampled Area within a Wetland?  Yes No
Hydrophytic Vegetation Present?  Hydric Soil Present?  Yes No  Wetland Hydrology Present?  Yes No  Wetland Hydrology Present?  Yes No  Wetland Hydrology Present?  Yes No  Hydrophytic Vegetation Present?  Yes No  Yes No  Wetland?  Yes No  Wetland?  Yes No  Wetland?  Yes No  Wetland PFO wetland in a swale  Hydrophytic Vegetated PFO wetland in a swale  Hydrophytic Vegetated PFO wetland in a swale  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply)  Surface Soil Cracks (B6)  Surface Water (A1)  High Water Table (A2)  Hydrogen Sulfide Odor (C1)  Saturation (A3)  Oxidized Rhizospheres on Living Roots (C3)  Water Marks (B1)  Sediment Deposits (B2)  Presence of Reduced Iron (C4)  Dry-Season Water Table (C2)  Sediment Deposits (B3)  Thin Muck Surface (C7)  Algal Mat or Crust (B4)  Other (Explain in Remarks)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)
Hydric Soil Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  Remarks:  Upland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply)  Surface Soil Cracks (B6)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Saturation (A3)  Water Marks (B1)  Water Marks (B1)  Secondary Indicators (minimum of two required)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Recent Iron Reduction in Tilled Soils (C6)  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)
Wetland Hydrology Present?  Yes No  Remarks: Upland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)  Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)  High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)  Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)  Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)  Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)  Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)  Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1)  Iron Deposits (B5) Geomorphic Position (D2)
Remarks:  Upland data point taken on a gentle slope just above the toe of slope, paired point for a saturated PFO wetland in a swale  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply)  Surface Soil Cracks (B6)  Surface Water (A1)  High Water Table (A2)  Hydrogen Sulfide Odor (C1)  Saturation (A3)  Oxidized Rhizospheres on Living Roots (C3)  Water Marks (B1)  Presence of Reduced Iron (C4)  Sediment Deposits (B2)  Prift Deposits (B3)  Thin Muck Surface (C7)  Algal Mat or Crust (B4)  Other (Explain in Remarks)  Secondary Indicators (minimum of two required)  Secondary Indicators (minimum of two required)  Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Drainage Patterns (B10)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Algal Mat or Crust (B4)  Other (Explain in Remarks)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Saturation (A3)  Wetle Marks (B1)  Surface Water (B1)  Surface Water (B1)  Surface Water (B1)  Surface Noil Cracks (B6)  Drainage Patterns (B10)  Surface Water (B1)  Drainage Patterns (B10)  Surface Water (B1)  Sparsely Vegetated Concave Surface (B8)  Moss Trim Lines (B16)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Recent Iron Reduction in Tilled Soils (C6)  Drift Deposits (B3)  Thin Muck Surface (C7)  Saturation Visible on Aerial Imagery (C9)  Algal Mat or Crust (B4)  Other (Explain in Remarks)  Geomorphic Position (D2)
Wetland Hydrology Indicators:Secondary Indicators (minimum of two required)Primary Indicators (minimum of one is required; check all that apply)Surface Soil Cracks (B6) Surface Water (A1)True Aquatic Plants (B14)Sparsely Vegetated Concave Surface (B8) High Water Table (A2)Hydrogen Sulfide Odor (C1)Drainage Patterns (B10) Saturation (A3)Oxidized Rhizospheres on Living Roots (C3)Moss Trim Lines (B16) Water Marks (B1)Presence of Reduced Iron (C4)Dry-Season Water Table (C2) Sediment Deposits (B2)Recent Iron Reduction in Tilled Soils (C6)Crayfish Burrows (C8) Drift Deposits (B3)Thin Muck Surface (C7)Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4)Other (Explain in Remarks)Stunted or Stressed Plants (D1) Iron Deposits (B5)Geomorphic Position (D2)
Primary Indicators (minimum of one is required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  I True Aquatic Plants (B14)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Other (Explain in Remarks)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)
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)
High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Presence of Reduced Iron (C4) Sediment Deposits (B2) Prift Deposits (B3) Algal Mat or Crust (B4) In Deposits (B5)  Hydrogen Sulfide Odor (C1) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)  Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Prift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2)
Iron Deposits (B5) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)
Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Vo (includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:
no hydrology indicators

Sampling	Point: wgra001	_u
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	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:	$\neg$
<u>Tree Stratum</u> (Plot size:)			Status	Number of Dominant Species	
1 Quercus nigra	15	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)	
2. Acer rubrum	15	Yes	FAC	That Ale OBE, I AOW, OI I AO (A)	
3. Pinus taeda	10	Yes	FAC	Total Number of Dominant	
	10	Yes	FACW	Species Across All Strata: (B)	
4. Betula nigra	10	Yes	FACU	Percent of Dominant Species	
5. Carya cordiformis				That Are OBL, FACW, or FAC: 70 (A/E	3)
6. Ilex opaca	10	Yes	FACU		
7				Prevalence Index worksheet:	
	70	= Total Cover		Total % Cover of: Multiply by:	
50% of total cover: 35		total cover:	14	OBL species0 x 1 =0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species 15 x 2 = 30	
1. Ilex opaca	20	Yes	FACU	FAC species 90 x 3 = 270	
**-	10	Yes	FAC	FACU species 40 x 4 = 160	
2. Clethra alnifolia				0	
3. Vaccinium corymbosum	5	No	FACW	UPL species X 5 =	
4				Column Totals:(A)(B)	)
5				Prevalence Index = B/A = 3.17	
6				1 Tevalence index = B/T(=	
		-		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 Cover	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporting	200
50% of total cover:17.5	20% of	total cover:	7		ig
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)	
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
1		-			
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				Deminions of Four Vegetation Strata.	
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of	
				more in diameter at breast height (DBH), regardless o	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.				House All banks account (account a second account a secon	_
	0	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	S
50% of total cover:		total cover:	0	of size, and woody plants less than 5.20 it tall.	
30 /0 of total cover.	20 /6 01	total cover		Woody vine – All woody vines greater than 3.28 ft in	
vvoody vine Stratum (i lot size)	00	V	<b>540</b>	height.	
1. Smilax rotundifolia	30	Yes	FAC		
2. Vitis rotundifolia	10	Yes	FAC		
3.					
4					
				Hydrophytic	
5				Vegetation Present? Yes No	
20		= Total Cover	_	rieseiit: iesiio	
50% of total cover: 20	20% of	total cover:	8		
Remarks: (Include photo numbers here or on a separate s	neet.)				

Depth	Matrix		Redox Features	_	
inches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>		Remarks
0-7	10YR 3/3	100		SL SL	
7-20	10YR 4/4	100		SL	
					•
	-		<del></del>		
	· <del></del>				
				_	
	·	- — — —			
					· -
vpe: C=C	Concentration, D=Der	oletion, RM=Re	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
	Indicators:	•	,	Indic	ators for Problematic Hydric Soils <sup>3</sup> :
_ Histoso	l (A1)		Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 14		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 148		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Matrix (F3)	<u> </u>	(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark Surface (F6)	\	/ery Shallow Dark Surface (TF12)
	ed Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)	(*****)	Redox Depressions (F8)		(=·p·······)
	Mucky Mineral (S1) (	LRR N.	Iron-Manganese Masses (F12) (LRR N,		
	A 147, 148)	,	MLRA 136)		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA		etland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127, 1		nless disturbed or problematic.
	Layer (if observed)	:		1	
Type: no					
Depth (ir			_	Hydric Soi	I Present? Yes No
emarks:					



Photo 1 Upland data point WGRA001\_u facing west



Photo 2 Upland data point WGRA001\_u facing east

Project/Site: SERP		City/C	ounty: Greensville		Sampling Date: 8/11/2014
Applicant/Owner: DOMINION				State: VA	Sampling Point: wgra002f_w
Investigator(s): GB, LE, SK			on, Township, Range: No		
Landform (hillslope, terrace, etc.): FLAT		Local reli	ef (concave, convex, no	ne): microtopogra	phy Slope (%): <sup>2</sup>
Subregion (LRR or MLRA): P	Lat: 3	36.68239595	Long: -77.	60082208	Datum: WGS 1984
Soil Map Unit Name: Roanoke loam, 0 to	o 2 percent slop	es, frequently floode	d	NWI classific	ation: PFO1A
Are climatic / hydrologic conditions on th	e site typical for	this time of year? Y	es No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or H	Hydrology	significantly disturl	bed? Are "Norma	I Circumstances" p	oresent? Yes No
Are Vegetation, Soil, or I					
SUMMARY OF FINDINGS – At					
Hydrophytic Vegetation Present?	Yes ✔	No			1
Hydric Soil Present?		No	Is the Sampled Area	V V	No
Wetland Hydrology Present?	Yes 🔽		within a Wetland?	res	NO
Wetland data point for a saturated PFO sgra002.	wetland on a fla	it with microtopograp	hy and numerous draina	age patterns; conn	ected to streams sgra001 and
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is	required; check	all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)		rue Aquatic Plants (			getated Concave Surface (B8)
High Water Table (A2)		lydrogen Sulfide Odd		✓ Drainage Pa	
Saturation (A3)			• , ,	Moss Trim Li	, ,
Water Marks (B1)		Presence of Reduced			Water Table (C2)
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Bur	
Drift Deposits (B3)		hin Muck Surface (C Other (Explain in Ren			sible on Aerial Imagery (C9) tressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)		Julei (Explain in Ken	iaiks)		Position (D2)
Inundation Visible on Aerial Image	rv (B7)			Shallow Aqui	
Water-Stained Leaves (B9)	., (=, )				aphic Relief (D4)
Aquatic Fauna (B13)				✓ FAC-Neutral	
Field Observations:					
Surface Water Present? Yes	No _ 🗸	Depth (inches):			
		Depth (inches):			
		Depth (inches):		Hydrology Preser	nt? Yes 🗸 No
(includes capillary fringe)		all agricumbatos pro	vieve inequations) if ave	vilable	
Describe Recorded Data (stream gaug	e, monitoring we	eii, aeriai photos, pre	vious inspections), ir ava	allable:	
Remarks:					

Sampling P	int·wgra002f_	W
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00	Absolute	Dominant I	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u> 15	Species?	Status FACW	Number of Dominant Species
1. Nyssa biflora		Yes		That Are OBL, FACW, or FAC:9 (A)
2. Liquidambar styraciflua	15	Yes	FAC	Total Number of Dominant
3. Ulmus rubra	15	Yes	FAC	Species Across All Strata: 9 (B)
4. Betula nigra	10	No	FACW	
5. Acer rubrum	10	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:  100 (A/B)
6		·		That Ale ODE, I AOW, OI I AO.
7				Prevalence Index worksheet:
	65	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 32.5		total cover:	13	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15	2070 01			FACW species50
1 Carpinus caroliniana	20	Yes	FAC	FAC species135 x 3 =405
2. Clethra alnifolia	15	Yes	FAC	FACU species 5 x 4 = 20
3. Acer rubrum	10	No	FAC	UPL species
	5		FAC	100 525
4. Liquidambar styraciflua		No No		Column Totals: (A) (B)
5. Ilex opaca	5	No	FACU	Prevalence Index = B/A = 2.76
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%
9.		·		
	55	= Total Cove	er	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 27.5	20% of	total cover:	11	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:5 )		_		data in Remarks or on a separate sheet)
1 Arundinaria gigantea	10	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Athyrium asplenioides	5	Yes	FAC	
				<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				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
	15	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 7.5		total cover:	3	
Woody Vine Stratum (Plot size: 30 )		_		<b>Woody vine</b> – All woody vines greater than 3.28 ft in
1 Smilax rotundifolia	30	Yes	FAC	height.
2 Nyssa biflora	15	Yes	FACW	
3. Vitis rotundifolia	10	No	FAC	
3. Vilis rotananona				
4				Hydrophytic
5				Vegetation
		= Total Cove		Present? Yes No No
50% of total cover: 27.5	20% of	total cover:_	11	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-10	10YR 4/2	97	10YR 4/6	3	C	PL_	SCL	
10-18	10YR 5/2	94	10YR 4/6	6	С	PL/M	SCL	
	-							
	-							
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil		,	,					ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)				cm Muck (A10) <b>(MLRA 147)</b>
	oipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	II RA 147		Coast Prairie Redox (A16)
	stic (A3)		Tolyvalde Be				(	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			-1, 140)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		Loamy Gleye <u>✓</u> Depleted Mat		<b>2</b> )		^	(MLRA 136, 147)
			Redox Dark S		C)		V	
	uck (A10) <b>(LRR N)</b>	o (A11)	Redox Dark s	,	,			/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	= (A11)			. ,			Other (Explain in Remarks)
	ark Surface (A12)	DD N	Redox Depre			I DD N		
	Mucky Mineral (S1) (L	KK N,	Iron-Mangan		es (F12) <b>(</b>	LKK N,		
	A 147, 148)		MLRA 13	•			3.	
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
-	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> un	lless disturbed or problematic.
	Layer (if observed):							
Type: no	ne							
Depth (in	ches):						Hydric Soil	l Present? Yes No
Remarks:							I	



Photo 1 Wetland data point WGRA002f\_w facing east



Photo 2
Wetland data point WGRA002f\_w facing west

Project/Site: SERP	City/County: Greensville	Samı	pling Date: 8/11/2014			
Applicant/Owner: DOMINION		State: <u>VA</u> Sa	mpling Point: wgra002_u			
Investigator(s): GB, LE, SK Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): flat			Slope (%): <sup>3</sup>			
Subregion (LRR or MLRA): P		77.60080955				
Soil Map Unit Name: Roanoke loam, 0 to 2 perce		NWI classification:	Batam			
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes No	(If no, explain in Remark	ks.)			
Are Vegetation, Soil, or Hydrology						
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach si						
Hydrophytic Vegetation Present? Yes _	✓ No Is the Sampled As					
	No. 4		. <b>/</b>			
	No v within a Wetland?	Yes N	10			
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indicators (r	minimum of two required)			
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soil Crack				
Surface Water (A1)	True Aquatic Plants (B14)		d Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Sparsely vegetated Drainage Patterns				
Saturation (A3)	Oxidized Rhizospheres on Living Roots (6)					
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water	,			
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)					
Drift Deposits (B3)	Thin Muck Surface (C7)	· · · · · · · · · · · · · · · · · · ·	on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stresse				
Iron Deposits (B5)		Geomorphic Position	on (D2)			
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard ([	D3)			
Water-Stained Leaves (B9)		Microtopographic F				
Aquatic Fauna (B13)		FAC-Neutral Test (	(D5)			
Field Observations:	,					
	Depth (inches):					
	Depth (inches):		,			
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches): Wetla	nd Hydrology Present? Y	/es No			
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspections), it	available:				
Remarks:						
no hydrology indicators						

Sampling Point: wgr	auu2	_u
---------------------	------	----

00	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	<u>% Cover</u> 45	Species? Yes	Status FAC	Number of Dominant Species
1. Pinus taeda	10	No	FACU	That Are OBL, FACW, or FAC: 6 (A)
2. Liriodendron tulipifera 3. Nyssa sylvatica		No	FAC	Total Number of Dominant
		No	FACU	Species Across All Strata: 7 (B)
4. Ilex opaca			<u> </u>	Percent of Dominant Species
5		-		That Are OBL, FACW, or FAC: 85.71428571 (A/B)
6				Prevalence Index worksheet:
7	65			Total % Cover of: Multiply by:
50% of total cover: 32.5	. ——— '	= Total Cove	er 13	OBL species $0 \times 1 = 0$
15	20% of	total cover:_		FACW species 8 x 2 = 16
Sapling/Shrub Stratum (Plot size: 13 )  1 Clethra alnifolia	15	Yes	FAC	FAC species 126 x 3 = 378
·	10	Yes	FACU	FACU species 32 x 4 = 128
2. Ilex opaca	10	Yes	FAC	
3. Acer rubrum	8		FAC	166 522
4. Liquidambar styraciflua		No No		Column Totals: (A) 322 (B)
5. Carpinus caroliniana	6	No No	FAC	Prevalence Index = B/A = 3.14
6. Vaccinium corymbosum	3	No	FACW	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0¹
		= Total Cove		4 - Morphological Adaptations¹ (Provide supporting
50% of total cover: 26	20% of	total cover:_	10.4	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5	_			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Arundinaria gigantea	5	Yes	FACW	1 Toblematic Trydrophlytic Vegetation (Explain)
2. Athyrium asplenioides	2	Yes	FAC	<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				
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.		· <u> </u>	,	Herb – All herbaceous (non-woody) plants, regardless
	7	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 3.5		total cover:_		
Woody Vine Stratum (Plot size:)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1. Smilax rotundifolia	30	Yes	FAC	noight.
2. Vitis aestivalis	7	No	FACU	
3. Vitis rotundifolia	5	No	FAC	
4.				
5.				Hydrophytic Vegetation
	42	= Total Cove		Present? Yes No
50% of total cover: 21		total cover:	8.4	
Remarks: (Include photo numbers here or on a separate s				
Nomano. (morado prioto namboro nere or on a separate o	11001.)			

Profile Desc	ription: (Describe	to the depth	needed to docum	nent the i	ndicator	or confirm	the abser	nce of indicat	tors.)	
Depth	Matrix		Redo	x Features	S	-				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u> </u>	Remarks	
0-5	10YR 3/3	100					SL			
5-14	10YR 4/3	100					SL			
14-20	10YR 5/3	100					SL			-
							•			
	-									
	-									
							•			
	-									
1Type: C-C	oncentration, D=Dep	letion RM-F	Peduced Matrix MS		Sand Gr		<sup>2</sup> Location	· PI –Pore I ir	ning, M=Matrix.	_
Hydric Soil		ietion, Kivi=r	reduced Matrix, Mc	=iviaskeu	Sand Gr	aii i5.			Problematic H	
Histosol			Dark Surface	(\$7)					(A10) <b>(MLRA</b> 1	
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	ILRA 147	148)	_	ie Redox (A16)	•
Black Hi			Thin Dark Su					_ (MLRA 1	, ,	
	en Sulfide (A4)		Loamy Gleye			., ,			loodplain Soils	(F19)
	d Layers (A5)		Depleted Mar		,			(MLRA 1		` ,
	ick (A10) (LRR N)		Redox Dark		6)				w Dark Surface	e (TF12)
Depleted	d Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)			_ Other (Expl	ain in Remarks	5)
	ark Surface (A12)		Redox Depre							
	lucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,				
	A 147, 148)		MLRA 13					3		
	Gleyed Matrix (S4)		Umbric Surfa						hydrophytic ve	-
	Redox (S5)		Piedmont Flo					-	ology must be	-
	Matrix (S6)  Layer (if observed):		Red Parent N	nateriai (F.	21) (WLR	A 127, 147	<u>()</u>	uniess distur	bed or problem	iatic.
Type: no										
			<del>_</del>							🗸
Depth (inc	ches):		<u> </u>				Hydric S	Soil Present?	Yes	_ No
Remarks:										



Photo 1 Upland data point WGRA002\_u facing east



Photo 2 Upland data point WGRA002\_u facing west

Project/Site: Atlantic Coast Pipe	eline	City/C	ounty: Greensville Cour	nty	Sampling Date: 2/20/2016		
Applicant/Owner: DOMINION		State: VA Sampling Point: wgrc109s_w					
Investigator(s): Team C Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc							
Subregion (LRR or MLRA): P Lat: 36.67425932 Long: -77.59684781 Datum: WGS 1984 Soil Map Unit Name: Uchee loamy sand, 0 to 6 percent slopes NWI classification: None							
Are climatic / hydrologic condition	ons on the site typic	al for this time of year? Y	es No	(If no, explain in R	emarks.)		
Are Vegetation, Soil	, or Hydrology	significantly disturl	bed? Are "Normal	Circumstances" p	present? Yes No		
Are Vegetation, Soil							
					, important features, etc.		
Hydrophytic Vegetation Prese	nt? Yes	<b>∨</b> No					
Hydric Soil Present?		No	Is the Sampled Area within a Wetland?	Vos V	No		
Wetland Hydrology Present?		✓ No	within a wettand?	165	NO		
Remarks:							
HADBOI OCA							
HYDROLOGY				0	(1 / (1		
Wetland Hydrology Indicato					ators (minimum of two required)		
Primary Indicators (minimum o	•		D.(.1)	Surface Soil			
Surface Water (A1)		True Aquatic Plants (			getated Concave Surface (B8)		
High Water Table (A2)	•	Hydrogen Sulfide Odd		Drainage Pa			
Saturation (A3)		<ul><li>Oxidized Rhizosphere</li><li>Presence of Reduced</li></ul>		Moss Trim L			
Water Marks (B1) Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur	Water Table (C2)		
Drift Deposits (B3)	•	Thin Muck Surface (C		-	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	•	Other (Explain in Ren			tressed Plants (D1)		
Iron Deposits (B5)	•		····················		Position (D2)		
Inundation Visible on Aeri	al Imagery (B7)			Shallow Aqu			
Water-Stained Leaves (B					aphic Relief (D4)		
Aquatic Fauna (B13)				✓ FAC-Neutral	Test (D5)		
Field Observations:							
Surface Water Present?		Depth (inches):	4				
Water Table Present?	Yes V No _	Depth (inches):	0				
Saturation Present?	Yes 🔽 No	0 Wetland H	lydrology Preser	nt? Yes 🗸 No			
(includes capillary fringe)  Describe Recorded Data (stre	am gauge monitori	ng well serial photos pre	vious inspections) if ava	ilahle:			
Describe Necorded Data (Sire	am gauge, monitoni	ng well, aerial priotos, pre	vious irispections), ii ava	illable.			
Remarks:							
Wetland hydrology present							

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

\_\_)

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

50% of total cover: \_\_\_17.5

50% of total cover:

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

130 = Total Cover 65 20% of total cover: 26

30

Tree Stratum (Plot size:

1 Pinus taeda

2 Liquidambar styraciflua

Herb Stratum (Plot size: \_ 1. Andropogon virginicus

2. Eupatorium capillifolium

3. Typha angustifolia

4. Lonicera japonica

6. Scirpus cyperinus

5. Juncus effusus

3. Acer rubrum

Sapling/Shrub Stratum (Plot size: 15

mes of	plants.		Sampling Point: wgrc109s_w
Absolute	Dominant II		Dominance Test worksheet:
% Cover	Species?	<u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
			Total Number of Dominant Species Across All Strata: 4 (B)
			Percent of Dominant Species That Are OBL, FACW, or FAC:50 (A/B)
			Prevalence Index worksheet:
0	= Total Cove	<del></del>	Total % Cover of: Multiply by:
	total cover:	0	OBL species25 x 1 =25
_ 2070 0.			FACW species x 2 =40
15	Yes	FAC	FAC species55
15	Yes	FAC	FACU species65
5	No	FAC	UPL species0 x 5 =0
			Column Totals:165 (A)490 (B)
			Prevalence Index = B/A =2.96
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
25			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	= Total Cove	r 7	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
_ 20% of	total cover:_		data in Remarks or on a separate sheet)
35	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
30	Yes	FACU	
25	No	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
20	No	FAC	be present, unless disturbed or problematic.
10	No	FACW	Definitions of Four Vegetation Strata:
10	No	FACW	<b>Tree</b> – 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.
	= Total Cove		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
_ 20% of	total cover:_	26	Woody vine – All woody vines greater than 3.28 ft in height.
	= Total Cove		Hydrophytic Vegetation Present?  Yes No

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

Woody Vine Stratum (Plot size: 30

Profile Desc	ription: (Describe	to the de	oth needed to docum	ent the i	indicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redox	(Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6	5 Y 5/3	100					SL	
6-9	5 Y 4/2	98	5 Y 4/6	2	С	PL	SL	
9-18	10 YR 5/6	100					SL	
		- —			-			<del>,</del> .
	•							
1Type: C-C	oncentration D-Den	Jetion RM	=Reduced Matrix, MS	-Maskar	d Sand Gr	aine	<sup>2</sup> Location: I	PL=Pore Lining, M=Matrix.
Hydric Soil		ieuon, Kiv	=Reduced Matrix, MS	=iviasket	J Sanu Gi	all is.		cators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(\$7)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Bel		ce (S8) <b>(N</b>	/ILRA 147		Coast Prairie Redox (A16)
	stic (A3)		Toryvalue Bel					(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			·-, · ·-/		Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 136, 147)
	ıck (A10) (LRR N)		Redox Dark S		<del>-</del> 6)			Very Shallow Dark Surface (TF12)
Depleted	d Below Dark Surfac	e (A11)	Depleted Dar	k Surface	e (F7)		<u> </u>	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	lucky Mineral (S1) <b>(I</b>	_RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 136				3.	
	Gleyed Matrix (S4)		Umbric Surfac					dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
	Matrix (S6)		Red Parent M	iateriai (F	·21) (WLR	A 127, 147	<b>r)</b> u	nless disturbed or problematic.
	Layer (if observed):	i						
Type:								
Depth (in	ches):						Hydric So	il Present? Yes No
Remarks:								
Soil is disturb	ed due to logging ac	tivities						



Photo 1
Wetland data point WGRC109s\_w facing east



Photo 2
Wetland data point WGRC109s\_w facing west

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Greensville Coun	ty	Sampling Date: 2/20/2016		
Applicant/Owner: DOMINION		State: VA Sampling Point: wgrc109_t					
Investigator(s): Team C Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Sligh							
Subregion (LRR or MLRA): P							
Soil Map Unit Name: Uchee loamy sand	d, 0 to 6 percent sl	opes		NWI classific	ation: None		
Are climatic / hydrologic conditions on tl	ne site typical for th	nis time of year? Y	es No	(If no, explain in R	emarks.)		
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes No		
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS – A							
Hydrophytic Vegetation Present?	Yes	No					
Hydric Soil Present?	Yes		Is the Sampled Area within a Wetland?	Vos	No 🗸		
Wetland Hydrology Present?	Yes		within a Wetland:	165	_ 110		
LIVEROLOGY							
HYDROLOGY				Occasional and a fina	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )		
Wetland Hydrology Indicators:		1 46-4			ators (minimum of two required)		
Primary Indicators (minimum of one is				Surface Soil			
Surface Water (A1) High Water Table (A2)		ue Aquatic Plants ( drogen Sulfide Od		Sparsely veg	getated Concave Surface (B8)		
Saturation (A3)		-		Moss Trim Li			
Water Marks (B1)		esence of Reduced			Water Table (C2)		
Sediment Deposits (B2)			n in Tilled Soils (C6)				
Drift Deposits (B3)		in Muck Surface (C		· ·	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Oti	ner (Explain in Ren	narks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aerial Image	ery (B7)			Shallow Aqui			
Water-Stained Leaves (B9)					aphic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations: Surface Water Present? Yes	No V D	epth (inches):					
		epth (inches): epth (inches):					
		epth (inches):		lydrology Presen	nt? Yes No		
(includes capillary fringe)		. , ,			t: 165 NO		
Describe Recorded Data (stream gaug	je, monitoring well	, aerial photos, pre	vious inspections), if ava	ilable:			
Remarks:							
No wetland hydrolgy present							
					!		

24111011110 FOILI	Samplir	na Point	<u>։</u> wgrc109_ւ
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	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)			Status	Number of Dominant Species
1 Pinus taeda	25	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2. Quercus falcata	10	Yes	FACU	('')
3. Platanus occidentalis	10	Yes	FACW	Total Number of Dominant
3. Flatarius occidentalis				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 57.14285714 (A/B)
6				(100)
7				Prevalence Index worksheet:
T	45			Total % Cover of: Multiply by:
22.5	.——	= Total Cove	r 9	OBL species 0 x 1 = 0
50% of total cover: 22.5	20% of	total cover:_		10 20
Sapling/Shrub Stratum (Plot size: 15				FACW species x z =
1. Pinus taeda	30	Yes	FAC	FAC species x 3 =
2				FACU species55
				UPL species0 x 5 =0
3		-		Column Totals: 145 (A) 480 (B)
4				Column rotals (A) (B)
5				Prevalence Index = B/A = 3.31
6				Trevalence mack = B/TC =
7		<u> </u>		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>
	30	= Total Cove		4 - Morphological Adaptations¹ (Provide supporting
50% of total cover:15	20% of	total cover:_	6	
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
1 Andropogon virginicus	30	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Lonicera japonica	15	Yes	FAC	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Eupatorium capillifolium	15	Yes	FACU	be present, unless disturbed or problematic.
4. Dichanthelium clandestinum	10	No	FAC	Definitions of Four Vegetation Strata:
5				John Monte of Four Fogotation Carata.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
o				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9		ē		than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11		<u> </u>		
111	70			Herb – All herbaceous (non-woody) plants, regardless
25		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 35	20% of	total cover:_		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3.				
4				Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes No
50% of total cover:0	20% of	total cover:_	0	
Remarks: (Include photo numbers here or on a separate sl	heet.)			1
Tromand. (morado prioto namboro noto di en a deparate di	11001.1			

Profile Desc	ription: (Describe t	o the depth	needed to docum	nent the i	ndicator	or confirm	n the absenc	e of indicat	ors.)
Depth	Matrix		Redo	x Features	3				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>		Remarks
0-10	2.5 Y 6/6	100					S		
10-18	10 YR 5/6	100					SCL		
								_	
								_	
·									
-			-						
							2		
	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.			ing, M=Matrix.
Hydric Soil I									roblematic Hydric Soils <sup>3</sup> :
Histosol	• •		Dark Surface		/ <del>-</del> -: :		· · · · · · · · · · · · · · · · · · ·		(A10) <b>(MLRA 147)</b>
	pipedon (A2)		Polyvalue Be				148)		e Redox (A16)
Black Hi			Thin Dark Su	, ,	•	47, 148)		(MLRA 14	
	n Sulfide (A4)		Loamy Gleye		F2)		_		oodplain Soils (F19)
	Layers (A5)		Depleted Mat		·c)			(MLRA 1:	w Dark Surface (TF12)
	ck (A10) <b>(LRR N)</b> Below Dark Surface	Δ (Δ11)	Redox Dark S Depleted Dar					•	ain in Remarks)
	ark Surface (A12)	(// (/ )	Redox Depre				_	Other (Expir	alli ili Nelliaiks)
	lucky Mineral (S1) <b>(L</b>	RR N.	Iron-Mangan			LRR N.			
	147, 148)	,	MLRA 13		, (	,			
	leyed Matrix (S4)		Umbric Surfa		MLRA 13	6. 122)	<sup>3</sup> Ir	dicators of h	nydrophytic vegetation and
	edox (S5)		Piedmont Flo						ology must be present,
	Matrix (S6)		Red Parent N					-	ped or problematic.
	ayer (if observed):			`	, ,	<u> </u>	<u></u>		· · · · · · · · · · · · · · · · · · ·
Type:	,								
Depth (inc	shas).		_				Hydric So	il Present?	Yes No
	J1103).		<u> </u>				Tiyane oo	ii i i cociit :	103 110
Remarks:	nrocent								
No hydric soil	present								



Photo 1 Upland data point WGRC109\_u facing west



Photo 2
Upland data point WGRC109\_u facing east

Project/Site: Atlantic Coast Pip	eline		City/C	ounty: Greensville		Sampling Date: 3/18/2015
Applicant/Owner: DOMINION					State: VA	_ Sampling Point: wgrc010e_w
Investigator(s): Team C			Section	on, Township, Range: No		
Landform (hillslope, terrace, etc						
Subregion (LRR or MLRA): P	<i>5.</i> )	36 6617	Local Icii 7974	! -77.	59115393	Glope (70)
Subregion (LRR or MLRA):	e sandy loam 0	to 3 percent slor	100	Long:		. None
Soil Map Unit Name: Slagle fin						
Are climatic / hydrologic conditi						
Are Vegetation, Soil	, or Hydrold	gy signif	icantly distur	bed? Are "Normal	Circumstances" p	resent? Yes No
Are Vegetation, Soil	, or Hydrolc	gynatur	ally problema	atic? (If needed, e	explain any answer	s in Remarks.)
SUMMARY OF FINDING	GS – Attach	site map sho	wing sam	pling point location	ons, transects,	important features, etc.
Hydrophytic Vegetation Prese	ent? Yes	No	<u></u>			
Hydric Soil Present?	Yes	<u>✓ No</u>		Is the Sampled Area	v V	No
Wetland Hydrology Present?	Yes	✓ No_		within a Wetland?	Yes	NO
Remarks:						
Wetland data point was taken had saturated soils.	within a clear-cu	it area. Vegetatio	n is disturbe	d due to logging activities	s and removal of th	e tree stratum. Wetland areas
HYDROLOGY						
Wetland Hydrology Indicato	ors:				Secondary Indicat	tors (minimum of two required)
Primary Indicators (minimum	of one is require	d; check all that a	apply)		Surface Soil 0	Cracks (B6)
Surface Water (A1)		True Aqu	uatic Plants (	B14)	Sparsely Veg	etated Concave Surface (B8)
High Water Table (A2)		Hydroge			Drainage Pat	terns (B10)
Saturation (A3)				es on Living Roots (C3)	Moss Trim Li	
Water Marks (B1)		Presence				Vater Table (C2)
Sediment Deposits (B2)				n in Tilled Soils (C6)	Crayfish Burr	
Drift Deposits (B3)			ck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (E	xplain in Ren	narks)		ressed Plants (D1)
Iron Deposits (B5)					Geomorphic I	` '
Inundation Visible on Aer					Shallow Aquit	
Water-Stained Leaves (B	,9)					phic Relief (D4)
Aquatic Fauna (B13)					FAC-Neutral	Test (D5)
Field Observations:						
Surface Water Present?		Depth (i		5		
Water Table Present?		Depth (	inches):	0		_
Saturation Present? (includes capillary fringe)	Yes N	Depth (	inches):	Wetland F	lydrology Presen	t? Yes / No
Describe Recorded Data (stre	eam gauge, mon	itoring well, aeria	l photos, pre	vious inspections), if ava	ilable:	
,	0 0 7	<b>0</b>	. ,,	, ,,		
Remarks:						
Wetland hydrology present						

## ٧

	30	Absolute	Dominant I		Dominance Test worksheet:	
ree Stratum (Plot size:	30)	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
			·		Total Number of Dominant Species Across All Strata:	2 (B
			· ·		Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A
					Prevalence Index worksheet:	(A)
		0				Itiply by:
	50% of total cover: 0		= Total Cove f total cover:	r 0	OBL species 0 x 1 =	0
onling/Chruh Strotum (Dlot oi	15	20 /6 01	total cover		FACW species 0 x 2 =	0
apling/Shrub Stratum (Plot siz					FAC species 30 x 3 =	90
		-			FACU species 70 x 4 =	280
•			·			0
			·		UPL species x 5 = _	370
			·		Column Totals:(A) _	(I
		-			Prevalence Index = B/A =	3.7
•			·		Hydrophytic Vegetation Indicators:	
·					1 - Rapid Test for Hydrophytic Ve	getation
					2 - Dominance Test is >50%	· ·
					3 - Prevalence Index is ≤3.0 <sup>1</sup>	
			= Total Cove		4 - Morphological Adaptations <sup>1</sup> (F	Provide support
	50% of total cover:0	20% of	f total cover:_	0	data in Remarks or on a separ	
lerb Stratum (Plot size:	5)				· ·	
Andropogon virginicus		70	Yes	FACU	Problematic Hydrophytic Vegetati	ion (Explain)
Microstegium vimineum		30	Yes	FAC	The disease of books and and on the dis	La callara la casa casa casa ca
Carex sp.		10	No		<sup>1</sup> Indicators of hydric soil and wetland I be present, unless disturbed or proble	
					Definitions of Four Vegetation Strat	
					Tree – Woody plants, excluding vines	
•					more in diameter at breast height (DB height.	11), regardiess
		-			Sapling/Shrub – Woody plants, exclution 3 in. DBH and greater than or eq	
0		-	·		m) tall.	uai to 3.20 it (
1.					,	
· •		110	= Total Cove		<b>Herb</b> – All herbaceous (non-woody) p of size, and woody plants less than 3.	
	50% of total cover: 55		f total cover:_		or order, and moday plante rose than or	20 11 14
Voody Vine Stratum (Plot size					<b>Woody vine</b> – All woody vines greate	r than 3.28 ft ir
	·/				height.	
		-				
·					Hydrophytic	
					Vegetation	
			= Total Cove	_	Present? Yes No	· <u> </u>
	50% of total cover: 0	20% of	f total cover:_			
Remarks: (Include photo numb	ers here or on a separate	sheet.)				

Profile Des	cription: (Describe	to the de				or confirm	the absenc	e of indicators.)
Depth	<u>Matrix</u>	0/	Redo	x Feature		. 2	<b>-</b> .	<b>D</b>
(inches) 0-8	Color (moist) 2.5 Y 5/2	<u>%</u> 95	Color (moist) 10 YR 5/8	<u>%</u> 5	Type <sup>1</sup> C	Loc <sup>2</sup> PL/M	<u>Texture</u> SL	Remarks
0-0		95					-	
8-16	2.5 Y 6/6	95	10 YR 5/8	5	C	PL	SL	
		-						
		-						
	-			-				
		-						
								_, ,,
	Concentration, D=Dep	letion, RM	M=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indi	cators for Problematic Hydric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	e (S7)				2 cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ice (S8) <b>(I</b>	MLRA 147,	148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		(F2)			Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Ma					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark	,	,			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Da				_	Other (Explain in Remarks)
	Park Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (L	.RR N,	Iron-Mangan		es (F12) (	LRR N,		
	A 147, 148)		MLRA 13	•	/MI DA 44	ne 400\	31	diantara of hydrophytic vacctotics and
	Gleyed Matrix (S4) Redox (S5)		Umbric Surfa Piedmont Flo					ndicators of hydrophytic vegetation and vetland hydrology must be present,
	d Matrix (S6)		Red Parent N					inless disturbed or problematic.
	Layer (if observed):		Ned Falenti	viateriai (i	Z1) (IVILIV	A 121, 141	, u	inless disturbed of problematic.
Type:	_ayo. ( 0500. 10a).							
	achae):		<del></del>				Hudria Ca	oil Present? Yes No
Depth (in							nyuric 30	of Fresent? Tes NO
Remarks:	diantana mananat							
iyarıc soli in	dicators present							



Photo 1
Wetland data point wgrc010e\_w facing north



Photo 2
Wetland data point wgrc010e\_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Green	sville	Sampling Date: 3/18/2015
Applicant/Owner: DOMINION			Sampling Point: wgrc010_u
	Section, Township,		
Landform (hillslope, terrace, etc.): Slight Slope			
Subregion (LRR or MLRA): P			
Soil Map Unit Name: Slagle fine sandy loam, 0 to	3 percent slopes	NWI classi	ification: None
Are climatic / hydrologic conditions on the site typ			
Are Vegetation, Soil, or Hydrology	·		
Are Vegetation, Soil, or Hydrology	- · · · · · · · · · · · · · · · · · · ·		
SUMMARY OF FINDINGS – Attach si			
		·	<u> </u>
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _	No Is the Samp within a We		4
Wetland Hydrology Present? Yes	No within a We	tland? Yes	No
Remarks:			
Data point was taken within a clear-cut area. Veg saturated soils.			·
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indi	icators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)	Surface So	oil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely V	/egetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage F	Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living R	oots (C3) Moss Trim	Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Seaso	n Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soil		urrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)		Stressed Plants (D1)
Iron Deposits (B5)			ic Position (D2)
Inundation Visible on Aerial Imagery (B7)			quitard (D3)
Water-Stained Leaves (B9)			graphic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutr	rai l'est (D5)
Field Observations:	V Donth (inches)		
	Depth (inches):		
	Depth (inches):		
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches):	Wetland Hydrology Pres	ent? Yes No
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspecti	ons), if available:	
Remarks:			
No hydrology indicators present			

Sampling Po	int-wgrc010_	u
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0	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:0	% Cover Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC:2 (A)
2		Total Number of Dominant
3		Species Across All Strata: 3 (B)
4		(2)
		Percent of Dominant Species That Are ORL FACW or FAC: 66.6666666 (A/R)
5		That Are OBL, FACW, or FAC: 66.00000000 (A/B)
6		Prevalence Index worksheet:
7		
	= Total Cover	
	20% of total cover:0	OBL species X 1 =
Sapling/Shrub Stratum (Plot size: 0		FACW species x 2 =
1		FAC species 40 x 3 = 120
2.		FACU species75 x 4 =300
		UPL species 0 x 5 = 0
3		115 420
4		Column Totals: (A) (B)
5		Prevalence Index = B/A =3.65
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>
	= 10tal Cover	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:)		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1		Problematic Hydrophytic Vegetation (Explain)
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		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
		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10		m) tail.
11		Herb – All herbaceous (non-woody) plants, regardless
	0 = Total Cover	of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of total cover:0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)		height.
1		, in the second
2		
3		
4		Hydrophytic
5		Vegetation
	0 = Total Cover	Present? Yes No No
50% of total cover:0	20% of total cover:0	
Remarks: (Include photo numbers here or on a separate s	heet )	
Tromano. (morado prioto namboro nere di en a deparate e	11001.)	

(inches)	<u>Matrix</u>			x Features	<u> </u>	. 2	_	
	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-5	10 YR 4/2	97	10 YR 3/6	3	C	PL/M	SL	
5-16	2.5 Y 6/4	97	2.5 Y 6/6	3	С	PL/M	SL	
	_							
	-							
	-							_
	-							-
	-							
vne: C=C	oncentration D=Den	letion RM	1=Reduced Matrix, MS	S-Masked	Sand Gr	ains	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
	Indicators:	iction, itiv	i=reduced Matrix, Me	J-Maskea	Oarid Oi	airio.		cators for Problematic Hydric Soils <sup>3</sup> :
_ Histosol			Dark Surface	(\$7)				2 cm Muck (A10) <b>(MLRA 147)</b>
	pipedon (A2)		Polyvalue Be		e (S8) <b>(N</b>	ILRA 147.		Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Su		. , .		,	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, <b>,</b>		Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat		,			(MLRA 136, 147)
_ 2 cm Mı	uck (A10) (LRR N)		Redox Dark S	Surface (F	6)			Very Shallow Dark Surface (TF12)
_ Deplete	d Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)			Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 130	-			2	
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
	d Matrix (S6)		Red Parent M	faterial (F2	21) <b>(MLR</b>	A 127, 147	) u	nless disturbed or problematic.
	Layer (if observed):							
Type:								.,
							Hydric So	il Present? Yes No
Depth (in	ches):							
Depth (in	ches):							
Depth (in	dicators present							
Depth (in								
Depth (in								
Depth (in								
Depth (independent)								
Depth (in								
Depth (in								
Depth (in								
Depth (in								
Depth (independent)								
Depth (in								
Depth (independent)								
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Depth (in								
Depth (in								
Depth (in								
Depth (in								



Photo 1 Upland data point wgrc010\_u facing north

Project/Site: Atlantic Coast Pipe	eline	City/0	County: Greensville		Sampling Date: 3/19/2015
Applicant/Owner: DOMINION				State: VA	Sampling Point: wgrc011f_w
Investigator(s): Team C		Secti			
Landform (hillslope, terrace, etc.	.): Drainage cha	nnels Local re	lief (concave, convex, no	ne): none	Slope (%): <sup>2</sup>
Subregion (LRR or MLRA): P		Lat: 36.66029852	Long: -77.	58923549	Datum: WGS 1984
Soil Map Unit Name: Woodingto	on fine sandy loa	im, 0 to 2 percent slopes		NWI classific	eation: None
Are climatic / hydrologic condition	ons on the site ty	pical for this time of year?	res No	(If no, explain in R	emarks.)
Are Vegetation, Soil	, or Hydrolog	gy significantly distu	rbed? Are "Norma	l Circumstances" p	present? Yes No
Are Vegetation, Soil					
					, important features, etc.
Hydrophytic Vegetation Preser	nt? Yes	✓ No			
Hydric Soil Present?	Yes	✓ No	Is the Sampled Area within a Wetland?	Vos V	No
Wetland Hydrology Present?		<b>✓</b> No	within a wettand?	res	NO
HYDROLOGY					
Wetland Hydrology Indicator					ators (minimum of two required)
Primary Indicators (minimum o	f one is required			Surface Soil	, ,
Surface Water (A1)		(B14)		getated Concave Surface (B8)	
<ul><li>✓ High Water Table (A2)</li><li>✓ Saturation (A3)</li></ul>		Hydrogen Sulfide Od Oxidized Rhizospher		✓ Drainage Pa Mass Trim I	
Water Marks (B1)		Oxidized Knizospher		Moss Trim L	Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bur	
Drift Deposits (B3)		Thin Muck Surface (			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Re			tressed Plants (D1)
Iron Deposits (B5)				Geomorphic	Position (D2)
Inundation Visible on Aeria	al Imagery (B7)			Shallow Aqu	itard (D3)
Water-Stained Leaves (BS	3)				aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:	<b>.</b>	<b>5</b> (1 . 1 . 1	1		
Surface Water Present?		Depth (inches):	0		
Water Table Present?		Depth (inches):	0	L. da. da B	V N-
Saturation Present? (includes capillary fringe)	Yes _ • No	Depth (inches):	wetland i	Hydrology Preser	nt? Yes No
Describe Recorded Data (stream	am gauge, monit	oring well, aerial photos, pre	evious inspections), if ava	ailable:	
Remarks:					
Wetland hydrology is present					
, , , , , , , , , , , , , , , , , , ,					

Sampling P	int-wgrc011f_	w
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•	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Pinus taeda	25	Yes	FAC	That Are OBL, FACW, or FAC:8 (A)
2. Liquidambar styraciflua	5	No	FAC	Total Newhord Dominant
3. Acer rubrum	5	No	FAC	Total Number of Dominant Species Across All Strata:  8 (B)
4				eposico / torocc / tili 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:
1	35			Total % Cover of: Multiply by:
		= Total Cover	7	OBL species $0 \times 1 = 0$
50% of total cover: 17.5	20% of	total cover:		- T
Sapling/Snrub Stratum (Plot size:)				FACW species x z =
1. Quercus nigra	10	Yes	FAC	FAC species x 3 =
2. Ilex glabra	5	Yes	FAC	FACU species x 4 =
3. Acer rubrum	5	Yes	FAC	UPL species $0 \times 5 = 0$
4. Liquidambar styraciflua	5	Yes	FAC	Column Totals:80
5. Magnolia virginiana	5	Yes	FACW	0.00
				Prevalence Index = B/A =2.93
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>
45		= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:15	20% of	total cover:	6	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation¹ (Explain)
1				Problematic Hydrophytic Vegetation (Explain)
2				4
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4.				
5			-	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
	0	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of	total cover:	0	Was divides. All was divided as assets the at 2.00 ft in
Woody Vine Stratum (Plot size:)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1. Smilax rotundifolia	10	Yes	FAC	noight.
2 Lonicera japonica	5	Yes	FAC	
3.				
,				
4		-		Hydrophytic
5				Vegetation Present?  Yes No
7.5		= Total Cover		Present? Yes No No
50% of total cover: 7.5	20% of	total cover:	3	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth   Matrix   Redox Features   Type   Loc   Texture   Remarks
0-3 10 YR 4/1 100 SL  3-16 10 YR 4/1 95 10 YR 3/6 5 C PL SL  1-Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  1-Type: Stratified Sand Grains.  1-Type: Stratified Sand Grains.  1-Type: Shalow (Sand Grains)  1-Type: Shalow (Sand Grains)  2-Type: Shalow Cartining, M=Matrix.  1-Type: Shalow Grains, MS=Masked Sand Grains.  1-Cocation: PL=Pore Lining, MS=Masked Sand Grains.  1-Type: Shalow Grains, MS=Masked Sand Grains.  1-Location: PLeposed Lands, MS=Masked Sand Grains.  1-Location: PLeposed Lands, MS=Masked Sand Grain
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.   FL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  ### Hydric Soil Indicators:    Histosol (A1)
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Sirpped Matrix (S4)  Sandy Redox (S5)  Sirpped Matrix (S6)  Red Parent Material (F21) (MLRA 147, 148)  Restrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a Indicators for Problematic Hydric Soils*:  - a C coast Prairie Redox (A16)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 147, 148)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  - a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (S9) (MLRA 147, 148) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S6) Stripped Matrix (S6)  Dark Surface (S7) Depleted Below Surface (S9) (MLRA 147, 148) Depleted Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Selement Floodplain Soils (F19) (MLRA 136, 122) Sandy Redox (S5) Selement Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed): Type:  Dark Surface (S7) Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19) MLRA 147, 148)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Histic Epipedon (A2)
Black Histic (A3)
Stratified Layers (A5)  2 cm Muck (A10) (LRR N)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Pepleted Matrix (F3)  Muck (A10) (LRR N, MLRA 136, 147)  Pepleted Dark Surface (F6)  Depleted Dark Surface (F7)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  MLRA 136)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Diedmont Floodplain Soils (F19) (MLRA 136, 122) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Unless disturbed or problematic.
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 127, 147)  Restrictive Layer (if observed): Type:  Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 136, Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147) Unless disturbed or problematic.
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) MlRA 136) Sandy Gleyed Matrix (S4) Mland Fledmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6)  Restrictive Layer (if observed): Type:  Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136, Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Wetland hydrology must be present, unless disturbed or problematic.
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Restrictive Layer (if observed):  Type:
Sandy Gleyed Matrix (S4)
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Restrictive Layer (if observed):  Type:
Restrictive Layer (if observed):  Type:
Type:
Double (inches)
Depth (inches): Hydric Soil Present? Yes No
Remarks:
Hydric soil indicators are present



Photo 1
Wetland data point wgrc011f\_w facing north



Photo 2
Wetland data point wgrc011f\_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Greensville	Sampling Date: 3/19/2015
Applicant/Owner: DOMINION		State: VA Sampling Point: wgrc011_u
	Section, Township, Range: N	
Landform (hillslope, terrace, etc.): Hill Slope		
Subregion (LRR or MLRA): P	Lat. 36.66020706	.58911048 Datum: WGS 1984
Soil Map Unit Name: Woodington fine sandy loan	, 0 to 2 percent slopes	NWI classification: None
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 disturbed? Are "Normation of the control of th	al Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		
		ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	✓ No Is the Sampled Area	
	No. 4/	Yes No
	No within a Wetland?	resNo
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required;		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)	
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) Algal Mat or Crust (B4)	Thin Muck Surface (C7) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat 01 Crust (B4) Iron Deposits (B5)	Other (Explain in Remarks)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No	Depth (inches):	
	Depth (inches):	
	4	Hydrology Present? Yes No
	ring well, aerial photos, previous inspections), if av	ailable:
Remarks:		
No hydrology indicators present		
The flydrology indicators present		

Sambling Point ward in	Sampling	Point: wgrc011_	ι
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00	Absolute	Dominant I	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)		Species?		Number of Dominant Species	
1. Pinus taeda	50	Yes	FAC	That Are OBL, FACW, or FAC:3 (A	١)
2					
3.				Total Number of Dominant Species Across All Strata:  4 (B	
4				Species Acioss Ali Strata.	,,
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC: 75 (A	/B)
6				Prevalence Index worksheet:	
7					
	50	= Total Cove	r	Total % Cover of: Multiply by:	
50% of total cover: 25	20% of	total cover:	10	OBL species x 1 = 0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species0 x 2 =0	
1 Liquidambar styraciflua	30	Yes	FAC	FAC species100	
2. Ilex opaca	10	Yes	FACU	FACU species 15 x 4 = 60	
	5			0	
3. Quercus alba		No	FACU	UPL species $0 \times 5 = 0$	
4				Column Totals: (A) (	(B)
5				Prevalence Index = R/A = 3.13	
6				Trevalence mack = B/T(=	
				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>	
	45	= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide suppor	tina
50% of total cover: 22.5	20% of	total cover:_	9		ung
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)	
1 Smilax rotundifolia	20	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
2					
2				<sup>1</sup> Indicators of hydric soil and wetland hydrology mus	st
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	or of
7				height.	, OI
8					
^				Sapling/Shrub – Woody plants, excluding vines, les	SS
··				than 3 in. DBH and greater than or equal to 3.28 ft (	1
10				m) tall.	
11				Herb - All herbaceous (non-woody) plants, regardle	ess
	20	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.	
50% of total cover:10	20% of	total cover:_	4	Woody vine All woody vines greater than 2.29 ft is	_
Woody Vine Stratum (Plot size:)				Woody vine – All woody vines greater than 3.28 ft in height.	''
1					
2					
3					
4				Hydrophytic	
5				Vegetation	
	0	= Total Cove	r	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	
Training (manage prote name of one of on a separate of	,				

	cription: (Describe t	o the depth				or confirm	the abse	nce of indicators.)
Depth	Matrix		Redo	x Feature:	S T 1	Loc <sup>2</sup>	T	Damandar
(inches) 0-16	Color (moist) 10 YR 3/1	<u>%</u> 100	Color (moist)	%	Type <sup>1</sup>	LOC	<u>Texture</u> LS	e Remarks
0-10	10 11 3/1							
					-	· ——		<del></del>
			_			· ·		
<sup>1</sup> Type: C=C	concentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	I Sand Gr	ains.		: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						In	dicators for Problematic Hydric Soils <sup>3</sup> :
Histoso	I (A1)		Dark Surface	(S7)				_ 2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su		. , .		, _	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			. ,		_ Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Ma		,			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		·6)			_ Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	(A11)	Depleted Dar					_ Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F	8)			
Sandy I	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) (	LRR N,		
	A 147, 148)		MLRA 13					
	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)		<sup>3</sup> Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
	d Matrix (S6)		Red Parent N					unless disturbed or problematic.
	Layer (if observed):			`		<u> </u>	ĺ	·
Type:								
	nches):		_				Hydric	Soil Present? Yes No
			<u>—</u>				Tiyano	
Remarks:	I managet							
lo hydric so	i present							



Photo 1 Upland data point wgrc011\_u facing north



Photo 2 Upland data point wgrc011\_u facing south

Project/Site: Atlantic Coast Pipeline		City/C	County: Greensville		Sampling Date: 3/18/2015
Applicant/Owner: DOMINION				State: VA	Sampling Point: wgrc009f_w
Investigator(s): Team C			on, Township, Range: No		
Landform (hillslope, terrace, etc.): Dra					
Subregion (LRR or MLRA): P					
Soil Map Unit Name: Slagle fine sand	y loam, 0 to 3 pe	rcent slopes		NWI classifi	cation: None
Are climatic / hydrologic conditions on	the site typical fo	or this time of year? Y	′es No	(If no, explain in F	Remarks.)
Are Vegetation, Soil, o	r Hydrology	significantly distur	bed? Are "Normal	I Circumstances"	present? Yes No
Are Vegetation, Soil, o					
SUMMARY OF FINDINGS –					
Hydrophytic Vegetation Present?	Yes 🗸	No			
Hydric Soil Present?	Yes V	No	Is the Sampled Area	Vac V	No
Wetland Hydrology Present?		No	within a Wetland?	res	NO
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one	s required; checl	k all that apply)		Surface Soi	l Cracks (B6) egetated Concave Surface (B8)
	Surface Water (A1) True Aquatic Plants (B14)				
1 .	High Water Table (A2) Hydrogen Sulfide Odor (C1)				atterns (B10)
Saturation (A3)			es on Living Roots (C3)	Moss Trim L	, ,
Water Marks (B1) Sediment Deposits (B2)		Presence of Reduced Recent Iron Reduction		✓ Crayfish Bu	Water Table (C2)
Sediment Deposits (B2) Drift Deposits (B3)		Thin Muck Surface (			/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer			Stressed Plants (D1)
Iron Deposits (B5)		С (— . р	,		Position (D2)
Inundation Visible on Aerial Imag	gery (B7)			Shallow Aqu	` '
Water-Stained Leaves (B9)				Microtopogr	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutra	l Test (D5)
Field Observations:					
		Depth (inches):			
		Depth (inches):	8		
	No	Depth (inches):	3 Wetland F	Hydrology Prese	nt? Yes / No
(includes capillary fringe)  Describe Recorded Data (stream gain	uge, monitoring v	well, aerial photos, pre	evious inspections), if ava	ailable:	
, ,			, ,,		
Remarks:					
Wetland hydrology indicators present					

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

50% of total cover: \_\_\_27.5

50% of total cover: \_\_\_\_20

50% of total cover:

50% of total cover:

15

20 = Total Cover 10 20% of total cover: 4

30

Tree Stratum (Plot size: \_

Sapling/Shrub Stratum (Plot size:\_ 1. Liquidambar styraciflua

1. Pinus taeda

2. Acer rubrum

3. Betula nigra

2. Acer rubrum

4. Magnolia virginiana

Herb Stratum (Plot size: \_ 1. Smilax rotundifolia 2. Lonicera japonica

3. Ilex opaca

ames of	plants.		Sampling Point: wgrc009f_w
Absolute	Dominant		Dominance Test worksheet:
% Cover 40	Species? Yes	Status FAC	Number of Dominant Species  That Are ORL FACIN or FAC: 6 (A)
10	No	FAC	That Are OBL, FACW, or FAC:6 (A)
5	No	FACW	Total Number of Dominant Species Across All Strata: 7 (B)
			Percent of Dominant Species That Are OBL, FACW, or FAC:  85.71428571  (A/B)
			Prevalence Index worksheet:
55	= Total Cove		Total % Cover of: Multiply by:
20% of	total cover:_	11	OBL species
40	.,	E40	X Z =
10	Yes	FAC	
10	Yes Yes	FACU	FACU species
10	Yes	FACW	115 340
		TACV	Column Totals: (A) (B)  Prevalence Index = B/A = 2.95
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
			3 - Prevalence Index is ≤3.0 <sup>1</sup>
	= Total Cove	er 8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
20% of	total cover:		data in Remarks or on a separate sheet)
10	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			Definitions of Four Vegetation Strata:
			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.
	= Total Cove	4	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
20% of	total cover:_	4	Woody vine – All woody vines greater than 3.28 ft in height.
	= Total Covertotal cover:	er 0	Hydrophytic Vegetation Present?  Yes No

Remarks:	(Include	photo	numbers	here	or or	a se	eparate	sheet.)	
----------	----------	-------	---------	------	-------	------	---------	---------	--

Woody Vine Stratum (Plot size: 30

Profile Des	cription: (Describe	to the de				or confirm	the absenc	e of indicators.)
Depth	Matrix	0/	Redo	x Feature	S1	1 2	T t	Devente
(inches) 0-7	Color (moist) 10 YR 4/2	<u>%</u> 97	Color (moist) 10 YR 3/6	<u>%</u> 3	Type <sup>1</sup> C	Loc <sup>2</sup>	<u>Texture</u> SL	Remarks
0-7	· <del></del>		<u> </u>					
7-16	2.5 Y 5/2	93	10 YR 4/6	7	C	PL/M	SL	
		-	· -					
			· ·	-	-			
	·							
								- , <u></u>
						_		
								-
Type: C=C	Concentration, D=Depl	letion, RM	M=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	<sup>2</sup> l ocation:	
	Indicators:	iouon, rui	I-reduced Matrix, Mi	<u>S-Masket</u>	a Garia Gi	unio.		cators for Problematic Hydric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	e (S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ice (S8) <b>(I</b>	MLRA 147,		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su					(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye					Piedmont Floodplain Soils (F19)
	ed Layers (A5)		✓ Depleted Ma					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		<del>-</del> 6)			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Da	rk Surface	(F7)			Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	essions (F	(8)			
Sandy I	Mucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Mass	es (F12) (	(LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 1	36, 122)	<sup>3</sup> In	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	. <b>8)</b> v	vetland hydrology must be present,
Strippe	d Matrix (S6)		Red Parent N	Material (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> u	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (in	nches):						Hydric So	il Present? Yes No
Remarks:								
	dicators present							
,								



Photo 1
Wetland data point wgrc009f\_w facing north



Photo 2
Wetland data point wgrc009f\_w facing south

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Greensville		Sampling Date: 3/18/2015
Applicant/Owner: DOMINION				State: VA	Sampling Point: wgrc009_u
Investigator(s): Team C			on, Township, Range: No		
Landform (hillslope, terrace, etc.): Slight					
Subregion (LRR or MLRA): P					
Soil Map Unit Name: Slagle fine sandy lo	oam, 0 to 3 perce	nt slopes		NWI classific	ation: None
Are climatic / hydrologic conditions on the	e site typical for the	nis time of year? Y	es No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or H	lydrology	significantly disturl	bed? Are "Normal	Circumstances" p	resent? Yes No
Are Vegetation, Soil, or H					
SUMMARY OF FINDINGS – Att					
Hydrophytic Vegetation Present?	Yes	No	In the Commission Asses		
Hydric Soil Present?	Yes		Is the Sampled Area within a Wetland?	Yes	No
Wetland Hydrology Present?	Yes		within a Welland:	163	
HADBOLOCA					
HYDROLOGY				Canadam Indian	tone (minimum of two manimal)
Wetland Hydrology Indicators:	roquirod: abook a	Il that apply)			tors (minimum of two required)
Primary Indicators (minimum of one is r  Surface Water (A1)	-	ue Aquatic Plants (l	P14)	Surface Soil	getated Concave Surface (B8)
High Water Table (A2)		rdrogen Sulfide Od		Sparsely veg	
Saturation (A3)				Moss Trim Li	
Water Marks (B1)		esence of Reduced			Water Table (C2)
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Burr	
Drift Deposits (B3)	Th	in Muck Surface (C	27)	Saturation Vi	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Ot	her (Explain in Ren	narks)	Stunted or St	tressed Plants (D1)
Iron Deposits (B5)				Geomorphic	
Inundation Visible on Aerial Imager	y (B7)			Shallow Aqui	
Water-Stained Leaves (B9)					phic Relief (D4)
Aquatic Fauna (B13)			T T	FAC-Neutral	Test (D5)
Field Observations: Surface Water Present? Yes	No V D	epth (inches):			
		epth (inches):			
		epth (inches):		lydrology Presen	t? Yes No
(includes capillary fringe)					it: 165 NO
Describe Recorded Data (stream gauge	, monitoring well	, aerial photos, pre	vious inspections), if ava	iilable:	
Remarks:					
No hydrology indicators present					

Sampling	Point: wgrc009_u
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00	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Pinus taeda	50	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Acer rubrum	10	No	FAC	
3. Juniperus virginiana	10	No	FACU	Total Number of Dominant Species Across All Strate: 4 (B)
-				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:
·· <u> </u>	70	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 35			14	OBL species0 x 1 =0
15	20% 01	total cover:		0 0
Sapiing/Shrub Stratum (Plot size:)				05 055
1. Pinus taeda	15	Yes	FAC	FAC species X 3 =
2. Acer rubrum	5	Yes	FAC	FACU species10
3.			,	UPL species0 x 5 =0
3				Column Totals: 95 (A) 295 (B)
4				Coldifii Totals (A) (B)
5				Prevalence Index = B/A =3.1
6				
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 Cover		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)
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1				
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				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				One the wildle make a Managhan to a control of a control
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				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of	total cover:	0	Manda distriction All superdusting a greater than 2 20 ft in
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
1 Smilax rotundifolia	5	Yes	FAC	height.
2				
3				
4				
5.				Hydrophytic
o				Vegetation Present? Yes No
25		= Total Cover	1	1100 NO
50% of total cover: 2.5	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate si	neet.)			

Sampling Point: wgrc009\_u

Profile Desc	ription: (Describe t	o the depth	needed to docum	nent the i	ndicator	or confirm	the absenc	e of indicators.)
Depth	Matrix		Redo	x Features	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-10	10 YR 4/4	100					CL	
10-16	10 YR 4/6	100					CL	
					-			_
								_
·	·							
					-			
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indi	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				148)	Coast Prairie Redox (A16)
Black Hi			Thin Dark Su	, ,	•	47, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		F2)			Piedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mar		.0)			(MLRA 136, 147)
	ick (A10) <b>(LRR N)</b> d Below Dark Surface	· (A11)	Redox Dark S Depleted Dar					Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	ark Surface (A12)	; (A11)	Redox Depre					Other (Explain in Kemarks)
	lucky Mineral (S1) <b>(L</b>	RR N.	Iron-Mangan			LRR N.		
	\ 147, 148)	<b>,</b>	MLRA 13			,		
	leyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6, 122)	<sup>3</sup> In	ndicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					vetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> u	ınless disturbed or problematic.
Restrictive I	ayer (if observed):							
Type:			<u> </u>					
Depth (inc	ches):		_				Hydric So	oil Present? Yes No
Remarks:							1	
no hydric soil	indicators present							



Photo 1 Upland data point wgrc009\_u facing north



Photo 2 Upland data point wgrc009\_u facing south

Project/Site: SERP	City/C	county: Greensville		Sampling Date: 8/12/2014
Applicant/Owner: DOMINION			State: VA	_ Sampling Point: wgra003f_w
	Section			
Landform (hillslope, terrace, etc.): swale				Slope (%): 2
Subregion (LRR or MLRA):				
Soil Map Unit Name: Woodington fine sandy loa	am, 0 to 2 percent slopes		NWI classifica	ation: PFO1A
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Y	es <u> </u>	If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrolo	gy significantly distur	bed? Are "Normal	Circumstances" pr	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrolo				
SUMMARY OF FINDINGS – Attach				
Hydrophytic Vegetation Present? Yes	<b>∨</b> No			
	No	Is the Sampled Area	V V	No
	<b>✓</b> No	within a Wetland?	res	NO
Remarks: wetland data point for a saturated pfo wetland in	n a wot swalo			
wettand data point for a saturated pro wettand i	ii a wet swale			
HYDROLOGY				
Wetland Hydrology Indicators:				ors (minimum of two required)
Primary Indicators (minimum of one is required		<u> </u>	Surface Soil C	` '
Surface Water (A1)	True Aquatic Plants (			etated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		✓ Drainage Patt	
Saturation (A3)	<ul><li>Oxidized Rhizosphere</li><li>Presence of Reduced</li></ul>	-	Moss Trim Lir	vater Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Recent Iron Reductio		✓ Crayfish Burro	
✓ Drift Deposits (B3)	Thin Muck Surface (C		<del></del>	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Ren			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)			✓ FAC-Neutral <sup>-</sup>	Test (D5)
Field Observations:				
Surface Water Present? Yes No	Depth (inches):			
Water Table Present? Yes No	Depth (inches):			
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Wetland H	ydrology Present	? Yes <u>/</u> No
Describe Recorded Data (stream gauge, moni	toring well, aerial photos, pre	vious inspections), if avai	lable:	
Remarks:				
surface flow from adjacent ag field contributes	to nyarology			

Sampling	Point: wgra003f_	w
Samonno	P()     g. ~~~~	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30)  1 Acer rubrum	% Cover 35	Species? Yes	Status FAC	Number of Dominant Species
2. Liquidambar styraciflua	25	Yes	FAC	That Are OBL, FACW, or FAC:8 (A)
3. Betula nigra	8	No	FACW	Total Number of Dominant
4. Magnolia virginiana	7	No	FACW	Species Across All Strata: (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC:(A/B)
7				Prevalence Index worksheet:
	75	= Total Cove		Total % Cover of: Multiply by:
50% of total cover:37.5		total cover:	15	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )				FACW species
1 Magnolia virginiana	15	Yes	FACW	FAC species125 x 3 =375
2. Acer rubrum	10	Yes	FAC	FACU species5 x 4 =20
3. Clethra alnifolia	8	Yes	FAC	UPL species 0 x 5 = 0
4 Quercus phellos	2	No	FAC	Column Totals: 160 (A) 455 (B)
···				(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>
		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:17.5	20% of	total cover:	7	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				·
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2				
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4.				
5				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
0		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of	total cover:	0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)	00	V	<b>540</b>	height.
1. Toxicodendron radicans	20	Yes	FAC	
2. Smilax rotundifolia	15	Yes	FAC	
3. Lonicera japonica	10	Yes	FAC	
4. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic
5				Vegetation
	50	= Total Cove	er	Present? Yes No
50% of total cover: 25	20% of	total cover:	10	
Remarks: (Include photo numbers here or on a separate s	heet.)			
` '	,			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-8	10YR 4/2	97	10YR 4/6	3	C	PL/M	SCL	
8-18	2.5Y 5/2	75	7.5YR 4/6	25	С	PL/M	SCL	
						· ———		
	-							-
					-			
						·		
	-							-
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil		<u>,                                      </u>	,					ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)				cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	ILRA 147.		Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su					(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			,,	Р	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma		-,		<u> </u>	(MLRA 136, 147)
	ick (A10) <b>(LRR N)</b>		Redox Dark		6)		\/	ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dai	,	,			Other (Explain in Remarks)
	ark Surface (A12)	- (* * * * * )	Redox Depre					(Explain in Nomano)
	lucky Mineral (S1) <b>(L</b>	RR N	Iron-Mangan			IRRN		
	147, 148)	I <b>V</b> ,	MLRA 13		/3 (1 1/2) <b>(</b>	<b>-</b> 1\1\ 1 <b>\</b> ,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MI DA 12	6 122\	3Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N					less disturbed or problematic.
	Layer (if observed):		Red Falelit i	viateriai (F2	ZI) (IVILK	A 121, 141	) un	less disturbed of problematic.
Type: no								
								./
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:								



Photo 1 Wetland data point WGRA003f\_w facing east



Photo 2
Wetland data point WGRA003f\_w facing north

Project/Site: SERP	City/County: Greensville	Sampling Date: 8/12/2014
Applicant/Owner: DOMINION		State: VA Sampling Point: wgra003_u
• •	Section, Township, Range:	
Landform (hillslope, terrace, etc.): slope		none): none Slope (%): 4
		77.57665243 Datum: WGS 1984
Soil Map Unit Name: Woodington fine sandy loam,	O to 2 percent slopes	NWI classification:
Are climatic / hydrologic conditions on the site typical	Il for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology _		
Are Vegetation, Soil, or Hydrology _		
		ntions, transects, important features, etc.
	. No	
	No. 4/	
	No v within a Wetland?	Yes No
Remarks:		
LIVERGLOOV		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; ch		Surface Soil Cracks (B6)
	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
	<ul><li>Hydrogen Sulfide Odor (C1)</li><li>Oxidized Rhizospheres on Living Roots (C</li></ul>	Drainage Patterns (B10) 3) Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Kniizospheres on Living Roots (C     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)
	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:		
	Depth (inches):	
	Depth (inches):	
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): Wetlan	nd Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitorin	g well, aerial photos, previous inspections), if	available:
Remarks:		
no hydrology indicators		

Sampling Point, walangs-	Sampling	Point: wgra003_	_u
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00	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1. Pinus taeda	50	Yes	FAC	That Are OBL, FACW, or FAC:6 (A)
2. Acer rubrum	10	No	FAC	Total Number of Deminent
3. Liquidambar styraciflua	5	No	FAC	Total Number of Dominant Species Across All Strata:  6 (B)
4. Quercus nigra	5	No	FAC	(2)
5 Prunus serotina	5	No	FACU	Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
<u> </u>				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7	75			Total % Cover of: Multiply by:
07.5	. ——— '	= Total Cove		
50% of total cover: 37.5	20% of	total cover:_	15	OBL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x z =
1. Clethra alnifolia	15	Yes	FAC	FAC species x 3 =
2. Liquidambar styraciflua	10	Yes	FAC	FACU species18
3. Acer rubrum	10	Yes	FAC	UPL species0 x 5 =0
4. Liriodendron tulipifera	5	No	FACU	Column Totals:153
	5	No	FACU	( ,
5. llex opaca			1700	Prevalence Index = B/A = 3.11
6				Hydrophytic Vegetation Indicators:
7				✓ 1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				
	45	= Total Cove		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:22.5				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)
/ lot oleo.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1				
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				John Mondo of Four Pogotation Carata.
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
	0	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover:_	0	
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
1 Vitis rotundifolia	15	Yes	FAC	height.
2 Smilax rotundifolia	15	Yes	FAC	
3. Smilax bona-nox	3	No	FACU	
3. Sitiliax boria-riox			1700	
4				Hydrophytic
5				Vegetation
	33	= Total Cove	r	Present? Yes No No
50% of total cover:16.5	20% of	total cover:_	6.6	
Remarks: (Include photo numbers here or on a separate s	heet )			
Remarks: (include photo numbers here or on a separate s	neet.)			

Depth	Matrix		Redox Features	<del></del>	
(inches)	Color (moist)	<u>%</u>	Color (moist) % Type <sup>1</sup> Loc		Remarks
0-4	2.5Y 4/3	100		SL	
4-14	2.5Y 5/3	100		SL	
14-20	2.5Y 5/4	100		SL	
14-20	2.51 3/4				
	-			<del></del>	
					_
	-	<del>-</del>		<del></del>	_
		<u> </u>			
<sup>1</sup> Type: C=C	oncentration. D=De	epletion, RM=R	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
	Indicators:	,	, , , , , , , , , , , , , , , , , , , ,		cators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA		Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)	_	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surfa	ace (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)	, ,	Redox Depressions (F8)		,
	Mucky Mineral (S1)	(LRR N,	Iron-Manganese Masses (F12) (LRR N	I,	
	A 147, 148)	•	MLRA 136)		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	<b>!)</b> 3In	ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA		vetland hydrology must be present,
-	Matrix (S6)		Red Parent Material (F21) (MLRA 127,		inless disturbed or problematic.
Restrictive	Layer (if observed	I):			•
Type: no					
Depth (in			_	Hydric So	oil Present? Yes No
Remarks:	onoo,			11,4110 00	
Nemaiks.					



Photo 1 Upland data point WGRA003\_u facing west



Photo 2
Upland data point WGRA003\_u facing south

Project/Site: SERP			City/County: Gre	eensville		Sampling Date: 8/15/2014
Applicant/Owner: Dominion						Sampling Point: wgra012s_w
Investigator(s): GB, LE, SK			Section, Townsh			
Landform (hillslope, terrace, e						phy Slope (%): <u>1</u>
Subregion (LRR or MLRA): P		Lat: 36.6309418	1	Long: -77.5	677621	Datum: WGS 1984
Soil Map Unit Name: Wooding	gton fine sandy loan	n, 0 to 2 percent sl	opes		NWI classific	cation:
Are climatic / hydrologic condi						
Are Vegetation, Soil	, or Hydrology	/ significar	ntly disturbed?	Are "Normal	Circumstances" p	oresent? Yes No
Are Vegetation, Soil _			-		· explain any answe	
						s, important features, etc.
Hydrophytic Vegetation Pres	ent? Yes	✓ No	1- 41- 0-			
Hydric Soil Present?	_	V No		mpled Area Wetland?	Vos V	No
Wetland Hydrology Present?	Yes _	✓ No	Within a	Welland:	103	
microtopography, ruts, ditch/k	perm systems, local opt to separate upla	ized depressions,	skid trails, and com	pacted staging	areas throuhout.	re dominant in others. Complex Area is about 0.65 miles long ydric soils; one representative
Wetland Hydrology Indicat	ore:				Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum		chack all that appl	W		Surface Soil	
Surface Water (A1)	or one is required,	True Aquatio				getated Concave Surface (B8)
✓ High Water Table (A2)		Hydrogen S			<u>✓</u> Drainage Pa	
Saturation (A3)			izospheres on Livin	a Roots (C3)	Moss Trim L	
Water Marks (B1)			Reduced Iron (C4)		· <del></del>	Water Table (C2)
Sediment Deposits (B2)			Reduction in Tilled		Crayfish Bur	
Drift Deposits (B3)		Thin Muck S				isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Expla				tressed Plants (D1)
Iron Deposits (B5)					Geomorphic	
Inundation Visible on Ae	rial Imagery (B7)				Shallow Aqu	itard (D3)
Water-Stained Leaves (	B9)				<u>✓</u> Microtopogra	aphic Relief (D4)
Aquatic Fauna (B13)					FAC-Neutral	Test (D5)
Field Observations:						
Surface Water Present?		Depth (inch				
Water Table Present?		Depth (inch				
Saturation Present?	Yes 🔽 No _	Depth (inch	es):4	Wetland H	lydrology Preser	nt? Yes <u>/</u> No
(includes capillary fringe)  Describe Recorded Data (str	eam gauge monito	ring well aerial ph	otos previous insp	ections) if ava	ilable:	
2000	oam gaage, meme	g, aca. p				
Remarks:						

Sampling	Point: wgra012s_	w
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	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1.				That Are OBL, FACW, or FAC: 6 (A)
2				( )
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>85.71428571</u> (A/B)
6				Dravelance Index weatherest.
7				Prevalence Index worksheet:
	0	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover: 0	20% of	total cover:_	0	OBL species 90 x 1 = 90
Sapling/Shrub Stratum (Plot size: 15		_		FACW species13
1. Pinus taeda	25	Yes	FAC	FAC species28 x 3 =84
2 Magnolia virginiana	8	Yes	FACW	FACU species 3 x 4 = 12
3. Rubus argutus	3	No	FACU	UPL species 0 x 5 = 0
				134 212
4. Aralia spinosa	3	No	FAC	Column Totals: (A) 212 (B)
5				Prevalence Index = B/A = 1.58
6				1 Tevalence mack = B/T(=
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9	20			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
40.5		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:19.5	20% of	total cover:_	7.8	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				
1. Scirpus divaricatus	25	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Rhexia virginica	15	Yes	OBL	
3. Sagittaria latifolia	15	Yes	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Juncus drummondii	15	Yes		be present, unless disturbed or problematic.
5. Carex lupulina	10	No	OBL	Definitions of Four Vegetation Strata:
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Rhynchospora caduca	10	No	OBL	more in diameter at breast height (DBH), regardless of
7. Eupatorium perfoliatum	5	No	FACW	height.
8				Senting/Shrub Woody plants evaluding vines less
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	<del></del>		<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 Cove	er 19	of size, and woody plants less than 3.28 ft fall.
0070 01 10101 001011.	20% of	total cover:_	10	Woody vine – All woody vines greater than 3.28 ft in
vvoody vine Stratum (1 lot size.	4=		ODI	height.
1. Smilax laurifolia	15	Yes	OBL	
2				
3.				
4				
				Hydrophytic
5	15	<del></del>		Vegetation Present?  Yes No
75		= Total Cove	^	100 NO
50% of total cover: 7.5		total cover:_		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Profile Desc	cription: (Describe t	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Feature:	S			
(inches) 0-8	Color (moist) 10YR 3/1	<u>%</u> 95	Color (moist) 10YR 4/6	<u>%</u> 5	Type <sup>1</sup> C	Loc <sup>2</sup> PL/M	Texture SCL	Remarks
8-20	10YR 4/1	94	7.5 YR 4/6	6	С	PL/M	SC	-
	oncentration, D=Depl	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil			5 . 6 .	(0-)				cators for Problematic Hydric Soils <sup>3</sup> :
Histosol	• •		Dark Surface	. ,	aa (CO) <b>/</b> 8	AL DA 447		2 cm Muck (A10) (MLRA 147)
	pipedon (A2) istic (A3)		Polyvalue Be Thin Dark Su				148) (	Coast Prairie Redox (A16) (MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			147, 140)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Mat		1 2)		'	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S		<del>-</del> 6)		,	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar	•	•			Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 13	•			2	
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
-	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	/laterial (F	21) <b>(ML</b> R	A 127, 147	') ui	nless disturbed or problematic.
Type: Cl	Layer (if observed): _AY							
Depth (in							Hudria Sai	il Present? Yes V No No
	cnes): -						Hydric Soi	il Present? Yes No No
Remarks:								



Photo 1
Wetland data point WGRA012s\_w facing west



Photo 2
Wetland data point WGRA012s\_w facing north

Project/Site: SERP		City/Co	ounty: Greensville		Sampling Date: 8/15/2014
Applicant/Owner: Dominion					Sampling Point: wgra012_u
		Sectio	n, Township, Range: No	PLSS in this area	
Landform (hillslope, terrace, etc.): fla	at	Local relie	ef (concave, convex, nor	ne): microtopograph	Ny Slope (%): 2
Subregion (LRR or MLRA): P	Lat: <u>3</u>	86.6300513	Long: <u>-77.</u>	56760687	Datum: WGS 1984
Soil Map Unit Name: Woodington fir		2 percent slopes			tion:
Are climatic / hydrologic conditions o	n the site typical for	this time of year? Ye	es <u> </u>	(If no, explain in Re	marks.)
Are Vegetation, Soil,	or Hydrology	_ significantly disturb	oed? Are "Normal	Circumstances" pr	esent? Yes No
Are Vegetation, Soil,	or Hydrology	_ naturally problema	tic? (If needed, e	explain any answers	in Remarks.)
SUMMARY OF FINDINGS -	· Attach site ma	p showing sam	pling point location	ons, transects,	important features, etc.
Hydrophytic Vegetation Present?	Yes	No			
Hydric Soil Present?	Yes		Is the Sampled Area	Vaa	No 🗸
Wetland Hydrology Present?	Yes		within a Wetland?	res	NO
Remarks:					
Upland data point taken within a large been recently clear cut in the last 3 microtopography, ruts, ditch/berm s and it is not practical to attempt to s upland and one wetland data form of	years with pines rep ystems, localized de eparate upland and	lanted in some block pressions, skid trails	s while mixed hardwood , and compacted staging	stump sprouts are gareas throuhout.	dominant in others. Complex Area is about 0.65 miles long
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indicate	ors (minimum of two required)
Primary Indicators (minimum of one	e is required; check a	all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	т	rue Aquatic Plants (E	314)	Sparsely Vege	etated Concave Surface (B8)
High Water Table (A2)	H	lydrogen Sulfide Odd	or (C1)	Drainage Patte	erns (B10)
Saturation (A3)	C	xidized Rhizosphere	s on Living Roots (C3)	Moss Trim Lin	es (B16)
Water Marks (B1)	P	resence of Reduced	Iron (C4)	Dry-Season W	ater Table (C2)
Sediment Deposits (B2)	R	ecent Iron Reduction	n in Tilled Soils (C6)	Crayfish Burro	ws (C8)
Drift Deposits (B3)	Т	hin Muck Surface (C	7)	Saturation Vis	ible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	C	ther (Explain in Rem	arks)	Stunted or Str	essed Plants (D1)
Iron Deposits (B5)				Geomorphic P	osition (D2)
Inundation Visible on Aerial Im	agery (B7)			Shallow Aquita	ard (D3)
Water-Stained Leaves (B9)				Microtopograp	hic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral T	est (D5)
Field Observations:					
Surface Water Present? Yes	s No !	Depth (inches):			
Water Table Present? Yes	s No 🔽 !	Depth (inches):			
	s No 🗸 1	Depth (inches):	Wetland H	Hydrology Present	? Yes No
(includes capillary fringe)  Describe Recorded Data (stream g	auga manitaring wa	Il garial photos prov	vious inspections) if ave	ilable:	
Describe Recorded Data (stream g	auge, monitoring we	iii, aeriai priotos, pret	nous inspections), ii ava	illable.	
Remarks:					
INSUFFICIENT HYDROLOGY INDI	CATORS				

Sampling Point: wg
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	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species _
1				That Are OBL, FACW, or FAC:5 (A)
2				Total Number of Dominant
3				Species Across All Strata: 8 (B)
4				
5				Percent of Dominant Species That Are ORL FACW or FAC: 62.5
0				That Are OBL, FACW, or FAC: 62.5 (A/B)
6				Prevalence Index worksheet:
r	0	Total Cava		Total % Cover of: Multiply by:
50% of total cover:		= Total Cove total cover:	0	OBL species0 x 1 =0
15	20% 01	total cover		FACW species 22 x 2 = 44
Sapling/Shrub Stratum (Plot size: 19 )  1 Rubus argutus	10	Yes	FACU	FAC species 44 x 3 = 132
11	-			50 222
2. Liquidambar styraciflua	10	Yes	FAC	FACU species x 4 = 0
3. Acer rubrum	8	Yes	FAC	UPL species
4. Clethra alnifolia	5	No	FAC	Column Totals:(A)(B)
5. Liriodendron tulipifera	3	No	FACU	Prevalence Index = B/A = 3.29
6. Pinus taeda	3	No	FAC	Trevalence mack = B/Tt =
7 Diospyros virginiana	2	No	FAC	Hydrophytic Vegetation Indicators:
8. Magnolia virginiana	2	No	FACW	1 - Rapid Test for Hydrophytic Vegetation
···	-			2 - Dominance Test is >50%
9	43	<del></del>		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 21.5		= Total Cove	r 8.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
5070 01 total 00001.	20% of	total cover:_		data in Remarks or on a separate sheet)
(i lot size)	20		E 4 0) 4 /	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Panicum dichotomiflorum	20	Yes	FACW	
2. Andropogon virginicus	20	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Sonchus arvensis	15	Yes	FACU	be present, unless disturbed or problematic.
4. Pteridium aquilinum	10	No	FACU	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.
8				
0	-			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				m) tall.
11	65			Herb – All herbaceous (non-woody) plants, regardless
500/ () 32.5		= Total Cove	r 13	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 32.5	20% of	total cover:_	10	Woody vine – All woody vines greater than 3.28 ft in
vvoody vine Stratum (i lot size)	40	Vaa	EAC	height.
1. Smilax rotundifolia	10	Yes	FAC	
2. Vitis rotundifolia	6	Yes	FAC	
3				
4				Hydrophytic
5.				Vegetation
	16	= Total Cove		Present? Yes No
50% of total cover: 8		total cover:_	3.2	
Remarks: (Include photo numbers here or on a separate s				
Tremains. (include prioto numbers here of on a separate s	neet.)			

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absen	ce of indicators.)	
Depth	Matrix		Redo	x Features	3				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	<u> </u>	Remarks
0-5	10YR 2/2	100					SL		
5-10	10YR 3/2	100					SL		
10-16	10YR 4/1	100					SL		
16-20	10YR 5/1	100					SCL		
	-								-
					-				
	·								
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Lining, N	
Hydric Soil I	ndicators:						Ind	licators 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				148)	Coast Prairie Red	,
Black Hi			Thin Dark Su	, ,	•	47, 148)		(MLRA 147, 14	-
	n Sulfide (A4)		Loamy Gleye		F2)			Piedmont Floodp	to the state of th
	Layers (A5)		Depleted Mat		.0)			(MLRA 136, 14	
	ick (A10) <b>(LRR N)</b> d Below Dark Surface	(//11)	Redox Dark S Depleted Dar					Very Shallow Dar Other (Explain in	, ,
	ark Surface (A12)	(A11)	Redox Depre					Other (Explain in	(Nemarks)
	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan			LRR N,			
	\ 147, 148)	,	MLRA 13		· · · · · · · · · · · · · · · · · · ·	,			
	lleyed Matrix (S4)		Umbric Surfa		MLRA 13	6, 122)	<sup>3</sup> l	Indicators of hydro	ohytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8)	wetland hydrology	must be present,
	Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	7)	unless disturbed o	r problematic.
Restrictive I	ayer (if observed):								
Type: NO	JNE		<u> </u>						
Depth (inc	ches):		<u> </u>				Hydric S	oil Present? Ye	s No
Remarks:									



Photo 1 Upland data point WGRA012\_u facing north



Photo 2 Upland data point WGRA012\_u facing east

# WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

# 20	Carrier 11 - 2-16
Project/Site: ACP	City/County: <u>Greensy le</u> Sampling Date: <u>G-8-16</u> State: <u>VA</u> Sampling Point: <u>Wgro OOL f-w</u>
Applicant/Owner: Dominion	State: VA Sampling Forms
nvestigator(s): ESI (W. Vaughan, S. Bryan)	Section, Township, Range: 7001(C
andform (hillslope, terrace, etc.): Drainage	Local relief (concave, convex, none):
Subregion (LRR or MLRA): L KKP Lat: 36.	NWI classification: PFO
soil Map Unit Name: Slagle fine sandy loar	NVII classification:
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
re Vegetation, Soil, or Hydrology significant	
Are Vegetation, Soil, or Hydrology naturally p	
SUMMARY OF FINDINGS – Attach site map showin	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?         Yes	within a Wetland? Yes No
HYDROLOGŸ	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (E	
High Water Table (A2)  Marl Deposits (B	
Saturation (A3)  Hydrogen Sulfide	pheres along Living Roots (C3)  Dry-Season Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)  Oxidized Rhizos	luced Iron (C4) Crayfish Burrows (C8)
Countent Deposits ()	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	
Iron Deposits (B5) Under (Explain in	Remarks) Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inch	es): NA
Water Table Present? Yes No Depth (inch	es) linch
Saturation Present? Yes No Depth (inch	
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspections), if available:
Describe Necorate Data (Greath Sanger, Inches of Sanger)	
Remarks:	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30f4 x 30f4)	% Cover	Species?	Status	Number of Dominant Species
1. Liquidamber Styraciffue	15	no	FAC	That Are OBL, FACW, or FAC: (A)
2. Liriodendrum tulipifere	30	Yes	FACU.	
3. Acer rubrum	35	yes	FAC	Total Number of Dominant Species Across All Strata: (B)
3. ALLER TUBRUM		100		Species Across All Strata: (B)
4.				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: 71. 4 (A/B)
6.				
7.	PERSONAL PROPERTY		Production of the Common Commo	Prevalence Index worksheet:
THE CONTROL OF STATE AND ADMINISTRATION OF SHARE AND ADMINISTRATION OF STATE ADMINISTRATION OF STATE AND ADMINISTRATION OF STATE ADMINISTRATION OF STATE AND ADMINISTRATION OF STATE ADMINISTRATIO				Total % Cover of: Multiply by:
8.	- An			OBL species x 1 =
	Taxana India a castanta anta anta	= Total Co		FACW species x 2 =
50% of total cover: 40	20% 0	f total cover	16	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30f4 x30f4)				1.000000000000000000000000000000000000
1. Livraderelran tulipitera	10	yes	FACU	FACU species x 4 =
2. Magnolis Virginia	5	no	FACW	UPL species x 5 =
3. Clethra alnifolia	20	1405	FACW	Column Totals: (A) (B)
		yes		
4. Ilex opaca	10	yes	FAC	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
[18] Sales and the control of the co				2 - Dominance Test is >50%
8.	1			☐ 3 - Prevalence Index is ≤3.0¹
12.		= Total Co		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: 22.5	20% 0	f total cover	:9_	
Herb Stratum (Plot size: 304 x 30ft)				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Microstegium vinineum	20	ves	FAC	be present, unless disturbed or problematic.
2. Viburnum nudum	-5	no	FACW	Definitions of Four Vegetation Strata:
	20			Deminions of Four Vegetation Ottata.
3. Woodwardia areolata	40	yes	OBL	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4.				more in diameter at breast height (DBH), regardless of
5				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
The first of the control of the cont				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7.	AND TRANSPORTED PROPERTY.			
8			The second second	Herb - All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10.				Woody vine - All woody vines greater than 3.28 ft in
11.				height.
[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [	A DESCRIPTION OF			
12.	11-		OF PRINCIPLE SALES, WANTED	
		= Total Co		
50% of total cover: ZZ-	20% 0	f total cove	:	
Woody Vine Stratum (Plot size: 30ft x 30ft )				
1. Smilax rotundifolia	5	ves	FAC	
1. 211 100 1000 1000	200000000000	Total district	the textor gots	
	- ALC MILITARY 1971		Security and the	
3.				
4.				
				II. des abido
	5	T-1-10-	aratic stars	Hydrophytic Vegetation
		= Total Co	1	Present? Yes No
50% of total cover: 2.5	20% 0	f total cove	r:	
Remarks: (If observed, list morphological adaptations belo	w).			
The state of the s				

Sampling Point: Wgro OOLF-W

epth		Matrix			x Features				Remarks
nches)	15 -1 0			Color (moist)	// Type' Loc²		Texture	Remarks	
-20	1040		90	10 yr 5/6	10			<u>CL</u>	
Histosol Histic Ep Black Hi Hydroge Stratified Organic 5 cm Mu Muck Pr 1 cm Mu Deplete Thick Dr Coast P Sandy N Sandy F Stripped	Indicator (A1) pipedon (A3) pstic	(A4) (A5) (A6) (LRR Peral (A7) (LFA8) (LRR ULRR P, T) Oark Surfactor (A12) dox (A16) (Neral (S1) (Neral (S1) (S4)	, T, U) RR P, T, U) ) e (A11) MLRA 150A LRR O, S)	Delta Ochric Reduced Ve	erwise note elow Surfac urface (S9) ky Mineral ( red Matrix (I atrix (F3) Surface (F ark Surface ressions (F8 LRR U) chric (F11) nese Masse face (F13) ( c (F17) (ML ertic (F18) ( loodplain S	ed.) ce (S8) (L (LRR S, F1) (LRR F2)  6) (F7) 3)  (MLRA 1 es (F12) ( LRR P, T RA 151) MLRA 15 oils (F19)	RR S, T, U T, U) 51) LRR O, P, , U) 60A, 150B (MLRA 1	Indicators for J 1 cm Muc 2 cm Muc Reduced Piedmont Anomalou (MLRA Red Pare Very Sha Other (Extended of the control of the con	ent Material (TF2) Illow Dark Surface (TF12) Explain in Remarks) ors of hydrophytic vegetation and and hydrology must be present, as disturbed or problematic.
strictive Type:	Layer (if	observed)						Hydric Soil P	resent? Yes V No
emarks:									