

**Photo 1**Wetland data point WGRA034f\_w facing northeast



**Photo 2**Wetland data point WGRA034f\_w facing northwest

Project/Site: Atlantic Coast Pipeline		City/C	county: Greensville		Sampling Date: 10/3/2014
Applicant/Owner: Dominion				State: VA	Sampling Point: wgra034f_w
Investigator(s): GB, SP					
Landform (hillslope, terrace, etc.): f					
Subregion (LRR or MLRA). P	Lat:	36.57390319	Long: -77.5	52398879	Datum: WGS 1984
Soil Map Unit Name: Roanoke loam	ı, 0 to 2 percent slop	es, frequently floode	-d	NWI classific	ation: PFO1A, PFO1C
Are climatic / hydrologic conditions of	on the site typical for	this time of year? Y	res No	(If no, explain in R	emarks.)
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	present? Yes No
Are Vegetation, Soil					
SUMMARY OF FINDINGS -					
Hydrophytic Vegetation Present?	Yes 🗸	No			
Hydric Soil Present?		No	Is the Sampled Area	V V	No
Wetland Hydrology Present?	Yes 🗸		within a Wetland?	res	NO
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of on	e is required; check	all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)		True Aquatic Plants (		Sparsely Ve	getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa	tterns (B10)
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) Algal Mat or Crust (B4)		Thin Muck Surface (C Other (Explain in Rer			sible on Aerial Imagery (C9) tressed Plants (D1)
Iron Deposits (B5)	<del>_</del> `	other (Explain in Nei	narks)		Position (D2)
Inundation Visible on Aerial Im	nagery (B7)			Shallow Aqui	
Water-Stained Leaves (B9)	-3-7( )			_	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	• • • •
Field Observations:					
Surface Water Present? Yes	s No	Depth (inches):			
Water Table Present? Yes	s No	Depth (inches):	2		
Saturation Present? Yes	s No		0 Wetland H	lydrology Preser	nt? Yes 🗸 No
(includes capillary fringe)  Describe Recorded Data (stream of	rauge monitoring w	ell aerial photos pre	vious inspections) if ava	ilahla:	
Describe Necorded Data (stream g	jauge, monitoring w	eli, aeriai priotos, pre	vious irispections), ii ava	illable.	
Remarks:					

Sampling Point, wardon, "	Sampling	Point: wgra034f_	w
---------------------------	----------	------------------	---

00	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Deminent
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				(2)
				Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
•	:	= Total Cover		
	20% of	total cover:	0	ODL species X 1 =
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1				FAC species x 3 =
2				FACU species0 x 4 =0
				UPL species0 x 5 =0
3				Column Totals: 127 (A) 222 (B)
4				(r)(D)
5				Prevalence Index = B/A =1.74
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
9				2 - Dominance Test is >50%
<u> </u>	0	= Total Cover	<del></del>	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:		total cover:	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% 01	total cover		data in Remarks or on a separate sheet)
TIEID Stratum (FIOL SIZE)	50	V	E 4 0\4/	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Panicum hemitomon		Yes	FACW	
2. Persicaria hydropiperoides	20	Yes	OBL	1 Indicators of hydric soil and watland hydrology must
3. Cyperus diandrus	15	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Scirpus divaricatus	12	No	OBL	Definitions of Four Vegetation Strata:
5. Saccharum giganteum	10	No	FACW	Deminions of Four Vegetation Strata.
6. Arundinaria gigantea	10	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Rhexia virginica	5	No	OBL	more in diameter at breast height (DBH), regardless of
8. Panicum capillare		No	FAC	height.
8. Famicum capillare			TAC	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
	127	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 63.5		total cover:		
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	_	= Total Cover	-	Present? Yes No
50% of total cover: 0		total cover:	0	
Remarks: (Include photo numbers here or on a separate s				
Remarks. (moldde photo humbers here of on a separate s	ileet.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-4	10YR 2/1	100					SCL	
4-20	10YR 4/1	90	7.5YR 4/6	10	С	PL/M	SCL	
			· · · · · · · · · · · · · · · · · · ·					
			· · · · · · · · · · · · · · · · · · ·					
			· · · · · · · · · · · · · · · · · · ·					
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ains	<sup>2</sup> l ocation: P	L=Pore Lining, M=Matrix.
Hydric Soil			Troduced manny me	, maone a				ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(97)				cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		(S8) (N	II RΔ 147		Coast Prairie Redox (A16)
	stic (A3)		Tolyvalde Be				, 0	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			-1, 1 <del>4</del> 0)	ь	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat		-/			(MLRA 136, 147)
				, ,			1.7	
	ick (A10) <b>(LRR N)</b> d Below Dark Surface	ο (Δ11)	Redox Dark S Depleted Dar					ery Shallow Dark Surface (TF12) Other (Explain in Remarks)
	а веюw Dark Sunace ark Surface (A12)	(((11)	Depleted Dar	,	,		`	onioi (Explain ili Nelliains)
	Mucky Mineral (S1) <b>(L</b>	RR N	Iron-Mangan			RRN		
		.KK N,			(F12) <b>(</b> 1	LKK N,		
	A 147, 148)		MLRA 13	-	I D A 42	c 400\	31m d	licators of budraphytic vacatation and
	Gleyed Matrix (S4)		Umbric Surfa					licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	Material (F21	1) <b>(ML</b> R.	A 127, 147	<u>')</u> un	less disturbed or problematic.
	Layer (if observed):							
Type: no	IIC .							_
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:							ı	



Photo 1
Wetland data point WGRA034f\_w facing southeast



**Photo 2**Wetland data point WGRA034f\_w facing southwest

WETI	LAND DETERMINAT	TION DATA FORM	– Atlantic and	Guif Coasta	ii Plain Regi	on
Project/Site: Applicant/Owner: Do	1	City/Cou	inty: Green	sville	Sampling	Date: 1/4//
Applicant/Owner: Do	minion			State: V/	Sampling	Point: Wgra034e_u
Investigator(s): ESI - I	M. Smith N.1	Marpher Section	Township, Range:	NA		
Landform (hillslope, terrace, e	etc.) Depression	^ Local re	lief (concave, conve	ex. none): CC	ncave	Slope (%): < 1
Landform (hillslope, terrace, & Subregion (LRR or MLRA):	LRRP	Lat. 36.57	40 Long	-77.5	252	Datum: WES 8
Soil Map Unit Name: 4-000	oke lown D-	71. 5/2005	cong.	NWI cla	essification:	EM
Are climatic / hydrologic cond						
그러는 강성하다는 회사가 있었다. 그 보통에서일은						'es No
Are Vegetation, Soil _						
Are Vegetation, Soil _					nswers in Rema	
SUMMARY OF FINDIN	GS – Attach site m	nap showing samp	ling point locat	tions, trans	ects, importa	ant features, etc.
Hydrophytic Vegetation Pre Hydric Soil Present?	Yes	_ No   v	s the Sampled Area		✓ No	
Wetland Hydrology Present	? Yes	_ No				
HYDROLOGY		u-+				
Wetland Hydrology Indica	tors:			Secondary	ndicators (minim	num of two required)
Primary Indicators (minimur	n of one is required; chec	k all that apply)	- 100 - 100	☐ Surface	Soil Cracks (B6	i)
Surface Water (A1)	Aqu	uatic Fauna (B13)		Sparse	ly Vegetated Cor	ncave Surface (B8)
High Water Table (A2)		rl Deposits (B15) (LRR I			ge Patterns (B10	)
Saturation (A3)		drogen Sulfide Odor (C1			rim Lines (B16)	(00)
Water Marks (B1)		idized Rhizospheres alor			ason Water Tabl h Burrows (C8)	a (C2)
Sediment Deposits (B2) Drift Deposits (B3)		esence of Reduced Iron ( cent Iron Reduction in Ti				erial Imagery (C9)
Algal Mat or Crust (B4)		in Muck Surface (C7)	ilea colla (co)	= /	rphic Position (D	
Iron Deposits (B5)		ner (Explain in Remarks)			Aquitard (D3)	
☐ Inundation Visible on A	erial Imagery (B7)			FAC-N	eutral Test (D5)	
Water-Stained Leaves	(B9)			☐ Sphagr	num moss (D8) (	LRR T, U)
Field Observations:			2			
Surface Water Present?		Depth (inches):				
Water Table Present? Saturation Present?	Yes No No No		Continue to the Continue of th	d Hydrology P	resent? Yes_	No
(includes capillary fringe)					1636111 163_	
Describe Recorded Data (st	ream gauge, monitoring v	well, aerial photos, previo	ous inspections), if a	available:		
Remarks:						
Remarks.						
1 1 x 1 1 x 30 15						
			* *			
1 1 1						
57 1						

Sampling Point: Wgra034e-w

7-61 7-61	Absolute	Dominant	Indicator	Dominance Test worksheet:	11 1000 / 101	L Mayo
Tree Stratum (Plot size: 30ff ×30ff)	% Cover	Control Service Service Service	O7 - EM ANDRON WILLIAM	Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
2				Total Number of Dominant Species Across All Strata:	4	(B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)
6				Prevalence Index worksheet:		
7					Multiply by:	
8				OBL species x 1		
		= Total Cov		FACW species x 2		
50% of total cover:	20% of	total cover		FAC species x 3		
Sapling/Shrub Stratum (Plot size:30f1 × 30f1)	- 1	N	FAC	FACU species x 4		
1. Ilex opaca		N		UPL species x 5		
2. Juniperus Virginiana		10	FACU	Column Totals: (A)		
3. Pinus taeda			FAC	Column rotals: (v)		(-/
4				Prevalence Index = B/A = _		_
5				Hydrophytic Vegetation Indicate	ors:	237 (SE )
6				1 - Rapid Test for Hydrophytic	: Vegetation	
7				2 - Dominance Test is >50%		
8				3 - Prevalence Index is ≤3.01		
		= Total Cov	er , ,	Problematic Hydrophytic Vege	etation1 (Expl	ain)
50% of total cover: 3.4	20% of	total cover	. 0.9			
Herb Stratum (Plot size: 30+1 × 30+1)				<sup>1</sup> Indicators of hydric soil and wetla	nd hydrology	must
1. Saccharum giganteum	20	<u> </u>	FALW	be present, unless disturbed or pre-	oblematic.	
2. Andropogon virginicus	5	N	FAC	Definitions of Four Vegetation S	trata:	
3. Cyperus odoratus	40	7	FACW	Tree – Woody plants, excluding vi	nos 3 in (7 f	cm) or
4. Cyperus Psendovegetus	20	7	FACW	more in diameter at breast height	(DBH), regard	dess of
5. Scirpus experinus	5	N	DBL	height.	(,,,3	
6.	15	W.	- State Co. 19 apr	Sapling/Shrub - Woody plants, e	xcluding vine	s less
7.	-			than 3 in. DBH and greater than 3	.28 ft (1 m) ta	11.
8 9				Herb – All herbaceous (non-wood of size, and woody plants less that	y) plants, reg n 3.28 ft tall.	ardless
10				Woody vine – All woody vines gro	eater than 3.2	8 ft in
11.				height.		
12	00		2011	Maria de la companya		
Ut.	70	= Total Cov	/er			
50% of total cover: 45	20% of	total cover	:_10_			
Woody Vine Stratum (Plot size: 30 ft x30ft)						
1. hone						
2				71		
3.				X To the state of		
4						
5.				Hydrophytic		
	0	= Total Cov	ver .	Vegetation		
50% of total cover:	20% of	total cover	:	Present? Yes X	No	
Remarks: (If observed, list morphological adaptations be					11 11 11 11	
Transactor (il observed, list morphological adaptations be	-11/.					

Sampling Point:

Profile Des	cription: (Describe	to the dep	oth needed to docum	nent the i	ndicator	or confirm	the absence of in	ndicators.)
Depth	Matrix	- 04		x Features	Tonal	1	T	Remarks
(inches)	Color (moist)	%_	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>		Remarks
	10485/1	100	-0110 1111		_			
5-10	10 YR 5/1	90	104x 4/6	10	C	W	SC	
10-20	1048 4/1	80	10 YR 5/6	20	C	M	5C	
			STATE OF THE STATE		100 100			
701000	And Topical April		TOTAL STREET, ST		200 M	4	THE A SECTION	
-	-						120	
	-			-	_		-	
			=Reduced Matrix, MS			ains.		Pore Lining, M=Matrix.
		able to all	LRRs, unless other					Problematic Hydric Soils <sup>3</sup> :
Histoso			Polyvalue Be Thin Dark Su					(A9) (LRR O) (A10) (LRR S)
	pipedon (A2) istic (A3)		Loamy Mucky					ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye			. 0,		Toodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Mat		-,			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P	T, U)	Redox Dark S		6)		(MLRA 1	세계:(M. 프랑스) (1877) (M. M. M
	ucky Mineral (A7) (LF							Material (TF2)
	resence (A8) (LRR U	)	Redox Depre		3)			w Dark Surface (TF12)
	uck (A9) (LRR P, T)	- (044)	Marl (F10) (L		MIDA	E4\	Other (Expl	lain in Remarks)
	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted Och			The state of the s	T) <sup>3</sup> Indicators	s of hydrophytic vegetation and
	rairie Redox (A16) (N	ILRA 150						hydrology must be present,
	Aucky Mineral (S1) (L		Delta Ochric			, -,		listurbed or problematic.
	Gleyed Matrix (S4)		☐ Reduced Ver	tic (F18) (	MLRA 15	0A, 150B)		
Sandy F	Redox (S5)		Piedmont Flo	A CAN TO A REPORT OF THE PARTY		원래 경기하는 경기가 없어지요?		
	Matrix (S6)		Anomalous B	right Loan	ny Soils (	F20) (MLR	A 149A, 153C, 153	BD)
	rface (S7) (LRR P, S						T-	
	Layer (if observed):							
Type:	elice iii sepperatus ii sel Longo elice sepperatus ii sel							sent? Yes No
	ches):						Hydric Soil Pres	sentr res No
Remarks:								
W 1								
6 N SV								
1								
1								



Wetland data point wgra034e\_w facing northeast.



Wetland data point wgra034e\_w facing northwest.

Project/Site: Atlantic Coast Pipeline	City/County: Greensville	Sampling Date: 10/3/2014			
Applicant/Owner: Dominion		State: VA Sampling Point: wgra034_u			
	Section, Township, Range: No				
Landform (hillslope, terrace, etc.): slope	Local relief (concave, convex, no				
Subregion (LRR or MLRA): P	Lat. 36.57375927	52398769 Datum: WGS 1984			
Soil Map Unit Name: Roanoke loam, 0 to 2 percer	at slopes, frequently flooded	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 "Norma	l Circumstances" present? Yes No			
Are Vegetation, Soil, or Hydrology					
		ons, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes	V No Is the Sampled Area				
	No. 4/	Yes No			
	No within a Wetland?	res No			
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)			
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)				
Water Marks (B1)	Presence of Reduced Iron (C4)	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)			
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:	<b>V</b>				
	Depth (inches):				
	Depth (inches):				
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches): Wetland I	Hydrology Present? Yes No			
	ing well, aerial photos, previous inspections), if ava	ailable:			
Remarks: Insifficient hydrology indicators					
Institucion nydrology indicators					

Sampling	Point: wgra034_u
Jannonna	ı Ollit

,	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?		
				Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
1,		-		That Are OBL, FACW, or FAC:3 (A)
2		·		Total Number of Dominant
3		·		Species Across All Strata:3 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  100 (A/B)
				That Are OBL, FACW, OF FAC (A/B)
6		·		Prevalence Index worksheet:
<i>1</i>	0			Total % Cover of: Multiply by:
0		= Total Cover	_	OBL species0 x 1 =0
50% of total cover: 0	20% of	total cover:	0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x Z =
1. Liquidambar styraciflua	8	Yes	FAC	FAC species
2				FACU species 27 x 4 = 108
		-		UPL species0 x 5 =0
3				Column Totals: 125 (A) 397 (B)
4		·		Column Totals (A) (B)
5				Prevalence Index = B/A = 3.17
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: 4	20% of	total cover:	1.6	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:				
1. Chasmanthium sessiliflorum	55	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Panicum capillare	30	Yes	FAC	
3. Sonchus arvensis	15	No	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	12			be present, unless disturbed or problematic.
4. Eupatorium capillifolium		No	FACU	Definitions of Four Vegetation Strata:
5. Arundinaria gigantea	5	No	FACW	
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
		·		noight.
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
	117	= Total Cover	•	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 58.5		total cover:_		
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
/ ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (				height.
1				
2		-		
3				
4				Heater wheath
5.				Hydrophytic Vegetation
<u> </u>	0	= Total Cover		Present? Yes No
50% of total cover: 0		total cover:	0	
0070 01 total 00V01:		total cover		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Profile Des	cription: (Describe	to the de				or confirn	n the absen	ce of indicators.)
Depth	Matrix (assist)	0/	Redo	x Feature	S1	1 - 2	T	Damada
(inches) 0-7	Color (moist) 10YR 3/3	<u>%</u> 100	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u> SL	Remarks
	· -							
7-20	10YR 5/3	85	10YR 4/6	15	C	M	SL	
		•					-	_
								<del>-</del> -
		-	-					
	- <u> </u>							
1- 0.0							2	
	Concentration, D=Dep	letion, RM	I=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
-	Indicators:						inc	dicators for Problematic Hydric Soils <sup>3</sup> :
Histoso			Dark Surface	. ,				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				, 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)
	ed Layers (A5)		Depleted Ma		>			(MLRA 136, 147)
	uck (A10) (LRR N)	(4.4.4)	Redox Dark					Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Dai				_	Other (Explain in Remarks)
	Park Surface (A12)	DD 11	Redox Depre			I DD N		
	Mucky Mineral (S1) (L	.KK N,	Iron-Mangan		es (F12) (	LKK N,		
	A 147, 148)		MLRA 13	•	/MII DA 44	)C 400\	3	
	Gleyed Matrix (S4)		Umbric Surfa					Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
	d Matrix (S6)  Layer (if observed):		Red Parent N	viateriai (F	(IVILR	A 127, 14	<u>')</u>	unless disturbed or problematic.
Restrictive	ne (ii observed):							
Type: _n								.,
Depth (ir	nches):						Hydric S	Soil Present? Yes No
Remarks:								



**Photo 1**Upland data point WGRA034\_u facing southwest



**Photo 2**Upland data point WGRA034\_u facing southeast

Project/Site: Atlantic Coast Pipe	ine	City/C	ounty: Greensville	s	sampling Date: 10/3/2014
Applicant/Owner: Dominion				State: VA	Sampling Point: wgra033f_w
		Section			
Landform (hillslope, terrace, etc.)		Local reli	ef (concave, convex, nor	ne): microtopograph	y Slope (%): 1
Subregion (LRR or MLRA): P	I	_at: 36.56943372	Long: <u>-77.</u>	52077397	Datum: WGS 1984
Soil Map Unit Name: Roanoke lo	oam, 0 to 2 percent	slopes, frequently floode	d	NWI classificati	ion: PFO1A, PFO1C
Are climatic / hydrologic condition					
Are Vegetation, Soil	, or Hydrology _	significantly distur	bed? Are "Normal	Circumstances" pre	sent? Yes No
Are Vegetation, Soil					
SUMMARY OF FINDING					
Hydrophytic Vegetation Presen Hydric Soil Present?		No No	Is the Sampled Area	.,	
Wetland Hydrology Present?		No	within a Wetland?	Yes	No
Remarks:	103	110			
a portion of the mapped extent					
				Occasional districts	(
Wetland Hydrology Indicators					rs (minimum of two required)
Primary Indicators (minimum of	•			Surface Soil Cr	
Surface Water (A1)		True Aquatic Plants (			tated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Patte	
Saturation (A3)		<ul><li>Oxidized Rhizosphere</li><li>Presence of Reduced</li></ul>		Moss Trim Line Dry-Season Wa	
Water Marks (B1) Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Burrow	
Drift Deposits (B3)	=	Thin Muck Surface (C		· ·	ole on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Ren			ssed Plants (D1)
Iron Deposits (B5)	<del>-</del>		,	Geomorphic Po	· ·
Inundation Visible on Aeria	l Imagery (B7)			Shallow Aquita	
Water-Stained Leaves (B9)				<u>✓</u> Microtopograph	
Aquatic Fauna (B13)				✓ FAC-Neutral Telegraphics  FAC-Neutral	est (D5)
Field Observations:					
Surface Water Present?	Yes No•	Depth (inches):			
Water Table Present?	Yes No	Depth (inches):	6		
Saturation Present?	Yes No	Depth (inches):	3 Wetland H	lydrology Present?	Yes No
(includes capillary fringe)  Describe Recorded Data (strea	m gauga monitorir	ag well periol photos, pro	vious inspections) if ava	ilablo:	
Describe Necorded Data (Streat	m gauge, monitorii	ig well, aerial priotos, pre	vious irispections), ii ava	liable.	
Remarks:					

Sampling Point: wgra033f	_w
--------------------------	----

	Absolute	Dominant In	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:30)  1 Pinus taeda	% Cover 50	Species? Yes	Status FAC	Number of Dominant Species
1. Final tacua 2. Liquidambar styraciflua	8	No	FAC	That Are OBL, FACW, or FAC:9 (A)
3. Acer rubrum	5	No	FAC	Total Number of Dominant
	2	No	FAC	Species Across All Strata: 9 (B)
4. Populus deltoides	2	No	FAC	Percent of Dominant Species
5. Quercus phellos			FAC	That Are OBL, FACW, or FAC: 100 (A/B)
6. Quercus nigra	2	No	FAC	Prevalence Index worksheet:
7				
	69	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: <u>34.5</u>	20% of	total cover:_	13.8	25 x 1 =
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =
1. Acer rubrum	10	Yes	FAC	FAC species
2. Viburnum dentatum	5	Yes	FAC	FACU species 3 x 4 = 12
3. Populus deltoides	5	Yes	FAC	UPL species x 5 = 0
4. Ilex opaca	3	No	FACU	Column Totals:136
5. Liquidambar styraciflua	3	No	FAC	0.75
6. Magnolia virginiana	3	No	FACW	Prevalence Index = B/A =2.75
7 Cephalanthus occidentalis	3	No	OBL	Hydrophytic Vegetation Indicators:
8. Vaccinium corymbosum	2	No	FACW	1 - Rapid Test for Hydrophytic Vegetation
8. Vaccimum corymbosum			TAOW	2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
17		= Total Cove	r 6.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:17	20% of	total cover:_	0.0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Saccharum giganteum	6	Yes	FACW	1 Toblematic Trydrophlytic Vegetation (Explain)
2. Arundinaria gigantea	5	Yes	FACW	The disease of bundling and continued bundling account
3. Juncus effusus	4	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Woodwardia areolata	3	No	FACW	Definitions of Four Vegetation Strata:
5. Scirpus divaricatus	3	No	OBL	Definitions of Four Vegetation Strata.
6. Osmundastrum cinnamomeum	2	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Chasmanthium sessiliflorum	2	No	FAC	more in diameter at breast height (DBH), regardless of height.
				neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				iii) taii.
11	25			Herb – All herbaceous (non-woody) plants, regardless
12.5		= Total Cove		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:)	F	V	E40	height.
1. Campsis radicans	5	Yes	FAC	
2. Vitis rotundifolia	3	Yes	FAC	
3				
4				Hydrophytic
5				Vegetation
	8	= Total Cove	r	Present? Yes No
50% of total cover: 4		total cover:_	1.6	
Remarks: (Include photo numbers here or on a separate si		' <u>-</u>		
Tromano. (morado prioto hamboro nere el en a separate si	11001.)			

Depth	 Matrix		oth needed to docum Redox	x Features				-
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 3/1	100					SL	
6-14	10YR 4/1	97	10YR 4/6	3	С	PL/M	SCL	
14-20	10YR 5/1	93	7.5YR 4/6	7		PL/M	SCL	
	1011( 3/1		7.511( 4/0					
							-	-
1- 00				<del></del> .			2,	
Type: C=C  Hydric Soil		oletion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.		L=Pore Lining, M=Matrix.
•			5 1 6 7	(07)				ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	. ,	- (CO) (I	N D A 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)		Inin Dark Su Loamy Gleye			77, 140)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Mat		د)		<u> </u>	(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark S		6)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	ce (A11)	Depleted Dar	•	,			Other (Explain in Remarks)
	ark Surface (A12)	, ,	Redox Depre		. ,		<del></del>	,
Sandy N	Mucky Mineral (S1) (	LRR N,	Iron-Mangane	ese Masse	s (F12) (	LRR N,		
MLR	A 147, 148)		MLRA 136	6)				
	Gleyed Matrix (S4)		Umbric Surfa					licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent M	1aterial (F2	21) <b>(MLR</b>	A 127, 147	<u>')</u> un	lless disturbed or problematic.
	Layer (if observed)	:						
Type: no	ле							.4
Depth (in	ches):						Hydric Soil	l Present? Yes No
Remarks:							•	



Photo 1
Wetland data point WGRA033f\_w facing southeast



**Photo 2**Wetland data point WGRA033f\_w facing southwest

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

Project/Site: A C P City.	County: Greensville Sampling Date: 1/4/16
Applicant/Owner: Dominion	State: VA Sampling Point: Vg (2033 + 20
Investigator(s): ESI . M. Smith, N. Murphrey Sec	tion, Township, Range: NA
	al relief (concave, convex, none): _Concave _ Slope (%): _< 1
Subregion (LRR or MLRA): LRRP Lat: 36. 56	89 Long:-77.5213 Datum: WGS
Soil Map Unit Name: Altavista fine sandy loam	
Are climatic / hydrologic conditions on the site typical for this time of year?	
	HE HELDER TO THE TOTAL OF THE STATE OF THE STA
Are Vegetation, Soil, or Hydrology significantly distributed as a significant	
	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Remarks:	Is the Sampled Area within a Wetland? Yes No
NCWAM: Pine flat	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B15) (LI	(1) - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Saturation (A3) Hydrogen Sulfide Odor	[1] 1일 전 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
[	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)  Presence of Reduced II  Presen	18 요즘 첫 그렇게 되었다. 그리는 기를 하는 것은 사람들이 모든 그렇게하지만 되었습니까요? 바람이 바람이 아니라 아니는 사람들이 모든 사람들이 모든 사람들이 모든 사람들이 모든 사람들이 모든 사람들이 되었다.
☐ Drift Deposits (B3) ☐ Recent Iron Reduction ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7	[18] [ - [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [
Iron Deposits (B5)  Other (Explain in Rema	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	2
Water Table Present? Yes No Depth (inches):	0
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Remarks:	
Remarks.	

				D
Tree Stratum (Plot size: 30ff x 30ff)	Absolute % Cover			Dominance Test worksheet:
Tree Stratum (Plot size:		Species		Number of Dominant Species 7
1. Pinus taeda	60	1	FAC	That Are OBL, FACW, or FAC: (A)
2. Liquidambar styraciflua	5	N	FAC	Total Number of Deminent
3.				Total Number of Dominant Species Across All Strata:  (B)
				Species Across Air Strata.
4				Percent of Dominant Species
5		2385 11 2		That Are OBL, FACW, or FAC: 87 (A/B)
6				
				Prevalence Index worksheet:
7.			-	Total % Cover of: Multiply by:
8				OBL species x 1 =
		Total Co		
50% of total cover; 32	5 20% of	otal cove	. 13	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30H × 30H)				FAC species x 3 =
Sapling/Shrub Stratum (Plot size:	1-	.1		FACU species x 4 =
1. Magnolia Virginiana	10	N	FACW	UPL species x 5 =
2. Quercus nigra	15	Y	FAC	
3. Ilex opaca	10	N	FAC	Column Totals: (A) (B)
		V	FAL	
4. Acerrubrum			and the second second	Prevalence Index = B/A =
5.				Hydrophytic Vegetation Indicators:
6.			State of the second	1 - Rapid Test for Hydrophytic Vegetation
7.		7 0		2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.01
	65 =	Total Co	ver	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: 32	5 20% of	otal cove	- 13	
Herb Stratum (Plot size: 304 × 304)	2070 01	otal cove		
Herb Stratum (Plot size:	5	.1	50.1	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Rhexia petiolata		N	FACW	be present, unless disturbed or problematic.
2. Chasmanthum laxum	50	4	FACW	Definitions of Four Vegetation Strata:
3. Saccharum siganteum	20	Υ.	FACW	
	10	N	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Juncus effusus		14	UDL	more in diameter at breast height (DBH), regardless of
5		-24	- PR - P	height.
6.				Sapling/Shrub - Woody plants, excluding vines, less
				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				
8				Herb – All herbaceous (non-woody) plants, regardless
9	A. 2001 II	[[ [au [525]]]	Marine 17	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.
12			1	10
	85 =	Total Co	ver	
50% of total cover: 42				
30% of total cover.	20% 01	iolai cove		
Woody Vine Stratum (Plot size: 304 × 304)	20		- 4-	
1. Gelsemium sempervirens	20	Y	FAC	
2 Smilax rotundifolia	20	7	FAC	
3 Lonicera japonica	10	V	FALU	
3. Foult fire John out Cor			FIICO	8 8
4.				17.0
5.				Hydrophytic
	50	Total Co		Vegetation
75	and the second through the		-	Present? Yes X No
50% of total cover: 23	20% of	total cove	r:	Children and Art and A
Remarks: (If observed, list morphological adaptations bel	ow).	\$F x8	10 (1) (10)	
				5 0
				Name of the state
MV				161 III III III III III III III III III
7 7 7 9				
X 11 m				
1 W 12 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1				

Sampling Point: 970 033 f\_ W

Profile Des	cription. (Describe	The second second	in needed to docum	nont the n	ulcator		n the absence of	maioatoro.,
Depth	Matrix	- 01		x Features		12	T-14	Remarks
(inches)	Color (moist)	90	Color (moist)	10	Type <sup>1</sup>	Loc <sup>2</sup>	Sc L	Remarks
0-4	104R 6/1		104R 5/6					
4-20	104R 5/1	80	1048 5/8	20	C	M	20	
							The Wallet A.	
							Trans 188 (5)	
1000					1	-	77.07	
	oncentration, D=Dep					ains.		_=Pore Lining, M=Matrix.
A STATE OF THE PARTY OF THE PAR	Indicators: (Applic	able to all						r Problematic Hydric Soils <sup>3</sup> :
Histoso			Polyvalue Be					ck (A9) (LRR O) ck (A10) (LRR S)
The state of the s	pipedon (A2) listic (A3)		Loamy Muck					Vertic (F18) (outside MLRA 150A,B)
1	en Sulfide (A4)		Loamy Gleye		The state of the s	,		Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		9			us Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P	, T, U)	Redox Dark	Surface (Fi	5)		(MLRA	400 1854-114 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
-	ucky Mineral (A7) (LF							nt Material (TF2)
	resence (A8) (LRR U	)	Redox Depre	property of the contract of th	)			llow Dark Surface (TF12)
	uck (A9) (LRR P, T)	- (0.44)	Marl (F10) (L			-41	U Other (Ex	rplain in Remarks)
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Oct				T) <sup>3</sup> Indicate	ors of hydrophytic vegetation and
	Prairie Redox (A16) (	MLRA 150A						nd hydrology must be present,
	Mucky Mineral (S1) (I		Delta Ochric			, -,		disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver			0A, 150B)		
☐ Sandy F	Redox (S5)		Piedmont Flo					
	d Matrix (S6)		Anomalous E	Bright Loan	y Soils (	F20) (MLF	RA 149A, 153C, 1	53D)
Dark St	urface (S7) (LRR P, S	T III						
Dandaladian							1	
	Layer (if observed):							
Type:	Layer (if observed):						Hudrig Sail Br	occopt? Vos V No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type:	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No
Type: Depth (in	Layer (if observed):						Hydric Soil Pr	resent? Yes No



Wetland data point wgra033f\_w facing north.



Wetland data point wgra033f\_w facing northeast.

Project/Site: Atlantic Coast Pip	peline	City/C	ounty: Greensville		Sampling Date: 10/3/2014
Applicant/Owner: Dominion		,		State: VA	Sampling Point: wgra033_u
Investigator(s): GB, SP		Section	on. Township. Range: No		
Landform (hillslope, terrace, et					
Soil Man Unit Name: Roanoke	loam, 0 to 2 percent	: slopes, frequently floode	Long d	NIMI classifia	Datum: WGS 1984 eation: None
Are climatic / hydrologic condit		-			
					present? Yes No
Are Vegetation, Soil	, or Hydrology _	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)
SUMMARY OF FINDIN	GS – Attach site	map showing sam	pling point location	ons, transects	s, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes	✓ No			
Hydric Soil Present?		No_ 🗸	Is the Sampled Area within a Wetland?	Vac	No
Wetland Hydrology Present?	Yes	No	within a Wetland:	163	
Remarks:					
Upland data point taken outside planted in ditch/berm system.				ocated within a 15	year old pine plantation, pines
planted in ditch/berni system.	in portions of the ma	apped leature only the dit	ches have riyunc sons.		
HYDROLOGY				0 1 1 1	
Wetland Hydrology Indicate					ators (minimum of two required)
Primary Indicators (minimum	of one is required; ch			Surface Soil	` '
Surface Water (A1)	-	True Aquatic Plants (			getated Concave Surface (B8)
High Water Table (A2)	-	Hydrogen Sulfide Odd		Drainage Pa	
Saturation (A3)	-		es on Living Roots (C3)	Moss Trim L	
Water Marks (B1)		Presence of Reduced			Water Table (C2)
Sediment Deposits (B2)	=	Recent Iron Reductio		Crayfish Bur	
Drift Deposits (B3)	=	Thin Muck Surface (C			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	-	Other (Explain in Ren	narks)		itressed Plants (D1)
Iron Deposits (B5)	rial Images (DZ)				Position (D2)
Inundation Visible on Ae				Shallow Aqu	
Water-Stained Leaves (E	<del>19)</del>				aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutra	T lest (D5)
Field Observations: Surface Water Present?	Ves No. 1	Depth (inches):			
Water Table Present?		Depth (inches):			
Saturation Present?		Depth (inches):		lydrology Prese	nt? Yes No
(includes capillary fringe)					n: 103 NO
Describe Recorded Data (stre	eam gauge, monitorir	ng well, aerial photos, pre	vious inspections), if ava	iilable:	
Remarks:					
no hydrology indicators prese	nt				

Sampling	Point: wgra033_u	u

00	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species _
1. Pinus taeda	65	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2. Liriodendron tulipifera	4	No	FACU	Total Number of Deminent
3. Liquidambar styraciflua	3	No	FAC	Total Number of Dominant Species Across All Strata: 7 (B)
4				(2)
5.				Percent of Dominant Species That Are ORL FACW or FAC: 71.42857142 (A/R)
				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
7	72			Total % Cover of: Multiply by:
00		= Total Cove		OBL species $0 \times 1 = 0$
50% of total cover: 36	20% of	total cover:_	14.4	ODL species
Sapiing/Shrub Stratum (Plot size:)				FACW species x z =
1. Liquidambar styraciflua	14	Yes	FAC	FAC species X 3 =
2. Liriodendron tulipifera	12	Yes	FACU	FACU species x 4 =
3. llex opaca	10	Yes	FACU	UPL species x 5 =0
4. Acer rubrum	5	No	FAC	Column Totals:135 (A)(B)
5. Pinus taeda	3	No	FAC	
· · ·				Prevalence Index = B/A =3.19
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>
	44	= Total Cove	r	
50% of total cover: 22		total cover:_	8.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:5				data in Remarks or on a separate sheet)
1 Chasmanthium sessiliflorum	8	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<u> </u>				
2				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				<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
·· <del>·</del>				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Tily tall.
11				Herb - All herbaceous (non-woody) plants, regardless
4		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 4	20% of	total cover:_	1.6	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. Campsis radicans	7	Yes	FAC	
2. Smilax rotundifolia	4	Yes	FAC	
3.				
4.				
				Hydrophytic
5				Vegetation Present? Yes No
55		= Total Cove	r 2.2	11030HC: 103 NO
50% of total cover: 5.5		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

7-20			Redox Features		
	Color (moist)		Color (moist) % Type <sup>1</sup> Lo	c <sup>2</sup> Texture	Remarks
7-20	10YR 3/2	100		SL	_
	10YR 5/3	100		SL	
				<del></del>	
		- — —			_
		- — —			
		- — —			
		<u> </u>			
					_
	oncentration D-Den	letion PM-Pc	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
	Indicators:	nedon, rawi–rae	duced Matrix, MO-Masked Sand Stains.	Indi	cators for Problematic Hydric Soils <sup>3</sup> :
			Dark Surface (S7)		
_ Histosol		-	Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)	-	Polyvalue Below Surface (S8) (MLRA		Coast Prairie Redox (A16)
	stic (A3)	-	<ul><li>Thin Dark Surface (S9) (MLRA 147, 1</li><li>Loamy Gleyed Matrix (F2)</li></ul>		(MLRA 147, 148)
	en Sulfide (A4)	-	Loarny Gleyed Matrix (F2) Depleted Matrix (F3)		Piedmont Floodplain Soils (F19)
	d Layers (A5) uck (A10) <b>(LRR N)</b>	-	<del> , , , , , , , , , , , , , , , , , ,</del>		(MLRA 136, 147)
		- 	<ul><li>Redox Dark Surface (F6)</li><li>Depleted Dark Surface (F7)</li></ul>		Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	d Below Dark Surfac ark Surface (A12)	e (ATT)	Redox Depressions (F8)		Other (Explain in Remarks)
	fucky Mineral (S1) <b>(I</b>	I DD N	Iron-Manganese Masses (F12) (LRR	NI	
	147, 148)	_KK N,	MLRA 136)	IN,	
			Umbric Surface (F13) (MLRA 136, 12	3) 31r	ndicators of hydrophytic vegetation and
	Gleyed Matrix (S4) Redox (S5)	-	Piedmont Floodplain Soils (F19) (MLF		vetland hydrology must be present,
	Matrix (S6)	-	Red Parent Material (F21) (MLRA 12		inless disturbed or problematic.
	Layer (if observed):	<del></del>	Red Falent Material (F21) (MLRA 12	(, 147)	inless disturbed of problematic.
Type: no		•			
			_		
Depth (inc	ches):			Hydric Sc	oil Present? Yes No
emarks:					



Photo 1 Upland data point WGRA033\_u facing south



Photo 2
Upland data point WGRA033\_u facing east

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: ACP City/County: Greensville Sampling Date: 1/4/16

Applicant/Owner: Dominion State: VA Sampling Point: Wsra 033\_4

Investigator(s): ESI - M. Smith, N. Murphrey Section, Township, Range: NA Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Contave Slope (%): <1 Subregion (LRR or MLRA): LRR P Lat: 36.5688 Long: -77.52/3 Soil Map Unit Name: Altavista fine sandy loam, 0-21. NWI classification: NA Are 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 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Secondary Indicators (minimum of two required) Wetland Hydrology Indicators: Surface Soil Cracks (B6) Primary Indicators (minimum of one is required; check all that apply) Sparsely Vegetated Concave Surface (B8) Surface Water (A1) Aquatic Fauna (B13) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) High Water Table (A2) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Saturation (A3) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Water Marks (B1) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Sediment Deposits (B2) Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Other (Explain in Remarks) Iron Deposits (B5) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Water-Stained Leaves (B9) Field Observations: Yes \_\_\_\_ No \_\_\_ Depth (inches): \_\_\_\_ NA \_\_\_\_ Depth (inches): \_\_\_\_ > 2\_D Surface Water Present? Water Table Present? Yes No Depth (inches): >20 Wetland Hydrology Present? Yes \_\_\_\_\_ No Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Sampling Point:	Wa	ra	03	3_	u
barripining i birit.	_				

200 300	Absolute	Dominant	Indicator	Dominance Test worksheet:	100
Tree Stratum (Plot size: 3041 x 3041)		Species?		Number of Dominant Species	
1. Pinus taeda	75		FAC	That Are OBL, FACW, or FAC:	(A)
2	<u> </u>			Total Number of Dominant	
3				Species Across All Strata:	(B)
4.		-		Percent of Deminent Species	
5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 56	(A/B)
6.					
7.				Prevalence Index worksheet:	
8.			1000	Total % Cover of: Multiply by:	<u> </u>
	75	= Total Co	vor	OBL species x 1 =	- 1
50% of total cover: 37.5	20% of	total cover	15	FACW species x 2 =	_
Sapling/Shrub Stratum (Plot size: 30ff × 30ff )	20% 01	total cover	1000	FAC species x 3 =	
1. I/ex opaca	15	4	FAC	FACU species x 4 =	
	15	1	FACO	UPL species x 5 =	7-700
2. Juniperus virginiana	5	N		Column Totals: (A)	9 AVIGOR
3. Liquidambar styraciflua			FAC	0,0	- \-/
4. Liriodendron tulipifera	5	N	FAC	Prevalence Index = B/A =	
5. Quercus rubra	25	Y	FACU	Hydrophytic Vegetation Indicators:	
6. Rhus copallinum	15	7	UPL	1 - Rapid Test for Hydrophytic Vegetation	
7.		and the same		2 - Dominance Test is >50%	
8.				☐ 3 - Prevalence Index is ≤3.01	1
	80	= Total Co	ver	Problematic Hydrophytic Vegetation¹ (Explain	۵,
50% of total cover:	20% of	total cover		Problematic Hydrophytic Vegetation (Explain	"
Herb Stratum (Plot size: 30ft x 30ft)				The state of the s	
1. Charmanthium laxum	20	Y	FACW	Indicators of hydric soil and wetland hydrology m be present, unless disturbed or problematic.	lust
2. Eupatorium rotundifolium	15	V	FAC	Definitions of Four Vegetation Strata:	
3. Rubus argutus	25	7	FAC	Definitions of Four Vegetation Strata.	- 1
	2 - 12 - 12 - 12 - 12	-1	THE REPORT OF THE PARTY OF THE	Tree - Woody plants, excluding vines, 3 in. (7.6 c	
4				more in diameter at breast height (DBH), regardle	ess of
5				height.	
6				Sapling/Shrub - Woody plants, excluding vines,	less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
8				Herb - All herbaceous (non-woody) plants, regar	dless
9.				of size, and woody plants less than 3.28 ft tall.	
10.				Woody vine – All woody vines greater than 3.28	ftin
11.				height.	
12.					1 Y
	60	= Total Co	ver		West College
50% of total cover: 30	20% of	total cove	12	The Mary of the Control of the Contr	- 1
Woody Vine Stratum (Plot size: 3041 x 3041)	_ 2070 01	total cove			5 8
1. Lonicera japonica	25	V	FACU		0.5
			THO		Secretary.
2.			1000		- 20
3					
4	-				- 1
5.				Hydrophytic	n <sup>00</sup> mb
		= Total Co		Vegetation Present? Yes No No	
50% of total cover: 12.5	_ 20% of	total cove	r: <u>5</u>	Present? Tes No	15520 980 168
Remarks: (If observed, list morphological adaptations below	w).	66 1 1 5 7 7			2/1/11 10
					ш
					Yali.
					1
		.4		<u> </u>	116

Profile Description: (Describe to the depth needed to document the indicator or	committe absence of malcators.)
Depth Matrix Redox Features	
	Loc <sup>2</sup> Texture Remarks
0-5 2.54 4/1 100	si Hloen
5-14 2.545/3 100	sitt dayloan
14-20 2.54 5/3 90 2.54 6/6 10 C	M siltclayloam
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grain	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)  Polyvalue Below Surface (S8) (LRF	
Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR S, T,  Black Histic (A3)  Thin Dark Surface (S9) (LRR S, T,  Loamy Mucky Mineral (F1) (LRR O	
Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5) Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U)  Redox Depressions (F8)	<ul> <li>✓ Very Shallow Dark Surface (TF12)</li> <li>✓ Other (Explain in Remarks)</li> </ul>
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	[1] [1] [1] [1] [1] [1] [1] [1] [1] [1]
Thick Dark Surface (A12)    Thick Dark Surface (A12)   Iron-Manganese Masses (F12) (LR	
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U	
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)  Reduced Vertic (F18) (MLRA 150A	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (M Stripped Matrix (S6) Anomalous Bright Loamy Soils (F26)	CONTRACTOR AND
☐ Stripped Matrix (S6) ☐ Anomalous Bright Loamy Soils (F2) ☐ Dark Surface (S7) (LRR P, S, T, U)	) (MERA 145A, 155C, 155D)
Restrictive Layer (if observed):	
Restrictive Layer (if observed):  Type:	Hydric Soil Present? Yes No
Restrictive Layer (if observed):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed):  Type:  Depth (inches):	Hydric Soil Present? Yes No



Upland data point wgra033\_u facing south.



Upland data point wgra033\_u facing west.

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

Project/Site: ACP	City/County: Greensvile Sampling Date: 6/23/15
Applicant/Owner: Dominion	City/County: Greensvile Sampling Date: 6/23/15 State: VA Sampling Point: wgrp007fw
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: None
Landform (hillslope, terrace, etc.): druinage	Local relief (concave, convex, none): CONCAVE Stope (%): D-3'/
Subregion (LRR or MLRA):	Long: 7.3111 Datum: W(53)
Soil Map Unit Name: Roanoke Silt loam,	D-Z'/, 510 Des NWI classification: PFD
Are climatic / hydrologic conditions on the site typical for this time of y	
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?  Remarks:  No No No No No No No	Is the Sampled Area within a Wetland? YesNo
Access road 143a	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	() Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B	
High Water Table (A2)  Marl Deposits (B	
Saturation (A3) Hydrogen Sulfide Water Marks (B1) Oxidized Rhizos	e Odor (C1)
Sediment Deposits (B2)  Presence of Rec	
	luction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	
☐ Iron Deposits (B5) ☐ Other (Explain it	
Indindation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:	Springfront moss (Do) (ERR 1, 0)
Surface Water Present? Yes No Depth (inch	nes): NA
Water Table Present? YesNo Depth (inch	nes):
Saturation Present? Yes No Depth (includes capillary fringe)	nes): SUCFace   Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pl	notos, previous inspections), if available:
Remarks:	
, residence	
	,

onilame8		Wa	1	$\omega$	7£.w
Samplina.	Point:	777	1	Ī	•

50% of total cover:	•	= Total C	_	Hydrophytic Vegetation Present? Yes No
4, 5				1
3	_			
2				1
Wisteria frutescens	10	Y	PACH	
50% of total cover: 1 <u>Yoody Vine Stratum</u> (Plot size: 30 ft x.30 ft)	20%	of total cove	er: <b></b>	
FON ALLEY		_ = Total Co		
2				}
1				Woody vine – All woody vines greater than 3.28 ft in height.
0				
•				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
,				
,				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
•				height.
·				more in diameter at breast height (DBH), regardless of
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o
Saururus Cernuus		-	DBL	Definitions of Four Vegetation Strata:
Wisteria frutescens				be present, unless disturbed or problematic.
erb Stratum (Plot size: 30++ x30 ++)				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
50% of total cover: 2.	5 20% o	f total cover	. <u> </u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		= Total Cov	/er	3 - Prevalence Index is ≤3.0¹
				2 - Dominance Test is >50%
				1 - Rapid Test for Hydrophytic Vegetation
				Hydrophytic Vegetation Indicators:
·				Prevalence Index = B/A =
·				Column Totals: (A) (B)
				UPL species x 5 =
ALEr rubrum	_5_		PAL	FACU species x 4 =
apling/Shrub Stratum (Plot size: 30+x30+)				FAC species x 3 =
50% of total cover: 12				FACW species x 2 =
	25	= Total Cov	er er	OBL species x 1 =
				Total % Cover of: Multiply by:
				Prevalence Index worksheet:
			<del></del>	That Are OBL, FACW, or FAC: 100 (A/B)
				Percent of Dominant Species
				Species Across All Strata: (B)
ALER rubrum	_5_	<u> </u>	FAL	Total Number of Dominant
Betula nigra	<u> 10</u>		FACW	That Are OBL, FACW, or FAC: (A)
ee Stratum (Plot size: 30++x30++)		Species?		Number of Dominant Species
ree Stratum (Plot size; DVIIIADVEII)	% Cover	Species?	Status	Attitude to the second

Sampling Point:	_		۵۵,	7£.,
Sampling Point:	<u>~19</u>	$\subseteq$	, v	

	ription: (Describe t	o the depth nee	ded to docum	ent the indica	tor or confirm	the absence of indicator	s.)
Depth (inches)	Matrix			Features Tue	2 1 2	Tankas	D
(inches) 0-6	Color (moist)	100	olor (moist)		e <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
<del></del>			<del> </del>	<del></del>		warsc sand	
6-20	10YR3/1	100				SiL	
					<del></del>		
					<del></del>		
15						2, ,, ,, ,,	
	oncentration, D=Depl Indicators: (Applications)				Grains.	<sup>2</sup> Location: PL=Pore Li Indicators for Problem	
∏ Histosol				•	8) (LRR S, T, I	<del></del> -	-
<u> </u>	pipedon (A2)	<u> </u>		face (S9) (LR		2 cm Muck (A10) (	
· <b>-</b>	istic (A3)	上		Mineral (F1)			18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye				in Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Mat			Anomalous Bright	Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark S	Surface (F6) k Surface (F7)		(MLRA 153B)	al (TEO)
. =	ucky Mineral (A7) (LF resence (A8) (LRR U	7	Redox Depre	•		Red Parent Materi	
	uck (A9) (LRR P, T)	' t	Marl (F10) (L			Other (Explain in F	
	ed Below Dark Surfac	e (A11)		nric (F11) (MLI	RA 151)		,
	ark Surface (A12)	Ē			12) (LRR O, F	•	frophytic vegetation and
l ====	Prairie Redox (A16) (I	· 7=	Umbric Surfa		•		ogy must be present,
	Mucky Mineral (S1) (I Gleyed Matrix (S4)	LRRO, S) [		(F17) (MLRA:	151) :A 150A, 150E		ed or problematic.
	Redox (S5)	†			(F19) (MLRA 1		
ı == '	d Matrix (S6)	Ī	_	•		RA 149A, 153C, 153D)	
Dark S	urface (S7) (LRR P. \$	S, T, U)		•		•	
Restrictive	Layer (if observed)	;		,			
Type: _							
Depth (i	nches):		_			Hydric Soil Present?	Yes No
Remarks:							
			•				
1					•		
}							
ļ							
: :							
	-						



Wetland data point wgrp007f\_w facing southeast.



Wetland data point wgrp007f\_w facing northeast.

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

Project/Site: ACP	City/County: Greensville Sampling Date: 6123/15
Applicant/Owner: Dominion	State: VH Sampling Point: war p007_w
Investigator(s): EST (Roper, Markham)	Section, Township, Range: YONE
	Local relief (concave, convex, none): convex Slope (%): 0-3%
	.57029 Long: -77.51922 Datum: W6584
Soil Map Unit Name: Rounoke 511+ loam,	
Are climatic / hydrologic conditions on the site typical for this time of ye	The state of the s
Are Vegetation, Soil, or Hydrology significantly	
Are Vegetation, Soil, or Hydrology naturally pro	
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Remarks:	Is the Sampled Area within a Wetland? Yes No
Access road 143a	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	
Surface Water (A1)  High Water Table (A2)  Aquatic Fauna (B  Marl Deposits (B1)	
Saturation (A3)  Hydrogen Sulfide	The state of the s
	oheres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Redu	uced Iron (C4)
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	<u> </u>
☐ Iron Deposits (B5) ☐ Other (Explain in Inundation Visible on Aerial Imagery (B7)	Remarks)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inche	
Water Table Present? Yes No Depth (inches	
Saturation Present? Yes No Depth (inchest includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspections), it available:
Remarks:	

Sampling Point	uda Ca	ر 200,سر
ampling Point:	wat	7

Tree Stratum (Plot size: 30f+x30f+	Absolute Dominant Indicator	Dominance Test worksheet:
1. Pinus tueda	% Cover Species? Status	Number of Dominant Species
	15 Y FAC	That Are OBL, FACW, or FAC: (A)
2. Betula nigra	N FACW	Total Number of Dominant
3. Ilex opara	DY FAL	Species Across All Strata: (B)
4		Baroont of Daminaut Spania
5		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6		
7		Prevalence Index worksheet:
8		Total % Cover of: Multiply by:
	30 = Total Cover	OBL species x 1 =
50% of total cover: 15	20% of total cover:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30 + x 30 + y)		FAC species x 3 =
1 10 010 6		FACU species x 4 =
		UPL species x 5 =
2		Column Totals: (A) (B)
3		(7)
4		Prevalence Index = B/A =
5,		Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		☐ 3 - Prevalence Index is ≤3.01
	O = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	20% of total cover:	
Herb Stratum (Plot size: 30 ft x 30 ft)		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. <u>None</u>		be present, unless disturbed or problematic.
2		Definitions of Four Vegetation Strata:
3		
4		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5		more in diameter at breast height (DBH), regardless of height.
6		Sapling/Shrub – Woody plants, excluding vines, less
7		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		
9		of size, and woody plants less than 3.28 ft fall.
10		Woody vine – All woody vines greater than 3.28 ft in
11	<del></del>	height.
12		_
	O = Total Cover	
50% of total cover:	20% of total cover:	_
Woody Vine Stratum (Plot size: 30ft x30ft)		
1. Vitis rotundifolia	10 Y PAC	,
2. Smilax rotundifolia	10 V PAC	
3,		
4	<del>-</del>	-
4		_
5	<u> </u>	- Hydrophytic
	= Total Cover	Vegetation Present? Yes No
50% of total cover:	D_ 20% of total cover:	Present? Yes No
Remarks: (If observed, list morphological adaptations be	low).	

inches) Color (moist) %	Redox Features Color (moist) % Type¹ Loc²	Texture Remarks
24 104R 3/6 100		SL
-9 10YR 5/3 100		SL
- 12 2.5Y V/4 100		SL
6-20 2.57 46 100		CL
i i		
ype: C=Concentration, D=Depletion, RN	M=Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to a		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T,	·
Histic Epipedon (A2) Black Histic (A3)	Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
J Black Histic (A3) ☐ Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2)	Reduced Vertic (F18) (outside MLRA 150A,B  Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, I	· · · · · · · · · · · · · · · · · · ·	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T)	Redox Depressions (F8)  Mari (F10) (LRR U)	<ul> <li>✓ Very Shallow Dark Surface (TF12)</li> <li>✓ Other (Explain in Remarks)</li> </ul>
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	Other (Explain in Remarks)
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, I	P, T) Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 15	the state of the s	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S	· —	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Sandy Redox (S5)	Reduced Vertic (F18) (MLRA 150A, 150I	•
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (MI	•
Dark Surface (S7) (LRR P, S, T, U)		,
Restrictive Layer (if observed):		
Type:		./
Depth (inches):		Hydric Soil Present? Yes No
Remarks:		
enars:		
vernarks:		
vernarks:		
Remarks:		
Remarks:		
vemarks:		
· ·		
·		
·		
· ·		
remarks:		
· ·		
· ·		
· · ·		

## Environmental Field Surveys Wetland Photo Page



Upland data point wgrp007\_u facing southwest.



Upland data point wgrp007\_u facing southeast.

Project/Site: Atlantic Coast Pipe	eline	City/C	county: Greensville		Sampling Date: 10/3/2014
Applicant/Owner: Dominion				State: VA	Sampling Point: wgra032f_w
Investigator(s): GB, SP		Section			
Landform (hillslope, terrace, etc					
Subregion (LRR or MLRA): P		Lat: 36.56853512	Long: -77.	52014199	Datum: WGS 1984
Soil Map Unit Name: Roanoke I	oam, 0 to 2 perce	ent slopes, frequently floode	d	NWI classific	ation: PFO1C
Are climatic / hydrologic condition	ons on the site typ	oical for this time of year? Y	es No	(If no, explain in R	emarks.)
Are Vegetation, Soil	, or Hydrolog	y significantly distur	bed? Are "Norma	l Circumstances" p	oresent? 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?	Voc. V	No
Wetland Hydrology Present?		✓ No	within a wetiand?	res	NO
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicator	rs:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum c	f one is required;	; check all that apply)		Surface Soil	Cracks (B6)
✓ Surface Water (A1)		True Aquatic Plants (		Sparsely Veg	getated Concave Surface (B8)
High Water Table (A2)		✓ Hydrogen Sulfide Ode		Drainage Pa	
Saturation (A3)		Oxidized Rhizosphere	= : :	Moss Trim Li	
Water Marks (B1)		Presence of Reduced	, ,		Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur	
Drift Deposits (B3)		Thin Muck Surface (C Other (Explain in Rer			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)		Other (Explain in Ref	ilaiks)		tressed Plants (D1) Position (D2)
Inundation Visible on Aeria	al Imagery (B7)			Shallow Aqui	
Water-Stained Leaves (B9					phic Relief (D4)
Aquatic Fauna (B13)	,			✓ FAC-Neutral	
Field Observations:					. ,
Surface Water Present?	Yes V No	Depth (inches):	1		
Water Table Present?			0		
Saturation Present?		Depth (inches):	0 Wetland H	Hydrology Presen	it? Yes 🗸 No
(includes capillary fringe)					
Describe Recorded Data (stream	am gauge, monito	oring well, aerial photos, pre	vious inspections), if ava	allable:	
Remarks:					
Tromano.					

Sampling	Point: wgra032f_	W

00	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Pinus taeda	15	Yes	FAC	That Are OBL, FACW, or FAC:8 (A)
2. Acer rubrum	15	Yes	FAC	Total Number of Deminent
3. Liquidambar styraciflua	15	Yes	FAC	Total Number of Dominant Species Across All Strata:  8 (B)
4 Populus deltoides	6	No	FAC	Operico Acroso Air etrata.
·· <u>·</u>				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove		
50% of total cover: 25.5	20% of	total cover:_	10.2	OBL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1. Populus deltoides	15	Yes	FAC	FAC species87
2. Acer rubrum	12	Yes	FAC	FACU species0 x 4 =0
3. Nyssa biflora	4	No	FACW	UPL species0 x 5 =0
	3	No	OBL	Column Totals: 156 (A) 379 (B)
4. Cephalanthus occidentalis				Column rotals (A) (B)
5. Itea virginica	2	No	OBL	Prevalence Index = B/A =2.42
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
9	36	<del></del>		✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 18		= Total Cove	r 7.2	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% of	total cover:_		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	0.5			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Juncus effusus	25	Yes	FACW	1 Toblematic Trydrophytic Vegetation (Explain)
2. Saccharum giganteum	20	Yes	FACW	4
3. Scirpus divaricatus	15	Yes	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 Chasmanthium sessiliflorum	5	No	FAC	
5 Panicum capillare	4	No	FAC	Definitions of Four Vegetation Strata:
0				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7		-		height.
8				Sanling/Shrub Woody plants evaluding vines loss
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
· · · · · · · · · · · · · · · · · · ·	69			<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 34.5		= Total Cover total cover:		of size, and woody plants less than 3.26 it fall.
0070 01 (0001 00701:	20% 01	total cover:_	10.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1		-		
2				
3				
4				Hydrophytic
5	_			Vegetation Present? Yes No
		= Total Cove		riesent? ies No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redo	x Features			the absence	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR 3/1	100					SL	
5-12	10YR 4/1	96	7.5YR 4/6	4	С	PL/M	SCL	
12-20	10YR 5/1	94	7.5YR 4/6	6	С	PL/M	SCL	
1- 0.0				<del></del> .			2, , ,	
		oletion, RM	=Reduced Matrix, MS	S=Masked S	Sand Grai	ns.		L=Pore Lining, M=Matrix.
Hydric Soil I			5 10 (	(07)				ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	· ,		Dark Surface	. ,	· (OO) (B41	DA 447		2 cm Muck (A10) (MLRA 147)
Histic Ep Black Hi	pipedon (A2)		Polyvalue Be Thin Dark Su				148) (	Coast Prairie Redox (A16) (MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			17, 140)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma		<b>2</b> )		'	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		()		\	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	ce (A11)	Depleted Dar					Other (Explain in Remarks)
	ark Surface (A12)	,	Redox Depre	,				,
	Mucky Mineral (S1)	LRR N,	Iron-Mangan			RR N,		
	A 147, 148)		MLRA 13					
	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) (N	ILRA 136	, 122)	<sup>3</sup> Inc	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	Naterial (F2	1) <b>(MLRA</b>	127, 147	<b>')</b> ur	lless disturbed or problematic.
	Layer (if observed)	):						
Restrictive L Type: no		):						
	ne	) <b>:</b>					Hydric Soi	Present? Yes V No No
Type: noi	ne	) <b>:</b>					Hydric Soi	Present? Yes No
Type: non	ne						Hydric Soi	Present? Yes V No No
Type: noi	ne						Hydric Soi	Present? Yes V No
Type: non	ne						Hydric Soi	Present? Yes V No
Type: non	ne						Hydric Soi	I Present? Yes V No
Type: non	ne						Hydric Soi	I Present? Yes <u>V</u> No
Type: non	ne						Hydric Soi	I Present? Yes <u>V</u> No
Type: non	ne						Hydric Soi	I Present? Yes <u>V</u> No
Type: non	ne						Hydric Soi	Present? Yes V No
Type: non	ne						Hydric Soi	I Present? Yes V No
Type: noi	ne						Hydric Soi	Present? Yes V No No
Type: non	ne						Hydric Soi	I Present? Yes V No No
Type: non	ne						Hydric Soi	I Present? Yes V No No
Type: non	ne						Hydric Soi	I Present? Yes V No No
Type: non	ne						Hydric Soi	I Present? Yes V No No
Type: noi	ne						Hydric Soi	I Present? Yes V No No
Type: noi	ne						Hydric Soi	Present? Yes V No No
Type: noi	ne						Hydric Soi	Present? Yes V No No
Type: noi	ne						Hydric Soi	Present? Yes V No No
Type: noi	ne						Hydric Soi	I Present? Yes V No No
Type: noi	ne						Hydric Soi	I Present? Yes V No No
Type: noi	ne						Hydric Soi	I Present? Yes V No
Type: noi	ne						Hydric Soi	I Present? Yes V No No



**Photo 1**Wetland data point WGRA032f\_w facing northeast



**Photo 2**Wetland data point WGRA032f\_w facing northwest

Project/Site: Atlantic Coast Pip	peline	City/C	ounty: Greensville		Sampling Date: 10/3/2014
Applicant/Owner: Dominion		,	,	State: VA	Sampling Point: wgra032_u
Investigator(s): GB, SP		Section	on, Township, Range: No		
Landform (hillslope, terrace, et					
Subregion (LKK or IVILKA): Roanoke	Loam 0 to 2 percent	_at:at:	Long: _ · · · ·	2040 1	Datum: WGS 1984 Cation: None
Are climatic / hydrologic condit		•			
Are Vegetation, Soil	, or Hydrology _	significantly disturb	bed? Are "Normal	Circumstances" p	present? Yes No
Are Vegetation, Soil	, or Hydrology _	naturally problema	tic? (If needed, e	explain any answe	ers in Remarks.)
SUMMARY OF FINDIN	GS – Attach site	map showing sam	pling point location	ons, transects	s, important features, etc.
Hydrophytic Vegetation Pres	ont? Yes t	/ No			
Hydric Soil Present?		No	Is the Sampled Area	<b>V</b> = =	No
Wetland Hydrology Present?	Yes	No	within a Wetland?	res	No
Remarks:					
Upland data point taken outsi in ditch/berm system	de a localized depress	sion containing a saturate	ed PFO wetland located v	within a 15 year o	ld pine plantation, pines planted
HYDROLOGY					
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum	of one is required; ch	eck all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	-	True Aquatic Plants (I		Sparsely Ve	getated Concave Surface (B8)
High Water Table (A2)	_	Hydrogen Sulfide Odd		Drainage Pa	
Saturation (A3)	_		es on Living Roots (C3)	Moss Trim L	
Water Marks (B1)		Presence of Reduced			Water Table (C2)
Sediment Deposits (B2)	_	Recent Iron Reduction		Crayfish Bur	
Drift Deposits (B3)	_	Thin Muck Surface (C			isible on Aerial Imagery (C9) stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	_	Other (Explain in Ren	iaiks)	· <del></del>	Position (D2)
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aqu	` '
Water-Stained Leaves (E					aphic Relief (D4)
Aquatic Fauna (B13)	,			FAC-Neutral	• • • • • • • • • • • • • • • • • • • •
Field Observations:					· ,
Surface Water Present?	Yes No	Depth (inches):			
Water Table Present?	Yes No	Depth (inches):			
Saturation Present?	Yes No	Depth (inches):	Wetland H	lydrology Preser	nt? Yes No_ 🗸
(includes capillary fringe)  Describe Recorded Data (stre	eam gauge_monitorin	ng well, aerial photos, pre	vious inspections) if ava	ilable <sup>.</sup>	
Dooring Noorland Data (oil)	sam gaage, memerin	ig won, donar photoe, pro	viodo inopositorio), il ava	masio.	
Remarks:					
no hydrology indicators prese	nt				

Sampling Point: wgra032_	Sampling	Point-wgra032_	_u
--------------------------	----------	----------------	----

		Absolute	Dominant I	ndicator	Dominance Test worksheet:
1100 Ottatam (1 lot 5120.	)	% Cover 65	Species?		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 ORL FACW or FAC: 83.33333333 (A/R)
•					That Are OBL, FACW, or FAC: 83.3333333 (A/B)
					Prevalence Index worksheet:
7		65			Total % Cover of: Multiply by:
_	0% of total cover: 32.5	:	= Total Cove	r 13	OBL species0 x 1 =0
	15	20% of	total cover:_		FACW species 0
Sapling/Shrub Stratum (Plot size	)	40	V	EAC	120 200
1. Liquidambar styraciflua		10	Yes	FAC	rac species x 3 =
2. Liriodendron tulipifera		10	Yes	FACU	FACU species X 4 =
3. Acer rubrum		5	No	FAC	UPL species x 5 =
4. llex opaca		5	No	FACU	Column Totals:145
5. Pinus taeda		3	No	FAC	3.1
6					Prevalence Index = B/A =3.1
					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>
	40.5		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	0% of total cover: 16.5	20% of	total cover:_	6.6	data in Remarks or on a separate sheet)
TIEID SITALUIII (TIOL SIZE.	5)				. ,
1. Chasmanthium sessiliflorum		35	Yes	FAC	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.
					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
		35	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
5	0% of total cover:17.5		total cover:	7	
Woody Vine Stratum (Plot size:	00	_	_		<b>Woody vine</b> – All woody vines greater than 3.28 ft in
1 Smilax rotundifolia	/	7	Yes	FAC	height.
2 Campsis radicans		5	Yes	FAC	
<u></u>					
3					
4					Hydrophytic
5					Vegetation
		12	= Total Cove	r	Present? Yes No
5	0% of total cover: 6	20% of	total cover:_	2.4	
Remarks: (Include photo number	s here or on a separate sh	neet.)			
, ,	·	,			

Depth	Matrix		Redox Features	<del></del>	
(inches)	Color (moist)	<u>%</u>	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>		Remarks
0-6	10YR 3/2	100		SL	
6-20	10YR 5/3	100		SL	
	-	· <del></del>			_
				<u> </u>	
		·			
					_
		· <del></del> -	<del></del>		
	-	· <del></del>			<del></del>
				21	DI D. III MAN
		letion, RM=R	educed Matrix, MS=Masked Sand Grains.		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 1		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 Surface	e (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)		Redox Depressions (F8)		
	Mucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Manganese Masses (F12) (LRR N	,	
	A 147, 148)		MLRA 136)		
	Sleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)		ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA		vetland hydrology must be present,
	l Matrix (S6)		Red Parent Material (F21) (MLRA 127,	<b>147)</b> u	inless disturbed or problematic.
	Layer (if observed):				
Type: no	ne		<u>_</u>		
Depth (in				Hydric So	oil Present? Yes No 🚩
Remarks:					
Ciliains.					



Photo 1 Upland data point WGRA032\_u facing southeast



Photo 2
Upland data point WGRA032\_u facing southwest

Project/Site: Atlantic Coast Pipeline		City/C	county: Greensville		Sampling Date: 10/3/2014		
Applicant/Owner: Dominion				State: VA	Sampling Point: wgra031f_w		
Investigator(s): GB, SP			on, Township, Range: No				
Landform (hillslope, terrace, etc.): St					Slope (%): <u>1</u>		
Subregion (LRR or MLRA). P	I at	. 36.56700082	Long77.5	51884189	Datum: WGS 1984		
Soil Map Unit Name: Roanoke loam	, 0 to 2 percent slo	opes, frequently floode	d	NWI classifi	cation: PFO1A, PFO1C		
Are climatic / hydrologic conditions o							
Are Vegetation, Soil,							
Are Vegetation, Soil,							
SUMMARY OF FINDINGS -							
Lhudranhutia Vanatatian Drasanto		NI			<u> </u>		
Hydrophytic Vegetation Present? Hydric Soil Present?		No No	Is the Sampled Area				
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; chec	k all that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)	<u>—</u>	True Aquatic Plants (	B14)	Sparsely Ve	getated Concave Surface (B8)		
✓ High Water Table (A2)	<u>~</u>	Hydrogen Sulfide Od	or (C1)	Drainage Patterns (B10)			
Saturation (A3)		Oxidized Rhizosphere	es on Living Roots (C3)	Moss Trim L	lines (B16)		
Water Marks (B1)		Presence of Reduced	d Iron (C4)	Dry-Season	Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bull	rrows (C8)		
Drift Deposits (B3)	_	Thin Muck Surface (C			isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)		Stressed Plants (D1)		
Iron Deposits (B5)	(57)				Position (D2)		
Inundation Visible on Aerial Im	agery (B7)			Shallow Aqu			
Water-Stained Leaves (B9) Aquatic Fauna (B13)				✓ Microtopogr ✓ FAC-Neutra	aphic Relief (D4)		
			T	FAC-Neulla	r rest (D3)		
Field Observations: Surface Water Present? Yes	No V	_ Depth (inches):					
			6				
		Depth (inches):	3 Wetland b	lydrology Prese	nt? Yes 🗸 No		
(includes capillary fringe)	, NO	_ Depth (inches)	wetland r	iyarology Frese	iit! Tes No		
Describe Recorded Data (stream g	auge, monitoring	well, aerial photos, pre	vious inspections), if ava	ilable:			
Remarks:							
Remarks.							

Sampling F	oint: <sup>wgra031f</sup> _	w
------------	-----------------------------	---

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )			Status	
1 Liquidambar styraciflua	25	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:8 (A)
2. Acer rubrum	15	Yes	FAC	That Are OBE, I ACW, OF I AC.
3. Quercus phellos		No	FAC	Total Number of Dominant
		No	FAC	Species Across All Strata: (B)
4. Pinus taeda		INO	FAC	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				
7.				Prevalence Index worksheet:
	50	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 25		total cover:_	10	OBL species29 x 1 =29
15	20 /0 01	total cover		FACW species 48 x 2 = 96
Sapling/Shrub Stratum (Plot size: )	15	Voo	EAC	FAC species 79 x 3 = 237
1. Acer rubrum		Yes	FAC	
2. Populus deltoides	5	Yes	FAC	FACU species
3. Liquidambar styraciflua	5	Yes	FAC	UPL species $\begin{array}{c} 0 \\ 156 \end{array}$ $\begin{array}{c} x \ 5 = \begin{array}{c} 0 \\ 362 \end{array}$
4. Magnolia virginiana	3	No	FACW	Column Totals: (A) (B)
5. Clethra alnifolia	2	No	FAC	222
6. Itea virginica	2	No	OBL	Prevalence Index = B/A =2.32
7. Cephalanthus occidentalis	2	No	OBL	Hydrophytic Vegetation Indicators:
7. Copridianana occidentalio				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	34	= Total Cove		<del></del>
50% of total cover:17	20% of	total cover:_	6.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:				data in Remarks or on a separate sheet)
1 Saccharum giganteum	30	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Scirpus divaricatus	25	Yes	OBL	
3. Juncus effusus	15	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4. Chasmanthium sessiliflorum	2	No	FAC	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.
9				g
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb - All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:36	20% of	total cover:_	14.4	
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				neight.
2				
3				
4				Hydrophytic
5				Vegetation
	0 :	= Total Cove	r	Present? Yes No
50% of total cover:		total cover:_	_	
Remarks: (Include photo numbers here or on a separate sl		_		
Tremains. (include prioto numbers here of our a separate si	icci.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/1	100					SL	
4-11	10YR 4/1	97	7.5YR 4/6	3	С	PL/M	SCL	
11-20	10YR 5/1	90	7.5YR 4/6	10	С	PL/M	SCL	
								-
	-							
1							2	
		epletion, RN	=Reduced Matrix, M	S=Masked S	Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil			5 10 (	(07)				ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface		- (CO) <b>(I</b>	AL DA 447		cm Muck (A10) (MLRA 147)
	pipedon (A2) istic (A3)		Polyvalue Be				148) C	oast Prairie Redox (A16) (MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			147, 140)	D	iedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma		<b>2</b> )		'	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		6)		V	ery Shallow Dark Surface (TF12)
	d Below Dark Surfa	ice (A11)	Depleted Da					Other (Explain in Remarks)
	ark Surface (A12)	,	Redox Depre	,				,
	Mucky Mineral (S1)	(LRR N,	Iron-Mangan			LRR N,		
	A 147, 148)		MLRA 13					
	Sleyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(N</b>	ILRA 13	6, 122)	<sup>3</sup> Ind	icators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					tland hydrology must be present,
	Matrix (S6)		Red Parent I	Material (F2	1) <b>(MLR</b>	A 127, 147	) un	less disturbed or problematic.
	Layer (if observed	l):						
Type: no								,
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:							1	



Photo 1
Wetland data point WGRA031f\_w facing north



Photo 2
Wetland data point WGRA031f\_w facing northwest

Project/Site: Atlantic Coast Pip	peline	City/C	ounty: Greensville		Sampling Date: 10/3/2014			
Applicant/Owner: Dominion		,	,	State: VA	Sampling Point: wgra031_u			
Investigator(s): GB, SP	nvestigator(s): GB, SP Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, et								
Subregion (LKK or IVILKA): Roanoke	loam 0 to 2 percent	slones frequently floode	Long: _ · · · ·		Datum: WGS 1984 cation: None			
Are climatic / hydrologic condit		•						
Are Vegetation, Soil	, or Hydrology _	significantly disturb	bed? Are "Normal	Circumstances" p	present? Yes No			
Are Vegetation, Soil	, or Hydrology _	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)			
SUMMARY OF FINDIN	GS – Attach site	e map showing sam	pling point location	ons, transects	, important features, etc.			
Lludrophytic Vocatation Pres		/ No						
Hydrophytic Vegetation Presonal Hydric Soil Present?		✓ No No <b>✓</b>	Is the Sampled Area		<b>./</b>			
Wetland Hydrology Present?	Yes	No	within a Wetland?	Yes	No			
Remarks:								
Upland data point taken outside a localized depression containing a saturated PFO wetland located within a 15 year old pine plantation, pines planted in ditch/berm system								
HYDROLOGY								
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum	of one is required; ch	neck all that apply)		Surface Soil	Cracks (B6)			
Surface Water (A1)	Sparsely Ve	getated Concave Surface (B8)						
High Water Table (A2)	-	Hydrogen Sulfide Odd	or (C1)	Drainage Pa	tterns (B10)			
Saturation (A3)			es on Living Roots (C3)	Moss Trim L				
Water Marks (B1)		Presence of Reduced			Water Table (C2)			
Sediment Deposits (B2)	-	Recent Iron Reduction		Crayfish Bur				
Drift Deposits (B3)	-	Thin 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)	rial Imagary (P7)				Position (D2)			
Inundation Visible on Ae				Shallow Aqu				
<ul><li>Water-Stained Leaves (E</li><li>Aquatic Fauna (B13)</li></ul>	59)			FAC-Neutral	aphic Relief (D4)			
Field Observations:				I AO-Neullai	1631 (D3)			
Surface Water Present?	Ves No	Depth (inches):						
Water Table Present?		Depth (inches):						
Saturation Present?		Depth (inches):		lydrology Preser	nt? Yes No			
(includes capillary fringe)		_ , , , , _			it: 165 NO			
Describe Recorded Data (stre	eam gauge, monitorir	ng well, aerial photos, pre	vious inspections), if ava	ilable:				
Remarks:								
no hydrology indicators prese	nt							

Sampling Point: wgra031\_u

00	Absolute	Dominant Ir		Dominance Test worksheet:
Tree Stratum (Plot size:)			Status EAC	Number of Dominant Species
1. Pinus taeda	65	Yes	FAC	That Are OBL, FACW, or FAC:8 (A)
2. Quercus phellos	5	No	FAC	Total Number of Deminerat
3. Liriodendron tulipifera	5	No	FACU	Total Number of Dominant Species Across All Strata:  8 (B)
4				(2)
		-		Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
-				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7	75			Total % Cover of: Multiply by:
07.5	. ——— '	= Total Cover		OBL species $0 \times 1 = 0$
50% of total cover: <u>37.5</u>	20% of	total cover:	15	ODL species
Sapling/Shrub Stratum (Plot size: 15				FACW species X Z =
1. Acer rubrum	12	Yes	FAC	FAC species $\frac{140}{18}$ x 3 = $\frac{420}{72}$
2. Quercus phellos	10	Yes	FAC	FACU species x 4 =
3. Liquidambar styraciflua	10	Yes	FAC	UPL species x 5 =
4 Ilex opaca	8	No	FACU	Column Totals:163
5. Liriodendron tulipifera	5	No	FACU	
				Prevalence Index = B/A =3.07
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: 22.5	20% of	total cover:	9	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1. Chasmanthium sessiliflorum	20	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Osmundastrum cinnamomeum	5	Yes	FACW	
		-		<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 evaluding vince 3 in (7.6 cm) or
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7		-		height.
8				Care Provide the Management and the second of the second o
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.		-		
11	25	<del></del>		Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 12.5	. ——— '	= Total Cover	5	of size, and woody plants less than 3.28 ft tall.
0070 01 10101 00 1011	20% 01	total cover:		Woody vine – All woody vines greater than 3.28 ft in
vvoody vine Stratum (i lot size.	10	Voo	EAC	height.
1. Campsis radicans	12	Yes	FAC	
2. Smilax rotundifolia	6	Yes	FAC	
3				
4				Livelyambyeia
5.				Hydrophytic Vegetation
	18	= Total Cover		Present? Yes No
50% of total cover: 9		total cover:	3.6	
00 /0 01 total 00 vol:		total cover		
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> Lo		Remarks	
0-5	10YR 3/3	100		SL		
5-20	10YR 6/3	100		SL		
		· ——— —			·	
					<u> </u>	
		· — — —			<del></del>	
		· —— —			<del></del>	
	-	· ——— —				
				21		
		letion, RM=Re	educed Matrix, MS=Masked Sand Grains.		: PL=Pore Lining, M=Matrix.	:- C-:I- <sup>3</sup> .
•	Indicators:			in	dicators for Problematic Hydri	
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, 1	48)	(MLRA 147, 148)	
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	_	<ul><li>Piedmont Floodplain Soils (F1</li></ul>	19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)	
	uck (A10) (LRR N)		Redox Dark Surface (F6)	_	_ Very Shallow Dark Surface (T	F12)
	d Below Dark Surface	e (A11)	Depleted Dark Surface (F7)	_	_ Other (Explain in Remarks)	
	ark Surface (A12)		Redox Depressions (F8)			
	Mucky Mineral (S1) <b>(L</b>	₋RR N,	Iron-Manganese Masses (F12) (LRR	N,		
	A 147, 148)		MLRA 136)		2	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12		<sup>3</sup> Indicators of hydrophytic vegeta	
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLF		wetland hydrology must be pre-	
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127	7, 147)	unless disturbed or problematic	Э.
	Layer (if observed):					
Type: no	one		<u> </u>			
Depth (in	ches):			Hydric	Soil Present? Yes	No 🔽
Remarks:	·				<u> </u>	



**Photo 1**Upland data point WGRA031\_u facing southeast



Photo 2
Upland data point WGRA031\_u facing south

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Greensville		Sampling Date: 10/3/2014			
Applicant/Owner: Dominion		State: VA	Sampling Point: wgra030f_w					
Investigator(s): GB, SP								
Landform (hillslope, terrace, etc.): dep								
Subregion (LRR or MLRA): P	Lona: -77.	5187524	Datum: WGS 1984					
Soil Map Unit Name: Roanoke silt loar	n, 0 to 2 percent	slopes, ponded		NWI classifi	cation: PFO1C			
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, or	· Hydrology	significantly distur	bed? Are "Normal	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 V	No			
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO			
Remarks:		<u> </u>						
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)			
Primary Indicators (minimum of one is	s required; chec	k all that apply)		Surface Soil	Cracks (B6)			
Surface Water (A1)	Sparsely Ve	getated Concave Surface (B8)						
✓ High Water Table (A2)	Drainage Pa	atterns (B10)						
Saturation (A3)	es on Living Roots (C3)	Moss Trim L	Lines (B16)					
Water Marks (B1)	<del></del>	Presence of Reduced	, ,		Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bu				
Drift Deposits (B3)		Thin Muck Surface (C			isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)		Stressed Plants (D1)			
Iron Deposits (B5)	· · · · · (DZ)				Position (D2)			
Inundation Visible on Aerial Imag Water-Stained Leaves (B9)	ery (B7)	Shallow Aqu			aphic Relief (D4)			
Aquatic Fauna (B13)				✓ Microtopogr	• • •			
Field Observations:			<u> </u>	17.0 140414	. 1001 (20)			
	No 🗸	Depth (inches):						
			5					
		Depth (inches):	2 Wetland H	lydrology Prese	nt? Yes 🗸 No			
(includes capillary fringe)					165 <u>——</u> 116 <u>——</u>			
Describe Recorded Data (stream gau	ge, monitoring v	well, aerial photos, pre	vious inspections), if ava	iilable:				
Remarks:								
Nomano.								

•	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species _
1. Acer rubrum	20	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
2. Liquidambar styraciflua	20	Yes	FAC	Total Number of Dominant
3. Pinus taeda	8	No	FAC	Species Across All Strata: 7 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  100 (A/B)
6				That Are OBE, I ACW, OF I AC (A/B)
7.				Prevalence Index worksheet:
	48	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 24		total cover:	9.6	OBL species 29 x 1 = 29
Sapling/Shrub Stratum (Plot size: 15 )			-	FACW species55
1 Acer rubrum	12	Yes	FAC	FAC species78
2. Populus deltoides	7	Yes	FAC	FACU species 0 x 4 = 0
3. Itea virginica	6	No	OBL	UPL species
		No No	FAC	Column Totals: 162 (A) 373 (B)
4. Liquidambar styraciflua				Column rotals (A) (B)
5. Cephalanthus occidentalis	3	No	OBL	Prevalence Index = $B/A = 2.3$
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>
	33	= Total Cover		
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. Saccharum giganteum	35	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Scirpus divaricatus	20	Yes	OBL	
3. Juncus effusus	20	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Chasmanthium sessiliflorum	6	No	FAC	be present, unless disturbed or problematic.
-				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 40.5	20% of	total cover:	16.2	Was divising. All was divising proceeds than 2.00 ft in
Woody Vine Stratum (Plot size:)				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
3				
4				Hydrophytic
5				Vegetation Present?  Yes  No  No
0		= Total Cover		rieseitt! Tes No
50% of total cover:0		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth (inches) 0-4	Matrix		Redo	x Features				
	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
4.40	10YR 3/1	100					SL	
4-12	10YR 4/1	95	7.5YR 4/6	5	С	PL/M	SCL	
12-20	10YR 5/1	94	7.5YR 4/6	6	С	PL/M	SCL	
					<del></del>			
1- 0.0				<del></del> -			2, ,, ,	
		pletion, RM	=Reduced Matrix, MS	S=Masked S	Sand Grai	ns.		PL=Pore Lining, M=Matrix.
Hydric Soil I			D 10 (	(07)				ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	. ,		Dark Surface	, ,	(00) (84)	DA 447		2 cm Muck (A10) (MLRA 147)
Histic Ep Black His	oipedon (A2)		Polyvalue Be Thin Dark Su				148) (	Coast Prairie Redox (A16) (MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			7, 140)	_	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma		<del>-</del> )		'	(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark \$		)		\	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	ce (A11)	Depleted Dar					Other (Explain in Remarks)
	ark Surface (A12)	,	Redox Depre	,	,			,
	lucky Mineral (S1)	LRR N,	Iron-Mangan			RR N,		
	A 147, 148)		MLRA 13					
	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(M</b>	LRA 136	, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
	tedox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	Material (F21	I) (MLRA	127, 147	) un	lless disturbed or problematic.
	_ayer (if observed)	):						
Type: nor	ne 							
Depth (inc	ches):						Hydric Soi	l Present? Yes 🖊 No
Remarks:							1	



Photo 1
Wetland data point WGRA030f\_w facing northwest



Photo 2
Wetland data point WGRA030f\_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Gree	nsville	Sampling Date: 10/3/2014					
Applicant/Owner: Dominion			Sampling Point: wgra030_u					
	Local relief (concave,							
Subregion (LRR or MLRA): P Lat								
Soil Map Unit Name: Bojac loamy fine sand, 0 to 2 per	rcent slopes, frequently flooded	NWI classi	fication: None					
Are climatic / hydrologic conditions on the site typical for								
Are Vegetation, Soil, or Hydrology								
Are Vegetation, Soil, or Hydrology								
SUMMARY OF FINDINGS – Attach site n								
			, important reatures, etc.					
Hydrophytic Vegetation Present? Yes	No Is the Sam	pled Area						
	_ No within a W		No					
Wetland Hydrology Present? Yes  Remarks:	No							
Upland data point taken outside a localized depressio in ditch/berm system	To Containing a Saturated 11 O well	and located within a 10 year	olo pine piantation, pines pianted					
HYDROLOGY								
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)					
Primary Indicators (minimum of one is required; chec	k all that apply)	Surface So	oil Cracks (B6)					
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface								
	Hydrogen Sulfide Odor (C1)		Patterns (B10)					
	Oxidized Rhizospheres on Living		Lines (B16)					
	Presence of Reduced Iron (C4)		n Water Table (C2)					
	Recent Iron Reduction in Tilled So		urrows (C8)					
	Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)					
	Other (Explain in Remarks)		Stressed Plants (D1)					
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)		Geomorphi Shallow Aq	ic Position (D2)					
Water-Stained Leaves (B9)			graphic Relief (D4)					
Aquatic Fauna (B13)		FAC-Neutra						
Field Observations:			a. 1001 (20)					
	_ Depth (inches):							
	Depth (inches):							
	Depth (inches):	Wetland Hydrology Prese	ent? Yes No					
(includes capillary fringe)		, 0,						
Describe Recorded Data (stream gauge, monitoring v	well, aerial photos, previous inspec	tions), if available:						
Remarks:								
no hydrology indicators present								
, and any and any								

52000000 POID "9"4000_0	Sampling	Point: wgra030_u
-------------------------	----------	------------------

00	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover 65		Status	Number of Dominant Species
1. Pinus taeda		Yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
2. Liriodendron tulipifera	8	No	FACU	Total Number of Dominant
3				Species Across All Strata: 7 (B)
4				` ,
5				Percent of Dominant Species That Are OBL FACW or FAC: 85.71428571 (A/R)
0		-		That Are OBL, FACW, or FAC:
-				Prevalence Index worksheet:
ſ. <u> </u>	73			Total % Cover of: Multiply by:
50% of total cover: 36.9		= Total Cover	14.6	OBL species 0 x 1 = 0
15	20% 01	total cover:_		FACW species 2 x 2 = 4
Sapling/Shrub Stratum (Plot size:)	40	V	EAC	120 200
1. Liquidambar styraciflua	10	Yes	FAC	FACULTURE 23 x 3 = 390 92
2. Liriodendron tulipifera	10	Yes	FACU	FACU species x 4 =
3. Acer rubrum	10	Yes	FAC	UPL species $\begin{array}{c} 0 \\ 155 \\ \end{array}$ $\begin{array}{c} x \ 5 = 0 \\ 486 \\ \end{array}$
4. Ilex opaca	5	No	FACU	Column Totals: (A) (B)
5. Pinus taeda	5	No	FAC	Prevalence Index = B/A = 3.13
6				Trevalence mack = B/Tt =
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9	40			3 - Prevalence Index is ≤3.0 <sup>1</sup>
20		= Total Cover	8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 20	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Chasmanthium sessiliflorum	25	Yes	FAC	Froblematic Hydrophytic vegetation (Explain)
2. Eupatorium perfoliatum	2	No	FACW	1
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
	27	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 13.5	20% of	total cover:	5.4	Manda vine All woods vines greater than 2.20 ft in
Woody Vine Stratum (Plot size:)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1. Smilax rotundifolia	8	Yes	FAC	noight.
Campsis radicans	7	Yes	FAC	
3.	-			
4				Hydrophytic
5				Vegetation Present?  Yes No
7 -		= Total Cover	3	Present? res NO
50% of total cover: 7.5	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features	<del></del>	
(inches)	Color (moist)	<u>%</u>	Color (moist) % Type <sup>1</sup> Loc		Remarks
0-5	10YR 3/2	100		SL	
5-20	10YR 5/3	100		SL	
	-	· <del></del> -			
		· <u></u>			
				<del></del>	
					_
	_				
				<del></del>	
		. <u> </u>			
Typo: C-C	oncontration D-Don	lotion PM-P	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
	Indicators:	ielion, Kivi=Ki	educed Matrix, MS=Masked Sarid Grains.		cators for Problematic Hydric Soils <sup>3</sup> :
-			Darle Confess (CZ)		
Histosol			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		<ul><li>Polyvalue Below Surface (S8) (MLRA 1</li><li>Thin Dark Surface (S9) (MLRA 147, 14</li></ul>		Coast Prairie Redox (A16)
	istic (A3)			•	(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) <b>(LRR N)</b> d Below Dark Surfac	o (A11)	<ul><li>Redox Dark Surface (F6)</li><li>Depleted Dark Surface (F7)</li></ul>		Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	ark Surface (A12)	e (A11)	Redox Depressions (F8)		Other (Explain in Remarks)
	Ark Surface (A12) Aucky Mineral (S1) <b>(L</b>	DD N	Iron-Manganese Masses (F12) (LRR N		
	A 147, 148)	.KK N,	MLRA 136)	,	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	310	ndicators of hydrophytic vegetation and
	Redox (S5)				vetland hydrology must be present,
	Matrix (S6)		<ul><li>Piedmont Floodplain Soils (F19) (MLRA</li><li>Red Parent Material (F21) (MLRA 127,</li></ul>		unless disturbed or problematic.
	Layer (if observed):		Red Falent Material (F21) (MERA 121,	147)	inless disturbed or problematic.
Type: no					
			<del>_</del>		
Depth (in	ches):		_	Hydric So	oil Present? Yes No
Remarks:					



**Photo 1**Upland data point WGRA030\_u facing northeast



**Photo 2**Upland data point WGRA030\_u facing southeast

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Greensville		Sampling Date: 10/3/2014		
Applicant/Owner: Dominion							
Investigator(s): GB, SP			on, Township, Range: No				
Landform (hillslope, terrace, etc.): depr							
Subregion (LRR or MLRA): P	Long: -77.	51778981	Datum: WGS 1984				
Soil Map Unit Name: Roanoke silt loam	, 0 to 2 percent	slopes, ponded		NWI classifi	cation: PFO1C		
Are climatic / hydrologic conditions on t	he site typical fo	r this time of year? Y	es No	(If no, explain in I	Remarks.)		
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	Circumstances"	present? Yes V No No		
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS – A							
Hydrophytic Vegetation Present?	Vec V	No					
Hydric Soil Present?		 No	Is the Sampled Area	v V	No		
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO		
Remarks:	<u> </u>	<u> </u>					
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)		
Primary Indicators (minimum of one is	required; check	all that apply)		Surface Soi			
Surface Water (A1)		True Aquatic Plants (	B14)		egetated Concave Surface (B8)		
High Water Table (A2)		atterns (B10)					
Saturation (A3)	Moss Trim I	ines (B16)					
Water Marks (B1)		Presence of Reduced	l Iron (C4)	Dry-Season	Water Table (C2)		
Sediment Deposits (B2)		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 Rer	narks)	· <del></del>	Stressed Plants (D1)		
Iron Deposits (B5)	(=-)				Position (D2)		
Inundation Visible on Aerial Image	ery (B7)			Shallow Aqu			
Water-Stained Leaves (B9)					aphic Relief (D4)		
Aquatic Fauna (B13)				✓ FAC-Neutra	il Test (D5)		
Field Observations: Surface Water Present? Yes	No. V	Depth (inches):					
		Depth (inches):	4				
		Depth (inches):	0 Westernal I	lydrology Prese			
(includes capillary fringe)	, NO	Depth (inches):	wetland r	iyarology Prese	nt? Yes No		
Describe Recorded Data (stream gauge	ge, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ilable:			
Devede							
Remarks:							

Sampling Poir	ղք․wgra029t_	_w
---------------	--------------	----

20	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Liquidambar styraciflua	20	Yes	FAC	That Are OBL, FACW, or FAC:8 (A)
2. Acer rubrum	15	Yes	FAC	Total Number of Deminent
3. Pinus taeda	15	Yes	FAC	Total Number of Dominant Species Across All Strata:  8 (B)
4				Species 767035 747 Citata:
T		<del></del> -		Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7		<del></del>		
	50	= Total Cover		
50% of total cover: 25	20% of	total cover:	10	ODL species
Sapling/Shrub Stratum (Plot size: 15				FACW species
1. Acer rubrum	10	Yes	FAC	FAC species 69
2. Populus deltoides	5	Yes	FAC	FACU species0 x 4 =0
3. Cephalanthus occidentalis		Yes	OBL	UPL species0 x 5 =0
	4	No	OBL	Column Totals: 153 (A) 346 (B)
4. Itea virginica	<u> </u>		OBL	Column Totals (A) (B)
5				Prevalence Index = B/A = 2.26
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
				✓ 2 - Dominance Test is >50%
9	24	<del></del>		✓ 3 - Prevalence Index is ≤3.0¹
50% of total cover: 12		= Total Cover	4.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
E	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Saccharum giganteum	40	<u>Yes</u>	FACW	1 Toblematic Trydrophytic Vegetation (Explain)
2. Scirpus divaricatus	20	Yes	OBL	1
3. Juncus effusus	15	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Chasmanthium sessiliflorum	4	No	FAC	be present, unless disturbed or problematic.
···				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		. <u></u> .		Sanling/Chrub 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.				
'''-	79			<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 39.5		= Total Cover total cover:		of size, and woody plants less than 3.26 it tall.
0070 01 10101 00701.	<u></u> 20% or	total cover:	10.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3				
4				
		<del></del> -		Hydrophytic
5	_	-		Vegetation   Present?   Yes   No
		= Total Cover		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

Profile Desc	ription: (Describe t	o the dep	oth needed to docum	ent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redox	Features	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	<u>Remarks</u>
0-5	10YR 3/1	100				·	SL	
5-12	10YR 4/1	96	7.5YR 4/6	4	С	PL/M	SCL	
12-20	10YR 5/1	94	7.5YR 4/6	6	С	PL/M	SCL	
							-	
							-	
							-	
							-	
						· ——	-	
<sup>1</sup> Type: C=Co	oncentration, D=Dept	etion. RM	=Reduced Matrix, MS	=Masked	Sand Gr	ains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil		04011, 1411			Cana Or	unio.		cators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(S7)				2 cm Muck (A10) <b>(MLRA 147)</b>
	oipedon (A2)		Polyvalue Bel		ce (S8) <b>(N</b>	/ILRA 147.		Coast Prairie Redox (A16)
Black Hi			Thin Dark Sur		. , .			(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye	. ,	•	, ,	ı	Piedmont Floodplain Soils (F19)
	Layers (A5)		✓ Depleted Mat		,			(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S		6)		\	Very Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Darl	k Surface	(F7)		(	Other (Explain in Remarks)
Thick Da	rk Surface (A12)		Redox Depres	ssions (F	8)			
	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,		
	147, 148)		MLRA 136					
	leyed Matrix (S4)		Umbric Surfac					dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Floo					etland hydrology must be present,
	Matrix (S6)		Red Parent M	laterial (F	21) <b>(MLR</b>	A 127, 147	<b>7)</b> ui	nless disturbed or problematic.
	ayer (if observed):							
Type: no								.,
Depth (inc	ches):		<del></del>				Hydric Soi	il Present? Yes No
Remarks:								



Photo 1
Wetland data point WGRA029f\_w facing southeast



Photo 2
Wetland data point WGRA029f\_w facing east

Project/Site: Atlantic Coast Pipeline	City/County: Greensville	Sampling Date: 10/3/2014			
Applicant/Owner: Dominion		State: VA Sampling Point: wgra029_u			
• •	Section, Township, Range: No				
	Local relief (concave, convex, nor				
Subregion (LRR or MLRA): Roanoke loam 0 to 2 per	Lat: 36.56551061 Long: -77.sent slopes, frequently flooded	Datum: None			
	pical for this time of year? Yes No				
Are Vegetation, Soil, or Hydrolog	y significantly disturbed? Are "Normal	Circumstances" present? Yes No			
Are Vegetation, Soil, or Hydrolog	y naturally problematic? (If needed, e	explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach	ite map showing sampling point location	ons, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes	No le the Sampled Area				
	No. 4/	Yes No			
Wetland Hydrology Present? Yes	No v within a Wetland?	Yes NO			
Remarks:					
Upland data point taken outside a localized dep in ditch/berm system	ression containing a saturated PFO wetland located v	within a 15 year old pine plantation, pines planted			
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required	; check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)			
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)			
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)			
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Iron Deposits (B5)	Other (Explain in Remarks)	<ul><li>Stunted or Stressed Plants (D1)</li><li>Geomorphic Position (D2)</li></ul>			
Iron Deposits (B5) 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:		<u> </u>			
Surface Water Present? Yes No	Depth (inches):				
Water Table Present? Yes No	Depth (inches):				
	Depth (inches): Wetland H	Hydrology Present? Yes No			
(includes capillary fringe)  Describe Recorded Data (stream gauge, moni	oring well, aerial photos, previous inspections), if ava	ailable:			
	5g, asa. p.15155, p.51.546sp55116.15, n. a				
Remarks:					
no hydrology indicators present					

24111011110 FOILIa	Sami	olina	Point: wgra029_	u
--------------------	------	-------	-----------------	---

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?		
1 Pinus taeda	65	Yes	FAC	Number of Dominant Species That Are OBL_FACW_or FAC:  5 (A)
2 Liriodendron tulipifera		No	FACU	That Are OBL, FACW, or FAC: (A)
2. Linodenaron talipliera			1700	Total Number of Dominant
3				Species Across All Strata: 6 (B)
4				
5				Percent of Dominant Species That Are ORL FACW or FAC: 83.33333333 (A/R)
				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
7				
	70	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover:35	20% of	total cover:_	14	OBL species x 1 = 0
Sapling/Shrub Stratum (Plot size: 15 )				FACW species0 x 2 =0
1 Liquidambar styraciflua	15	Yes	FAC	FAC species129 x 3 =387
· ·	10	Yes	FACU	FACU species 20 x 4 = 80
2. Liriodendron tulipifera				0
3. Ilex opaca	5	No	FACU	UPL species x 5 =
4. Acer rubrum	5	No	FAC	Column Totals:149 (A)467 (B)
5 Pinus taeda	3	No	FAC	
<u> </u>				Prevalence Index = B/A = 3.13
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
				2 - Dominance Test is >50%
9	38			3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cove	r 7.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:19	20% of	total cover:_	7.0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				
1. Chasmanthium sessiliflorum	30	Yes	FAC	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				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
_				more in diameter at breast height (DBH), regardless of
1				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	30			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:15	20% of	total cover:_	6	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1 Smilax rotundifolia	6	Yes	FAC	g.m.
2. Campsis radicans	5	Yes	FAC	
3				
4				Hydrophytic
5.				Vegetation
	11	= Total Cove		Present? Yes No
50% of total cover: 5.5		total cover:_	~ ~	
		total cover		
Remarks: (Include photo numbers here or on a separate sl	ieet.)			

Depth	Matrix		Redox Features	<del></del>	
inches)	Color (moist)	<u>%</u>	Color (moist) % Type <sup>1</sup> Loc		Remarks
0-6	10YR 3/2	100		SL	
6-20	10YR 5/3	100		SL	
	·				
		- · · · · · · · · · · · · · · · · · · ·			
	· ·				_
	• •				_
					<u> </u>
	Concentration D. Dan	lation DM Da	advesd Matrix MC Masked Sand Crains	21 continu	DI Dara Lining M Matrix
	Indicators:	netion, Rivi=Re	educed Matrix, MS=Masked Sand Grains.	Location:	PL=Pore Lining, M=Matrix. licators for Problematic Hydric Soils <sup>3</sup> :
-			Death Over( (OZ)	iiiu	
_ Histoso			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 14	48)	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) (LRR N)	(* ( )	Redox Dark Surface (F6)	_	Very Shallow Dark Surface (TF12)
	ed Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	Park Surface (A12)		Redox Depressions (F8)		
	Mucky Mineral (S1) (I	LRR N,	Iron-Manganese Masses (F12) (LRR N	١,	
	A 147, 148)		MLRA 136)	. 2.	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122		Indicators of hydrophytic vegetation and
-	Redox (S5)		Piedmont Floodplain Soils (F19) (MLR		wetland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127	, 147)	unless disturbed or problematic.
	Layer (if observed):				
Type: no	JIIC		<u> </u>		
Depth (ir	nches):		_	Hydric S	oil Present? Yes No
emarks:					



Photo 1 Upland data point WGRA029\_u facing west



Photo 2 Upland data point WGRA029\_u facing north

# WETLAND DETERMINATION DATA FORM – Atlantic and Guif Coastal Plain Region

Project/Site: ACP	City/County: Greensville Sampling Date: 10/17/1/5
Applicant/Owner: Dominion	State: VA Sampling Point: W47 2055 W
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: None
Landform (hillslope, terrace, etc.): drainage	Local relief (concave, convex, none): Concave Slope (%): 0 - 3/
Subregion (LRR or MLRA): LLL P Lat: 316	Local relief (concave, convex, none): Concave Slope (%): 0 - 37, 5, 55, 10 Long: -77.51159 Datum: W4589
Soil Map Unit Name: Roanoke loam, 0-2	1. slopes NWI classification: P35
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 significant	tly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soit Present? Wetland Hydrology Present?  Remarks:	Is the Sampled Area within a Wetland? Yes No
recently cut timber	rland
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that appl	(y) Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (	B13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3) Hydrogen Sulfid	
	spheres along Living Roots (C3)
Sediment Deposits (B2)  Drift Deposits (B3)  Presence of Rei  Recent Iron Rei	duced Iron (C4)  ☐ Crayfish Burrows (C8)  ☐ Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Algal Mat or Crust (B4)  Thin Muck Surfa	
Iron Deposits (B5) Other (Explain i	
Irundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	☐ Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (incl	hes): NH
Water Table Present? YesNo Depth (inc	hes):
Saturation Present? Yes No Depth (inc (includes capillary fringe)	1
Describe Recorded Data (stream gauge, monitoring well, aerial p	shotos, previous inspections), if available:
Remarks:	
I .	

ee Stratum (Plot size: 30ff x 30ff)				Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
				Total Number of Dominant Species Across All Strata:  (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
				OBL species x1 =
		= Total Cov		FACW species x 2 =
50% of total cover:	20% of	f total cover		FAC species x 3 =
npling/Shrub Stratum (Plot size: 30 FT x 30 FT)	_	_	#51A A.	4
Betula nigra		<u> </u>	FACW	
Pinus taeda	<u>ڪ</u>	<u> </u>	FAC	UPL species x 5 =
Liquidambar styraciflua	5_	<u> </u>	FAC	Column Totals: (A) (B)
Salix nigra	5	У	OBL	Decuales as lades as DVA
Acer rubrum	5		FAC	Prevalence Index = B/A =
		. ——		Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
				☐ 3 - Prevalence Index is ≤3.01
13		= Total Co		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: 12	<u>、ち</u> 20%。	of total cover	: <u> </u>	
erb Stratum (Plot size: 30f+ x 30 f+	_			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Robus argutus	<u>    15                                </u>	<u> </u>	FAC	be present, unless disturbed or problematic.
Juneus Effesus	<u> 15</u>	Ý	OBL	Definitions of Four Vegetation Strata:
Saucharum giganteum Ludwigia palustris	20	Ÿ	FACU	)  <u> </u>
Ludwigia palustris	5	$\overline{V}$	OBL	<ul> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or</li> <li>more in diameter at breast height (DBH), regardless of</li> </ul>
Scirpus cyperinus	17)	V	OBL	height.
1 / 1	•			
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
0 1				Woody vine – All woody vines greater than 3.28 ft in height.
2		<del> </del>		_
	_ (5	_ = Total Co	over	
50% of total cover: _3				
Voody Vine Stratum (Plot size: 30ff x30ff)				-
. none				
				-
<u> </u>				-
3,				_
4. <u> </u>				_ ·
5			_	- Hydrophytic
	<u> </u>	_ = Total C	over	Name de la
50% of total cover:	20%			Present? Yes No No
		J. 13101 00V	~	_
Remarks: (If observed, list morphological adaptations b	eiow).			

Sampling Point: Werp 1055\_0

OIL .								Sampling Point:
Profile Desc	ription: (Describe t	o the depth r			icator o	r confirm	the absence o	f indicators.)
Depth	Matrix	<del></del>	Redox	r Features	_ , _			
inches)	Color (moist)	<u></u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
<u> </u>	1011112	<u>98</u> 2	.51R4R	<u>2</u>	<u>(,</u>	PL	<u> 5; L</u>	
2-8	10484/2	70 h	01/2.5/6	30	C'	M	ᆫ	
2-20	10 YR 5/2	80 11	77K 48	20	C	M	SCL	
<u>() 20</u>	<del>-10 / 12 - 12 -</del>	<u> </u>	912 10	<u></u>	<u> </u>		<u> </u>	
		<del></del>				<del></del>		
Type: C=Co	ncentration, D=Depl	etion, RM=Re	duced Matrix, MS	S≃Masked S	and Gra	ins	<sup>2</sup> l ocation: F	L=Pore Lining, M=Matrix.
	ndicators: (Applica							or Problematic Hydric Soils <sup>3</sup> :
- Histosol			Polyvalue Be		-	11 T 2 GG	<del></del>	uck (A9) (LRR O)
_	ipedon (A2)	•	Thin Dark Su					
Black His		•	Loamy Muck			•		.ck (A10) (LRR S) d Vertic (F18) (outside MLRA 150A,E
	n Sulfide (A4)	•	Logray Gleye			0,		
	Layers (A5)	•	Depleted Ma		-)			nt Floodplain Soils (F19) (LRR P, S, T ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	TIN	Redox Dark					
	cky Mineral (A7) (LR		Depleted Dark					A 153B) rent Material (TF2)
	esence (A8) (LRR U		Redox Depre	-	1)			nallow Dark Surface (TF12)
	ck (A9) (LRR P, T)		Marl (F10) (L					
	Below Dark Surface	- (Δ11)	Depleted Oc		11 DA 41	=43	Other (E	Explain in Remarks)
	ark Surface (A12)	(511)	Iron-Mangan				T) 3Indiae	store of businessia in a station and
=	airie Redox (A16) (N	# DA 450A)	Umbric Surfa					ators of hydrophytic vegetation and
=	lucky Mineral (S1) (L	•	Delta Ochric			, 0)		and hydrology must be present,
	Bleyed Matrix (S4)	-KK O, 3)				08 4500)		ss disturbed or problematic.
	ledox (S5)		Reduced Ve					
	Matrix (S6)		Piedmont Flo			•	•	45003
	rface (S7) (LRR P, S	/11 T	Anomaious i	ongrit Coatriy	y Suiis (i	rzo) (MILK	A 149A, 153C,	1630)
	Layer (if observed):							
	Layer (ii observed).	•						
Type:			_				ļ	
Depth (in	ches):		_				Hydric Soil	Present? Yes No
Remarks:								



Wetland data point wgrp005s\_w facing southwest.



Wetland data point wgrp005s\_w facing southeast.

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

Project/Site: ACP	City/County: Greensville Sampling Date: 6/17/15
Applicant/Owner: Dominion	State: VA Sampling Point: Warp 005-00
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: hone
Landform (hillslope, terrace, etc.): drainage  Subregion (LRR or MLRA): LRRP Lat: 36.  Soil Map Unit Name: Loanoke Joan, D-Z'I.  Are climatic / hydrologic conditions on the site typical for this time of years Vegetation, Soil, or Hydrology significantly  Are Vegetation, Soil, or Hydrology naturally pro-	Local relief (concave, convex, none): Concave Slope (%): 0-2/.  55519 Long: -77. 51163 Datum: W6389  Slopes NWI classification: NA  ear? Yes No (If no, explain in Remarks.)  disturbed? Are "Normal Circumstances" present? Yes No
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Remarks:  Yes No  Yes No	Is the Sampled Area within a Wetland?  Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)	Sparsely Vegetated Concave Surface (B8)  I.5) (LRR U)  Odor (C1)  Otheres along Living Roots (C3)  Dry-Season Water Table (C2)  Uced Iron (C4)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Sec (C7)  Geomorphic Position (D2)
Field Observations:  Surface Water Present? Yes No Depth (inches Note of the present	es): > ZO Wetland Hydrology Present? Yes No

- 202 in the track (1 our others) - Ose solentine he	arried or pr	arno.			Sampling Point:
3-17 3087		Dominant		Dominance Test works	sheet:
Tree Stratum (Plot size: 30ftx30ft)	% Cover	Species?		Number of Dominant Sp	necies
1. Liquidam bur styraciflua	<u> 15</u>	Y	PAC	That Are OBL, FACW, o	or FAC: (A)
2. Ilex opaca	5	Y	FAC.		
3. Quercus rubra		<u>y</u>	FACU	Total Number of Domina	
	_ <del></del>	<del></del>		Species Across All Strat	ta; (B)
4				Percent of Dominant Sp	and a second
5				That Are OBL, FACW, o	
6				mat Ale ODE, I ACVV, C	TIAC. (AB)
				Prevalence Index work	ksheet:
7				Total % Cover of:	Multiply by:
8				l.	
		= Total Co	er .		· x1=
50% of total cover:	D 20% of	total cover	. 4	FACW species	x 2 =
Sapling/Shrub Stratum (Plot size: 30ft x 30 ft-)				FAC species	x3=
	10	V	FAC		× 4 =
1. Ilex opaca	<del></del>				I
2. Pinus taeda	10		FAC	1	x5=
3. Liquidum bar styraciflua	<u> </u>	<u> </u>	FAC	Column Totals:	(A) (B)
4. Carya Ovata	- 5	N	FACU	<b>_</b>	
E ()	_ <del></del>			I	= B/A =
5				Hydrophytic Vegetation	on Indicators;
6	<u> </u>				Hydrophytic Vegetation
7			· <del></del> -	2 - Dominance Tes	
8,					
	34	= Total Co		3 - Prevalence Inde	
17	سر <i>سست</i>	= 10tal C0	ver 🔰	Problematic Hydro	phytic Vegetation <sup>1</sup> (Explain)
50% of total cover: 17	20% 0	f total cove	r:	i	
Herb Stratum (Plot size: 30 Ft x 30 Ft)				Indicators of hydric so	il and wetland hydrology must
1. Rubus arautus	10	У	FAC	be present, unless dist	urbed or problematic
2. Pinus talda		Ý	PAC		
		<del>/</del>	- <u>Luc</u>	Definitions of Four Ve	egetation Strata:
3				Tree - Woody plants a	excluding vines, 3 in. (7.6 cm) or
4			- <u> </u>	more in diameter at bre	east height (DBH), regardless of
5				height.	3 1 7 7 1 9
6.					
				Sapling/Shrub - Woo	dy plants, excluding vines, less
7				ulan sin. Den and gre	eater than 3.28 ft (1 m) tall.
8				Herb – All herhaceous	s (non-woody) plants, regardless
9				of size, and woody pla	ints less than 3.28 ft tall.
10					
		_		Woody vine – Ail woo	ody vines greater than 3.28 ft in
11				height.	
12			<del></del>	.	
	_15	_ ≖ Totai C	over		
50% of total cover:	7.5 20%	of total cov	er: 3	1	
Woody Vine Stratum (Plot size: 30ft x30ft)				·	
	٠.	V	C4/2		
1. Vitis rotundifolia	<u></u>	_ <u>_ y</u>	FAC	-	
2. Smilax rotundifolia		<u> </u>	<u> </u>	_ [	
3. Lonicera japonica	15	Y	FAC	. ]	
4	<u></u> -			<del>-</del>	
7.				-	
5				- Hydrophytic	,
	<u>35</u>	= Total 0	Cover	Vegetation	
50% of total cover:		of total cov		Present? Y	res No
			/CI	-	
Remarks: (If observed, list morphological adaptations	below).			<del></del>	
1				. 2 *	
1					

Sampling Point: warp DD5\_4

Profile Description: (Describe to the depth needed to document the indicator or	confirm the absence of indicators.)
Depth Matrix Redox Features	
1 to A 51	Loc <sup>2</sup> Texture Remarks
0-5 10483/2 100	<u> </u>
5-14 104/24/3 100	<u> LS</u>
14-20 164R 5/6 100	SCL
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grain	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Polyvalue Below Surface (S8) (LRi Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T,	'''
Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR S, T, Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR C	
Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5) Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U)  Redox Depressions (F8)	☐ Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151	Other (Explain in Remarks)
Thick Dark Surface (A12)  Iron-Manganese Masses (F12) (Li	•
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, I	
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) . Reduced Vertic (F18) (MLRA 150,	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (I	
Stripped Matrix (S6)  Anomalous Bright Loamy Soils (F2)  Dark Surface (S7) (LRR P, S, T, U)	20) (MLRA 149A, 153C, 153D)
Restrictive Layer (if observed):	
Type:	
Depth (inches):	Hydric Soil Present? Yes No
Remarks:	Tryano Con Troscher Tes NO
·	
<b>\</b>	



Upland data point wgrp005\_u facing west.



Upland data point wgrp005\_u facing north.

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

Project/Site: ACP	City/County: Greensville, Sampling Date: 6/23/15
Applicant/Owner: Dominion	State: VA Sampling Point: W4CPOD6f_w
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: NONE
Landform (hillslope, terrace, etc.): drainage	Local relief (concave, convex none): CDNCAVE, Slone (%): 3 - 8//
Subregion (LRR or MLRA): LRR P U Lat: 36	.54839 Long: -77.50876 Datum: W6584
Soil Map Unit Name: Craven Glay loam, 10-	12% slopes NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of y	
	y disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally pr	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? YesNo	
Hydric Soil Present? Yes No	is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
	j
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply	<del>_</del>
Syrface Water (A1) Aquatic Fauna (E	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3) Hydrogen Sulfide	
	pheres along Living Roots (C3) Dry-Season Water Table (C2)
☐ Sediment Deposits (B2) ☐ Presence of Red ☐ Drift Deposits (B3) ☐ Recent Iron Red	The state of the s
Algal Mat or Crust (B4)  Recent flort Red  Thin Muck Surfa	——————————————————————————————————————
Iron Deposits (B5)  Other (Explain in	p-may .
☐ Ipundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
	nes): NA
Water Table Present? Yes No Depth (inch	
Saturation Present? Yes No Depth (includes capillary fringe)	nes): SUVFACE   Wetland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial ph	notos, previous inspections), if available:
Remarks:	
portions of wetland in	undate 1
	01/600/08
•	

Sampling Point: Wgrp 006 f\_w

GETATION (Four Strata) - Use scientific na	inica oi pi	<u> </u>		Odin	pling Point: Y 📜	
ee Stratum (Plot size: 30f+x30f+		Dominant		Dominance Test worksheet:		=
Fraxinus pennsyvanica		Species?	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	_5_	(A)
	·			Total Number of Dominant	<u>.</u>	
				Species Across Ali Strata:	5	(B)
				Percent of Dominant Species		
				That Are OBL, FACW, or FAC:	100	(A/B)
				Prevalence Index worksheet:		
				Total % Cover of:		
		= Total Co		OBL species;		
50% of total cover: 15	20% of	f total cover	: <u> </u>	FACW species :		
apling/Shrub Stratum (Plot size: 30ffx30ff)				FAC species	,	
Fraxinus pennsylvanica	10	_У	<u>FHCW</u>	FACU species		
·	<del></del>			UPL species		
				Column Totals: (	(A)	(B)
	<del></del>			Prevalence Index = B/A	=	
				Hydrophytic Vegetation India		
				Rapid Test for Hydroph		
				2 - Dominance Test is >50	)%	
,				3 - Prevalence Index is ≤3		
_		= Total Co		Problematic Hydrophytic \		ain)
	<b>5</b> 20% d	of total cove	er:		3	
derb Stratum (Plot size: 30+4 x 30+4)				Indicators of hydric soil and w	efland hydrology	must
. Saururus cernuus	<u> 25</u> 50		OBL	be present, unless disturbed o	r problematic.	
spirodela polyrhiza	<u>50</u>	<u> </u>	OBL	Definitions of Four Vegetation	on Strata:	
Bidens frondosa	_ 10	_ <u>N</u> _	<u>FACW</u>	Tree - Woody plants, excluding	navinos 2 in /7	e cm\ o
1. Panicom hemitomon	<u> </u>	<u> </u>	OBL	more in diameter at breast hel	ig villes, 3 ill. (7. lght (DBH), regai	diess o
5				height.		
5				Sapling/Shrub - Woody plan	ts excluding vin	es less
				than 3 in. DBH and greater th	an 3.28 ft (1 m) t	all.
3				Herb – All herbaceous (non-v	unndu) niante re	nardles
9				of size, and woody plants less	s than 3.28 ft tall.	
10				Minodus vina All woods vina		00 # :-
11				Woody vine – All woody vine height.	es greater than 3	.28 N IN
12				.  •		
···	90	_ = Total C	over			
50% of total cover: 4	5 20%	of total cov		.		
Woody Vine Stratum (Plot size: 30ft x30ft)						
1. Smilax rotundifolia	5	Y	FAL	,		
2						
3				-		
4				- L		
5.				-		
J		T-4-1 (		- Hydrophytic	/	
			_	Vegetation Present? Yes	√ Na	
50% of total cover:		. At total co	ucr l			_

Sampling Point: wgrp006 f-w

Profile Desc	ription: (Describe	to the depth (	needed to docun	ent the indicator	or confirm t	the absence	of indicators	3.)	
Depth	Matrix	<del></del>		Features				_	ļ
(inches)	Color (moist)		Color (moist)		Loc <sup>2</sup>	Texture		Remarks	<del></del>
0-2	101/53/1	_ 100 _				_s;L_			
7-10	10424/1	100				SL	sulfide	e odor	
10-20	10YR41	100				SCL	3011101	<u> </u>	
10-20	101611		<del></del>			<u> </u>		<del></del>	<del></del>
			<del> </del>					<u> </u>	
			•			<del></del>			
								<del></del>	<del></del>
¹Type: C=C	oncentration, D=De	pletion, RM=Re	educed Matrix, MS	S=Masked Sand G	rains.	<sup>2</sup> Location:	PL=Pore Lir	ing, M=Matrix.	
Hydric Soil	Indicators: (Appli	cable to all LR	Rs, unless other	wise noted.)		Indicators	for Problem	atic Hydric S	oils³:
Histosol	(A1)		Polyvalue Be	low Surface (S8)	(LRR S, T, U)	) 🔲 1 cm /	Muck (A9) (LI	RR O)	
1 ===	pipedon (A2)		=	rface (S9) (LRR S			Muck (A10) (I	•	
· =	istic (A3)		=	y Mineral (F1) (LR	·•'			8) (outside M	LRA 150A,B)
	en Sulfide (A4)		_	ed Matrix (F2)	•			in Soils (F19) (	
	d Layers (A5)		Depleted Ma					_oamy Soils (F	
	Bodies (A6) (LRR	P, T, U)	Redox Dark				.RA 153B)	, - 3 <b>.</b> (	,
	ucky Mineral (A7) (I		==	rk Surface (F7)			Parent Materia	al (TF2)	
. =	resence (A8) (LRR		Redox Depre					Surface (TF12	2)
1 <del>1 -</del>	uck (A9) (LRR P, T	-	Mari (F10) (I	• •			(Explain in F		•
<del> </del>	d Below Dark Surfa		_	hric (F11) (MLRA	151)				
Thick D	ark Surface (A12)	, ,		iese Masses (F12		T) <sup>3</sup> Ind	icators of hyd	rophytic veget	ation and
. =	Prairie Redox (A16)	(MLRA 150A)		ace (F13) (LRR P			-	gy must be pr	
Sandy!	Mucky Mineral (S1)	(LRR O, S)		(F17) (MLRA 151			-	d or problemat	
	Gleyed Matrix (S4)	•		rtic (F18) (MLRA				•	
. =	Redox (S5)		_	oodplain Soils (F1					
│	d Matrix (S6)		Anomalous	Bright Loamy Soil	s (F20) (MLR	A 149A, 153	C, 153D)		
Dark S	urface (S7) (LRR P	, S, T, U)							
Restrictive	Layer (if observed	d):	<del></del>	<del> </del>		1			<del></del>
Type:									
1 —	nches):		_			Hudric Sc	il Present?	Yes	No
			<del></del>			riyane oc	m Fleseitti	168	140
Remarks:									
1									
<b>,</b>									
	4								
ļ									
ļ									



Wetland data point wgrp006f\_w facing west.



Wetland data point wgrp006f\_w facing north.

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

Project/Site: ACP	_ City/County: Greensville Sampling Date:
Applicant/Owner: Dominion	State: VA Sampling Point: wgv p00065_c
Investigator(s): ESI (Roper, Markham)	
Landform (hillstope, terrace, etc.): drainage	Local relief (concave, convex, none): <u>LonCave</u> Slope (%): <u>0-3</u> .65510 Long: <u>-77, 51159</u> Datum: <u>W6887</u>
Subregion (LRR or MLRA): LLR P U Lat: 36	.55510 Long: -77.51159 Datum: W6584
Soil Map Unit Name: Roanoke loam . O-	27. 610065 NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of	
Are Vegetation, Soil, or Hydrology significant	tly disturbed? Are "Normal Circumstances" present? YesNo
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No Wetland Hydrology Present? Yes No Remarks:	Is the Sampled Area  within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that appl	
Surface Water (A1) Aquatic Fauna (	<del></del>
High Water Table (A2)  Marl Deposits (B	
Saturation (A3) Hydrogen Sulfid	
	spheres along Living Roots (C3)
	duction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfi	
Iron Deposits (B5)	<del></del> /
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9) Field Observations:	Sphagnum moss (D8) (LRR T, U)
1	has). NA
Surface Water Present? Yes No Depth (income water Table Present? Yes No Depth (income water Table Present?	thes): >20
Saturation Present? Yes No Depth (includes capillary fringe)	ches): 12 Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial p	photos, previous inspections), if available:
Remarks:	
	•

Associus Dominants Indicators Associus Dominants Indicators Associus Accert Pubrum  **Cever Spraker Slatus** C	LOCIATION (Four Strata) - Ose scientific ha	annes or pr	ans.		Sampli	ing Point: "3' F
Acer robrom  Z Y FAC  Total Number of Dominant Species That Are OBL, FACW, or FAC:  (A)  Total Number of Dominant Species That Are OBL, FACW, or FAC:  (B)  Percent of Dominant Species That Are OBL, FACW, or FAC:  (C)  Total Species That Are OBL, FACW, or FAC:  (C)  (A)  Prevalence Index worksheet:  Total Scoper of:  Multiply by:  Sapling/Shrub Stratum (Plot size: 30ft x 30ft)  Corpinus (Archinana 30 Y FACW)  Courcus Laurifolia 5 N FACW  YOLLINION COTYM DOSUM LO Y PACW  VOLUNION COTYM DOSUM LO Y PACW  The Stratum (Plot size: 30ft x 30 ft)  Solve of total cover:  Wisteria Frutescens  S Y FACW  Problematic Hydrophytic Vegetation Indicators:  Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Wisteria Frutescens  S Y FACW  Problematic Hydrophytic Vegetation (Explain)  Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Four Vegetation Strate:  Tree - Woody plants, excluding vines, less than 3, pBH and greater than 3, 28 ft in height.  Sapling/Shrub - Woody plants, excluding vines, less than 3, pBH and greater than 3, 28 ft in height.  Solve of total cover:  Solve of total cover:  1 S = Total Cover  Solve of total cover:  1 S = Total Cover  Solve of total cover:  1 S = Total Cover  Solve of total cover:  1 S = Total Cover  Solve of total cover:  1 S = Total Cover  Solve of total cover:  Solve of tot	7.54.2084				Dominance Test worksheet:	
That Are OBL, FACW, or FAC: \$\begin{align*}{c} (A) \\ Total Number of Dominant Species Across All Strate: \$\begin{align*}{c} (S) \\ Percent of Dominant Species Across All Strate: \$\begin{align*}{c} (S) \\ Percent of Dominant Species That Are OBL, FACW, or Face: That Are That Are That OBL, Facew, or Face: That Are That	ree Stratum (Plot size: 30+1 X 5 O+7				Number of Dominant Species	
Total Number of Dominant Species Across All Strate:    Prevalence Index worksheet:	. Acer rubrum			PAC	That Are OBL, FACW, or FAC:	<b>√</b> (A)
Species Across All Stratus. (B)  Percent of Dominant Species That Are OBL, FACW, or FAC:  Total Scover of:  Multiply by:  OBL species x1= FACW species x2= FACW species x3= FACW species x3= FACW species x4= UPL species x4= UPL species x5=	• • • • • • • • • • • • • • • • • • • •		•			
Percent of Dominant Species That Are OBL, FACW, or FAC:    Prevalence index workeds en index between index end in the index						1.
That Are OBL, PACW, OFAC: 100 (A/B)  Prevalence Index workshoot: Total & Cover of Multiply by:    Solid total cover:   20% of total cover: 0.1 4					Species Across All Strata:	(B)
That Are OBL, FACW, or FAC: 100 (A/B)  That Are OBL, FACW, or FAC: 100 (A/B)  Prevalence Index worksheet:  Total % Cover of: Multiply by:  OBL species				1	Percent of Dominant Species	
Provalence Index workshoes:    Total & Cover of:   Molificity by:   OBL species   x 1 =   FACV species   x 2 =   FACV species   x 3 =   FACV species   x 4 =   F	·					100 (A/B)
Tree - Woody plants, excluding vines, less than 3. to the first cover   1	•					
Total & Cover   Multiply by:					Prevalence Index worksheet:	
Corpins Coroliniana   Corpins   Co					Total % Cover of:	Multiply by:
So% of total cover: 1 20% of total cover: 0 7 FACV species	*				l .	
FAC species X3 =   COLOR STATEMENT (Plot size: SOFT X SOFT)  COLOR SOFT SOFT SOFT SOFT SOFT SOFT SOFT SOFT	,		= Lotal Co	ver	•	
Corpinus caroliniana 30 y FACU FACU FACU FACU FACU FACU FACU FACU	50% of total cover:	20% o	f total cover	: <u>U,7</u>	_	<del>-</del>
Definitions of Four Vegetation (CE) (CE) (CE) (CE) (CE) (CE) (CE) (CE)	Sapling/Shrub Stratum (Plot size: 30++ x 30++)			_		
Definitions of Four Vegetation (CE) (CE) (CE) (CE) (CE) (CE) (CE) (CE)	. Carpinus caroliniana	30	À	FACW		
Column Totals:	Quercus lauritalia	_ =	N	FACH	UPL species x	5 =
Prevalence Index = B/A = Hydrophytic Vegetation Indicators:   Hydrophytic Vegetation Indicators:   Prevalence Index is \$5.0%     2 - Dominance Test is \$5.0%     3 - Prevalence Index is \$3.0     3 - Prevalence Index is \$3.0     Problematic Hydrophytic Vegetation     1 - Rapid Test for Hydrophytic Vegetation     2 - Dominance Test is \$5.0%     3 - Prevalence Index is \$3.0     Problematic Hydrophytic Vegetation     1 - Rapid Test for Hydrophytic Vegetation     1 - Rapid Test for Hydrophytic Vegetation     2 - Dominance Test is \$5.0%     3 - Prevalence Index is \$3.0		- <del>10</del>	<u> </u>			
Hydrophytic Vegetation Indicators:   Paper   Pydrophytic Vegetation	·····		· <del> /</del>	PHW		,
Hydrophytic Vegetation Indicators:   Hydrophytic Vegetation   Hydrophytic Vegetation   Lapid Test for Hydrophytic Vegetation					Prevalence Index = B/A =	
Rapid Test for Hydrophytic Vegetation  1. Sow of total cover: 22.5 20% of total cover: 25.5 20%	D					
Solution					l —	
3 - Prevalence Index is \$3.0¹    3 - Prevalence Index is \$3.0¹   3 - Prevalence Index is \$3.0¹   3 - Prevalence Index is \$3.0¹   3 - Prevalence Index is \$3.0¹   3 - Prevalence Index is \$3.0¹   3 - Prevalence Index is \$3.0¹   3 - Prevalence Index is \$3.0¹   3 - Prevalence Index is \$3.0¹   3 - Prevalence Index is \$3.0¹   Problematic Hydrophytic Vegetation¹ (Explain)  **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.  **Billing/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  **Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  **Woody Vine - All woody vines greater than 3.28 ft in height.  **Woody Vine Stratum** (Plot size: 30ft x 30ft)  1						
Problematic Hydrophytic Vegetation (Explain)   Problematic Hydrophytic Vegetation (Explain)						
Sow of total cover: 27.5   20% of total cover: 4   1.   Toxicodendron radicans   10   Y   FAC		LJE			☐ 3 - Prevalence Index is ≤3.0	)1
Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.	0.5	,	_ = Total Co	over a	Problematic Hydrophytic Ve	getation¹ (Explain)
1. Toxicodendron radicans 2. Wisteria frutescens 3. J FACM  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, 4 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 3.28 ft (1 m) tall.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine - All woody vines greater than 3.28 ft in height.  Somilax rotundifolia  J FAC  Woody vine - All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present?  Yes No		<u>~いろ</u> 20% c	of total cove	r: <u> </u>		
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 3.28 ft (1 m) tall.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  Woody vine - All woody vines greater than 3.28 ft in height.  Woody vine - All woody vines greater than 3.28 ft in height.  The complete of the problematic.  Definitions of Four Vegetation Strata:  Tree - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Woody vine - All woody vines greater than 3.28 ft in height.  The complete of the problematic.  Definitions of Four Vegetation Strata:  Tree - Woody plants, excluding vines, a in. (7.6 cm) or more in diameter at breast height (DBH), regardless of size, and woody plants less than 3.28 ft in height.  The complete of the problematic.  Definitions of Four Vegetation Strata:  Tree - Woody plants, excluding vines, a in. (7.6 cm) or more in diameter at breast height (DBH), regardless of size, and woody plants less than 3.28 ft (1 m) tall.  Woody vine - All woody vines greater than 3.28 ft in height.  The complete of the problematic in diameter at breast height (DBH), regardless of size, and woody plants, regardless of size, and woody plants less than 3.28 ft in height.  Woody vine - All woody vines greater than 3.28 ft in height.  The complete of the problematic in diameter at breast height (DBH), regardless of size, and woody plants, excluding vines, less than 3.28 ft in height.  The complete of the problematic in diameter at breast height (DBH), regardless of size, and woody plants, regardles	Herb Stratum (Plot size: 30 H x 30 H)				1 Indicators of hydric soil and we	tland hydrology must
2. Wisteria frutescens 3. Definitions of Four Vegetation Strata: 3. 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 3.28 ft (1 m) tall.  Bell of the control of the c	1. Toxicodendron radicans	16	Y	FAC	be present, unless disturbed or	problematic.
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 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  15 = Total Cover  50% of total cover: 7.5 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  1. 5 milax votundifolia 10 y FAC  2. 3. 4. 5.  Hydrophytic  Vegetation Present? Yes No	2 Wisteria frutescens	- 5			<del>                                   </del>	•
more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Sow of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  Sow i Ax votundifolia 10 y FAC  2.  3.  4.  5.  ID = Total Cover  20% of total cover: 2  Hydrophytic Vegetation Present? Yes No					Deminitions of Four Vegetation	i Strata.
height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Solver — So					Tree - Woody plants, excluding	vines, 3 in. (7.6 cm) o
Sapling/Shrub — Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb — All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine — All woody vines greater than 3.28 ft in height.  Sow of total cover: 7 is 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  Sow of total cover: 10 y F ft/  Sow of total cover: 20% of total cover: 2  Hydrophytic Vegetation  Fresent? Yes No					more in diameter at breast heigh	ht (DBH), regardless o
than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.    Sow of total cover: 7.5 = Total Cover	5	<del></del>			height.	
than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.    Sow of total cover: 7.5 = Total Cover	6		_		Sanling/Shrub - Woody plants	evoludina vinas lass
8					than 3 in. DBH and greater than	1 3.28 ft (1 m) tall.
9					` <b>,</b>	
10					Herb - All herbaceous (non-wo	ody) plants, regardles
11					of size, and woody plants less t	nan 3.28 ft tall.
11.  12.  15 = Total Cover  50% of total cover: 7.5 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  1. 5milax rotundifolia 10 y FAC  2.  3.  4.  5.  10 = Total Cover  Hydrophytic Vegetation Present? Yes No  No					Woody vine - All woody vines	greater than 3.28 ft in
15	11					grouter train orgon train
50% of total cover: 7.5 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  1. 5 milax rotundifolia 10 y FAC  2	12					
50% of total cover: 7.5 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  1. 5 milax rotundifolia 10 y FAC  2		15	= Total C	over	-	
Woody Vine Stratum (Plot size: 30ft x 30ft)       10 y FAC         1. 5milax rotundifolia       10 y FAC         2	FOO/ - 5  - 4-1					
1. <u>Smilax rotundifolia</u>		20%	of total cov	rer:	- <u> </u>	
2	Woody Vine Stratum (Plot size: 30++ x 50+T)	17	١			
4	1. Smilax rotundifolia	<u></u>	<u> </u>	<u> </u>	_ [	
4	2.	=	,		_	
4	3				<del>-</del>	
5 Hydrophytic Vegetation Present? Yes No					- [	
50% of total cover: 5 20% of total cover: 2 Vegetation Present? Yes No	4				-	
50% of total cover: 5 20% of total cover: 2 Vegetation Present? Yes No	5				- Hydronbytic	
50% of total cover: 5 20% of total cover: 2 Present? Yes V No		170	= Total (	Cover		,
50% of total cover: 3 20% of total cover:	FON/ _£1_1_1			_		, No
Remarks: (If observed, list morphological adaptations below).			of total co	ver:	_	
	Remarks: (If observed, list morphological adaptations	below).				
		-				

Sampling Point: wyr p 0065 w

	to the depth need	αθα το αφουπ	nent the ind	licator o	r confirm	the absence o	f indicators.)		
Depth Matrix	<del></del>		x Features	, -					ļ
(inches) Color (moist)		or (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Ren	narks	
	100	11/1-1	==-	<del></del> .	- A -				
4-14 107R 5/2	<u>75 10</u>	YK 3 K	<u> 30</u> _	<u>C</u>	M	3CL			
14-20 LOYR 5/2	60 (0)	25/6	40	6	M	5CL	armel	reder	7
		<del>1                                    </del>			<del></del>		()	V	-
								· · · ·	<del></del>
	<del></del>								
	. <del></del>								
<sup>1</sup> Type: C=Concentration, D=Dep	letion, RM=Redu	ced Matrix, MS	S=Masked S	Sand Gra	Ins.	<sup>2</sup> Location	PL=Pore Lining, N	l≖Matrix	
Hydric Soil Indicators: (Applic							for Problematic F		
Histosol (A1)	n	Polyvalue Be		•	RRSTI		uck (A9) (LRR O)	•	
Histic Epipedon (A2)	Ħ	Thin Dark Su					uck (A10) (LRR S		
Black Histic (A3)	Ħ	Loamy Muck					ed Vertic (F18) (ou		150A,B)
Hydrogen Sulfide (A4)	Ī	Loamy Gleye			•		nt Floodplain Soil		
Stratified Layers (A5)	Ē	Depleted Ma		·		1 6	lous Bright Loamy		
Organic Bodies (A6) (LRR F		Redox Dark	Surface (F6	)		(MLF	(A 153B)		
🔲 5 cm Mucky Mineral (A7) (L		Depleted Da	rk Surface (	F7)			rent Material (TF:		
Muck Presence (A8) (LRR L	J) 📙	Redox Depre		)			hallow Dark Surfa		
1 cm Muck (A9) (LRR P, T)		Marl (F10) (I				U Other	Explain in Remarl	ks)	
Depleted Below Dark Surface	ce (A11)	Depleted Oc			•				
Thick Dark Surface (A12)		Iron-Mangar					ators of hydrophy	-	
Coast Prairie Redox (A16) (		Umbric Surf			, U)		land hydrology mi		1
Sandy Mucky Mineral (S1) (	LKK 0, 3) +	Delta Ochrid Reduced Ve			በለ 1ድበዊ		ess disturbed or p	robiematic.	
Sandy Redox (S5)	<b>+</b>	Piedmont Fl				•			
Stripped Matrix (S6)	<del> -</del>	1	•			+3A) RA 149A, 153C	153D)		
Dark Surface (S7) (LRR P,	S. T. U)	1 1 110(1101000	Diigiii Louii	,, 00 (	. 25/ (11121	100 m	, 1002,		
Restrictive Layer (if observed				•••	-	1			
Туре:	•							/	
						Hydric Soi	Present? Yes	. No	ı
I Depth (inches):						,			
Depth (inches):						<del></del>	***		
Depth (inches):Remarks:						<del>-</del>			
	· · · · · · · · · · · · · · · · · · ·					-!			
			•			!			
						<del>'</del>			
			,						
						!			
		-				!			
		-				!			
		-							
			,			-			
			•			-			
			•			-			
			•						
			•						·
			•						
			•						
			•						



Wetland data point wgrp006s\_w facing south.



Wetland data point wgrp006s\_w facing east.

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

Project/Site: <u>ACP</u>	City/County: Greensville Sampling Date: 6/1/15
Applicant/Owner: Dominion	State: VA Sampling Point: w1rp 006_u
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: NDNC
Landform (hillslope, terrace, etc.): drainage	Local relief (concave, convex, none): <u>LONCAVE</u> Slope (%): <u>0-37.</u> . 55519 Long: <u>-77.51163</u> Datum: <u>W6599</u>
Subregion (LRR or MLRA): LRR P Lat: 36	. 55519 Long: -77. 51163 Datum: W6599
Soil Map Unit Name: Koanoke loam, 0-2	1. slopes NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantl	ly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:	Is the Sampled Area within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply  Surface Water (A1)  Aquatic Fauna (6)	· · · · · · · · · · · · · · · · · · ·
High Water Table (A2)  Mari Deposits (B	
Saturation (A3)	
	spheres along Living Roots (C3)
☐ Sediment Deposits (B2) ☐ Presence of Red ☐ Drift Deposits (B3) ☐ Recent Iron Red	duced Iron (C4)  Laction in Tilled Soils (C6)  Laction in Tilled Soils (C6)  Laction in Tilled Soils (C6)
Algal Mat or Crust (B4)  Thin Muck Surfa	
Iron Deposits (B5) Other (Explain in	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9) Field Observations:	Sphagnum moss (D8) (LRR T, U)
	has). NA
Surface Water Present?  Yes No Depth (inclease water Table Present? Yes No Depth (inclease water Table Present?	hes): >70
Saturation Present? Yes No Depth (incl	
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:
Remarks:	
	·

zozminom (r our otrata) - oce coloniane	marries of plants.	Sampling Polit. 44 1444
Tree Stratum (Plot size: 30ft x30ft)	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
Ilex opula	10 Y PAC	That Are OBL, FACW, or FAC: (A)
Fagus granifolia	ZO Y FACU	<del></del>
Carya ovata	10 Y FALL	Total Number of Dominant
	— <del></del>	Species Across All Strata: (B)
·		Described Described Occasion
j		Percent of Dominant Species That Are OBL, FACW, or FAC: 38 1/4 (A/B)
		That Are OBL, PACW, or PAC: (A/B)
)		Prevalence Index worksheet:
·		
		Total % Cover of: Multiply by:
	4D = Total Cover	OBL species x 1 =
	20% of total cover:	FACW species $30$ $x2 = 90$
Sapling/Shrub Stratum (Plot size: 30++x30++)		FAU species x3=
Ilex opaca	10 Y FAC	FACU species <u>70</u> x4 = <u>280</u>
Fagus grandifolia		UPL species x 5 =
	26 Y FACY	100 (3)
Pronus seratina		Column Totals: (A) 375 (B)
. Curya ovata	10 Y FACU	B
		Prevalence Index = B/A = 3.7
	<del></del>	Hydrophytic Vegetation Indicators:
S		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
		1 言
3	—————	3 - Prevalence Index is ≤3.01
_	45 = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: 2	-2,5 20% of total cover: _ 9	
Herb Stratum (Plot size: 30Fb x30Pr.)		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. none		be present, unless disturbed or problematic.
•		
2		Definitions of Four Vegetation Strata:
3		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of
		height.
5		17019.11.
6		Sapling/Shrub - Woody plants, excluding vines, less
7		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		Herb - Ail herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		1111
		Woody vine - All woody vines greater than 3.28 ft in
11	<del></del>	height.
12		
	= Total Cover	
50% of total cover:	20% of total cover;	
	2070 01 (018) 00761.	· [ -
Woody Vine Stratum (Plot size: 30ft. x 30ft.)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
1. Smilax rotundifolia	<u> 10 y pac</u>	<u>.</u>
2. Parthenocissus quinque fo	JEW F Y FAIL	,
	<u> </u>	-
3		-
4		_
5		-
J		- Hydrophytic
	= Total Cover	Vegetation
50% of total cover:	7.5 20% of total cover: 3	Present? Yes No
Remarks: (If observed, list morphological adaptation	ns below).	

_	_	
~	$\overline{}$	

SOIL							Sampling Point: 1	warp00b_u
Profile Desc	ription: (Describe	to the depth	needed to docur	nent the indica	ator or confirm	the absence of in		
Depth (inches)	Matrix Color (moist)		Redo	x Features	1 2	7*	, .	
(inches) (2-2	10 y R 3/z		Color (moist)	%Ty	pe¹ Loc²	Texture	Remarks	
		106			<del>_</del>	<del></del>	<del>.</del>	
2-6	10 YR 3/3	<u> 100</u> _		- <del></del> -	<del></del>		-	
6-12	10YR 4/4	100				<u>-501 _</u>	<u></u>	
12-20	10 124/6	100	<del>- ,</del>			<u> </u>		
								ĺ
			-					
					······································			
¹Type: C=Ce	oncentration, D=Dep	letion RM=R	educed Matrix M	S=Masked Sar	d Grains	<sup>2</sup> l ocation: PI =	Pore Lining, M=Matrix	<del></del>
	Indicators: (Applic				d Ciding.		Problematic Hydric S	
Histosol				_	88) (LRR S, T, U)	_	•	
	pipedon (A2)			urface (S9) (LR		·	(A10) (LRR S)	
	istic (A3)		Loamy Mucl	ky Mineral (F1)	(LRR O)	Reduced V	ertic (F18) (outside N	
	en Sulfide (A4)		= -	ed Matrix (F2)			loodplain Soils (F19)	
	d Layers (A5)		Depleted Ma				Bright Loamy Soils (I	F20)
	Bodies (A6) (LRR P			Surface (F6)	•	(MLRA 1		
	ucky Mineral (A7) (LI resence (A8) (LRR U			ark Surface (F7 ressions (F8)	)		i Material (TF2) ow Dark Surface (TF1	2)
	uck (A9) (LRR P, T)	-1	Marl (F10) (				lain in Remarks)	2)
	d Below Dark Surfac	ce (A11)		chric (F11) (ML	RA 151)		is in the second	
Thick D	ark Surface (A12)				12) (LRR O, P,	T) <sup>3</sup> Indicator	s of hydrophytic vege	tation and
	Prairie Redox (A16) (		<del>-</del>	face (F13) (LRI	•		hydrology must be p	
	Mucky Mineral (S1) (	LRR O, S)		c (F17) (MLRA	-		disturbed or problema	tic.
	Gleyed Matrix (S4)				RA 150A, 150B)			
	Redox (S5) d Matrix (S6)				(F19) (MLRA 14	19A) RA 149A, 153C, 15	2D)	
	urface (S7) (LRR P,	S. T. III	L. Anomaious	Bright Loanly v	BOIIS (FZO) (IVILA	A 149A, 153C, 15	נטט)	
	Layer (if observed							
Type:	- '	•						
1	nches):		<u> </u>			Hydric Soil Pre	esent? Yes	No /
Remarks:						1		
}								
1								
}								



Upland data point wgrp006\_u facing southwest.



Upland data point wgrp006\_u facing north.

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

Project/Site: ACP	City/County: Greensville Sampling Date: 6123/15
Applicant/Owner: Dominion	State: VA Sampling Point: W470006-42
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: NONE
Subregion (LBB or MLBA), L L P	Local relief (concave, convex, none): <u>convex</u> Slope (%): <u>4-8/.</u> .54838 Long: <u>-77.56877</u> Datum: <u>W6589</u>
Subjection (LRR of MLRA); <u>LAFT</u> Lat. <u>So</u>	-17'/ 5/20es - 100 A/A
Soil Map Unit Name: Craven Clay Dam, lo	
Are climatic / hydrologic conditions on the site typical for this time of y	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply	) Surface Soil Cracks (B6)
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Harl Deposits (B	
☐ Saturation (A3) ☐ Hydrogen Sulfide	
	oheres along Living Roots (C3) Dry-Season Water Table (C2)
☐ Sediment Deposits (B2) ☐ Presence of Rec ☐ Drift Deposits (B3) ☐ Recent Iron Red	uced Iron (C4)
Algal Mat or Crust (B4)  Algal Mat or Crust (B4)  Thin Muck Surfa	prompt of the control
Iron Deposits (B5) Other (Explain in	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	10
Surface Water Present? Yes NoDepth (inch	es): NH
Water Table Present? Yes NoDepth (incl	les):
Saturation Present? Yes No Depth (incl	nes): 320 Wetland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial pl	notos, previous inspections), if available:
	.,
Remarks:	
	!

Sampli	ng Point: wgrp 00 ba
worksheet:	
ant Species CW, or FAC:	<u>4</u> (A)
Dominant Il Strata:	8 (B)
ant Species CW, or FAC:	50 1/2 (A/B)
k worksheet:	
x1	Multiply by:
35 x	2 =
79 (A)	
Index = B/A =	
getation Indica	<b>!</b>
st for Hydrophyt	_
ce Test is >50%	
ce Index is ≤3.0	1
Hydrophytic Ve	getation¹ (Explain)
iric soil and wet ss disturbed or p	land hydrology must problematic.
our Vegetation	Strata:
	vines, 3 in. (7.6 cm) or at (DBH), regardless of
<ul> <li>Woody plants, and greater than</li> </ul>	, excluding vines, less 3.28 ft (1 m) tall.
iceous (non-wo dy plants less t	ody) plants, regardless han 3.28 ft tall.
All woody vines	greater than 3.28 ft in
	•
Yes	No

<u> </u>	A1II-	Danisant	1	Carripinity Found.
Tree Stratum (Plot size: 30f+ x30f+)		Dominant Species?		Dominance Test worksheet:
Tlay		Species?	<u>Status</u>	Number of Dominant Species
1. Ilex opaca	<u> 10</u>	<u>y</u>	FAC	That Are OBL, FACW, or FAC:(A)
2. Fagus arandifolia	30	y	FACUL	
, ) )				Total Number of Dominant
3,				Species Across All Strata: (B)
4				
				Percent of Dominant Species 60 1
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  50 1/4 (A/B)
6				
7				Prevalence Index worksheet:
	·			Total % Cover of: Multiply by:
8				•
	40	= Total Co	ver	OBL species x 1 =
50% of total cover: 20		f total cover	- 1	FACW species x 2 =
2 N CL 2 N CL	20% 0	i totai covei	· ——	FAC species 35 x3 = 105
Sapling/Shrub Stratum (Plot size: 30ft x 30ft)				
1. Fagus grandifolia	10	У	FACU	FACU species 44 x4= 176
2. ALET rubrum				UPL species x 5 =
2. ALEI TUOTUM	TO	<u> </u>	FAC	
3			!	Column Totals: <u>79</u> (A) <u>281</u> (B)
4				Prevalence Index = B/A = 3.55
5,				
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8				1 <del>-</del>
<u> </u>	2.5			3 - Prevalence Index is ≤3.01
		= Total Co		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 10	20% c	if total cove	.r. 4	
Herb Stratum (Plot size: 30f+x30f+)		i total oo ra		
Herb Stratum (Plot size: SUTTX SUTT)	0	• .		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Mitchella repens	2	У	FACU	be present, unless disturbed or problematic.
2. Goodvera pubescens	7	<u> </u>	UPL	<u></u>
2. O DOONERA PROESCENCY		- —/—	<u> </u>	Definitions of Four Vegetation Strata:
3				The Manufacture of the control of th
			-	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6,				0
				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				I I I I I I I I I I I I I I I I I I I
9				of size, and woody plants less than 3.28 ft tall.
10				West and All the second
				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12,				.
<del></del>	- 4	= Total C	over	
•				
50% of total cover: 2	20%	of total cov	er: <b>0.8</b>	.
Woody Vine Stratum (Plot size: 30ft x30ft)				1
	1~	M	د پي سن	
1. Smilax rotundifolia	<u> 10</u>		<u> FAC</u>	_
2. Vitis rotundifolia	5	Υ	FAL	
			<u>, ,,,</u>	<del>-</del>
3				_ {
4				
				-
5				- Hydrophytic
	1.5	= Total (	Cover	Vegetation
·				Present? Yes No
50% of total cover:	<u>.                                    </u>	of total co	ver:	- NO
Remarks: (if observed, list morphological adaptations be	alow)			
Tremamer (in coost toe, not morphiological dauptanona se				
1				
}				
1				

Sampling Point:	νq	rpol	)b_u,	_

rofile Desc epth	ription: (Describe Matrix	to the depth		nent the indi x Features	cator or confire	n the absence of i	ndicators.)	
nches)	Color (moist)		Color (moist)		ype¹ Loc²		Remarks	
<u> </u>	10YR3/2	<u> 100</u> _				<u>SL</u> _		
<u>,-20</u>	104K 2H	<u> </u>				. <u> </u>		
				<del></del> -			-	
		- <del></del>		<del></del> _	<del></del>	. <del></del> .		<u>.</u> .
<del> </del>				. <del>_</del>		- <del></del> -	<u> </u>	
	oncentration, D=De						=Pore Lining, M=Ma	
	Indicators: (Appli	cable to all Li				<del></del>	r Problematic Hydri	c Soils":
Histoso	ı (A1) pipedon (A2)		_	вюж Suпасе urface (S9) (L	(S8) (LRR S, T, RR S T U)		k (A9) (LRR 0) k (A10) (LRR S)	
	istic (A3)			ky Mineral (F1			Vertic (F18) (outsid	e MLRA 150A,B
Hydrog	en Sulfide (A4)			ed Matrix (F2			i Floodplain Soils (F1	
	d Layers (A5)		Depleted Ma				us Bright Loamy Soil	s (F20)
	Bodies (A6) (LRR			Surface (F6) ark Surface (F		(MLRA	. 153B) ent Material (TF2)	
	ucky Mineral (A7) (I resence (A8) (LRR		<del></del>	ressions (F8)	· ()		ati wateriai (172) illow Dark Surface (T	F12)
-	uck (A9) (LRR P, T		Marl (F10) (				xplain in Remarks)	
Deplete	ed Below Dark Surfa	ice (A11)		chric (F11) (N		_	•	
=	ark Surface (A12)		_		(F12) (LRR O,		ors of hydrophytic ve	
<b>=</b>	Prairie Redox (A16) Mucky Mineral (S1)		_	face (F13) (Ll c (F17) (MLR	•		nd hydrology must be s disturbed or proble	
=	Gleyed Matrix (S4)	(LKK 0, 3)			LRA 150A, 150		s disturbed of broble	irrano.
=	Redox (S5)				ls (F19) (MLRA			
_	ed Matrix (S6)		Anomalous	Bright Loam	y Soils (F20) (M	LRA 149A, 153C, 1	153D)	
	urface (S7) (LRR P							
	Layer (if observe	-				•		
Type: _		···	<del></del>			15		/
	nches):					Hydric Soil F	resent? Yes	No_ <del></del>
Remarks:		•		-				
					•			



Upland data point wgrp006\_u2 facing south.



Upland data point wgrp006\_u2 facing east.

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

Project/Site: ACP	City/County: Greensville, Sampling Date: 6/23/15
Applicant/Owner: Dominion	State: VA Sampling Point: W4CPOD6f_w
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: NONE
Landform (hillslope, terrace, etc.): drainage	Local relief (concave, convex none): CDNCAVE, Slone (%): 3 - 8//
Subregion (LRR or MLRA): LRR P U Lat: 36	.54839 Long: -77.50876 Datum: W6584
Soil Map Unit Name: Craven Glay loam, 10-	12% slopes NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of y	
	y disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally pr	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? YesNo	
Hydric Soil Present? Yes No	is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
	j
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply	<del>_</del>
Syrface Water (A1) Aquatic Fauna (E	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3) Hydrogen Sulfide	
	pheres along Living Roots (C3) Dry-Season Water Table (C2)
☐ Sediment Deposits (B2) ☐ Presence of Red ☐ Drift Deposits (B3) ☐ Recent Iron Red	The state of the s
Algal Mat or Crust (B4)  Recent flort Red  Thin Muck Surfa	——————————————————————————————————————
Iron Deposits (B5)  Other (Explain in	p-may .
☐ Ipundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
	nes): NA
Water Table Present? Yes No Depth (inch	
Saturation Present? Yes No Depth (includes capillary fringe)	nes): SUVFACE   Wetland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial ph	notos, previous inspections), if available:
Remarks:	
portions of wetland in	undate 1
	01/600/08
•	

Sampling Point: Wgrp 006 f\_w

GETATION (Four Strata) - Use scientific na	inica oi pi	<u> </u>		Odin	pling Point: Y 📜	
ee Stratum (Plot size: 30f+x30f+		Dominant		Dominance Test worksheet:		=
Fraxinus pennsyvanica		Species?	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	_5_	(A)
	·			Total Number of Dominant	<u>.</u>	
				Species Across Ali Strata:	5	(B)
				Percent of Dominant Species		
				That Are OBL, FACW, or FAC:	100	(A/B)
				Prevalence Index worksheet:		
				Total % Cover of:		
		= Total Co		OBL species;		
50% of total cover: 15	20% of	f total cover	: <u> </u>	FACW species :		
apling/Shrub Stratum (Plot size: 30ffx30ff)				FAC species	,	
Fraxinus pennsylvanica	10	_У	<u>FHCW</u>	FACU species		
·	<del></del>			UPL species		
				Column Totals: (	(A)	(B)
	<del></del>			Prevalence Index = B/A	=	
				Hydrophytic Vegetation India		
				Rapid Test for Hydroph		
				2 - Dominance Test is >50	)%	
,				3 - Prevalence Index is ≤3		
_		= Total Co		Problematic Hydrophytic \		ain)
	<b>5</b> 20% d	of total cove	er:		3	
derb Stratum (Plot size: 30+4 x 30+4)				Indicators of hydric soil and w	efland hydrology	must
. Saururus cernuus	<u> 25</u> 50		OBL	be present, unless disturbed o	r problematic.	
spirodela polyrhiza	<u>50</u>	<u> </u>	OBL	Definitions of Four Vegetation	on Strata:	
Bidens frondosa	_ 10	N	<u>FACW</u>	Tree - Woody plants, excluding	navinos 2 in /7	e cm\ o
1. Panicom hemitomon	<u> </u>	<u> </u>	OBL	more in diameter at breast hel	ig villes, 3 ill. (7. lght (DBH), regai	diess o
5				height.		
5				Sapling/Shrub - Woody plan	ts excluding vin	es less
				than 3 in. DBH and greater th	an 3.28 ft (1 m) t	all.
3				Herb – All herbaceous (non-v	unndu) niante re	nardles
9				of size, and woody plants less	s than 3.28 ft tall.	
10				Minodus vina All woods vina		00 # :-
11				Woody vine – All woody vine height.	es greater than 3	.28 N IN
12				.  •		
···	90	_ = Total C	over			
50% of total cover: 4	5 20%	of total cov		.		
Woody Vine Stratum (Plot size: 30ft x30ft)						
1. Smilax rotundifolia	5	Y	FAL	,		
2						
3				-		
4				- L		
5.				-		
J		T-4-1 (		- Hydrophytic	/	
			_	Vegetation Present? Yes	√ Na	
50% of total cover:		. At total co	ucr l			_

Sampling Point: wgrp006 f-w

Profile Desc	ription: (Describe	to the depth (	needed to docun	ent the indicator	or confirm t	the absence	of indicators	3.)	
Depth	Matrix	<del></del>		Features				_	ļ
(inches)	Color (moist)		Color (moist)		Loc <sup>2</sup>	Texture		Remarks	<del></del>
0-2	101/53/1	_ 100 _				_s;L_			
7-10	10424/1	100				SL	sulfide	e odor	
10-20	10YR41	100				SCL	3011101	<u> </u>	
10-20	101611		<del></del>			<u> </u>		<del></del>	<del></del>
			<del></del>					<u> </u>	
			•			<del></del>			
								<del></del>	<del></del>
¹Type: C=C	oncentration, D=De	pletion, RM=Re	educed Matrix, MS	S=Masked Sand G	rains.	<sup>2</sup> Location:	PL=Pore Lir	ing, M=Matrix.	
Hydric Soil	Indicators: (Appli	cable to all LR	Rs, unless other	wise noted.)		Indicators	for Problem	atic Hydric S	oils³:
Histosol	(A1)		Polyvalue Be	low Surface (S8)	(LRR S, T, U)	) 🔲 1 cm /	Muck (A9) (LI	RR O)	
1 ===	pipedon (A2)		=	rface (S9) (LRR S			Muck (A10) (I	•	
· =	istic (A3)		=	y Mineral (F1) (LR	·•'			8) (outside M	LRA 150A,B)
	en Sulfide (A4)		_	ed Matrix (F2)	•			in Soils (F19) (	
	d Layers (A5)		Depleted Ma					_oamy Soils (F	
	Bodies (A6) (LRR	P, T, U)	Redox Dark				.RA 153B)	, - 3 <b>.</b> (	,
	ucky Mineral (A7) (I		==	rk Surface (F7)			Parent Materia	al (TF2)	
. =	resence (A8) (LRR		Redox Depre					Surface (TF12	2)
1 <del>1 -</del>	uck (A9) (LRR P, T	-	Mari (F10) (I	• •			(Explain in F		•
<del> </del>	d Below Dark Surfa		_	hric (F11) (MLRA	151)				
Thick D	ark Surface (A12)	, ,		iese Masses (F12		T) <sup>3</sup> Ind	icators of hyd	rophytic veget	ation and
. =	Prairie Redox (A16)	(MLRA 150A)		ace (F13) (LRR P			-	gy must be pr	
Sandy!	Mucky Mineral (S1)	(LRR O, S)		(F17) (MLRA 151			-	d or problemat	
	Gleyed Matrix (S4)	•		rtic (F18) (MLRA				•	
. =	Redox (S5)		_	oodplain Soils (F1					
│	d Matrix (S6)		Anomalous	Bright Loamy Soil	s (F20) (MLR	A 149A, 153	C, 153D)		
Dark S	urface (S7) (LRR P	, S, T, U)							
Restrictive	Layer (if observed	d):	<del></del>	<del> </del>		1			<del></del>
Type:									
1 —	nches):		_			Hudric Sc	il Present?	Yes	No
			<del></del>			riyane oc	m Fleseitti	168	140
Remarks:									
1									
<b>,</b>									
	4								
ļ									
ļ									



Wetland data point wgrp006f\_w facing west.



Wetland data point wgrp006f\_w facing north.

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

Project/Site: ACP	_ City/County: Greensville Sampling Date:
Applicant/Owner: Dominion	State: VA Sampling Point: wgv p 00 los c
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: NONE
Landform (hillslope, terrace, etc.): drainage	Local relief (concave, convex, none): <u>LONCAVE</u> Slope (%): <u>0-3</u> .55510 Long: <u>-77.51159</u> Datum: <u>W6584</u>
Subregion (LRR or MLRA): LLR P U Lat: 36	.55510 Long: -77.51159 Datum: W6589
Soil Map Unit Name: Roanoke loam . O-	27. 6lopes NWI classification: PSS
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 significant	tly disturbed? Are "Normal Circumstances" present? YesNo
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?  Remarks:  YesNo No	Is the Sampled Area  within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that appl  Surface Water (A1)  Aquatic Fauna (	
High Water Table (A2)  Mari Deposits (B	
Saturation (A3) Hydrogen Sulfid	
	spheres along Living Roots (C3) Dry-Season Water Table (C2)
	duced fron (C4)
☐ Drift Deposits (B3) ☐ Recent Iron Iron Iron Iron Iron Iron Iron Iron	duction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)
Iron Deposits (B5)  Other (Explain)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? YesNoDepth (inc. Water Table Present? YesNoDepth (incNoDepth (incNo	(hes): (V )
Saturation Present? Yes No Depth (inc	
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial p	shotos pravious inspections) if available:
Second Resolved Sala (stream gauge, monitoring well, senar	stotos, provioso inspections), il avallable.
Remarks:	
	1

Absolute Dominant Indicators Accer Yubrum  Absolute Dominant Indicators Accer Yubrum  Absolute Accers Status  Compared Status  Compared Status  Compared Status  Percent of Dominant Stratus  India Number of Dominant Stratus  India Number of Dominant Stratus  Percent of Dominant Stratus  India Number of Dominant	LGETATION (Four Strata) - Ose scientific ha	arries or pr	iains.		Sampl	ing Point: Y 1'
Acer robrom  Z Y FAC  That Are OBL, FACW, or FAC: (A)  Total Number of Dominant Species That Are OBL, FACW, or FAC: (D)  Percent of Dominant Species That Are OBL, FACW, or FAC: (D)  Percent of Dominant Species That Are OBL, FACW, or FAC: (D)  Prevalence Index workshoet: Total Scoper of: (A)  Mobibly by:  Countrol Statum (Plot size: 30 ft x 30 ft)  Countrol Louri folio  Quertos Louri folio  YOLUNI or Cotym Dosum  D Y FACW  Prevalence Index: BIA = Hydrophytic Vegetation Indicators:  Hydrophytic Vegetation Indicators:  Hydrophytic Vegetation Indicators:  Hydrophytic Vegetation (Explain)  The Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Wheth Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30 ft x 30 ft)  Whodow Vine Stratum (Plot size: 30	7.54.2084				Dominance Test worksheet:	
That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Aross All Strate: (G)  Percent of Dominant Species That Are OBL, FACW, or FAC: (D)  ARE  Total Scoper of Dominant Species That Are OBL, FACW, or FAC: (D)  Provisionce Index worksheet: Total Scoper of: (D)  ARE  Total Scoper of: (D) Total	ree Stratum (Plot size: 30 +1 X 5 O+7				Number of Dominant Species	•
Total Number of Dominant Species Across All Stratz (a) (b) Percent of Dominant Species That Are OBL, FACM, or FAC: 100 (AR)    Total Number of Dominant Species That Are OBL, FACM, or FAC: 100 (AR)	. Acer rubrum			PAC	That Are OBL, FACW, or FAC:	<b>√</b> (A)
Species Arons All Strata.  Personal of Dominant Species That Are OBL, FACW, or FAC:  Total & Cover of:  Mulliot by  Sanling/Shrus Stratum (Plot size: 30H x 30H)  Corpins Corpins Corpins A	• • • • • • • • • • • • • • • • • • • •		•			
Percent of Dominant Species That Are OBL, PACW, or FAC:    Prevalence Index worksheet:   Total Sk. Cover of:   Multiply by:						1.
Providence index worksheet:    Total Scover of Multiply by:					Species Across All Strata:	(B)
That Are OBL, FACW, or FAC: 100 (A/B)  That Are OBL, FACW, or FAC: 100 (A/B)  The Are OBL, FACW, or FAC: 100 (A/B)  Prevalence Index worksheet:  2 = Total Cover   1				1	Percent of Dominant Species	
Prevalence Index workshoet:  Total % Cover of: Mullion by:  So% of total cover: 1 20% of total cover: 0.1 Y  SolinaiShnub Stratum (Plot size: 30ft x 30ft)  Carpinus Caroliniana 30 Y EACH  Quercus Laurifolia 5 N FHCN  Vaccinium Corymbosum 10 Y PHCN  Prevalence Index = 8LA = Hydrophytic Vegetation Indicators:  1 1 1 2 pagin Test for Hydrophytic Vegetation Indicators:  1 2	•					100 (A/B
Total Cover	•					
Total & Cover of   Multiby by					Prevalence Index worksheet:	
2					Total % Cover of:	Multiply by:
So% of total cover. 20% of total cover. 27   20% of total cover. 29   FAC. vspecies   x3 =   FAC species   x3 =   FAC species   x3 =   FAC species   x3 =   FAC species   x4 =   UP. species   x4 =   UP. species   x5 =   Column Totals:   (A)   (B)			T-1-1-0		l .	
FAC species X3 =  Corpinus Caroliniana 30 Y FACU species X4 =  UPL species X4 =  UPL species X5 =  Column Totals: (A) (B)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  Paper Solumn Totals: (A) (B)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  Problematic Hydrophytic Vegetation  Problematic Hydrophytic Vegetation  Problematic Hydrophytic Vegetation  Problematic Hydrophytic Vegetation  Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.  Definitions of Four Vegetation Strate:  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, 4 in. (10 Herb — All herbaceous (non-woody) plants, regardless of size, and woody vine All woody vines greater than 3.28 ft in height.  Woody Vine Stratum (Plot size: 30ft x30ft)  1			= Lotal Co	ver N U	,	
Carpinus Caroliniana 30 Y FACU  Quercus laurifolia 5 N FACU  Vaccinium Corymbosum 10 Y FACU  Prevalence Index = B/A = Hydrophytic Vegetation Indicators:    Prevalence Index = B/A = Hydrophytic Vegetation Indicators:   Prevalence Index = B/A = Hydro	50% of total cover:	20% o	f total cover	:U,7_	_	
Column Total   Colu	Sapling/Shrub Stratum (Plot size: 30++ x 30++)	_		_		
### Auritation	. Carpinus caroliniana	30	À	FACW		
Column Totals: (A) (B)  Prevalence Index = BIA = Hydrophytic Vegetation Indicators:    1	Quercus lauritalia	_ =	N	FACH	UPL species x	5 =
Prevalence Index = B/A = Hydrophytic Vegetation Indicators:		- 10	- V		Column Totals: (A	(B)
Hydrophytic Vegetation Indicators:   Lapid Test for Hydrophytic Vegetation   Lapid T				PITLY		· · · · · · · · · · · · · · · · · · ·
Hydrophytic Vegetation Indicators:					Prevalence Index = B/A =	
Repid Test for Hydrophytic Vegetation  2. Dominance Test is >50%  3. Prevalence Index is \$3.0°  1. Toxicodendron radicans  4. Wisferia frutescens  5. Y FACU  3. Tree - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  10. Moody Vine Stratum (Plot size: 30ft x30ft)  1. Sow of total cover: 7.5  2. Wisferia Frutescens  5. Sow of total cover: 7.5  1. Sow of total cover: 7.5  2. Sow of total cover: 7.5  3. Sow of total cover: 7.5  4. Sow of total cover: 7.5  5. Sow of total cover: 7.5  1. Sow of total cover: 7.5  2. Sow of total cover: 7.5  3. Sow of total cover: 7.5  4. Sow of total cover: 7.5  5. Sow of	j					
2- Dominance Test is >50%   2- Dominance Test is >50%   3 - Prevalence Index is ≤3.01   3 - Prevalence Index is ≤3.01   Problematic Hydrophytic Vegetation (Explain)   1- D					l —	
3 - Prevalence Index is <3.0.1    Solve of total cover: 22.5   20% of total cover: 9   1.   20.5						
### Total Cover   9						
Solid Cover: 22.5   20% of total cover: 4		116			☐ 3 - Prevalence Index is ≤3.0	)1
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	0.5	,	_= Total Co	over a	Problematic Hydrophytic Ve	egetation¹ (Explain)
1. Toxicodendron radicans 2. Wisteria frutescens 3. J FACM 4. J FACM 5. J FACM 5. J FACM 5. J FACM 6. J FA		<u>- • 5</u> 20% d	of total cove	r: <u> </u>		
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 3.28 ft (1 m) tall.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  Woody vine - All woody vines greater than 3.28 ft in height.  Woody vine - All woody vines greater than 3.28 ft in height.  Woody vine Stratum (Plot size: 30ft x 30ft)  Sow of total cover: 7 is 20% of total cover: 3  Woody vine Stratum (Plot size: 30ft x 30ft)  Hydrophytic Vegetation Present? Yes No	Herb Stratum (Plot size: 30 H x 30 H)				1 Indicators of hydric soil and we	tland hydrology must
2. Wisteria frutescens 3.	1. Toxicodendron radicans	16	Υ	FAC	be present, unless disturbed or	problematic.
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 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Sow of total cover: 3.  Woody Vine Stratum (Plot size: 30ft x30ft)  Sow of total cover: 50% of total cover: 3.  Woody Vine Stratum (Plot size: 30ft x30ft)  Sow of total cover: 50% of total cover: 20% of total cover: 3.  Hydrophytic Vegetation Present? Yes No	Wisteria frutescens	- 5			l	•
more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Sow of total cover: 7.5 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  Sow in Ax vot and if o i a love of total cover: 3  Hydrophytic Vegetation  Present? Yes No					Deminions of Four Vegetanor	i Strata.
height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Sow of total cover: 7.5 = Total Cover 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  Smilax rotondifolia   D y F AC 2.  3.  4.  5.  ID = Total Cover 4  Hydrophytic Vegetation Present? Yes No					Tree - Woody plants, excluding	vines, 3 in. (7.6 cm)
Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  8.					more in diameter at breast heig	ht (DBH), regardless
than 3 in. DBH and greater than 3.28 ft (1 m) tall.  8	5	<del></del>			height.	
than 3 in. DBH and greater than 3.28 ft (1 m) tall.  8	6				Sanling/Shrub - Woody plants	e evoluding vinge lee
8					than 3 in. DBH and greater that	n 3,28 ft (1 m) tall.
9					` <b> </b>	
10					Herb – All herbaceous (non-wo	ody) plants, regardles
11					of size, and woody plants less	than 3.28 ft tall.
11.  12.  15 = Total Cover  50% of total cover: 7.5 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  1. 5 milax votundifolia 10 y FAC  2.  3.  4.  5.  10 = Total Cover  Vegetation  Present? Yes No					Woody vine - All woody vines	nreater than 3.28 ft in
15	11		_			greater train oils tra
50% of total cover: 7.5 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  1. 5 milax votundifolia 10 y FAC  2	12					
50% of total cover: 7.5 20% of total cover: 3  Woody Vine Stratum (Plot size: 30ft x 30ft)  1. 5 milax votundifolia 10 y FAC  2		15	= Total C	over		
Woody Vine Stratum (Plot size: 30ft x 30ft)       10 y FAC         1. 5milax rotundifolia       10 y FAC         2	FOO/ - 5  - 4-1					
1. <u>Smilax rotundifolia</u> <u>10 y FAC</u> 2. 3. 4. 5		20%	ot total cov	rer:	- <b>j</b>	
2	Woody Vine Stratum (Plot size: 30++ x 50+T)	1	١			
4	1. Smilax rotundifolia	<u> </u>	<u> </u>	<u> </u>	_ i	
4	2.				_	
4	3				<del>-</del>	
5 Hydrophytic Vegetation Present? Yes No					- (	
50% of total cover: 5 20% of total cover: 2 Vegetation Present? Yes Veg. No	4				-	
50% of total cover: 5 20% of total cover: 2 Vegetation Present? Yes Veg. No	5				- Hydronbytic	
50% of total cover: 5 20% of total cover: 2 Present? Yes V No		מו	= Total (	Cover		,
50% of total cover: 3 20% of total cover:	FON/ _£1_1_1			_		, No
Remarks: (If observed, list morphological adaptations below).			of total co	ver:	_	
	Remarks: (If observed, list morphological adaptations	below).				
	·					

Sampling Point: wyr p 0065 w

	ro me aebru uesasa to a	ocument the indicato	r or confirm	the absence o	f indicators.)	
Depth Matrix		Redox Features	<del></del>			ļ
Color (moist)  O-4  IOYR 4/Z	%Color (mois	t) <u>%</u> <u>Type</u> ¹	Loc <sup>2</sup>	<u>Texture</u>	Remarks	<del></del>
	106	<del>/ == -</del>			<del></del>	
4-14 107R 5/2	76 104K3	<u>la 50 C</u>	<u> </u>	3CL		
14-20 LOYR5/2	60 (DYK5/	40 C	M	5CL	armel ore	Dent
					731053521 77.5	<del></del>
	·	<del></del>			<u> </u>	
	· <del></del>					<del></del>
<sup>1</sup> Type: C=Concentration, D=Dep	letion RM=Reduced Matr	iv MS=Masked Sand (		2 neation:	PL=Pore Lining, M≕Mat	riv
Hydric Soil Indicators: (Applic			2101110.		or Problematic Hydric	
☐ Histosol (A1)		ue Below Surface (S8)	(IRPS TI		uck (A9) (LRR O)	
Histic Epipedon (A2)		ark Surface (S9) (LRR			uck (A10) (LRR S)	
Black Histic (A3)		Mucky Mineral (F1) (L			ed Vertic (F18) (outside	MLRA 150A.B)
Hydrogen Sulfide (A4)		Gleyed Matrix (F2)	,		nt Floodplain Soils (F19	
Stratified Layers (A5)		ed Matrix (F3)		1 6	lous Bright Loamy Soils	
Organic Bodies (A6) (LRR P		Dark Surface (F6)			A 153B)	` ,
📘 5 cm Mucky Mineral (A7) (LI	RR P, T, U) 🔲 Depleto	ed Dark Surface (F7)		☐ Red Pa	rent Material (TF2)	
🔲 Muck Presence (A8) (LRR U	J) 🔲 Redox	Depressions (F8)		Uery Sl	nallow Dark Surface (TF	-12)
1 cm Muck (A9) (LRR P, T)		10) (LRR U)		Uther (	Explain in Remarks)	
Depleted Below Dark Surface	· · · = ·	ed Ochric (F11) (MLRA	•	_		
Thick Dark Surface (A12)		anganese Masses (F1			ators of hydrophytic veg	•
Coast Prairie Redox (A16) (		Surface (F13) (LRR F			land hydrology must be	•
Sandy Mucky Mineral (S1) (	· —	Ochric (F17) (MLRA 15	•		ess disturbed or problen	natic.
Sandy Gleyed Matrix (S4)	<del></del>	ed Vertic (F18) (MLRA		•		
Sandy Redox (S5)		ont Floodplain Soils (F	- •	· ·		
Stripped Matrix (S6)		alous Bright Loamy Soi	is (F20) (ML)	RA 149A, 153C	, 153D)	
Dark Surface (S7) (LRR P, Restrictive Layer (if observed)				<del></del>		
1	) <del>.</del>					
Type:						
Danth (inch = - \:				Hydric Soil	Present? Yes	No
Depth (inches):						
Remarks:				•		
				•		
				·		
				·		
		·				
		·				
		·				
						·



Wetland data point wgrp006s\_w facing south.



Wetland data point wgrp006s\_w facing east.

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

Project/Site: <u>ACP</u>	City/County: Greensville Sampling Date: 6/1/15
Applicant/Owner: Dominion	State: VA Sampling Point: w1rp 006_u
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: NDNC
Landform (hillslope, terrace, etc.): drainage	Local relief (concave, convex, none): <u>LONCAVE</u> Slope (%): <u>0-37.</u> . 65519 Long: <u>-77.51163</u> Datum: <u>W6599</u>
Subregion (LRR or MLRA): LRR P Lat: 36	.55519 Long: -77. 51163 Datum: W6599
Soil Map Unit Name: Koanoke loam, 0-2	1. slopes NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantl	ly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	oroblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:	Is the Sampled Area within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply  Surface Water (A1)  Aquatic Fauna (6)	· · · · · · · · · · · · · · · · · · ·
High Water Table (A2)  Mari Deposits (B	
Saturation (A3)	
	spheres along Living Roots (C3)
☐ Sediment Deposits (B2) ☐ Presence of Red ☐ Drift Deposits (B3) ☐ Recent Iron Red	duced Iron (C4)  Li Crayfish Burrows (C8)  duction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Thin Muck Surfa	
Iron Deposits (B5) Other (Explain in	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9) Field Observations:	Sphagnum moss (D8) (LRR T, U)
	hee). NA
Surface Water Present?  Yes No Depth (inclease water Table Present? Yes No Depth (inclease water Table Present?	hes): >70
Saturation Present? Yes No Depth (incl	
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:
Remarks:	
	·
ĺ	

======================================	names of plants:	Sampling Polit. 44 1 44 4 4
Tree Stratum (Plot size: 30ft x30ft)	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
Ilex opuca	10 Y PAC	That Are OBL, FACW, or FAC: (A)
Fugus granifolia	ZO Y FACU	<del></del>
Carya ovata	10 Y FACU	Total Number of Dominant
	— <del></del>	Species Across All Strata: (B)
·		Described Described Occasion
j.		Percent of Dominant Species That Are OBL, FACW, or FAC: 38 // (A/B)
		That Are OBL, PACW, or PAC: (A/B)
S		Prevalence Index worksheet:
· <u> </u>		
		Total % Cover of: Multiply by:
	40 = Total Cover	OBL species x 1 =
		FACW species $30$ $x3 = 90$
<u> Sapling/Shrub Stratum</u> (Plot size: <u>30 + 大36</u> 升)		PAC species X3=
Ilex opaca	10 Y FAC	FACU species
Fagus grandifolia	Zb y FACH	UPL species x 5 =
		Column Totals: 100 (A) 370 (B)
Pronus serotina		(A)(D)
. Carya ovata	10 Y FACU	Prevalence Index = B/A = 3.7
	<del></del>	Hydrophytic Vegetation Indicators:
S		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
B		1 音
······································	45 = Total Cover	3 - Prevalence Index is ≤3.01
4		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: _4	-2.5 20% of total cover: _ 9	
Herb Stratum (Plot size: 30 Ph. x30 Ph. )		1Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
•	<del></del>	
2		Definitions of Four Vegetation Strata:
3		Tree Meady plants and discussion of the (7.6 and an
4		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
		height.
5		in organic
6		Sapling/Shrub - Woody plants, excluding vines, less
7		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		` ,
8		Herb - All herbaceous (non-woody) plants, regardless
9	<u> </u>	of size, and woody plants less than 3.28 ft tall.
10		1111
		Woody vine - All woody vines greater than 3.28 ft in
11	<del></del>	height.
12		
	= Total Cover	
50% of total cover:	20% of total cover;	
Woody Vine Stratum (Plot size: 30ft, x30ft,)	2070 01 (0145 007011	·   .
	VD 14 -21	<u> </u>
1. Smilax rotundifolia	IU Y PAC	.:
2. Parthenocissus quinqueft	SITA F Y FAIL	
U D		- }
3	<del></del>	-
4		_ ]
5.		11. 1 . 1 . 1
	15 = Total Cover	- Hydrophytic
		Vegetation
50% of total cover:	715 20% of total cover: 3	Present? Yes No
Remarks: (If observed, list morphological adaptation		- ul
Tomania, (ii ooserved, list morphological adaptatio	ns below).	

_	_	
~	$\overline{}$	

SOIL							Sampling Point:	440006_v
Profile Desc	ription: (Describe	to the depth r	needed to docum	nent the indica	tor or confirm t	the absence of in		
Depth (inches)	Matrix Color (moist)		Redo	x Features	1 - 2	7*	<b>.</b> .	•
(inches) (2-2	10 y R 3/z		Color (moist)		e¹ Loc²	Texture	Remarks	
		106		·		<del></del>		<del></del>
2-6	10 YR 3/3	<u> 100</u> _			<del></del>			
6-12	10 YP 4/4	100				<u> 50.                                    </u>		
12-20	10 124/6	100	<del>- ,</del>			<u> </u>		
								ſ
			-			•		
				- <del></del>	<del></del>			
¹Type: C=C	oncentration, D=Dep	letion RM=Re	duced Matrix M	S=Maskeri Sanr		<sup>2</sup> l ocation: Pl =	Pore Lining, M=Matri	<del></del> [
	Indicators: (Applic				2 014113.		Problematic Hydric	
Histosol				-	3) (LRR S, T, U)		(A9) (LRR O)	
	pipedon (A2)			ırface (S9) (LRF			(A10) (LRR S)	
	istic (A3)		Loamy Muck	y Mineral (F1) (	LRR O)	Reduced V	ertic (F18) (outside I	
	en Sulfide (A4)		= ' '	ed Matrix (F2)			Floodplain Soils (F19)	
	d Layers (A5)		Depleted Ma				s Bright Loamy Soils (	F20)
	Bodies (A6) (LRR P			Surface (F6)		(MLRA 1		;
	ucky Mineral (A7) (L1 resence (A8) (LRR U		Redox Depr	rk Surface (F7)			it Material (TF2) ow Dark Surface (TF1	121
	uck (A9) (LRR P, T)	-1	Marl (F10) (1				olain in Remarks)	12)
	d Below Dark Surfac	ce (A11)		chric (F11) (MLF	RA 151)	•	, and the first of	
Thick D	ark Surface (A12)	,			12) (LRR O, P,	T) <sup>3</sup> Indicato	rs of hydrophytic vege	etation and
	rairie Redox (A16) (		<del>-</del>	ace (F13) (LRR	-		d hydrology must be p	
	Mucky Mineral (S1) (	LRR O, S)		(F17) (MLRA	•		disturbed or problem	atic.
	Gleyed Matrix (S4)				A 150A, 150B)			
	Redox (S5) d Matrix (S6)				F19) (MLRA 14	9A) A 149A, 153C, 15	:20)	
	urface (S7) (LRR P,	S. T. U)	I Anomaious	bright Loanly S	UIIS (F2U) (IVILIK	A 149A, 153C, 18	ומטו	
	Layer (if observed)						<del></del>	
Type:	- '	•				1		
1	nches):		_			Hydric Soil Pr	esent? Yes	No /
Remarks:			<del></del>			1 .,		
}								
Ì								
1								
}								



Upland data point wgrp006\_u facing southwest.



Upland data point wgrp006\_u facing north.

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

Project/Site: ACP	City/County: Greensville Sampling Date: 6123/15
Applicant/Owner: Dominion	State: VA Sampling Point: W470006-42
Investigator(s): ESI (Roper, Markham)	Section, Township, Range: NDNC
Subregion (I BB or MI BA): 1 L L P	Local relief (concave, convex, none): <u>convex</u> Slope (%): <u>4-8/.</u> 2.54838 Long: <u>-77.56877</u> Datum: <u>W6584</u>
Soil Map Unit Name: Craven Clay Dam, le	171/ SIDDES MAGALINATION NA
	<b>^</b> 1
Are climatic / hydrologic conditions on the site typical for this time of y	
Are Vegetation, Soil, or Hydrology significantly	
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply	
Surface Water (A1)	· · · · · · · · · · · · · · · · · · ·
High Water Table (A2)  Marl Deposits (B	
☐ Saturation (A3) ☐ Hydrogen Sulfide ☐ Oxidized Rhizos	e Odor (C1) Moss Trim Lines (B16) pheres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)  Presence of Rec	
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfa	ce (C7) Geomorphic Position (D2)
Iron Deposits (B5)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	☐ Sphagnum moss (D8) (LRR T, U)
Field Observations:  Surface Water Present?  Yes NoDepth (inch	See NA
Surface Water Present? Yes No Depth (inches)  Water Table Present? Yes No Depth (inches)	2001: 27.0
Saturation Present? Yes No Depth (incl	nes): >20   Wetland Hydrology Present? Yes No
(includes capillary fringe)	·
Describe Recorded Data (stream gauge, monitoring well, aerial pl	notos, previous inspections), if available:
Remarks:	ļ
<b>\</b>	

Sampli	ing Point: warp OD ba
worksheet:	
ant Species CW, or FAC:	<u>4</u> (A)
Dominant Il Strata:	
ant Species .CW, or FAC:	50 1/4 (A/B)
k worksheet:	
x	Multiply by:
35 x	2=
	5= <u>281</u> (B)
index = B/A =	
st for Hydrophy	1
ce Test is >50%	-
ce Index is ≤3.0	
	getation <sup>1</sup> (Explain)
	tland hydrology must
our Vegetation	
ants, excluding	vines, 3 in. (7.6 cm) or ht (DBH), regardless of
- Woody plants ind greater thar	, excluding vines, less n 3.28 ft (1 m) tall.
iceous (non-wo dy plants less t	ody) plants, regardless than 3.28 ft tall.
All woody vines	greater than 3.28 ft in
<del>-</del> ,	
	1
	_
Yes	No

<u> </u>	A1I	Description	1	Carripinity Found.
Tree Stratum (Plot size: 30f+ x30f+)		Dominant Species?		Dominance Test worksheet:
Tlay		Species?	<u>Status</u>	Number of Dominant Species
1. Ilex opaca	<u> 10</u>	<u>y</u>	FAC	That Are OBL, FACW, or FAC:(A)
2. Fagus arandifolia	30	y	FACUL	
, ) )				Total Number of Dominant
3,				Species Across All Strata: (B)
4				
				Percent of Dominant Species 60 1
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  50 1/4 (A/B)
6				
7				Prevalence Index worksheet:
	·			Total % Cover of: Multiply by:
8	<del></del>			•
	40	= Total Co	ver	OBL species x 1 =
50% of total cover: 20		f total cover	- 1	FACW species x 2 =
2 N CL 2 N CL	20% 0	i totai covei	· ——	FAC species 35 x3= 105
Sapling/Shrub Stratum (Plot size: 30ft x 30ft)				
1. Fagus grandifolia	10	У	FACU	FACU species 44 x4= 176
2. ALET rubrum				UPL species x 5 =
2. ALEI TUOTUM	TO	. <u> </u>	FAC	
3			!	Column Totals: <u>79</u> (A) <u>281</u> (B)
4		· ——		Prevalence Index = B/A = 3.55
5,				
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8				1 <del>-</del>
<u> </u>	2.5			3 - Prevalence Index is ≤3.01
		= Total Co		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 10	20% c	of total cove	.r. 4	
Herb Stratum (Plot size: 30f+x30f+)				
Herb Stratum (Plot size: 30TTX 30TT)	0	• .		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Mitchella repens	2	У	FACU	be present, unless disturbed or problematic.
2. Goodvera pubescens	7	<u> </u>	UPL	<u></u>
2. O DOONERA PROESCENCY			<u> </u>	Definitions of Four Vegetation Strata:
3				The Manufacture of the control of th
			-	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6,				0
				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				I I I I I I I I I I I I I I I I I I I
9				of size, and woody plants less than 3.28 ft tall.
10				West and All the second
				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12,				.
<del></del>	- 4	= Total C	over	
•				
50% of total cover: 2	20%	of total cov	er: V. O	.
Woody Vine Stratum (Plot size: 30ft x30ft)				1
	1~	M	د پي سن	
1. Smilax rotundifolia	<u> 10</u>		<u> FAC</u>	_
2. Vitis rotundifolia	5	Y	FAL	
			<u>, ,,,</u>	<del>-</del>
3				_ {
4				
				-
5				- Hydrophytic
	1.5	= Total (	Cover	Vegetation
·				Present? Yes No
50% of total cover:	<u>.                                    </u>	of total co	ver:	- NO
Remarks: (if observed, list morphological adaptations be	alow)			
Tremamer (in coost toe, not morphiological dauptanona se	21011).			
1				
1				

Sampling Point:	νq	rpol	)b_u,	_

rofile Desc epth	ription: (Describe Matrix	to the depth		nent the ind x Features	lcator or confin	m the absence of	indicators.)	
nches)	Color (moist)		Color (moist)		Type <sup>1</sup> Loc <sup>2</sup>		Remarks	
<u> </u>	10YR3/2	<u> 100</u> _				<u> </u>		
<u>,-20</u>	104K 2H	<u> 100</u> _				<u> </u>		
				<del></del> -				
		- <del></del> -			<del> </del>			· · · · · · · · · · · · · · · · · · ·
	<del></del>			. <del></del> _		- <del></del> -		
<del> </del>				. <u> </u>		<u> </u>		. <u> </u>
						<del></del>		
	oncentration, D=De						_=Pore Lining, M=Ma	
	Indicators: (Appli	cable to all L				<del></del> 1	r Problematic Hydri	c Soils":
Histoso Histic F	pipedon (A2)				: (S8) (LRR S, T, LRR S, T, U)		ck (A9) (LRR O) ck (A10) (LRR S)	
	listic (A3)		Loamy Mucl				Vertic (F18) (outsid	e MLRA 150A,B
Hydrog	en Sulfide (A4)			ed Matrix (F			t Floodplain Soils (F1	
	d Layers (A5)		Depleted Ma				us Bright Loamy Soil	s (F20)
	Bodies (A6) (LRR			: Surface (F6 ark Surface (			. 153B) ent Material (TF2)	
	ucky Mineral (A7) (I resence (A8) (LRR		<del></del>	ressions (F8)	•		eni materiai (172) allow Dark Surface (1	F12)
-	luck (A9) (LRR P, T		Marl (F10) (				xplain in Remarks)	,
Deplete	ed Below Dark Surfa	ice (A11)		chric (F11) (I		_	•	
=	Dark Surface (A12)				s (F12) (LRR O,		tors of hydrophytic ve	
₹	Prairie Redox (A16) Mucky Mineral (S1)		_	face (F13) (L c (F17) (MLF			nd hydrology must be is disturbed or proble	
=	Gleyed Matrix (S4)	(LKK 0, 3)			MLRA 150A, 150		s disturbed of proble	intalio.
=	Redox (S5)				ils (F19) (MLRA			
_	ed Matrix (S6)		Anomalous	Bright Loan	ıy Soils (F20) (M	LRA 149A, 153C,	153D)	
	urface (S7) (LRR P							
	Layer (if observe	-						
Type: _			<del></del>			10		/
	inches):		<del></del>			Hydric Soil i	Present? Yes	No_ <del>V</del>
Remarks:				-				
					•			



Upland data point wgrp006\_u2 facing south.



Upland data point wgrp006\_u2 facing east.