Project/Site: Atlantic Coast Pipeline			City/County: Suffolk			Sampling Date: 2/20/2015		
Applicant/Owner: Dominion					State: VA	Sampling	Point: wsua021f_	.w2
Investigator(s): GB, CC			Section, Towns	hip, Range: <u>1</u>	No PLSS in this are	ea		
Landform (hillslope, terrace, etc.): <u>flat</u>			Local relief (cor	icave, convex	, none): <u>microtopo</u>	ography	_ Slope (%): <u>1</u>	
Subregion (LRR or MLRA):		Lat: 36.634	141175	Long:	-76.87470655		Datum: WGS	1984
Soil Map Unit Name: Weston fine sandy lo	bam				NWI classifi	cation: Non	le	
Are climatic / hydrologic conditions on the	site typical for	this time of ye	ear?Yes 🖌					
Are Vegetation, Soil, or Hy	drology	_significantly	/ disturbed?	Are "Norm	al Circumstances"	present? Y	res 🖌 No _	
Are Vegetation, Soil, or Hy	drology	_naturally pr	oblematic?	(If needed,	explain any answ	ers in Rema	irks.)	
SUMMARY OF FINDINGS - Atta	ach site ma	p showing	g sampling p	oint locati	ons, transect	s, import	ant features,	etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	No	is the St	ampled Area Wetland?		No		
Remarks: Wetland data point taken on a disturbed f	lat for a seasor	nally saturate	d/seasonally sur	face saturated	d PFO wetland mo	saic.		

Wetland Hydrology Indicato	ors:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; o	heck 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) (LRR U)		Drainage Patterns (B10)
 Saturation (A3) 		Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)
Water Marks (B1)		Oxidized Rhizospheres along Living	Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
Drift Deposits (B3)		Recent Iron Reduction in Tilled Soils	(C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position (D2)
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)
Inundation Visible on Aer	ial Imagery (B7)			✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B	9)			Sphagnum moss (D8) (LRR T, U)
Field Observations:				
Surface Water Present?	Yes No	✓ Depth (inches):		
Water Table Present?		Depth (inches): 18		
Saturation Present?		Depth (inches): 0	Wetland	Hydrology Present? Yes 🖌 No
(includes capillary fringe)			Wetland	
Describe Recorded Data (stre	eam gauge, monitor	ing well, aerial photos, previous inspe	ctions), if av	ailable:
Remarks:				
surface saturated from 0 to 8 i	nches; saturation a	ssociated with water table at 17"		

Sampling Point: wsua021f_w2

1. Liquidambar styraciflua 35 2. Pinus taeda 35 3. Platanus occidentalis 10 4.	= To			That Are OBL, FACW, or FAC:7(A)Total Number of Dominant Species Across All Strata:8(B)Percent of Dominant Species That Are OBL, FACW, or FAC:87.5(A/B)Prevalence Index worksheet: Total % Cover of:Multiply by: $x 1 = 8$ FACW species26 $x 2 = 52$
3. Platanus occidentalis 10 4.		No otal Cove	FACW	Species Across All Strata: 8 (B) Percent of Dominant Species 87.5 (A/B) That Are OBL, FACW, or FAC: 87.5 (A/B) Prevalence Index worksheet: Multiply by: 08L species 8 OBL species 8 x 1 = 8
4.	= To	otal Cover:	2r	Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 8 26
5.	= To % of tota	otal Cove	er	That Are OBL, FACW, or FAC: 87.5 (A/B) Prevalence Index worksheet:
6.	= To % of tota	otal Cove	er	That Ale OBL, FAGW, 01 AC.
7.	= To % of tota	otal Cove al cover:		$\begin{array}{c c} \hline Total \% Cover of: \\ OBL species \\ \hline \end{array} \begin{array}{c} 8 \\ \hline 26 \\ \hline \end{array} x 1 = \\ \hline \end{array} \begin{array}{c} 8 \\ \hline 50 \\ \hline \end{array}$
8. 40 80 50% of total cover: 40 20% Sapling/Shrub Stratum (Plot size: 15) 1. Liquidambar styraciflua 15 2. 2. Platanus occidentalis 12 3. Morella cerifera 7	= To % of tota	otal Cove al cover:		OBL species $\frac{8}{26}$ x 1 = $\frac{8}{50}$
80 50% of total cover:40 20% Sapling/Shrub Stratum (Plot size:15) 1. Liquidambar styraciflua 15 2. Platanus occidentalis 12 3. Morella cerifera 7	= 10 % of tota	al cover:		OBL species $\frac{8}{26}$ x 1 = $\frac{8}{50}$
50% of total cover:209 Sapling/Shrub Stratum (Plot size:15) 1. Liquidambar styraciflua15 2. Platanus occidentalis12 3. Morella cerifera7	= 10 % of tota	al cover:		26 50
Sapling/Shrub Stratum (Plot size:2) 1. Liquidambar styraciflua 2. Platanus occidentalis 3. Morella cerifera	5		10	
1. Liquidambar styraciflua 15 2. Platanus occidentalis 12 3. Morella cerifera 7		Yes		FAC species 104 x 3 = 312
2. Platanus occidentalis 12 3. Morella cerifera 7		Yes		FACU species $\frac{8}{x4} = \frac{32}{32}$
3. Morella cerifera 7	<u> </u>		FAC	
		Yes	FACW	UPL species $0 \times 5 = 0$
4 Acer rubrum 5		No	FAC	Column Totals: (A) (B)
· · · · · · ·		No	FAC	Prevalence Index = B/A = 2.76
5. Pinus taeda 5		No	FAC	Hydrophytic Vegetation Indicators:
6. Liriodendron tulipifera 4		No	FACU	
7				 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
8.				
48	3 = To	otal Cove	ar	\checkmark 3 - Prevalence Index is ≤3.0 ¹
50% of total cover:2420%		al cover:	~ ~	Problematic Hydrophytic Vegetation ¹ (Explain)
	/0 01 1012			
Herb Stratum (Plot size:) 1. Woodwardia areolata 8		Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must
1.		Yes	FACW	be present, unless disturbed or problematic.
			TACW	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
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, regardless
9				of size, and woody plants less than 3.28 ft tall.
10		<u> </u>		Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
12	2 = To	otal Cove	er	
50% of total cover: 6 20%		al cover:	~ ·	
Woody Vine Stratum (Plot size: 30)				
Lonicera japonica 4		Yes	FACU	
2. Smilax rotundifolia 2		Yes	FAC	
4				
5				Hydrophytic
<u> </u>	'`	otal Cove		Vegetation Present? Yes <u>Ves</u> No
50% of total cover: <u>3</u> 20%	% of tota	al cover:	1.2	
Remarks: (If observed, list morphological adaptations below). Herb ID limited due to snow cover and dormancy				

Depth	Matrix		Redo	x Features					
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remar	ks
0-15	10YR 2/1	100					SL		
15-20	10YR 4/2	100					SL		
20-26	10YR 4/6	100					LS		
	Concentration, D=Dep					ains.		Pore Lining, M=N	
Histoso		abio to an Errito,	Polyvalue Be			RRSTI			
	Epipedon (A2)		Thin Dark Su					(A10) (LRR S)	
	Histic (A3)		Loamy Muck					· · · ·	de MLRA 150A,E
	jen Sulfide (A4)		Loamy Gleye			-,			⁻ 19) (LRR P, S, T
	ed Layers (A5)		Depleted Ma		_/			Bright Loamy Sc	
	c Bodies (A6) (LRR P	. T. U)	Redox Dark	()	3)		(MLRA 1	• •	(* = =)
	lucky Mineral (A7) (LF	,	Depleted Da		,		•	Material (TF2)	
	Presence (A8) (LRR U		Redox Depre		. ,			w Dark Surface (TF12)
	luck (A9) (LRR P, T)		Marl (F10) (L	· ·)			lain in Remarks)	
	ed Below Dark Surfac	e (A11)	Depleted Oc			(1)		an in comance)	
	Dark Surface (A12)		Iron-Mangan				T) ³ Indicator	s of hydrophytic v	egetation and
	Prairie Redox (A16) (I							hydrology must b	
	Mucky Mineral (S1) (I		Delta Ochric			0)		listurbed or proble	•
	, ,,					A 450D)	uniess		
-	Gleyed Matrix (S4)		Reduced Ver						
-	Redox (S5)		Piedmont Flo						
	d Matrix (S6)		Anomalous E	sright Loan	iy Solis (F	-20) (MLR/	A 149A, 153C, 153	5D)	
	urface (S7) (LRR P, S								
Type: n	Layer (if observed): one								
	nches):	<u> </u>					Hydric Soil Pres	sent?Yes_	No
							nyunc Soli Fre		
Remarks:									



Photo 1 Wetland data point wsua021f_w2 facing north



Photo 2 Wetland data point wsua021f_w2 facing south

Project/Site: Atlantic Coast Pipeline	_ City/County: S	uffolk	Sampling	_ Sampling Date: 2/20/2015		
Applicant/Owner:				State: VA	Sampling	Point: wsua021_u2
Investigator(s): GB, CC		_ Section, Towns	ship, Range: <u>N</u>	No PLSS in this a	rea	
Landform (hillslope, terrace, etc.): gentle slope						Slope (%): 2
Subregion (LRR or MLRA): T	Lat: 36.63	433919	Long:	-76.87491587		Datum: WGS 1984
Soil Map Unit Name: Weston fine sandy loam				NWI classi	fication: Non	e
Are climatic / hydrologic conditions on the site typica	I for this time of y	/ear?Yes 🖌	No	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology _	significantl	y disturbed?	Are "Norma	al Circumstances	" present? Y	es 🖌 No
Are Vegetation, Soil, or Hydrology _	naturally p	roblematic?	(If needed,	explain any ansv	vers in Remai	ˈks.)
SUMMARY OF FINDINGS – Attach site	map showin	g sampling p	ooint locati	ons, transect	ts, importa	ant features, etc.
-	✓ No No ✓ No	within a	ampled Area a Wetland?		No	<u>~</u>
Remarks: Upland data point taken on a gentle slope for a sea	sonally saturated	to seasonally sa	iturated PFO n	nosaic on a distur	bed flat.	

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) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living Root	ts (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes <u>V</u> No Depth (inches): 24	
	etland Hydrology Present? Yes 🖌 No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	s), if available:
Remarks:	
Surface saturation present in to 5 inches; water table associated saturation is at 21 inches	

Sampling Point: <u>wsua021_u2</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)		Species?		Number of Dominant Species
1. Pinus taeda	55	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Liriodendron tulipifera	8	No	FACU	
3. Liquidambar styraciflua	7	No	FAC	Total Number of Dominant Species Across All Strata: 7 (B)
4. Acer rubrum	4	No	FAC	Species Across All Strata: (B)
	·			Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>57.14285714</u> (A/B)
6	. <u> </u>			Prevalence Index worksheet:
7				
8				0
	74	= Total Cov	/er	
50% of total cover:37	20% of	total cover	14.8	FACW species $x 2 = \frac{104}{312}$
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 3 =
1. Liquidambar styraciflua	20	Yes	FAC	FACU species x 4 =128
2. Morella cerifera	6	No	FAC	UPL species $0 \times 5 = 0$
3. Liriodendron tulipifera	5	No	FACU	Column Totals:141 (A)448 (B)
		No	FACU	
4. Platanus occidentalis				Prevalence Index = B/A =3.17
5. Ilex opaca	3	No	FAC	Hydrophytic Vegetation Indicators:
6. Acer rubrum	3	No	FAC	1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8.				
···	40	= Total Cov	/or	3 - Prevalence Index is ≤3.0 ¹
50% of total cover:20			•	Problematic Hydrophytic Vegetation ¹ (Explain)
	20% 01	total cover	:	
Herb Stratum (Plot size: 5)	•		0.01	¹ Indicators of hydric soil and wetland hydrology must
1. Woodwardia areolata	2	Yes	OBL	be present, unless disturbed or problematic.
2. Polystichum acrostichoides	2	Yes	FACU	Definitions of Four Vegetation Strata:
3. Asplenium platyneuron	2	Yes	FACU	Tree Meedy plants evoluting vince 2 in (7.6 cm) or
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				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			. <u> </u>	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				
	6	= Total Cov	/er	
50% of total cover: ³		total cover	1.0	
			·	
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>) <u>1</u> Lonicera japonica	15	Yes	FACU	
	6	Yes	FAC	
2. Smilax rotundifolia			170	
3				
4				
5				Hydrophytic
	21	= Total Cov	/er	Vegetation
50% of total cover:10.5				Present? Yes <u>V</u> No
			·	
Remarks: (If observed, list morphological adaptations belo herb ID limited due to snow cover and dormancy	W).			

	Matrix		Read	ox Features	S			
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-2	10YR 2/1	100					SL	
2-6	10YR 2/2	100		_			SL	
6-13	10YR 3/2	100					SL	
13-24	10YR 5/6	100					SCL	
	- - - Concentration, D=Dej					ains.		PL=Pore Lining, M=Matrix.
lydric Soil	I Indicators: (Applie	able to all Li	RRs, unless othe	rwise note	ed.)		Indicators f	or Problematic Hydric Soils ³ :
Black H Hydrog Stratifie Organie 5 cm M Muck F 1 cm M Deplete Thick D Coast F Sandy Sandy Sandy Sandy Sandy	ol (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ed Layers (A5) c Bodies (A6) (LRR F Mucky Mineral (A7) (L Presence (A8) (LRR V Muck (A9) (LRR P, T) ed Below Dark Surface Dark Surface (A12) Prairie Redox (A16) (Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) urface (S7) (LRR P, 5)	RR P, T, U) J) Ce (A11) MLRA 150A) LRR O, S)	Delta Ochric Reduced Ve Piedmont Fle	urface (S9) cy Mineral i ed Matrix (atrix (F3) Surface (F rk Surface essions (F8 _RR U) thric (F11) nese Massi ace (F13) ((F17) (ML rtic (F18) (podplain S	(LRR S, (F1) (LRR F2) 6) (F7) 3) (MLRA 15 (MLRA 15 (RA 151) MLRA 15 oils (F19)	T, U) O) LRR O, P, U) 0A, 150B) (MLRA 14:	2 cm Mi Reduce Piedmo Anomal (MLR Red Pa Very Sh Other (B Other (B T) ³ Indica wetta unles	uck (A9) (LRR O) uck (A10) (LRR S) d Vertic (F18) (outside MLRA 150A nt Floodplain Soils (F19) (LRR P, S , ous Bright Loamy Soils (F20) A 153B) rent Material (TF2) nallow Dark Surface (TF12) Explain in Remarks) ators of hydrophytic vegetation and and hydrology must be present, ss disturbed or problematic. 153D)
		-					1	
Type: no	Layer (if observed) one	:						
	nches):		_				Hydric Soil F	Present? Yes No 🖌
Remarks:							1	
Cillains.								



Photo 1 Upland data point wsua021_u2 facing east



Photo 2 Upland data point wsua021_u2 facing west

Project/Site: Atlantic Coast Pipeline	City/Cou	City/County: Suffolk			_ Sampling Date: 2/19/2015	
Applicant/Owner: Dominion			State: VA		Point: wsua020f_w	
Investigator(s): GB, CC	Section,	Township, Range:	No PLSS in this a	area		
Landform (hillslope, terrace, etc.): swale	Local reli	ef (concave, conve	x, none): <u>concave</u>	9	Slope (%): 2	
Subregion (LRR or MLRA): T Lat:	36.63417795	Long:	-76.87274573		Datum: WGS 1984	
Soil Map Unit Name: Dragston fine sandy loam			NWI class	ification: None	e	
Are climatic / hydrologic conditions on the site typical for this tim	ne of year? Yes	✓ No	_ (If no, explain ir	Remarks.)		
Are Vegetation, Soil, or Hydrology signi	ficantly disturbed	? Are "Norn	nal Circumstances	s" present? Y	es 🖌 No	
Are Vegetation, Soil, or Hydrology natur	rally problematic	? (If needed	l, explain any ans	wers in Remar	rks.)	
SUMMARY OF FINDINGS – Attach site map sho	owing sampl	ing point locat	tions, transec	ts, importa	ant features, etc.	
Hydrophytic Vegetation Present? Yes No	Is	the Sampled Area	2			
Hydric Soil Present? Yes 🖌 No		ithin a Wetland?	Yes	✓ No		
Wetland Hydrology Present? Yes <u>V</u> No	"					
Remarks:						
Wetland data point for a seasonally saturated PFO wetland alo	ong stream ssua	05.				

Wetland Hydrology Indicators:	:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of c	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) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Research	oots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (0	C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
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? Y	Yes No Depth (inches):	
Water Table Present? Y	Yes No Depth (inches):	
Saturation Present? Y (includes capillary fringe)	Yes No Depth (inches):	Wetland Hydrology Present? Yes 🛩 No
	n gauge, monitoring well, aerial photos, previous inspecti	ons), if available:
Remarks:		

Sampling Point: <u>wsua020f_w</u>

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30)		% Cover	Species?	Status	Number of Dominant Species
1. Liquidambar styraciflua		40	Yes	FAC	That Are OBL, FACW, or FAC:7 (A)
2. Acer rubrum		23	Yes	FAC	
3. Nyssa sylvatica		7	No	FAC	Total Number of Dominant Species Across All Strata: 8 (B)
					Species Across All Strata. (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 87.5 (A/B)
6				. <u> </u>	Drevelance in dev workshoet
7					Prevalence Index worksheet:
8					Total % Cover of: Multiply by:
		70	= Total Cov	/er	OBL species x 1 =
50% of total cove	or: 35		total cover	1/	FACW species x 2 = 2
	۰	20 /0 01		•	FAC species $\frac{96}{x 3} = \frac{288}{x 3}$
Sapling/Shrub Stratum (Plot size: 15)	8	Vaa	FAC	FACU species 23 x 4 = 92
1. <u>Ilex opaca</u>			Yes		$\frac{1}{\text{UPL species}} = \frac{0}{x 5} = \frac{0}{x 5}$
2. Morella cerifera		5	Yes	FAC	13/ 306
_{З.} Fagus grandifolia		3	No	FACU	Column Totals: (A) (B)
4. Clethra alnifolia		1	No	FACW	Prevalence Index = $B/A = 2.95$
5.				·	
					Hydrophytic Vegetation Indicators:
6					1 - Rapid Test for Hydrophytic Vegetation
7		. <u> </u>			2 - Dominance Test is >50%
8				. <u> </u>	\checkmark 3 - Prevalence Index is ≤3.0 ¹
			= Total Cov	/er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cove	er: 8.5	20% of	total cover	3.4	
Herb Stratum (Plot size: 5)		_			
1 Woodwardia areolata		10	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		4			
2. Juncus effusus			Yes	OBL	Definitions of Four Vegetation Strata:
3. Elymus virginicus		3	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4					more in diameter at breast height (DBH), regardless of
5					height.
6					Sepling/Shrub Weedy plants, evoluting vines, loss
					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				<u> </u>	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.					
		17	= Total Cov	/er	
50% of total cove	ar: 8.5		total cover	~ .	
	er	20% 01	total cover	·	
Woody Vine Stratum (Plot size: 30	_)	00	V		
1. Lonicera japonica		20	Yes	FACU	
2. Smilax rotundifolia		10	Yes	FAC	
3					
4.					
5.					
5	<u> </u>	30		·	Hydrophytic
	45		= Total Cov		Vegetation Present? Yes <u>Ves</u> No
50% of total cove	er: 15	20% of	total cover	:	
Remarks: (If observed, list morphological adapta	tions belov	N).			
		,			

Depth	Matrix	R	edox Features			
(inches)	Color (moist)	% Color (moist)	<u>%</u> Type ¹	Loc ²	Texture	Remarks
0-2	10YR 2/2	100			SL	
2-15	10YR 2/1	100			SL	
15-24	10YR 3/1	100			SL	
		letion, RM=Reduced Matrix able to all LRRs, unless o		irains.		re Lining, M=Matrix. blematic Hydric Soils ³ :
Histoso			e Below Surface (S8)	LRR S. T. U		•
	Epipedon (A2)		« Surface (S9) (LRR S		2 cm Muck (A	
	Histic (A3)		ucky Mineral (F1) (LR			c (F18) (outside MLRA 150A,E
	jen Sulfide (A4)	Loamy G	leyed Matrix (F2)	•	Piedmont Floo	odplain Soils (F19) (LRR P, S, T
	ed Layers (A5)		Matrix (F3)			ight Loamy Soils (F20)
	c Bodies (A6) (LRR P	, T, U) Redox D	ark Surface (F6)		(MLRA 1538	3)
	lucky Mineral (A7) (LI		Dark Surface (F7)		Red Parent Ma	aterial (TF2)
	Presence (A8) (LRR U		epressions (F8)			Dark Surface (TF12)
	luck (A9) (LRR P, T)) (LRR U)		Other (Explain	
	ed Below Dark Surfac		Ochric (F11) (MLRA	151)	<u> </u>	,
	Dark Surface (A12)		ganese Masses (F12)		T) ³ Indicators of	hydrophytic vegetation and
		MLRA 150A) 🗹 Umbric S	• • • •	• • •	•	drology must be present,
	Mucky Mineral (S1) (I		hric (F17) (MLRA 151		,	urbed or problematic.
	Gleyed Matrix (S4)		Vertic (F18) (MLRA 1			
-	Redox (S5)		t Floodplain Soils (F19			
	d Matrix (S6)			, 、	A 149A, 153C, 153D)	
	urface (S7) (LRR P, S			(, (
	Layer (if observed)					
Type: n	one					
	nches):				Hydric Soil Presen	it? Yes 🖌 No
Remarks:					1	



Photo 1 Wetland data point wsua020f_w facing southwest



Photo 2 Wetland data point wsua020f_w facing northeast

Project/Site: Atlantic Coast Pipeline		_ City/County: Suffolk		Sampling Date: 2/19/2015		
Applicant/Owner: Dominion			State: VA	Sampling Point: wsua020_u		
Investigator(s):		_ Section, Township, R	ange: <u>No PLSS in this</u>	area		
Landform (hillslope, terrace, etc.): slope				Slope (%): <u>3</u>		
Subregion (LRR or MLRA): T	Lat: 36.63	415083	Long: <u>-76.87279171</u>	Datum: WGS 1984		
Soil Map Unit Name: Dragston fine sandy loam			NWI clas	sification: <u>None</u>		
Are climatic / hydrologic conditions on the site t	ypical for this time of y	/ear? Yes 🖌 No	(If no, explain	in Remarks.)		
Are Vegetation, Soil, or Hydrold	gy significantl	y disturbed? Are	"Normal Circumstance	es" present? Yes 🔽 No		
Are Vegetation, Soil, or Hydrold	gy naturally p	roblematic? (If r	needed, explain any an	swers in Remarks.)		
SUMMARY OF FINDINGS – Attach	site map showin	g sampling point	locations, transe	cts, important features, etc.		
Hydrophytic Vegetation Present? Yes	✓ No	- Is the Sample	d Area			
Hydric Soil Present? Yes	No 🖌	within a Wetla		No 🖌		
	No					
Remarks: Upland data point taken above toe of slope for	a seasonally saturate	d PEO wetland along a	n intermittent stream			
	a seasonally saturate					

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) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Liv	ving Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled S	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	anastiana) if available.
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in	ispections), if available:
Remarks:	
no hydrology indicators present	

Sampling Point: <u>wsua020_u</u>

Tree Stratum (Plot size:30)	Absolute			Dominance Test worksheet:
Liquidambar styraciflua	45	<u>Species?</u> Yes	<u>Status</u> FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
2 Acer rubrum	20	Yes	FAC	
3.				Total Number of Dominant Species Across All Strata: 8 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5 (A/B)
6				、 ,
7				Prevalence Index worksheet:
8				$\begin{array}{c c} \underline{\text{Total } \% \text{ Cover of:}} \\ \hline \text{OPL encoded} \\ \hline 0 \\ \hline x \ 1 = 0 \\ \hline \end{array}$
	65	= Total Cov	/er	OBL species $x_1 = 0$
50% of total cover:32.5	20% of	total cover	13	FACW species $x^2 = \frac{10}{266}$
Sapling/Shrub Stratum (Plot size: 15)				FAC species $x_3 = $
1. Ilex opaca	12	Yes	FAC	FACU species $x 4 = 0$
2. Acer rubrum	8	Yes	FAC	UPL species $x_5 = 462$
3. <u>Morella cerifera</u>	8	Yes	FAC	Column Totals: (A) (B)
4. Liquidambar styraciflua	4	No	FAC	Prevalence Index = $B/A = 3.08$
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				$_$ 3 - Prevalence Index is ≤3.0 ¹
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 16	20% of	total cover	. 6.4	
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
1. Andropogon virginicus	5	Yes	FAC	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
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, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	5	= Total Cov	/er	
50% of total cover: 2.5	20% of	total cover	. <u> </u>	
Woody Vine Stratum (Plot size: 30)				
1. Lonicera japonica	20	Yes	FACU	
2. Smilax rotundifolia	20	Yes	FAC	
3. <u>Gelsemium rankinii</u>	8	No	FACW	
4				
5				Hydrophytic
	48	= Total Cov	/er	Vegetation
50% of total cover: 24	20% of	total cover	9.6	Present? Yes <u>V</u> No
Remarks: (If observed, list morphological adaptations below	w).			

Depth	Matrix		Redo	x Features	5					
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture		Remark	S
0-12	10YR 2/2	100					SL			
12-18	10YR 3/2	100					SL			
18-24	10YR 4/2	100					LS			
	Concentration, D=Dep					ains.			ining, M=Ma matic Hydr	
•									-	ic 30115 .
Histoso	Epipedon (A2)		Polyvalue Be Thin Dark Su		• • •			Muck (A9) (I Muck (A10)		
	listic (A3)		Loamy Mucky	• •	•			· ,	• •	e MLRA 150A,B
	en Sulfide (A4)		Loamy Gleye		. , .	0)		,	<i>,</i> .	19) (LRR P, S, T
	ed Layers (A5)		Depleted Mat		(2)				Loamy Soil	
	c Bodies (A6) (LRR P		Redox Dark S	. ,	6)			RA 153B)	Louiny Con	3 (1 20)
_	lucky Mineral (A7) (LF		Depleted Dar	•	,		•	Parent Mater	ial (TF2)	
	Presence (A8) (LRR U		Redox Depre		• •				k Surface (T	F12)
	luck (A9) (LRR P, T)	-	Marl (F10) (L		5)			(Explain in I	•	1 12)
	ed Below Dark Surfac		Depleted Och		(MI RA 14	(1)			(cinarks)	
	Dark Surface (A12)		Iron-Mangane				³ Indi	cators of hvo	drophytic ve	getation and
	Prairie Redox (A16) (N		Umbric Surfa					•	ogy must be	-
	Mucky Mineral (S1) (I		Delta Ochric			0,			ed or proble	
	Gleyed Matrix (S4)	· · ·	Reduced Ver	· / ·		DA. 150B)				
	Redox (S5)		Piedmont Flo	• • •			A)			
-	d Matrix (S6)		Anomalous B					C. 153D)		
	urface (S7) (LRR P, S							,,		
Restrictive	Layer (if observed):									
Type: no	one									
Depth (ir							Hydric Soi	I Present?	Yes	No
Remarks:										



Photo 1 Upland data point wsua020_u facing northeast



Photo 2 Upland data point wsua020_u facing southwest

Project/Site: Atlantic Coast Pipeline		City/County: Suffolk		_ Sampling Date: 2/19/2015
Applicant/Owner: Dominion				_ Sampling Point: wsua019s_w
Investigator(s): GB, CC		Section, Township, Range:	No PLSS in this are	a
Landform (hillslope, terrace, etc.): shallow ditch				
Subregion (LRR or MLRA): T				
Soil Map Unit Name: Dragston fine sandy loam				
Are climatic / hydrologic conditions on the site typical for the Are Vegetation, Soil, or HydrologyAre Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS – Attach site mag	_significantly _naturally pro p showing	disturbed? Are "Norm oblematic? (If needec g sampling point locat	nal Circumstances" I, explain any answe	present? Yes <u>/</u> No ers in Remarks.)
Hydrophytic Vegetation Present? Yes ✓ Hydric Soil Present? Yes ✓ Wetland Hydrology Present? Yes ✓ Remarks: Wetland data point for a seasonally surface saturated PS mosaic of ditches, berms, and ruts from logging activity, or shallow ditches.	No No SS wetland in	a recent clear cut; receives	Yes	nt agricultural fields. Area is a
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; check a	ll that apply)		Surface Soil	Cracks (B6)

Primary Indicators (minimum of one is required; check all that apply)		Crayfish Burrows (C8)
Surface Water Present?YesWater Table Present?YesSaturation Present?Yes(includes capillary fringe)	No ✓ Depth (inches): ✓ No Depth (inches): 19 ✓ No Depth (inches): 0 ✓ No Depth (inches): 0 uge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks: water table associated saturation is a	t 18"; surface is saturated from 0 to 4"	

Sampling Point: <u>wsua019s_w</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30</u>)		Species?		Number of Dominant Species	
1				That Are OBL, FACW, or FAC:7 (A	()
2				· · · · · · · · · · · · · · · · · · ·	,
				Total Number of Dominant	
3				Species Across All Strata: 9 (B	5)
4				Percent of Dominant Species	
5	·				/B)
6					
7				Prevalence Index worksheet:	
8				Total % Cover of: Multiply by:	
	^	= Total Cov		OBL species x 1 =15	
			0	FACW species $9 \times 2 = 18$	
50% of total cover:	20% 01	total cover		FAC species $\frac{86}{x 3} = \frac{258}{x 3}$	
Sapling/Shrub Stratum (Plot size: 15)				FACU species 24 x 4 = 96	
1. Rhus copallinum	8	Yes	UPL		
2. Morella cerifera	7	Yes	FAC	UPL species 427	
3. Pinus taeda	5	Yes	FAC	Column Totals: (A) (A)	B)
4. Acer rubrum	5	Yes	FAC	2	
	5	Yes	OBL	Prevalence Index = B/A =3	
5. <u>Salix nigra</u>	4			Hydrophytic Vegetation Indicators:	
6. Baccharis halimifolia	4	No	FAC	1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				3 - Prevalence Index is ≤3.0 ¹	
	34	= Total Cov	ver		
50% of total cover:17		total cover	~ ~	Problematic Hydrophytic Vegetation ¹ (Explain)	
	20% 0		·		
Herb Stratum (Plot size: 5)	10			¹ Indicators of hydric soil and wetland hydrology mus	st
1. Juncus effusus	10	Yes	OBL	be present, unless disturbed or problematic.	
2. Arundinaria gigantea	6	Yes	FACW	Definitions of Four Vegetation Strata:	
_{3.} Solidago altissima	4	No	FACU	Tree Missiburghants such diamatics 0 in (7.0 and	
4 Dichanthelium scoparium	3	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless	
	·			height.	. 01
5					
6				Sapling/Shrub – Woody plants, excluding vines, les	SS
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
8				Herb – All herbaceous (non-woody) plants, regardle	ess
9				of size, and woody plants less than 3.28 ft tall.	
10					
				Woody vine – All woody vines greater than 3.28 ft i height.	n
				neight.	
12					
		= Total Cov			
50% of total cover:11.	20% of	total cover	4.6		
Woody Vine Stratum (Plot size: 30)					
_{1.} Rubus argutus	55	Yes	FAC		
2. Lonicera japonica	20	Yes	FACU		
3 Smilax rotundifolia	10	No	FAC		
··		110	1710		
4	·				
5				Hydrophytic	
	85	= Total Cov	ver	Vegetation	
50% of total cover: 42.	5 20% of	total cover	. 17	Present? Yes <u>V</u> No	
Remarks: (If observed, list morphological adaptations belo					
herb ID limited due to snow cover and dormancy outside of	,	ason			
	growing se	43011			

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the ir	ndicator	or confirm t	he absence of	indicators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 2/1	100					SL		
4-16	10YR 3/1	100					SL		
16-24	10YR 4/1	100					SL		
				·					
¹ Turney 0-0						<u> </u>		-Deve Lining M-Metric	
	ncentration, D=Deploindicators: (Applica					ains.		_=Pore Lining, M=Matrix	
Histosol			Polyvalue Be					k (A9) (LRR O)	iono .
	vipedon (A2)		Thin Dark Su					k (A10) (LRR S)	
Black Hi	,		Loamy Mucky					Vertic (F18) (outside N	/I RA 150A B)
	n Sulfide (A4)		Loamy Gleye			,		Floodplain Soils (F19)	
	Layers (A5)		Depleted Mat		_/			us Bright Loamy Soils (F	
	Bodies (A6) (LRR P,	T. U)	Redox Dark S	. ,	3)		(MLRA		
	cky Mineral (A7) (LR		Depleted Dar	•			•	nt Material (TF2)	
	esence (A8) (LRR U)		Redox Depre		. ,			llow Dark Surface (TF12	2)
	ck (A9) (LRR P, T)		Marl (F10) (L		·)			plain in Remarks)	-)
	Below Dark Surface	(Δ11)	Depleted Och			51)		plain in Kentarks)	
·	rk Surface (A12)	(411)	Iron-Mangane	· / ·) ³ Indicato	ors of hydrophytic veget	ation and
	airie Redox (A16) (M	I PA 150A)					•	d hydrology must be pr	
	lucky Mineral (S1) (L		Delta Ochric	· / ·		, 0)		disturbed or problemat	
	ileyed Matrix (S4)	KK 0, 3)	Reduced Ver	. , .		0A 150D)	uness	disturbed of problemat	.IC.
	• • • •			· , ·			A)		
	edox (S5)		Piedmont Flo	•	• •	•		500)	
	Matrix (S6)	T 11	Anomalous B	inght Loan	iy Solis (I	-20) (WILRA	149A, 153C, 15	3D)	
	face (S7) (LRR P, S, ayer (if observed):	1, 0)							
Type: nor									
Depth (ind	ches):						Hydric Soil Pre	esent? Yes	No
Remarks:									



Photo 1 Wetland data point wsua019s_w facing northeast



Photo 2 Wetland data point wsua019s_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk			_ Sampling Date: <u>2/19/2015</u>	
Applicant/Owner: Dominion			State: VA		
Investigator(s): GB, CC	Sectio	n, Township, Range:	No PLSS in this are	a	
Landform (hillslope, terrace, etc.): berm	Local	relief (concave, conv	ex, none): <u>convex</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): T Lat:	36.63414791	Long	g: <u>-76.87205391</u>	Datun	n: WGS 1984
Soil Map Unit Name: Dragston fine sandy loam			NWI classifie	cation: None	
Are climatic / hydrologic conditions on the site typical for this tir Are Vegetation, Soil, or Hydrology sign Are Vegetation, Soil, or Hydrology natu SUMMARY OF FINDINGS – Attach site map sh	ificantly distur	tic? (If neede	mal Circumstances" d, explain any answe	present? Yes <u></u>	
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: Image: Comparison of the second seco	<u> </u>	Is the Sampled Are within a Wetland?	Yes	No	
Upland data point taken on a berm for a seasonally surface sa	aturated PSS v	vetiano mosaic locate	a in a nignly disturbe	a clear cut.	

	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Oxidized Rhizospheres along Living Ro Sediment Deposits (B2) Presence of Reduced Iron (C4) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C Algal Mat or Crust (B4) Iron Deposits (B5) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) 	Crayfish Burrows (C8)
Field Observations:	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection Remarks:	Wetland Hydrology Present? Yes No
no hydrology indicators present	

Sampling Point: <u>wsua019_u</u>

•	-				
Tree Streture (Diet eize)	30		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1					That Are OBL, FACW, or FAC:3 (A)
2					
					Total Number of Dominant
3					Species Across All Strata: 6 (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 50 (A/B)
6					
					Prevalence Index worksheet:
7					
8					Total % Cover of: Multiply by:
		0	= Total Cov	or	OBL species x 1 =
	0			0	FACW species x 2 = 20
	50% of total cover:	20% of	total cover:		FAC species 79 x 3 = 237
Sapling/Shrub Stratum (Plot siz	ze: 15)				
1. Rhus copallinum		35	Yes	UPL	FACU species X 4 =
2. Cercis canadensis		6	No	UPL	UPL species 41 x 5 = 205
					167 598
3. <u>Acer rubrum</u>		5	No	FAC	Column Totals: (A) (B)
4. Prunus serotina		5	No	FACU	Prevalence Index = $B/A = 3.58$
		4	No	OBL	Prevalence Index = $B/A = 3.58$
5. Salix nigra					Hydrophytic Vegetation Indicators:
6. Platanus occidentalis		4	No	FACW	1 - Rapid Test for Hydrophytic Vegetation
7. Pinus taeda		4	No	FAC	
					2 - Dominance Test is >50%
8					$_$ 3 - Prevalence Index is $\leq 3.0^{1}$
		63	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
	50% of total cover: 31.5	20% of	total cover:	12.6	
	5)	207001			
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Dichanthelium scoparium		4	Yes	FACW	be present, unless disturbed or problematic.
2. Solidago altissima		3	Yes	FACU	Definitions of Four Vegetation Strata:
3. Arundinaria gigantea		2	Yes	FACW	
3. Aranamana gigamea			103	1701	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4					more in diameter at breast height (DBH), regardless of
5					height.
6					Sapling/Shrub – Woody plants, excluding vines, less
7					than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8					Herb – All herbaceous (non-woody) plants, regardless
					of size, and woody plants less than 3.28 ft tall.
9					
10					Woody vine – All woody vines greater than 3.28 ft in
11					height.
12.					
12.		9			
	. .		= Total Cov	4.0	
	50% of total cover: 4.5	20% of	total cover:	1.8	
Woody Vine Stratum (Plot size	· 30)				
1. Rubus argutus	/	60	Yes	FAC	
2. Lonicera japonica		25	Yes	FACU	
3. Smilax rotundifolia		10	No	FAC	
4					
4					
5					Hydrophytic
					nyarophytic
		95	= Total Cov	er	Vegetation
			= Total Cov	10	
	50% of total cover:47.5	20% of	= Total Cov	10	Vegetation
Remarks: (If observed, list mor	50% of total cover:47.5	20% of		10	Vegetation
Remarks: (If observed, list mor herb ID limited due to snow cove	50% of total cover:47.5	20% of w).	total cover:	10	Vegetation
	50% of total cover:47.5	20% of w).	total cover:	10	Vegetation
	50% of total cover:47.5	20% of w).	total cover:	10	Vegetation
	50% of total cover:47.5	20% of w).	total cover:	10	Vegetation

Depth	Matrix		Redo	x Features				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 2/2	100					SL	
6-15	10YR 3/2	100					SL	
15-24	10YR 3/1	100					SL	
						·		
	Concentration, D=Dep					ains.		Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRRs,	unless other	wise note	d.)		Indicators for F	Problematic Hydric Soils ³ :
Black H Hydrog Stratifie Organic 5 cm M Muck P 1 cm M Deplete Coast F Sandy Sandy Sandy Sandy	II (A1) Epipedon (A2) Iistic (A3) en Sulfide (A4) ed Layers (A5) E Bodies (A6) (LRR P ucky Mineral (A7) (LF Presence (A8) (LRR U uck (A9) (LRR P, T) ed Below Dark Surfac Dark Surface (A12) Prairie Redox (A16) (I Mucky Mineral (S1) (L Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR P, S	, T, U) , T, U) RR P, T, U) e (A11) MLRA 150A) LRR O, S) 	Polyvalue Be Thin Dark Su Loamy Mucky Loamy Gleye Depleted Mat Redox Dark S Depleted Dar Redox Depre Marl (F10) (L Depleted Oct Iron-Mangane Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo Anomalous B	rface (S9) y Mineral (I d Matrix (F trix (F3) Surface (F6 k Surface (F ssions (F8 RR U) nric (F11) (ese Masse ce (F13) (L (F17) (MLF tic (F18) (N odplain Sc	(LRR S, F1) (LRR F1) (LRR F2) (F7)) MLRA 15 s (F12) (I .RR P, T, RA 151) /LRA 15 /LRA 15 /LRA 15	T, U) O) -RR O, P, T U) DA, 150B) (MLRA 149	 2 cm Muck Reduced Ve Piedmont F Anomalous (MLRA 15 Red Parent Very Shallo Other (Expl: T) ³ Indicators wetland unless d	(A10) (LRR S) ertic (F18) (outside MLRA 150A,E loodplain Soils (F19) (LRR P, S, T Bright Loamy Soils (F20) 53B) Material (TF2) w Dark Surface (TF12) ain in Remarks) of hydrophytic vegetation and hydrology must be present, isturbed or problematic.
Restrictive Type: no	Layer (if observed):							
	nches):						Hydric Soil Pres	ent? Yes No
Remarks:							I	



Photo 1 Upland data point wsua019_u facing northeast



Photo 2 Upland data point wsua019_u facing southwest

Project/Site: Atlantic Coast Pipeline	_ City/County: Suffolk	Sampling Date: 2/19/2015
Applicant/Owner: Dominion	State: VA	Sampling Point: wsua018s_w
Investigator(s): GB, CC	_ Section, Township, Range: <u>No PLSS in th</u>	is area
Landform (hillslope, terrace, etc.): swale	_ Local relief (concave, convex, none): <u>conc</u>	ave Slope (%): 2
Subregion (LRR or MLRA): T Lat: 36.63	3381741 Long: <u>-76.86961899</u>	Datum: WGS 1984
Soil Map Unit Name: Nansemond fine sandy loam, 0 to 2 percent slo		
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation, Soil, or Hydrology significant Are Vegetation, Soil, or Hydrology naturally p	tly disturbed? Are "Normal Circumstan	ces" present? Yes <u>/</u> No
SUMMARY OF FINDINGS – Attach site map showir	ng sampling point locations, trans	ects, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes Yes No Wetland Hydrology Present? Yes Yes No Remarks: Wetland data point for a seasonally saturated swale in a recent clear No No	within a Wetland? Yes	No

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check	Surface Soil Cracks (B6)			
Surface Water (A1) Aqu		Sparsely Vegetated Concave Surface (B8)		
✓ High Water Table (A2) Mar	l Deposits (B15) (LRR U)		Drainage Patterns (B10)	
Saturation (A3)	Irogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1) Oxid	dized Rhizospheres along Living F	Roots (C3)	Dry-Season Water Table (C2)	
Sediment Deposits (B2) Pres	sence of Reduced Iron (C4)		Crayfish Burrows (C8)	
Drift Deposits (B3) Rec	cent Iron Reduction in Tilled Soils	(C6)	Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Thir	n Muck Surface (C7)		✓ Geomorphic Position (D2)	
Iron Deposits (B5) Oth	er (Explain in Remarks)		Shallow Aquitard (D3)	
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 _				
Water Table Present? Yes <u>Ves</u> No				
Saturation Present? Yes <u>V</u> No	Depth (inches):	Wetland H	lydrology Present? Yes 🖌 No	
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring w	ell, aerial photos, previous inspec	tions), if ava	ilable:	
Remarks:				

Sampling Point: <u>wsua018s_w</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u>)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:8 (A)
2				Total Number of Dominant
3				Species Across All Strata: 11 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>72.72727272</u> (A/B)
6				
7				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
8	0	Tatal Oa		OBL species x 1 =9
5 00/ - 6 4-4-1 0		= Total Cov	0	FACW species 12 x 2 = 24
50% of total cover:	20% of	total cover		FAC species $\frac{74}{x 3} = \frac{222}{x 3}$
Sapling/Shrub Stratum (Plot size: 15)	10	Vaa		FACU species 35 x 4 = 140
1. Rhus copallinum	10	Yes	UPL	UPL species $10 \times 5 = 50$
2. Acer rubrum	5	Yes	FAC	140 445
3. Sambucus nigra	5	Yes	FACW	Column Totals: (A) (B)
4. Liriodendron tulipifera	5	Yes	FACU	Prevalence Index = B/A =3.17
5. Liquidambar styraciflua	5	Yes	FAC	Hydrophytic Vegetation Indicators:
6. Populus deltoides	5	Yes	FAC	
7. Salix nigra	5	Yes	OBL	1 - Rapid Test for Hydrophytic Vegetation
8. Baccharis halimifolia	4	No	FAC	✓ 2 - Dominance Test is >50%
0	44			3 - Prevalence Index is ≤3.0 ¹
		= Total Cov	~ ~	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover		
Herb Stratum (Plot size: 5))	7	.,		¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea	7	Yes	FACW	be present, unless disturbed or problematic.
2. <u>Scirpus cyperinus</u>	4	Yes	OBL	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
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				
9				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
			<u> </u>	
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
		= Total Cov	~ ~	
50% of total cover:5.5	20% of	total cover	2.2	
Woody Vine Stratum (Plot size: 30)				
1. Rubus argutus	40	Yes	FAC	
2. Lonicera japonica	30	Yes	FACU	
3. Vitis rotundifolia	15	No	FAC	
4.				
5.				Hadaan ka da
···	85	= Total Cov		Hydrophytic Vegetation
50% of total cover:42.5		total cover:	4 -	Present? Yes <u>No</u>
Remarks: (If observed, list morphological adaptations belo	,			
Herb layer ID limited due to snow cover and outside of grow	ing season			

Depth	Matrix		Redo	x Feature	e			
(inches)	Color (moist)	%	Color (moist)	<u>% « « « « « « « « « « « « « « « « « « «</u>	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/3	100					SL	
6-10	10YR 3/2	100					SL	
10-20	10YRV4/2	98	10YR 4/6	2	С	М	SL	
	Concentration, D=Dep					ains.		L=Pore Lining, M=Matrix.
Hydric Soil Histoso	Indicators: (Applic	cable to all L	.RRs, unless other Polyvalue Be					r Problematic Hydric Soils ³ : ck (A9) (LRR O)
Black H Hydrog Stratifie Organic 5 cm M Muck P 1 cm M Deplete Thick D Coast F Sandy I Sandy I Sandy I Sandy I Dark St	pipedon (A2) distic (A3) de Sulfide (A4) de Layers (A5) c Bodies (A6) (LRR F lucky Mineral (A7) (L Presence (A8) (LRR P, T) de Below Dark Surface Oark Surface (A12) Prairie Redox (A16) (Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR P, S Layer (if observed)	RR P, T, U) J) Ce (A11) MLRA 150A LRR O, S) S, T, U)	Delta Ochric Reduced Ver	y Mineral ed Matrix (trix (F3) Surface (F rk Surface essions (F .RR U) hric (F11) ese Mass ice (F13) ((F17) (ML rtic (F18) (podplain S	(F1) (LRF (F2) =6) e (F7) 8) (MLRA 1: es (F12) ((LRR P, T _RA 151) (MLRA 15 soils (F19)	51) LRR O, P, , U) 0A, 150B) (MLRA 14	Reduced Piedmoni Anomaloi (MLRA Red Pare Very Sha Other (E) T) ³ Indicate wetlar unless	ent Material (TF2) Illow Dark Surface (TF12) xplain in Remarks) ors of hydrophytic vegetation and nd hydrology must be present, s disturbed or problematic.
Type: no	one							
Depth (ir	nches):						Hydric Soil Pr	resent? Yes 🦯 No
Dobri (ii								



Photo 1 Wetland data point wsua018s_w facing south



Photo 2 Wetland data point wsua018s_w facing north

Project/Site: Atlantic Coast Pipeline		City/County: Suffolk			Samplin	g Date: 2	2/19/2015
Applicant/Owner: Dominion							
Investigator(s): GB, CC		Section, Township, Range:	NO PLSS	S in this are	ea		
Landform (hillslope, terrace, etc.): <u>slope</u>		Local relief (concave, convex	, none):	none		Slope	e (%): <u>4</u>
Subregion (LRR or MLRA): T La	at: <u>36.633</u> 6	68928 Long: _	-76.869	50921		Date	um: WGS 1984
Soil Map Unit Name: Nansemond fine sandy loam, 0 to 2 per							
Are climatic / hydrologic conditions on the site typical for this f Are Vegetation, Soil, or Hydrology sig Are Vegetation, Soil, or Hydrology na SUMMARY OF FINDINGS – Attach site map sig	gnificantly aturally pro	disturbed? Are "Norma oblematic? (If needed,	al Circur explain	mstances" any answ	present? ers in Rem	Yes	∕ _№
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	 ✓ 	Is the Sampled Area within a Wetland?		Yes	No	~	

Wattend Hudralam, Indiantana	Consider Indicators (minimum of two required)
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) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living R	Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils	(C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
	····
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
(includes capillary fringe)	
(includes capillary fringe)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	

Sampling Point: <u>wsua018_u</u>

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30)		Species?		Number of Dominant Species	
1					That Are OBL, FACW, or FAC:3	(A)
2						
					Total Number of Dominant	
3					Species Across All Strata: 0	(B)
4					Percent of Dominant Species	
5					That Are OBL, FACW, or FAC: 50	(A/B)
6					Dravalance index workshoet.	
7				. <u> </u>	Prevalence Index worksheet:	
8					Total % Cover of: Multiply by:	-
		0	= Total Cov	er	OBL species x 1 =	-
50	0% of total cover:		total cover:	0	FACW species <u>5</u> x 2 = <u>10</u>	_
		20 /0 01			FAC species 75 x 3 = 225	
Sapling/Shrub Stratum (Plot size:)	25	Voo	EACU	FACU species 55 x 4 = 220	_
1. Liriodendron tulipifera			Yes	FACU	UPL species 20 x 5 = 100	-
2. Rhus copallinum		20	Yes	UPL	155 555	-
3. Liquidambar styraciflua		15	Yes	FAC	Column Totals: (A)	_ (B)
4. Acer rubrum		5	No	FAC	Prevalence Index = B/A = 3.58	
5. Prunus serotina		5	No	FACU		-
					Hydrophytic Vegetation Indicators:	
6					1 - Rapid Test for Hydrophytic Vegetation	
7					2 - Dominance Test is >50%	
8					3 - Prevalence Index is ≤3.0 ¹	
		70	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain	n)
50	0% of total cover: 35	20% of	total cover	14		')
Herb Stratum (Plot size: 5					1	
1. Arundinaria gigantea)	5	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology m be present, unless disturbed or problematic.	nust
2					Definitions of Four Vegetation Strata:	
3					Tree – Woody plants, excluding vines, 3 in. (7.6 c	m) or
4					more in diameter at breast height (DBH), regardle	
5					height.	
6.					On the stOken the Manda and a state of the s	
					Sapling/Shrub – Woody plants, excluding vines, than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
7						
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.	11 11 1
12.				·		
12.		5	- Tatal Car			
	% of total cover: 2.5		= Total Cov			
50		20% of	total cover			
Woody Vine Stratum (Plot size:)					
1. Rubus argutus		50	Yes	FAC		
2. Lonicera japonica		25	Yes	FACU		
3. Smilax rotundifolia		5	No	FAC		
4				<u> </u>		
5				<u> </u>	Hydrophytic	
		80	= Total Cov	er	Vegetation	
50	0% of total cover: 40	20% of	total cover	16	Present? Yes No	
Remarks: (If observed, list morpho					1	
herb layer ID limited due to snow co						

Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-3	10YR 2/2	100					SL		
3-10	10YR 4/3	100					SL		
10-24	10YR 4/4	100					SL		
				- <u> </u>					
	Concentration, D=Dep					ains.			ng, M=Matrix. atic Hydric Soils³:
-	Indicators: (Applic	able to all L							•
Histosc	· · ·		Polyvalue Be						
	Epipedon (A2)		Thin Dark Su	• •	•			ck (A10) (L	,
	Histic (A3)		Loamy Muck	•	, .	0)			B) (outside MLRA 1504
	en Sulfide (A4)		Loamy Gleye		-2)			•	n Soils (F19) (LRR P, S
	ed Layers (A5)		Depleted Ma	. ,				-	oamy Soils (F20)
	c Bodies (A6) (LRR P		Redox Dark		,		(MLRA		
	lucky Mineral (A7) (LF		Depleted Da		• •			ent Material	
	Presence (A8) (LRR U	I)	Redox Depression	essions (F8)		Very Sha	Illow Dark S	Surface (TF12)
1 cm M	luck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other (E:	xplain in Re	marks)
Deplete	ed Below Dark Surfac	e (A11)	Depleted Oc	hric (F11) (MLRA 1	51)			
Thick D	Oark Surface (A12)		Iron-Mangan	ese Masse	s (F12) (LRR O, P, T	r) ³ Indicat	ors of hydro	phytic vegetation and
	Prairie Redox (A16) (MLRA 150A							y must be present,
	Mucky Mineral (S1) (I		Delta Ochric			,			or problematic.
-	Gleyed Matrix (S4)	, _, _,	Reduced Ver			0A 150B)			
-	Redox (S5)		Piedmont Flo				201		
	d Matrix (S6)			•	• •	•	,,,) \ 149A, 153C, 1	E2D)	
	urface (S7) (LRR P, S	• T 10		Signi Luan	iy Solis (i		A 149A, 155C, 1	55D)	
	Layer (if observed):						[
Type: no	one								
Depth (ir	nches):						Hydric Soil P	resent?	Yes No 🔽
Remarks:							•		



Photo 1 Upland data point wsua018_u facing south



Photo 2 Upland data point wsua018_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk		Sampling Date: <u>12/10/2014</u>			
Applicant/Owner: Dominion		State: VA	Sampling Point: wsua009f_w			
Investigator(s):	Section, Township, Rar	nge: <u>No PLSS in this are</u>	a			
Landform (hillslope, terrace, etc.): draw	Local relief (concave, c	onvex, none): <u>concave</u>	Slope (%): 2			
Subregion (LRR or MLRA): T L	at: <u>36.63347965</u> L	347965 Long: -76.86760044 Datum: Wo				
Soil Map Unit Name: Rains fine sandy loam		NWI classifi	cation: None			
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes 🔽 No	(If no, explain in F	Remarks.)			
Are Vegetation, Soil, or Hydrologys	significantly disturbed? Are "	Normal Circumstances"	present? Yes 🖌 No			
Are Vegetation, Soil, or Hydrology r	naturally problematic? (If ne	problematic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map	showing sampling point lo	ocations, transects	s, important features, etc.			
Hydrophytic Vegetation Present? Yes N	⁰ Is the Sampled	Area				
Hydric Soil Present? Yes Ves N			No			
Wetland Hydrology Present? Yes Ves N						
Remarks:						
Wetland data point taken within a saturated PFO wetland lo shelf areas along stream course.	ocated in a wet draw, intermittent s	tream ssua006 originate	s as outflow within this feature,			

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) (LRR U)	✓ Drainage Patterns (B10)
✓ Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living F	Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes <u>V</u> No Depth (inches): <u>6</u>	
Saturation Present? Yes <u>V</u> No Depth (inches): <u>4</u>	Wetland Hydrology Present? Yes 🖌 No
(includes capillary fringe)	, , , , , , , , , , , , , , , , , , , ,
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions) if available:
	tions), il available.
Remarks:	

Sampling Point: <u>wsua009f_w</u>

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u>)	% Cover		Status	Number of Dominant Species
1. Pinus taeda	25	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
2. Acer rubrum	20	Yes	FAC	Total Number of Dominant
3. Magnolia virginiana	10	No	FACW	Species Across All Strata: 7 (B)
4. Liriodendron tulipifera	10	No	FACU	· · · · · · · · · · · · · · · · · · ·
5. Liquidambar styraciflua	10	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				
7				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
8	75	= Total Cov		OBL species x 1 =0
37.5			15	FACW species 35 x 2 = 70
50% of total cover:37.5	20% of	total cover:		FAC species $90 \times 3 = 270$
Sapling/Shrub Stratum (Plot size: 15)	45	Vee		FACU species $10 \times 4 = 40$
1. <u>Ilex opaca</u>	15	Yes	FAC	UPL species $0 \times 5 = 0$
2. <u>Magnolia virginiana</u>	10	Yes	FACW	135 380
3. Symplocos tinctoria	8	Yes	FAC	Column Totals: (A) (B)
4. Acer rubrum	7	No	FAC	Prevalence Index = B/A = 2.81
5				Hydrophytic Vegetation Indicators:
6				
7				1 - Rapid Test for Hydrophytic Vegetation
8				\checkmark 2 - Dominance Test is >50%
0	40	- Total Cav		\checkmark 3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 20		= Total Cov	•	Problematic Hydrophytic Vegetation ¹ (Explain)
	20% of	total cover:		
Herb Stratum (Plot size: 5)	45			¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea	15	Yes	FACW	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
5				height.
				Conting (Chrysh - Weeds plants eveluding vince lass
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				of size, and woody plants less than 3.28 ft tall.
10	. <u> </u>			Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	15	= Total Cov	er	
50% of total cover:	20% of	total cover:	3	
Woody Vine Stratum (Plot size: 30)				
1 Smilax rotundifolia	5	Yes	FAC	
2				
3				
4	·			
5				Hydrophytic
	5	= Total Cov	er	Vegetation
50% of total cover:2.5	20% of	total cover:	1	Present? Yes <u>V</u> No
Remarks: (If observed, list morphological adaptations below	w).			1
······································				

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to document the indicator of	or confirm	he absence of indicators.)
Depth	Matrix		Redox Features			
(inches)	Color (moist)	%	Color (moist) % Type ¹	Loc ²	Texture	Remarks
0-8	10YR 2/1	100			L	
8-18	10YR 3/1	100			SL	
¹ Type: C=C	oncentration. D=Deple	etion. RM=F	educed Matrix, MS=Masked Sand Gra	ins.	² Location: PL=Pore Linir	ng. M=Matrix.
			RRs, unless otherwise noted.)		Indicators for Problema	
Histosol	(A1)		Polyvalue Below Surface (S8) (LI	RR S, T, U)	1 cm Muck (A9) (LRF	R O)
Histic Ep	oipedon (A2)		Thin Dark Surface (S9) (LRR S, 1	Γ, U)	2 cm Muck (A10) (LR	RS)
Black Hi	stic (A3)		Loamy Mucky Mineral (F1) (LRR	O)		(outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)			Soils (F19) (LRR P, S, T)
Stratified	d Layers (A5)		Depleted Matrix (F3)		Anomalous Bright Los	amy Soils (F20)
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark Surface (F6)		(MLRA 153B)	
5 cm Mu	icky Mineral (A7) (LR	R P, T, U)	Depleted Dark Surface (F7)		Red Parent Material ((TF2)
Muck Pr	esence (A8) (LRR U)		Redox Depressions (F8)		Very Shallow Dark Su	urface (TF12)
1 cm Mu	ıck (A9) (LRR P, T)		Marl (F10) (LRR U)		Other (Explain in Rer	narks)
Depleted	d Below Dark Surface	(A11)	Depleted Ochric (F11) (MLRA 15	1)		
Thick Da	ark Surface (A12)		Iron-Manganese Masses (F12) (L	.RR O, P, T) ³ Indicators of hydror	phytic vegetation and
	rairie Redox (A16) (M	LRA 150A)	✓ Umbric Surface (F13) (LRR P, T,	U)	wetland hydrology	must be present,
	lucky Mineral (S1) (L		Delta Ochric (F17) (MLRA 151)	-,	unless disturbed o	•
	Gleyed Matrix (S4)		Reduced Vertic (F18) (MLRA 150	A 150B)		
	Redox (S5)		Piedmont Floodplain Soils (F19)		Δ)	
-	Matrix (S6)		Anomalous Bright Loamy Soils (F			
	rface (S7) (LRR P, S ,	T, U)			1407, 1000, 1000)	
Restrictive	Layer (if observed):					
Type: <u>no</u>	ne					
Depth (in	ches):				Hydric Soil Present? Y	′es No
Remarks:						



Photo 1 Wetland data point wsua009f_w facing south



Photo 2 Wetland data point wsua009f_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sampling Dat	te: 12/10/2014
Applicant/Owner: Dominion		State: VA Sampling Poin	nt: <u>wsua009_</u> u
Investigator(s): GB, RL	Section, Township, Range:	No PLSS in this area	
	Local relief (concave, convex		lope (%): <u>2</u>
Subregion (LRR or MLRA): La	at: <u>36.63352951</u> Long: _	-76.86755132	Datum: WGS 1984
Soil Map Unit Name: Rains fine sandy loam		NWI classification: None	
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes No	(If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrologysi	gnificantly disturbed? Are "Norma	al Circumstances" present? Yes	✓ No
Are Vegetation, Soil, or Hydrology na	aturally problematic? (If needed,	, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling point locati	ions, 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: Upland data point taken above toe of slope for a saturated R	PFO wetland located in a wet draw.		

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) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Liv	ring Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled S	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No V Depth (inches):	Wetland Hydrology Present? Yes No _
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in	spections), if available:
Remarks:	
no hydrology indicators present	

Sampling Point: <u>wsua009_u</u>

Izee Stratum (Plot size: 30 Absolute Dominant Indicator Nuccess Packed Stratum Dominant Species FAC 1. Prust stede 30 Yes FAC 2. Lindendron tulipfere 15 Yes FAC 30 Yes FACU 4. Acer rubrum 10 No FAC 5. Liquidambar styracifua 8 No FAC 6. Fagus grandifolia 5 No FACU 7. 10 No FAC 8. Liquidambar styracifua 8 No FACU 8. Liquidambar styracifua 6 No FACU 8. Seciels Assister 7 (N) 9. Liquidambar styracifua 15 Yes FACU 1. Fagus grandifolia 10 Yes FACU Yes 1. Gagae grandifolia 7 No FACU FACU 2. Micropaca 10 Yes FACU Yes FACU 3. Symplocos tinctoria 7 No FACU FACU Yes Solumart
1. Providence induced in Commant Species 3 Yes FAC Thainage Commant Species 3 (A) 2. Lindendron tulpifera 15 Yes FACU Total Number of Commant Species 3 (A) 4. Acer rubrum 10 No FAC Total Number of Commant Species 7 (B) 5. Liquidambar styracifiua 8 No FAC Prevent of Dominant Species 12 85714285 (A/B) 7. 8
1 FACU Indicate of the number of Dominant Species (b) 3 0. exercis alia 12 No FACU Total Number of Dominant Species (c) 4. Acer ruburm 10 No FAC FACU Total Number of Dominant Species (c) 6. Fagus granditolia 5 No FACU Percent of Dominant Species (c) (c) 7. 6 5 No FACU Percent of Dominant Species (c) (c) <td< td=""></td<>
3. Quercus alba 12 No FACU 4. Acer rubrum 10 No FACU 5. Liquidamber styraciflua 8 No FACU 7. Essay grandifolia 5 No FACU 7. Construction 80 FACU Prevalence Index worksheet: 7. Total Xuncher 16 FACU Prevalence Index worksheet: 7. Total Xuncher 80 = Total Cover 16 5. Soling/Shub Stratum 15 Yes FACU 9. In Fagus grandifolia 15 Yes FACU 9. In Fagus grandifolia 15 Yes FACU 9. In Species 0 x 1 = 0 9. Symphocos tinctoria 7 No FACU 9. Solv of total cover: 20 20% of total cover: 8 9. In Contrainate for Hydrophytic Vegetation Indicators Hist Statum (Piot size: 5 9. In Anultipatic Solv of total cover: 2 2 20% of total cover: 8
3. Utercus siles 12 No FAC 4. Acer uture 10 No FAC 4. Acer uture 10 No FAC 6. Fagus granditois 5 No FAC 7. Seguing/Shrub Stratum (Plot size: 15) 15 Yes FAC 1. Facu species 7 x 2 = 14 Facu species 6 x 3 = 198 7. Seguing/Shrub Stratum (Plot size: 15) 15 Yes FAC 1. Facu species 7 x 4 = 228 7. No FAC Out species 7 x 4 = 228 1. Fagus granditolia 7 No FAC Out species 7 x 4 = 228 1. Fagus granditolia 7 No FAC Out species 7 x 4 = 228 1. Fagus granditolia 7 No FAC Column Totals: 130 (A) (B) 2. Modentum anboreum 8 Yes FACU Dem
5 Liquidambar styraciflua 8 No FAC Precent of Dominant Species 6 Fagus granditolia 5 No FAC That Are OBL, FACW, or FAC: 42.85714285 (A/B) 7
5 Liquidaminar systemuta 0 PAC PACU 6 Fagus grandifolia 5 No FACU That Are OBL, FACW, or FAC: 42.85714225 (A/B) 7 - - - FACU Prevalence Index worksheet: -
6. Fagus granditolia 5 No FACU That Are Output Not Not Not Not Not Not Not Not Not No
7.
7.
8. 90 = Total Cover 50% of total cover: 40 = Total Cover 50% of total cover: 16 1. Fagus grandfolia 15 Yes 1. Fagus grandfolia 10 Yes 3. Oxydendrum arboreum 8 Yes 4. Symplacos tinctoria 7 No 5. - - 6. - - 7. No FAC 8. - - 6. - - 7. No FAC 8. - - 9. - - 50% of total cover: 0 1. Arandinarig grantea 7 7 Yes FACU 9. - - 1. Arandinarig grantea 7 7 Yes FACU 9. - - 1. Arandiaria grantea 1 1. No FACU
$\begin{array}{c c c c c c c c c c c c c c c c c c c $
50% of total cover:4020% of total cover:16 $7AC$ species $6C$ $X = 2$ Saplind/Shrub Stratum (Plot size:15YesFACU1 $Facu$ species 0 $x = 0$ $x = 0$ 3 $Cxydendrum arboreum$ 8YesFACU4 $Symplocos tinctoria$ 7NoFAC6 $$ $$ $$ $$ 7NoFACPrevalence Index = B/A = 3.38 4 $$ $$
Sapiling/Shrub Stratum (Plot size: 15) 15 Yes FACU 1. Fagus grandfola 10 Yes FACU 2. liex opaca 10 Yes FACU 3. Oxydendrum arboreum 8 Yes FACU 4. Symplocos tinctoria 7 No FAC 5. - - - - 6. - - - - 7. No FAC Secondaria - 6. - - - - 7. No FAC Secondaria - 8. - - - - - 8. - - - - - 50% of total cover: 20 20% of total cover: 8 - - 1 Arundinaria gigantea 7 Yes FACU Problematic Hydrophytic Vegetation 1(Explain) 1 Arundinaria gigantea 1 No FAC - - 2. Michaella repens 2 Yes FACU Problematic. -
1. Fagus granditolia 15 Yes FACU FACU species 0 x4 = 20 2. llex opaca 10 Yes FACU UPL species 0 x 5 = 0 3. Oxydendrum arboreum 8 Yes FACU UPL species 0 x 5 = 0 4. Symplocos finctoria 7 No FAC 130 (A) 440 (B) 5.
1.
2. Torylendrum arboreum 8 Yes FACU Column Totals: 130 (A) 440 (B) 4. Symplocos tinctoria 7 No FAC Column Totals: 130 (A) 440 (B) 6. 7 No FAC Prevalence Index = B/A = 3.38 9. 40 = Total Cover 20% of total cover: 2 Provealence Index is 53.0' Provealence Index is 53.0' 9. 40 = Total Cover 3 - Provealence Index is 53.0' Problematic Hydrophytic Vegetation '(Explain) 1 Arundinaria gigantea 7 Yes FACU Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 3 Hexastylis arifolia 1 No FAC 4.
3. Symplecost tinctoria 7 No FAC 4. Symplecost tinctoria 7 No FAC 5. 7 No FAC 6. 7 No FAC 7. No FAC Prevalence Index = B/A =38 9. 1 Rapid Test for Hydrophytic Vegetation 2 - 2.0000000000000000000000000000000000
4
5.
6.
7.
8.
40 = Total Cover 50% of total cover: 20 20% of total cover: 8 Herb Stratum (Plot size: 5 1. Arundinaria gigantea 7 Yes 2. Mitchella repens 2 Yes 3. Hexastylis arifolia 1 No 4. - - 5. - - 6. - - 7. - - 8. - - 9. - - 10. - - 11. - - 12. - - 50% of total cover: 5 - 7. - - - 8. - - - 9. - - - 10. - - - 11. - - - 12. - - - 50% of total cover: 5 20% of total cover: 2 10. - - -
40 = Total Cover 50% of total cover: 20 20% of total cover: 8 Herb Stratum (Plot size: 5 1. Arundinaria gigantea 7 Yes 2. Mitchella repens 2 Yes 3. Hexastylis arifolia 1 No 4. - - 5. - - 6. - - 7. - - 8. - - 9. - - 10. - - 11. - - 12. - - 50% of total cover: 5 - 7. - - - 8. - - - 9. - - - 10. - - - 11. - - - 12. - - - 50% of total cover: 5 20% of total cover: 2 10. - - -
50% of total cover: 20 20% of total cover: 8 Herb Stratum (Plot size: 5) 1. Arundinaria gigantea 7 Yes FACW 2. Mitchella repens 2 Yes FACU Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 3. Hexastylis arifolia 1 No FAC 4.
Herb Stratum (Plot size: 5) 1. Arundinaria gigantea 7 Yes FACW 2. Mitchella repens 2 Yes FACU Definitions of Four Vegetation Strata: 3. Hexastylis arifolia 1 No FAC FACU 4.
1. Arundinaria gigantea 7 Yes FACW 2. Mitchella repens 2 Yes FACU 3. Hexastylis arifolia 1 No FAC 4. 1 No FAC 5. 1 No FAC 6. 1 No FAC 7.
2. Mitchella repens 2 Yes FACU 3. Hexastylis arifolia 1 No FAC 4. 1 No FAC 5. 1 No FAC 6. 1 No FAC 7. 1 No FAC 8. 1 No FAC 9. 1 1 No 10. 1 No FAC 10. 10. 10. No 11. 10. 10. 10. 12. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. <td< td=""></td<>
3. Hexastylis arifolia 1 No FAC 4.
1.
4.
5.
0. $0.$
7.
8.
9.
9.
10.
11.
12. 10 = Total Cover 50% of total cover: 5 20% of total cover: 2 Woody Vine Stratum (Plot size: 30) .
10 = Total Cover 50% of total cover: 2 20% of total cover: 2 Woody Vine Stratum (Plot size: 30 1.
50% of total cover: 5 20% of total cover: 2 Woody Vine Stratum (Plot size: 30)
Woody Vine Stratum (Plot size:30) 1
Woody Vine Stratum (Plot size:30) 1 2
1.
2
3
4
5. 0 = Total Cover Hydrophytic Vegetation
50% of total cover: 20% of total cover: Present? Yes No
Remarks: (If observed, list morphological adaptations below).

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the inc	dicator o	or confirm	the absence of indicators.)
Depth	Matrix		Redo	<pre>K Features</pre>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-4	10YR 2/2	100					SL
4-18	10YR 3/2	100					SL
				<u> </u>			
	oncentration, D=Depl		aducad Matrix MS	-Mackod S	and Gra		² Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applica					1115.	Indicators for Problematic Hydric Soils ³ :
-							•
Histosol	· · ·		Polyvalue Be				
· ·	pipedon (A2)		Thin Dark Su	• • •			2 cm Muck (A10) (LRR S)
	stic (A3)		Loamy Mucky	•	, .	0)	Reduced Vertic (F18) (outside MLRA 150A,B
	en Sulfide (A4)		Loamy Gleye		<u>2</u>)		Piedmont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Mat	· · /			Anomalous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,		Redox Dark S	• •			(MLRA 153B)
	ucky Mineral (A7) (LR		Depleted Dar	•	=7)		Red Parent Material (TF2)
	resence (A8) (LRR U)		Redox Depre	. ,			Very Shallow Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (L				Other (Explain in Remarks)
	d Below Dark Surface	(A11)	Depleted Och	· · ·			
	ark Surface (A12)		Iron-Mangane				
	rairie Redox (A16) (M		Umbric Surfa	ce (F13) (Ll	RR P, T,	U)	wetland hydrology must be present,
	/lucky Mineral (S1) (L	RR O, S)	Delta Ochric				unless disturbed or problematic.
	Bleyed Matrix (S4)		Reduced Ver				
Sandy F	Redox (S5)		Piedmont Flo	odplain Soil	s (F19)	(MLRA 149	ЭА)
	l Matrix (S6)		Anomalous B	right Loamy	/ Soils (F	20) (MLRA	A 149A, 153C, 153D)
Dark Su	rface (S7) (LRR P, S	T, U)					
Restrictive	Layer (if observed):						
Type: no	ne		_				
Depth (in	ches):						Hydric Soil Present? Yes No
Remarks:							•



Photo 1 Upland data point wsua009_u facing east



Photo 2 Upland data point wsua009_u facing north



Photo 3 Upland data point wsua009_u facing west

Project/Site: Atlantic Coast Pipeline		City/County: St	lffolk		Sampling	Date: 12/1	0/2014
Applicant/Owner:			S	State: VA	Sampling	Point: wsua	a010f_w
Investigator(s):		Section, Towns	hip, Range: <u>No</u>	PLSS in this ar	rea		
Landform (hillslope, terrace, etc.): draw						Slope (%	5) <u>:</u> 1
Subregion (LRR or MLRA): T	Lat: <u>36.6</u>	333526	Long:7	6.86530708		Datum:	WGS 1984
Soil Map Unit Name: Rains fine sandy loa	ım			NWI classi	fication: PFC	D1E	
Are climatic / hydrologic conditions on the	site typical for this time of	year?Yes 🖌	_ No (I	lf no, explain in	Remarks.)		
Are Vegetation, Soil, or H	/drology significan	ntly disturbed?	Are "Normal	Circumstances'	" present?	Yes 🖌	No
Are Vegetation, Soil, or H	/drology naturally	problematic?	(If needed, ex	xplain any answ	vers in Rema	arks.)	
SUMMARY OF FINDINGS – Att	ach site map showi	ng sampling p	oint locatio	ns, transect	ts, import	ant featu	ires, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	— within a	ampled Area Wetland?	Yes	✓ No		
Remarks: Wetland data point for a saturated to tem	porarily flooded PFO wetla	and located in two	intersecting drav	ws containing s	treams ssua	007 & ssua	008.

Wetland Hydrology Indicato	rs:		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) (LRR U)		 Drainage Patterns (B10)
 Saturation (A3) 	Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living F	Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)		 Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils	(C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)		Shallow Aquitard (D3)
Inundation Visible on Aer	al Imagery (B7)		 FAC-Neutral Test (D5)
Water-Stained Leaves (B	9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present?	Yes No 🖌 Depth (inches):		
Water Table Present?	Yes <u> </u>		
Saturation Present?	Yes <u>V</u> No Depth (inches): 3	Wetland I	Hydrology Present? Yes _ ✔_ No
(includes capillary fringe)			· · · <u> </u>
Describe Recorded Data (stre	am gauge, monitoring well, aerial photos, previous inspec	ctions), if ava	ailable:
Remarks:			

Sampling Point: <u>wsua010f_w</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)		Species?	Status	Number of Dominant Species
_{1.} Nyssa sylvatica	20	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
2. Liquidambar styraciflua	15	Yes	FAC	
3. Pinus taeda	15	Yes	FAC	Total Number of Dominant Species Across All Strata: 7 (B)
4 Liriodendron tulipifera	12	No	FACU	
5. Magnolia virginiana	8	No	FACW	Percent of Dominant Species
6 Acer rubrum	5	No	FAC	That Are OBL, FACW, or FAC:100 (A/B)
6. <u>Acer rubrum</u>		110	170	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				0
	75	= Total Cov		OBL species $x_1 = \frac{1}{20}$
50% of total cover:37.5	20% of	total cover:	15	FACW species $\frac{10}{75}$ x 2 = $\frac{12}{225}$
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 3 =
Magnolia virginiana	16	Yes	FACW	FACU species64
2. Ilex opaca	10	Yes	FAC	UPL species x 5 =0
3. Liquidambar styraciflua	5	No	FAC	Column Totals:133 (A)367 (B)
4 Acer rubrum	5	No	FAC	
	4			Prevalence Index = B/A =2.75
5. Fagus grandifolia		No	FACU	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				\checkmark 3 - Prevalence Index is ≤3.0 ¹
	40	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:20	20% of	total cover:	8	
Herb Stratum (Plot size: 5))				1
Arundinaria gigantea	12	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Woodwardia areolata	6	Yes	OBL	
				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
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				Have All borbassaus (non woodu) plants, recordings
9				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10				,
				Woody vine – All woody vines greater than 3.28 ft in
11		<u> </u>		height.
12	10			
		= Total Cov	~ ~	
50% of total cover:9	20% of	total cover:	3.6	
Woody Vine Stratum (Plot size: 30)				
1				
2				
3.				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes <u>V</u> No
50% of total cover:0	20% of	total cover:	0	
Remarks: (If observed, list morphological adaptations below	w).			

SOIL

Profile Desc	ription: (Describe t	o the depth	n needed to docum	nent the ir	ndicator	or confirm t	he absence	of indicators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	marks
0-9	10YR 2/1	100					SIL		
9-18	10YR 3/1	100					SIL		
¹ Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location:	PL=Pore Lining,	M=Matrix.
Hydric Soil I	ndicators: (Applica	able to all L	RRs, unless other	wise note	ed.)		Indicators	for Problematic	Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	low Surfac	e (S8) (L	RR S, T, U)	1 cm	Muck (A9) (LRR O)
Histic Ep	pipedon (A2)		Thin Dark Su	rface (S9)	(LRR S,	T, U)	2 cm	Muck (A10) (LRR \$	S)
Black His	stic (A3)		Loamy Muck	y Mineral (F1) (LRR	0)	Reduc	ced Vertic (F18) (o	utside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	-2)		Piedm	ont Floodplain Soi	ils (F19) (LRR P, S, T)
Stratified	I Layers (A5)		Depleted Ma	trix (F3)			Anom	alous Bright Loam	y Soils (F20)
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F	6)		(ML	RA 153B)	
5 cm Mu	cky Mineral (A7) (LR	R P, T, U)	Depleted Dar	k Surface	(F7)		Red F	arent Material (TF	2)
	esence (A8) (LRR U)		Redox Depre		• •			Shallow Dark Surfa	
	ck (A9) (LRR P, T)		Marl (F10) (L		,			(Explain in Remar	
	Below Dark Surface	(A11)	Depleted Oct			51)			
	rk Surface (A12)	, (, (, (,))	Iron-Mangan) ³ Indi	cators of hydrophy	tic vegetation and
	airie Redox (A16) (N						•	tland hydrology mi	•
	· · ·			· / ·		, 0)			•
	lucky Mineral (S1) (L	KK U, SJ	Delta Ochric				un	less disturbed or p	ioblematic.
	leyed Matrix (S4)		Reduced Ver	· · ·					
	edox (S5)		Piedmont Flo	•	. ,	•			
	Matrix (S6)		Anomalous E	right Loan	ny Soils (I	=20) (MLRA	149A, 1530	C, 153D)	
	face (S7) (LRR P, S	, T, U)							
Restrictive L	ayer (if observed):								
Type: <u>nor</u>									
Depth (inc	ches):						Hydric Soi	Present? Yes	<u> </u>
Remarks:									



Photo 1 Wetland data point wsua010f_w facing north



Photo 2 Wetland data point wsua010f_w facing west

Project/Site: <u>Atlantic Coast Pipeline</u>	City/Coun	ty: Suffolk	Sam	pling Date: <u>12/10/2014</u>
Applicant/Owner:		State	<u>VA</u> Sam	pling Point: <u>wsua010_</u> u
Investigator(s): GB, RL	Section, 1	Township, Range: <u>No PLS</u>	SS in this area	· -
Landform (hillslope, terrace, etc.): slope				Slope (%): <u>4</u>
Subregion (LRR or MLRA): T	Lat: <u>36.63330875</u>	Long: -76.86	518491	Datum: WGS 1984
Soil Map Unit Name: Rains fine sandy loam				
Are climatic / hydrologic conditions on the site typica	al for this time of year? Yes _	✓ No (If no	, explain in Remark	ks.)
Are Vegetation, Soil, or Hydrology _	significantly disturbed	? Are "Normal Circ	umstances" preser	nt? Yes 🖌 No
Are Vegetation, Soil, or Hydrology _	naturally problematic?	? (If needed, explai	in any answers in F	Remarks.)
SUMMARY OF FINDINGS - Attach site	e map showing sampli	ing point locations,	transects, imp	portant features, etc.
Hydrophytic Vegetation Present? Yes	No	the Semulad Area		
	No 🖌	the Sampled Area thin a Wetland?	Yes	No V
Wetland Hydrology Present? Yes	No		163	NO
Remarks:				
Upland data point taken above toe of slope on an u wetland branches along streams.	upland finger between two dra	aws containing intersecting	g saturated to temp	oorarily flooded PFO

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) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living R	Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No <u><</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	tions) if available
Beschilde Recorded Data (stream gauge, monitoring weil, achai photos, previous inspect	
Demositor	
Remarks:	
no hydrology indicators present	

Sampling Point: <u>wsua010_u</u>

Trop Stratum (Plat aiza: 30)		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1 Liriodendron tulipifera	<u>% Cover</u> 25	<u>Species?</u> Yes	<u>Status</u> FACU	Number of Dominant Species
1	20			That Are OBL, FACW, or FAC:4 (A)
2. Quercus alba		Yes	FACU	Total Number of Dominant
3. Pinus taeda	20	Yes	FAC	Species Across All Strata: 7 (B)
4. Quercus falcata	10	No	FACU	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 57.14285714 (A/B)
6				
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species $x_1 = 0$
50% of total cover:37.5	20% of	total cover:	15	FACW species 4 x 2 = 8 111
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 3 =
1 Fagus grandifolia	10	Yes	FACU	FACU species x 4 =
2. Ilex opaca	10	Yes	FAC	UPL species $0 \times 5 = 0$
3. Acer rubrum	5	No	FAC	Column Totals: (A) (B)
4. Oxydendrum arboreum	5	No	FACU	2.50
				Prevalence Index = B/A =3.59
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7			<u> </u>	✓ 2 - Dominance Test is >50%
8	20			3 - Prevalence Index is ≤3.0 ¹
		= Total Cov	•	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:15	20% of	total cover	6	
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea	4	Yes	FACW	be present, unless disturbed or problematic.
2. Hexastylis arifolia	2	Yes	FAC	Definitions of Four Vegetation Strata:
_{3.} Mitchella repens	1	No	FACU	Tree Mondy planta avaluding vince 2 in (7.6 cm) or
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless 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, regardless of size, and woody plants less than 3.28 ft tall.
9			<u> </u>	
10				Woody vine – All woody vines greater than 3.28 ft in
11			<u> </u>	height.
12	7			
35		= Total Cov		
50% of total cover: 3.5	20% of	total cover		
Woody Vine Stratum (Plot size: 30)				
1				
2			. <u> </u>	
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:0				Present? Yes No No
Remarks: (If observed, list morphological adaptations below				

Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	% Co	lor (moist)	%	Type ¹	Loc ²	Texture		Remark	S
0-7	10YR 2/2	100					SL			
7-15	10YR 4/3	100					SL			
15-20	10YR 4/4	100					SL			
		 				·				
	Concentration, D=Dep					ins.	² Location: Indicators	PL=Pore Li	U,	
Histoso			Polyvalue Be			RRSTII			-	
	pipedon (A2)		Thin Dark Su					luck (A10) (
	listic (A3)		Loamy Mucky							e MLRA 150A,B
	en Sulfide (A4)		Loamy Gleye			•,				9) (LRR P, S, T
	ed Layers (A5)		Depleted Mat		_,			lous Bright	•	
	c Bodies (A6) (LRR P	P. T. U)	Redox Dark S	. ,	3)			A 153B)		0 (1 20)
	ucky Mineral (A7) (L	· · · · —	Depleted Dar	•			•	arent Materia	al (TF2)	
	resence (A8) (LRR L		Redox Depre		. ,			hallow Dark	. ,	F12)
	uck (A9) (LRR P, T)		Marl (F10) (L	•	')			Explain in F	•	1 12)
	ed Below Dark Surfac		Depleted Och			31)			emarks)	
	ark Surface (A12)	<u> </u>	Iron-Mangan				³ Indic	ators of hyd	ronhytic vo	getation and
	Prairie Redox (A16) (MI DA 150A)	Umbric Surfa					and hydrolc		-
	Mucky Mineral (S1)					0)		•	•••	•
	• • • •	$LKK 0, 3) _$	Delta Ochric			A 450D)	unie	ess disturbe		nauc.
	Gleyed Matrix (S4)		Reduced Ver							
	Redox (S5)		Piedmont Flo	•	• •	•		(505)		
	d Matrix (S6)		Anomalous B	Fight Loan	iy Solis (F	-20) (MLRA	A 149A, 153C,	153D)		
	urface (S7) (LRR P, S									
Type: no	Layer (if observed)									_
Depth (ir	nches):						Hydric Soil	Present?	Yes	No
Remarks:										



Photo 1 Upland data point wsua010_u facing east



Photo 2 Upland data point wsua010_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: City o	f Suffolk Sar	Sampling Date: 9/16/2015	
Applicant/Owner: Dominion		State: VA San	npling Point: <u>wsua072f_</u> w	
Investigator(s):	Section, Township	, Range: <u>No PLSS in this area</u>		
Landform (hillslope, terrace, etc.): swale			Slope (%): 2	
Subregion (LRR or MLRA): T	Lat: <u>36.64345309</u>	Long: <u>-76.85845971</u>	Datum: WGS 1984	
Soil Map Unit Name: Goldsboro fine sandy loam, 2 to 5	percent slopes, eroded	NWI classification	n: None	
Are climatic / hydrologic conditions on the site typical for	r this time of year? Yes N	lo (If no, explain in Rema	rks.)	
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" prese	ent? Yes 🖌 No	
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showing sampling poin	nt locations, transects, im	portant features, etc.	
Hydrophytic Vegetation Present? Yes	No Is the Sam	aled Area		
Hydric Soil Present? Yes 🔽	No within a We		No	
Wetland Hydrology Present? Yes 🖌	_ No			
Remarks:				
Wetland data point for a saturated to temporarily-floode	ed PFO wetland in a shallow swale	2.		

Wetland Hydrology Indicato	rs:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; cl	heck 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) (LRR U)		✓ Drainage Patterns (B10)
Saturation (A3)		Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)
Water Marks (B1)		Oxidized Rhizospheres along Living I	Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
 Drift Deposits (B3) 		Recent Iron Reduction in Tilled Soils	(C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		 Geomorphic Position (D2)
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)
Inundation Visible on Aer	ial Imagery (B7)			 FAC-Neutral Test (D5)
Water-Stained Leaves (B	9)			Sphagnum moss (D8) (LRR T, U)
Field Observations:				
Surface Water Present?	Yes No	✓ Depth (inches):		
Water Table Present?	Yes No	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	Wetland H	lydrology Present? Yes _ ✔_ No
	am gauge, monitorir	ng well, aerial photos, previous inspec	ctions), if ava	ilable:
Remarks:				

Sampling Point: <u>wsua072f_w</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u>)		Species?	Status	
1 Fraxinus pennsylvanica	15	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)
2 Liquidambar styraciflua	10	Yes	FAC	
3. Liriodendron tulipifera	10	Yes	FACU	Total Number of Dominant Species Across All Strata: 11 (B)
A Pinus taeda	10	Yes	FAC	Species Across All Strata: (B)
· · · _ · · · · · · · · · · · · · · · ·	10			Percent of Dominant Species
5. <u>Acer rubrum</u>		Yes	FAC	That Are OBL, FACW, or FAC: 81.81818181 (A/B)
6. <u>Ulmus rubra</u>	5	No	FAC	Drevelance in dev washede etc
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	60	= Total Cov	er	OBL species $\frac{1}{16}$ x 1 = $\frac{1}{16}$
50% of total cover:30	20% of	total cover:	12	FACW species $\frac{46}{73}$ x 2 = $\frac{92}{219}$
Sapling/Shrub Stratum (Plot size:15)				FAC species x 3 =
1. llex opaca	13	Yes	FAC	FACU species x 4 = 128
2. Ligustrum sinense	7	Yes	FAC	UPL species $0 \times 5 = 0$
3. Fraxinus pennsylvanica	6	Yes	FACW	Column Totals: 158 (A) 446 (B)
	4			
4. Ulmus rubra	4	No	FAC	Prevalence Index = B/A = 2.82
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is $\leq 3.0^{1}$
	~~~	= Total Cov	er	
50% of total cover:15		total cover:		Problematic Hydrophytic Vegetation ¹ (Explain)
	20% 01			
Herb Stratum (Plot size: 5))	25	Maa		¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea	25	Yes	FACW	be present, unless disturbed or problematic.
2. Athyrium asplenioides	7	No	FAC	Definitions of Four Vegetation Strata:
3. Circaea canadensis	7	No	FACU	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Woodwardia areolata	7	No	OBL	more in diameter at breast height (DBH), regardless 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				
				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9			·	
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12	·			
		= Total Cov		
50% of total cover: 23	20% of	total cover:	9.2	
Woody Vine Stratum (Plot size:30)				
1. Lonicera japonica	15	Yes	FACU	
2 Toxicodendron radicans	7	Yes	FAC	
4			<u> </u>	
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes <u>Ves</u> No
50% of total cover:1	20% of	total cover:	4.4	
Remarks: (If observed, list morphological adaptations belo	w).			

SOIL

Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 4/3	100					SL	
7-18	10YR 4/2	96	7.5YR 4/6	4	С	PL/M	SL	
		- <u> </u>			·			
	Concentration, D=Der					ains.		Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
•						ррети		-
Histoso	Epipedon (A2)		Polyvalue Be					(A9) (LRR O) (A10) (LRR S)
	Histic (A3)		Loamy Muck					ertic (F18) (outside MLRA 150A,E
	jen Sulfide (A4)		Loamy Gley	-		0)		Floodplain Soils (F19) (LRR P, S, T
	ed Layers (A5)		✓ Depleted Ma		(12)			Bright Loamy Soils (F20)
	• • •	. <b>-</b> 11	·	• •	-6)			
	c Bodies (A6) (LRR P		Redox Dark	•	,		(MLRA 1	-
	lucky Mineral (A7) <b>(L</b>				• •			Material (TF2)
	Presence (A8) (LRR L	J)	Redox Depr		8)			w Dark Surface (TF12)
	luck (A9) (LRR P, T)		Marl (F10) (I				Other (Expl	lain in Remarks)
	ed Below Dark Surfac	e (A11)	Depleted Oc				- 2	
	Dark Surface (A12)		Iron-Mangar					s of hydrophytic vegetation and
	Prairie Redox (A16) <b>(</b> I		·	ace (F13)	(LRR P, T	, U)	wetland	hydrology must be present,
Sandy	Mucky Mineral (S1) (	LRR O, S)	Delta Ochric	(F17) <b>(ML</b>	_RA 151)		unless d	listurbed or problematic.
Sandy	Gleyed Matrix (S4)		Reduced Ve	rtic (F18) (	(MLRA 15	0A, 150B)		
Sandy	Redox (S5)		Piedmont Fle	odplain S	oils (F19)	(MLRA 149	ÐA)	
Strippe	d Matrix (S6)		Anomalous I	Bright Loa	my Soils (I	=20) (MLRA	A 149A, 153C, 153	SD)
Dark S	urface (S7) (LRR P, S	S, T, U)		-				
Restrictive Type:	<b>Layer (if observed)</b> one	:						
	nches):						Hydric Soil Pres	sent? Yes 🖌 No
Remarks:							I	



Photo 1 Wetland data point wsua072f_w facing southwest



**Photo 2** Wetland data point wsua072f_w facing southeast

Project/Site: Atlantic Coast Pipeline	Ci	ty/County: City of Suffolk		Sampling Date: <u>9/16/2015</u>
Applicant/Owner:			_ State: VA	_ Sampling Point: wsua072_u
Investigator(s): GB, SA	Se	ection, Township, Range:	No PLSS in this a	rea
Landform (hillslope, terrace, etc.): slope	Lo	ocal relief (concave, conve	ex, none): <u>none</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): <u>T</u>	Lat: <u>36.64344</u>	746 Long	-76.85868343	Datum: WGS 1984
Soil Map Unit Name: Goldsboro fine sandy loam, 2	to 5 percent slopes, e	eroded	NWI classi	fication: <u>None</u>
Are climatic / hydrologic conditions on the site typica	al for this time of year	? Yes 🖌 No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology _	significantly di	sturbed? Are "Nori	mal Circumstances	" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology _	naturally probl	ematic? (If neede	d, explain any ansv	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site	map showing s	ampling point loca	tions, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes	No 🖌	Is the Sampled Are	2	
	No 🖌	within a Wetland?		No 🖌
Wetland Hydrology Present? Yes	No 🖌	within a wetland:	163	
Remarks:				
Upland data point taken above toe of slope for a sa	turated to temporarily	/-flooded PFO wetland loo	cated in a shallow s	swale.

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) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living I	Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils	(C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
	ctions), if available:
	ctions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	ctions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	ctions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	ctions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	ctions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	ctions), if available:

Sampling Point: <u>wsua072_u</u>

Trop Stratum (Plot size) 30		Absolute			Dominance Test	t worksheet	t:		
	)	<u>% Cover</u> 35	<u>Species?</u> Yes		Number of Domir			4	
1. Pinus taeda		20		FAC	That Are OBL, FA	ACW, or FA	C:	4	(A)
2. Liriodendron tulipifera			Yes	FACU	Total Number of	Dominant			
3. Acer rubrum		8	No	FAC	Species Across A	All Strata:		8	(B)
4. Liquidambar styraciflua			No	FAC	Percent of Domir	ant Species	\$		
5. Ulmus rubra		5	No	FAC	That Are OBL, FA			50	(A/B)
6					Prevalence Inde	v workshoe	<u>.</u>		
7								tiply by	
8					Total % Cove	<u>er or:</u> 0		tiply by: 0	
			= Total Cov		OBL species	0	x1=	0	_
50%	of total cover:37.5	20% of	total cover	15	FACW species	87	x 2 =	261	_
Sapling/Shrub Stratum (Plot size:					FAC species	40	x 3 =	172	_
1. Ilex opaca		15	Yes	FAC	FACU species	43	x 4 =	0	_
2. Symplocos tinctoria		10	Yes	FAC	UPL species	130	x 5 =	433	_
3. Acer rubrum		5	No	FAC	Column Totals:	130	(A)	433	(B)
4. Liriodendron tulipifera		5	No	FACU	Desvelance	laday - D/	A _	3.33	
5. Quercus alba		2	No	FACU	Prevalence			0.00	_
					Hydrophytic Veg	-			
6					1 - Rapid Te			getation	
7					2 - Dominan	ce Test is >	50%		
8		07			3 - Prevalence	ce Index is ≤	≤3.0 ¹		
	19.5		= Total Cov		Problematic	Hydrophytic	Vegetatio	on ¹ (Explai	in)
	of total cover: 18.5	20% of	total cover	7.4					
Herb Stratum (Plot size: 5	)				¹ Indicators of hyd				nust
1. Dryopteris marginalis		2	Yes	FACU	be present, unles		•		
_{2.} <u>Carex blanda</u>		2	Yes	FAC	Definitions of Fo	our Vegetat	ion Strat	a:	
3. <u>Mitchella repens</u>		2	Yes	FACU	Tree – Woody pla	ants exclud	ina vines	3 in (76	cm) or
4					more in diameter				
5					height.				
6					Sapling/Shrub –	Woody play	nts exclu	dina vines	less
7					than 3 in. DBH ar				
8								anta raga	rdlooo
9					Herb – All herbac of size, and wood				luiess
10									
11.					Woody vine – Al	I woody vine	es greatei	r than 3.28	ft in
12.					height.				
12.		6	= Total Cov						
50%	o of total cover: 3								
		20% 01	total cover						
<u>Woody Vine Stratum</u> (Plot size: 1 Lonicera japonica	30 )	12	Yes	FACU					
· · ·									
2									
3									
4									
5					Hydrophytic				
		12	= Total Cov	er	Vegetation			~	
50%	of total cover: 6	20% of	total cover	2.4	Present?	Yes	No	<u> </u>	
Remarks: (If observed, list morpholo		w).			I				
	0	,							

Cinches)         Color (moist)         %         Type         Loc ² Texture         Remarks           0-4         10YR 3/2         100         SL         SL	Depth	Matrix		Redo	x Features					
4-9       10YR 4/3       100       SL         9-20       10YR 4/3       100       10YR 4/3         100       10YR 4/3       100       10YR 4/3         10102223       100       10YR 4/4       100				Color (moist)	<u>%</u> T	ype ¹	Loc ²			Remarks
9-20       10YR 5/4       100       SL         Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         tydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150,         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Pledmont Floodplain Soils (F19) (LRR P, S         Organic Bodies (A6) (LRR P, T, U)       Depleted 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)       Other (Explain in Remarks)         Depleted Below Dark Surface (A12)       Iron-Marganese Masses (F12) (LRR 0, P, T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F13) (MLRA 150A, 150B)       Sitriped Matrix (S6)	0-4	10YR 3/2	100					SL		
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location:       PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       2 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S8) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150.         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, Stratfied Layers (A6) (LRR P, T, U)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F7)       Red Parent Material (TF2)       Muck Y Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Y Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)       Muck Y Surface (A11)       Depleted Ochric (F17) (MLRA 151)       Other (Explain in Remarks)         Depleted Below Dark Surface (A12)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Sandy Mucky Mineral (S1) (LRR O, S)       Piedmont Floodplain Soils (F19) (MLRA 154), 1S0       Sindicators of hydrophytic vegetation and wetland hydrology must be present, un	4-9	10YR 4/3	100					SL		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S)         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)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       unless disturbed or problematic.         Sandy Gleyed Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       stripped Matrix (S6)	9-20	10YR 5/4	100		· ·			SL		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S         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)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F13) (MLRA 150A)       unless disturbed or problematic.         Sandy Gleyed Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       unless disturbed or problematic.					·		·			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S)         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)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       unless disturbed or problematic.         Sandy Gleyed Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       stripped Matrix (S6)	Type: C=0	Concentration, D=Dep	letion, RM=Re	educed Matrix, MS	S=Masked Sa	nd Gra	ains.	² Location: F	PL=Pore Lir	ning, M=Matrix.
Histic Epipedon (A2)	Hydric Soi	I Indicators: (Applic	able to all LR	Rs, unless other	wise noted.)					
Restrictive Layer (if observed):         Type:       none         Depth (inches):	Histic E Black H Hydrog Stratifie Organi 5 cm M Muck F 1 cm M Deplete Coast I Coast I Sandy Sandy Sandy Sandy	Epipedon (A2) Histic (A3) Jen Sulfide (A4) ed Layers (A5) c Bodies (A6) (LRR P Lucky Mineral (A7) (LF Presence (A8) (LRR U Luck (A9) (LRR P, T) ed Below Dark Surfac Dark Surface (A12) Prairie Redox (A16) (I Mucky Mineral (S1) (I Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	, T, U) RR P, T, U) ) e (A11) MLRA 150A) _RR O, S)	Thin Dark Su Loamy Muck Depleted Ma Redox Dark Depleted Dar Redox Depre Marl (F10) (L Depleted Och Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	rface (S9) <b>(Lf</b> y Mineral (F1) ed Matrix (F2) trix (F3) Surface (F6) k Surface (F6) k Surface (F7) essions (F8) <b>RR U)</b> nric (F11) <b>(ML</b> ese Masses ( (Ce (F13) <b>(LRI</b> (F17) <b>(MLRA</b> tic (F18) <b>(ML</b> ) podplain Soils	RR S, (LRR ) (LRR 7) F12) (I R P, T, 151) RA 15 (F19)	r, U) O) LRR O, P, T U) DA, 150B) (MLRA 149	<ul> <li>2 cm Mu</li> <li>Reduced</li> <li>Piedmon</li> <li>Anomald</li> <li>(MLR)</li> <li>Red Par</li> <li>Very Sh</li> <li>Other (E</li> </ul> 7) ³ Indica wetla unles A)	uck (A10) <b>(I</b> d Vertic (F1 nt Floodplai bus Bright L <b>A 153B)</b> rent Materia allow Dark explain in R tors of hydr und hydrolog ss disturbed	LRR S) 8) (outside MLRA 150A, n Soils (F19) (LRR P, S, .oamy Soils (F20) al (TF2) Surface (TF12) emarks) rophytic vegetation and gy must be present,
Depth (inches): No	Restrictive	Layer (if observed):								
Depth (inches): No	Type: n	one								
				_				Hydric Soil P	Present?	Yes No
Remarks:	Remarks:									



**Photo 1** Upland data point wsua072_u facing northwest



Photo 2 Upland data point wsua072_u facing northeast

Project/Site: Atlantic Coast Pipeline	City/County: City of Suffolk	_ Sampling Date: <u>9/16/2015</u>
Applicant/Owner: Dominion	State: VA	_ Sampling Point: wsua070f_w
Investigator(s): GB, SA	Section, Township, Range: No PLSS in this ar	еа
Landform (hillslope, terrace, etc.): draw		
Subregion (LRR or MLRA): T Lat: 36.645	510096 Long: <u>-76.85868839</u>	Datum: WGS 1984
Soil Map Unit Name: Goldsboro fine sandy loam, 2 to 5 percent slope	s, eroded NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for this time of ye Are Vegetation, Soil, or Hydrology significantly		Remarks.) present? Yes <u> </u>
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If needed, explain any answ	vers in Remarks.)
Hydrophytic Vegetation Present?       Yes          ✓ No         Hydric Soil Present?       Yes          ✓ No         Wetland Hydrology Present?       Yes          ✓ No         Remarks:       Wetland data point for a saturated PFO wetland located in intersecting	Is the Sampled Area within a Wetland? Yes	

Wetland Hydrology Indicato	rs:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; o	check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)			Sparsely Vegetated Concave Surface (B8)	
High Water Table (A2)		Marl Deposits (B15) (LRR U)		<ul> <li>Drainage Patterns (B10)</li> </ul>
Saturation (A3)		Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)
Water Marks (B1)		Oxidized Rhizospheres along Living F	Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		Presence of Reduced Iron (C4)		✓ Crayfish Burrows (C8)
Drift Deposits (B3)		Recent Iron Reduction in Tilled Soils	(C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		_ Thin Muck Surface (C7)		<ul> <li>Geomorphic Position (D2)</li> </ul>
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)
Inundation Visible on Aer	ial Imagery (B7)			FAC-Neutral Test (D5)
Water-Stained Leaves (B	9)			Sphagnum moss (D8) (LRR T, U)
Field Observations:				
Surface Water Present?		✓ Depth (inches):		
Water Table Present?	Yes No _	✓ Depth (inches):		
Saturation Present?	Yes No _	✓ Depth (inches):	Wetland	Hydrology Present? Yes 🖌 No
(includes capillary fringe)		de a construir de la construir	(i.e.,	-11-11
Describe Recorded Data (stre	am gauge, monitor	ring well, aerial photos, previous inspec	tions), if av	allable:
Remarks:				

Sampling Point: <u>wsua070f_w</u>

	Abaaluta	Dominant	Indicator	Deminence Test werkehest
Tree Stratum (Plot size:30)		Dominant Species?		Dominance Test worksheet:
				Number of Dominant Species
1. Acer rubrum	12	Yes	FAC	That Are OBL, FACW, or FAC:7 (A)
2. Fagus grandifolia	10	Yes	FACU	
3. Liriodendron tulipifera	10	Yes	FACU	Total Number of Dominant Species Across All Strata: 9 (B)
4 Liquidambar styraciflua	10	Yes	FAC	Species Across Air Strata. (B)
	10			Percent of Dominant Species
5. Quercus michauxii		Yes	FACW	That Are OBL, FACW, or FAC: <u>77.77777777</u> (A/B)
_{6.} Nyssa sylvatica	8	No	FAC	
7				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				
	60	= Total Cov	er	25 50
50% of total cover: ³⁰	20% of	total cover:	12	FACW species x 2 =
				FAC species 62 x 3 = 186
Sapling/Shrub Stratum (Plot size: 15 )	45	Vee		FACU species24 x 4 =96
1. Ilex opaca	15	Yes	FAC	0 0
2. Acer rubrum	5	Yes	FAC	UPL species $0$ $x = 0$ October Tatala $117$ (A) $338$ (D)
3. Fagus grandifolia	4	No	FACU	Column Totals: (A) (B)
4				Prevalence Index = B/A = 2.88
5				Hydrophytic Vegetation Indicators:
6				
				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is $\leq 3.0^1$
	24	= Total Cov	er	
<b>50%</b> of total array 12				Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:12	20% of	total cover:		
Herb Stratum (Plot size: 5 )				¹ Indicators of hydric soil and wetland hydrology must
_{1.} Arundinaria tecta	15	Yes	FACW	be present, unless disturbed or problematic.
2. Woodwardia areolata	6	Yes	OBL	
				Definitions of Four Vegetation Strata:
3. Microstegium vimineum	5	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Athyrium asplenioides	4	No	FAC	more in diameter at breast height (DBH), regardless of
5. Carex blanda	3	No	FAC	height.
				Ŭ
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				
				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
12	22			
		= Total Cov	~ ~	
50% of total cover:	20% of	total cover:	6.6	
Woody Vine Stratum (Plot size: 30 )				
· · · · · · · · · · · · · · · · · · ·				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:0		total cover:	•	Present? Yes <u>V</u> No
50 % 01 total cover.		total cover.		
Remarks: (If observed, list morphological adaptations belo	w).			

SOIL

Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	10YR 3/1	100					SL	
9-18	10YR 4/1	97	10YR 3/6	3	С	PL/M	SL	
					·			
	Concentration, D=Dep					ains.		Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Polyvalue Be	elow Surfa	ice (S8) <b>(L</b>	RR S, T, U	) 1 cm Muck	(A9) <b>(LRR O)</b>
Histic E	Epipedon (A2)		Thin Dark Su	urface (S9	) (LRR S,	T, U)	2 cm Muck	(A10) <b>(LRR S)</b>
	Histic (A3)		Loamy Muck	-		0)		ertic (F18) <b>(outside MLRA 150A,E</b>
Hydrog	en Sulfide (A4)		Loamy Gleye		(F2)		Piedmont F	Floodplain Soils (F19) <b>(LRR P, S, T</b>
	ed Layers (A5)		Depleted Ma	. ,				Bright Loamy Soils (F20)
_ `	c Bodies (A6) <b>(LRR P</b>		Redox Dark	Surface (F	-6)		(MLRA 1	53B)
	lucky Mineral (A7) <b>(L</b> l				· ,			t Material (TF2)
	Presence (A8) <b>(LRR L</b>	J)	Redox Depre	essions (F	8)			ow Dark Surface (TF12)
	luck (A9) (LRR P, T)		Marl (F10) <b>(I</b>				Other (Exp	lain in Remarks)
Deplete	ed Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
Thick E	Dark Surface (A12)		Iron-Mangan	ese Mass	es (F12) <b>(</b>	LRR O, P,	T) ³ Indicator	s of hydrophytic vegetation and
Coast I	Prairie Redox (A16) <b>(</b> I	MLRA 150	A) Umbric Surfa	ace (F13)	(LRR P, T	, U)	wetland	hydrology must be present,
Sandy	Mucky Mineral (S1) (	LRR O, S)	Delta Ochric	(F17) (ML	_RA 151)		unless o	listurbed or problematic.
Sandy	Gleyed Matrix (S4)		Reduced Ve	rtic (F18) (	(MLRA 15	0A, 150B)		
Sandy	Redox (S5)		Piedmont Florence	odplain S	oils (F19)	(MLRA 14	ÐA)	
Strippe	d Matrix (S6)		Anomalous I	Bright Loa	my Soils (I	=20) (MLR/	A 149A, 153C, 153	3D)
Dark S	urface (S7) (LRR P, S	S, T, U)						
Restrictive	Layer (if observed)							
Type: <u>n</u>	one							
	nches):						Hydric Soil Pre	sent? Yes 🖌 No
Remarks:								



Photo 1 Wetland data point wsua070f_w facing southwest



**Photo 2** Wetland data point wsua070f_w facing east

Project/Site: Atlantic Coast Pipeline	City/County:	City of Suffolk	Sampling Date: 9/16/2015		
Applicant/Owner: Dominion		State: VA	Sampling Point: <u>wsua070_u</u>		
Investigator(s):GB, SA	Section, To	wnship, Range: <u>No PLSS in this</u>	area		
Landform (hillslope, terrace, etc.): slope	Local relief	(concave, convex, none): <u>none</u>	Slope (%): <u>5</u>		
Subregion (LRR or MLRA): <u>T</u>	Lat: <u>36.64505518</u>	Long: <u>-76.85859701</u>	Datum: WGS 1984		
Soil Map Unit Name: Goldsboro fine sandy loam, 2	2 to 5 percent slopes, eroded	NWI clas	sification: None		
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes	No (If no, explain	in Remarks.)		
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstance	es" present? Yes 🔽 No		
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any an	swers in Remarks.)		
SUMMARY OF FINDINGS – Attach sit	e map showing sampling	g point locations, transe	cts, important features, etc.		
	No 🖌	e Sampled Area in a Wetland? Yes	No 🖌		
Wetland Hydrology Present? Yes	No <u>&lt;</u>		No		

#### Remarks:

Upland data point taken on slope above a saturated PFO wetland located in a draw.

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living F	Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils	(C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No Vo Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	
no hydrology indicators present	

Sampling Point: <u>wsua070_u</u>

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30)		Species?	<u>Status</u>	Number of Dominant Species
1. Pinus taeda	30 20	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Liriodendron tulipifera		Yes	FACU	Total Number of Dominant
3. Quercus alba	10	No	FACU	Species Across All Strata: 6 (B)
4. Acer rubrum	10	No	FAC	Percent of Dominant Species
5. Liquidambar styraciflua	5	No	FAC	That Are OBL, FACW, or FAC:66.666666666 (A/B)
6				
7				Prevalence Index worksheet:
8				$\begin{array}{c c} \underline{\text{Total } \% \text{ Cover of:}} \\ \underline{\text{OPL appealed}} \\ 0 \\ \hline \end{array} \\ \begin{array}{c} x & 1 \\ z \\ 1 \\ z \\ 0 \\ \end{array}$
	75	= Total Cov	er	
50% of total cover:37.5	20% of	total cover:	15	FACW species $x 2 = \frac{2}{207}$
Sapling/Shrub Stratum (Plot size: 15 )				FAC species $x^3 = 194$
1. Fagus grandifolia	15	Yes	FACU	FACU species $x 4 = $
2. Ilex opaca	10	Yes	FAC	UPL species $x = 200$
3. Acer rubrum	10	Yes	FAC	Column Totals: (A) (B)
4. Liquidambar styraciflua	3	No	FAC	Prevalence Index = B/A =3.35
5				
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
				∠ 2 - Dominance Test is >50%
8	20	= Total Cov		3 - Prevalence Index is $\leq 3.0^1$
50% of total cover: 19				Problematic Hydrophytic Vegetation ¹ (Explain)
	20% 01	total cover.		
Herb Stratum (Plot size:5) 1 Arundinaria tecta	4	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must
2. Carex blanda	 		FAC	be present, unless disturbed or problematic.
	<u> </u>	No		Definitions of Four Vegetation Strata:
3. <u>Mitchella repens</u>		No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
		= Total Cov		
50% of total cover: 3	20% of	total cover:	1.2	
Woody Vine Stratum (Plot size: 30 )				
1				
2				
3				
4				
5				I hadron ha stin
	-	= Total Cov	er	Hydrophytic Vegetation
50% of total cover:0				Present? Yes V No
Remarks: (If observed, list morphological adaptations belo			·	
	vv).			

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the inc	dicator	or confirm t	the absence	of indicators.)
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10YR 3/2	100					SL	
8-18	10YR 6/3	100					SL	
·								
						<u> </u>		
$\frac{1}{1}$ Type: C=C	oncentration, D=Depl	etion RM=E	Peduced Matrix MS	-Masked S	Sand Gra		² Location:	PL=Pore Lining, M=Matrix.
	ndicators: (Applica					1113.		for Problematic Hydric Soils ³ :
Histosol			Polyvalue Be			RR S. T. U)		Muck (A9) <b>(LRR O)</b>
	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
Black Hi	,		Loamy Mucky					ced Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye					nont Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		Depleted Mat	rix (F3)			Anoma	alous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark S	Surface (F6	)		(ML	RA 153B)
5 cm Mu	cky Mineral (A7) (LR	R P, T, U)	Depleted Dar	k Surface (I	F7)		Red P	arent Material (TF2)
Muck Pr	esence (A8) (LRR U)	)	Redox Depre	ssions (F8)			Very S	Shallow Dark Surface (TF12)
	ck (A9) <b>(LRR P, T)</b>		Marl (F10) <b>(L</b>	•			Other	(Explain in Remarks)
	Below Dark Surface	e (A11)	Depleted Och					
	ark Surface (A12)		Iron-Mangane		· · ·			cators of hydrophytic vegetation and
	airie Redox (A16) (M			· / ·		U)		tland hydrology must be present,
-	lucky Mineral (S1) <b>(L</b>	RR O, S)	Delta Ochric				unl	ess disturbed or problematic.
	leyed Matrix (S4)		Reduced Ver					
	edox (S5)		Piedmont Flo	•	. ,	•		
	Matrix (S6)		Anomalous B	right Loamy	y Soils (F	-20) <b>(MLRA</b>	149A, 153C	C, 153D)
	face (S7) (LRR P, S	, T, U)						
Restrictive L	ayer (if observed):							
Type: <u>nor</u>								
Depth (inc	ches):						Hydric Soil	Present? Yes No
Remarks:								



# **Photo 1** Upland data point wsua070_u facing southeast



Photo 2 Upland data point wsua070_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/County:	City of Suffolk	Sampli	Sampling Date: 9/16/2015	
Applicant/Owner: Dominion		State:	VA Samplii	ng Point: <u>wsua071f_</u> w	
Investigator(s): GB, SA	Section, Tov	vnship, Range: <u>No PLSS</u>	in this area		
Landform (hillslope, terrace, etc.): broad draw	Local relief (	concave, convex, none):	concave	Slope (%): 2	
Subregion (LRR or MLRA): T Lat:					
Soil Map Unit Name: Goldsboro fine sandy loam, 2 to 5 percer	nt slopes, eroded	N	WI classification: P	FO1E	
Are climatic / hydrologic conditions on the site typical for this tir Are Vegetation, Soil, or Hydrology sign Are Vegetation, Soil, or Hydrology natu SUMMARY OF FINDINGS – Attach site map sh	ificantly disturbed?	Are "Normal Circur (If needed, explain	nstances" present? any answers in Rer	Yes <u> </u>	
Hydrophytic Vegetation Present?       Yes          ✓ No_          Hydric Soil Present?       Yes          ✓ No_          Wetland Hydrology Present?       Yes          ✓ No_          Remarks:	withi	e Sampled Area n a Wetland?	Yes 🖌 No	)	
Wetland data point for a saturated to seasonally-flooded PFO feature were not collected because they are in a no access tra		ow gradient draw along s	stream; stream and	downline extent of this	

Wetland Hydrology Indicators	:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of o	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) (LRR U)	<ul> <li>Drainage Patterns (B10)</li> </ul>
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
<ul> <li>Water Marks (B1)</li> </ul>	Oxidized Rhizospheres along Living R	oots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (	C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial	Imagery (B7)	FAC-Neutral Test (D5)
✓ Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:		
	Yes No Depth (inches): 13	
Water Table Present?	Yes No Depth (inches): 16	
	res No 🖌 Depth (inches):	Wetland Hydrology Present? Yes <u></u> No
(includes capillary fringe)		
Describe Recorded Data (stream	n gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:		

Sampling Point: <u>wsua071f_w</u>

20	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:30)	-	Species?		Number of Dominant Species
1. <u>Nyssa biflora</u>	15	Yes	OBL	That Are OBL, FACW, or FAC: 9 (A)
2. Fraxinus pennsylvanica	15	Yes	FACW	Total Number of Dominant
3. Acer rubrum	10	No	FAC	Species Across All Strata: 9 (B)
4. Taxodium distichum	10	No	OBL	
5. Liquidambar styraciflua	5	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B)
6. Quercus lyrata	5	No	OBL	
7				Prevalence Index worksheet:
8.			·	Total % Cover of: Multiply by:
0	60	= Total Cov		OBL species61 x 1 =61
50% of total cover: ³⁰		total cover	10	FACW species x 2 = 38
	20% 01		·	FAC species $\frac{36}{x 3} = \frac{108}{x 3}$
Sapling/Shrub Stratum (Plot size: 15 ) 1. Taxodium distichum	6	Yes	OBL	FACU species $0 \times 4 = 0$
	4	Yes		UPL species $0 \times 5 = 0$
2. Fraxinus pennsylvanica			FACW	Column Totals: 116 (A) 207 (B)
3. <u>Acer rubrum</u>	4	Yes	FAC	
4. Carpinus caroliniana	3	No	FAC	Prevalence Index = B/A =1.78
5. Liquidambar styraciflua	3	No	FAC	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				$\checkmark$ 3 - Prevalence Index is $\leq 3.0^1$
	20	= Total Cov	er	
50% of total cover:10		total cover		Problematic Hydrophytic Vegetation ¹ (Explain)
	20 /0 01			1
Herb Stratum (Plot size: 5) 1. Saururus cernuus	10	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Leersia oryzoides	6	Yes	OBL	
	6			Definitions of Four Vegetation Strata:
3. Persicaria hydropiperoides	5	Yes No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Murdannia spirata			FAC	more in diameter at breast height (DBH), regardless of
5. <u>Bacopa caroliniana</u>	3	No	OBL	height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7			<u> </u>	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	30	= Total Cov	er	
50% of total cover: 15		total cover	•	
Woody Vine Stratum (Plot size: 30 )	207001		·	
Campsis radicans	6	Yes	FAC	
2				
3				
4			<u> </u>	
5		. <u> </u>		Hydrophytic
		= Total Cov		Vegetation Present? Yes VNo
50% of total cover: <u>3</u>	20% of	total cover	1.2	Present? Yes <u>No</u>
Remarks: (If observed, list morphological adaptations belo	w).			

SOIL

Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-6	10YR 3/1	100					L			
6-20	10YR 4/1	97	10YR 5/5	3	С	PL	CL			
		 		- - -	·					
	Concentration, D=Dep					ains.		Pore Lining, M=Matrix. Problematic Hydric Soils ³ :		
Histoso			Polyvalue Be			RRSTI				
	Epipedon (A2)		Thin Dark St		. , .		·	(A10) (LRR S)		
	•••••							ertic (F18) (outside MLRA 150A,B		
Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)						Piedmont Floodplain Soils (F19) (LRR P, S, T)				
	ed Layers (A5)		✓ Depleted Ma		(12)		Pleamont Ploodplain Solis (F19) (LKK P, S, T) Anomalous Bright Loamy Soils (F20)			
				• •	-0)					
	c Bodies (A6) (LRR F		Redox Dark		,		(MLRA 1	-		
	lucky Mineral (A7) <b>(L</b>		· <u> </u>		. ,			Material (TF2)		
	Presence (A8) <b>(LRR l</b>	J)	Redox Depre	```	8)			w Dark Surface (TF12)		
	luck (A9) (LRR P, T)		Marl (F10) (I				Other (Expl	lain in Remarks)		
	ed Below Dark Surfac	e (A11)	Depleted Oc							
Thick D	Oark Surface (A12)		Iron-Mangar					s of hydrophytic vegetation and		
Coast I	Prairie Redox (A16) (	MLRA 150	A) Umbric Surfa	ace (F13)	(LRR P, T	, U)	wetland	hydrology must be present,		
Sandy	Mucky Mineral (S1) (	LRR O, S)	Delta Ochric	(F17) <b>(MI</b>	_RA 151)		unless d	listurbed or problematic.		
Sandy	Gleyed Matrix (S4)		Reduced Ve			0A, 150B)				
-	Redox (S5)		Piedmont Fl				9A)			
-	d Matrix (S6)			•	• •	•	A 149A, 153C, 153	3D)		
	urface (S7) (LRR P, S	S. T. U)					,,			
	Layer (if observed)									
	nches):						Hydric Soil Pres	sent? Yes 🖌 No		
Remarks:										
Noniaina.										



Photo 1 Wetland data point wsua071f_w facing east



Photo 2 Wetland data point wsua071f_w facing north

Project/Site: Atlantic Coast Pipeline			City/C	county: City of Suffolk		Sampling Date: 9/16/2015	
Applicant/Owner: Dominion					_ State: VA	Sampling Point: wsua071_	_u
Investigator(s): GB, SA			_ Section	on, Township, Range:	No PLSS in this a	rea	
Landform (hillslope, terrace, etc.): slop	е		_ Local	relief (concave, conve	ex, none): <u>none</u>	Slope (%): <u>6</u>	
Subregion (LRR or MLRA): T		Lat: 36.64	4583973	Long	-76.85890611	Datum: WGS	S 1984
Soil Map Unit Name: Goldsboro fine s							
Are climatic / hydrologic conditions on	the site typical for	this time of	year? Y	′es 🖌 No	_ (If no, explain in	Remarks.)	
Are Vegetation, Soil, o			-			" present? Yes 🖌 No	
Are Vegetation, Soil, o	r Hydrology	naturally	problema	atic? (If needed	d, explain any ansv	vers in Remarks.)	
SUMMARY OF FINDINGS -	Attach site ma	ap showir	ng san	npling point loca	tions, transec	ts, important features,	, etc.
Hydrophytic Vegetation Present?	Yes	No 🖌		le the Compled Are	•		
Hydric Soil Present?	Yes			Is the Sampled Are within a Wetland?		No 🖌	
Wetland Hydrology Present?	Yes	No 🖌	_		Tes		
Remarks:							
Upland data point taken above toe of	slope for a satura	ted to seaso	nally-flo	oded PFO wetland loc	ated in a broad low	v gradient draw.	

Wattend Hudralam, Indiantana	Consider Indicators (minimum of two required)
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) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living R	Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils	(C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
	····
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
(includes capillary fringe)	
(includes capillary fringe)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	

Sampling Point: <u>wsua071_u</u>

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )		Species?		Number of Dominant Species
1. Liriodendron tulipifera	45	Yes	FACU	That Are OBL, FACW, or FAC:3 (A)
2. Pinus taeda	10	No	FAC	Total Number of Dominant
_{3.} Liquidambar styraciflua	10	No	FAC	Species Across All Strata: 6 (B)
4. Acer rubrum	10	No	FAC	
5. Fagus grandifolia	5	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
6				That Are OBL, FACW, of FAC (A/B)
				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	80			OBL species x 1 = 0
4		= Total Cov	16	FACW species x 2 =0
50% of total cover:4	<u> </u>	total cover	:	FAC species $70 \times 3 = 210$
Sapling/Shrub Stratum (Plot size: 15 )				E4 016
1. <u>Ilex opaca</u>	15	Yes	FAC	20 100
2. Carpinus caroliniana	12	Yes	FAC	UPL species $20 \times 5 = 100$
3. Acer rubrum	5	No	FAC	Column Totals: (A) (B)
4. Nyssa sylvatica	3	No	FAC	Prevalence Index = $B/A = 3.65$
5				
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	^{′.5} 20% of	total cover	: 7	
Herb Stratum (Plot size: 5 )				¹ Indicators of hydric soil and wetland hydrology must
1 Dennstaedtia punctilobula	20	Yes	UPL	be present, unless disturbed or problematic.
2. Mitchella repens	2	No	FACU	Definitions of Four Vegetation Strata:
				Deminions of Four Vegetation Ottata.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				
				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12	22			
		= Total Cov		
50% of total cover:1	20% of	total cover	<u>.</u> 4.4	
Woody Vine Stratum (Plot size: 30 )				
1. Bignonia capreolata	5	Yes	FAC	
2. Parthenocissus quinquefolia	2	Yes	FACU	
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes No
50% of total cover: <u>3</u> .	.5 20% of	total cover	. 1.4	
Remarks: (If observed, list morphological adaptations be	low).			

Depth	Matrix		Redo	K Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-5	10YR 4/3	100					SL		
5-9	10YR 5/4	100					SL		
9-20	10YR 6/3	100					SL		
						·			
Type: C=0	Concentration, D=Dep	letion, RM=R	educed Matrix, MS	=Masked	Sand Gra	ains.	² Location:	PL=Pore Lini	ng, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LF	Rs, unless other	wise note	d.)				atic Hydric Soils ³ :
Black H Hydrog Stratifie Organii 5 cm M Muck F 1 cm M Deplete Thick D Coast H Sandy Sandy Sandy Sandy	ol (A1) Epipedon (A2) Histic (A3) en Sulfide (A4) ed Layers (A5) c Bodies (A6) (LRR P lucky Mineral (A7) (LF Presence (A8) (LRR U luck (A9) (LRR P, T) ed Below Dark Surfac Dark Surface (A12) Prairie Redox (A16) (I Mucky Mineral (S1) (I Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR P, S	RR P, T, U) ) e (A11) MLRA 150A) _RR O, S)	Delta Ochric Reduced Ver Piedmont Flo	rface (S9) / Mineral (I d Matrix (F rix (F3) Surface (F6 k Surface ( ssions (F8 <b>RR U)</b> nric (F11) (I ese Masse ce (F13) (L (F17) (MLF tic (F18) (N odplain So	(LRR S, F1) (LRR 2) (F7) ) MLRA 15 s (F12) (I .RR P, T RA 151) /LRA 15 iils (F19)	T, U) O) LRR O, P, T U) 0A, 150B) (MLRA 149	2 cm M Reduce Piedmo Anomal (MLR Red Pa Very St Other (I 0ther (I 3Indica weth unle	nt Floodplain lous Bright Lo A 153B) rent Material nallow Dark S Explain in Re ators of hydro and hydrolog ss disturbed	RR S) (outside MLRA 150A,B Soils (F19) (LRR P, S, T pamy Soils (F20) (TF2) uurface (TF12)
Restrictive	Layer (if observed):								
Type: no	one								
	nches):						Hydric Soil	Present?	res No
Remarks:									



**Photo 1** Upland data point wsua071_u facing southeast



Photo 2 Upland data point wsua071_u facing southwest

Project/Site: ACP	City/County: Suffolk Sampling Date: 3129116
Applicant/Owner: Dominion	State: VA Sampling Point: where D374_
Investigator(s): S. Bryan, L. Roper	
Landform (hillslope, terrace, etc.): drainage	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>D-3</u> 36, 64945 Long: <u>-76, 85946</u> Datum: <u>W6589</u>
Are climatic / hydrologic conditions on the site typical for this time	
Are Vegetation, Soil, or Hydrology signific	
Are Vegetation, Soil, or Hydrology natural Are Vegetation, Soil, or Hydrology natural	
CONTRACTOR OF CONTRACTOR STREET	
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No         Wetland Hydrology Present?       Yes       No	
HCWAM: Headwater Forent HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that an	
Saturation (A3)       Hydrogen Sult         Water Marks (B1)       Oxidized Rhiz         Sediment Deposits (B2)       Presence of R         Drift Deposits (B3)       Recent Iron R         Algal Mat or Crust (B4)       Thin Muck Su         Iron Deposits (B5)       Other (Explain         Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)	(B15) (LRR U)       Drainage Patterns (B10)         fide Odor (C1)       Moss Trim Lines (B16)         sospheres along Living Roots (C3)       Dry-Season Water Table (C2)         Reduced Iron (C4)       Crayfish Burrows (C8)         reduction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Iface (C7)       Geomorphic Position (D2)
Field Observations: Surface Water Present? Yes No Depth (in	atom DIA
Surface Water Present?       Yes No Depth (in         Water Table Present?       Yes No Depth (in         Saturation Present?       Yes No Depth (in         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial	inches): <u>ID</u> Notes): <u>Surface</u> Wetland Hydrology Present? Yes <u>No</u> <u>No</u>
Remarks:	
portions of wetland inv	ndated

Sampling Point: wous 037F-

2061 2064	Absolute D			Dominance Test worksheet:
Tree Stratum (Plot size: 30Ft x30Ft)	% Cover		the second se	Number of Dominant Species
1. Ilex opaca	15	Y	FAC	That Are OBL, FACW, or FAC: (A)
2. Taxodium distichum	10	Y	OBL	Total Number of Dominant
3. Carpinus caroliniana	10	1	FAC	Species Across All Strata: (B)
4. Liquidambar styraciflua	10	Y	FAC	Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6				
7				Prevalence Index worksheet:
8		_		Total % Cover of: Multiply by:
	45 =	Total Cov	er	OBL species x 1 =
50% of total cover: 22	.5 20% of to	tal cover:	9	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30ft x 30ft)			-	FAC species x 3 =
1. Carpinus caroliniana	10	Y	FAC	FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
		Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 5	20% of to	tal cover:	-	
Herb Stratum (Plot size: 30 ft x 30 ft)				¹ 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
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, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				
11				Woody vine – All woody vines greater than 3.28 ft in height.
				neight.
12	0	T. 1.1.0		
	And and the second seco	Total Cov		
50% of total cover:	20% of to	otal cover:		
Woody Vine Stratum (Plot size: 30 Ff x 30 Ff)			FACU	
1. Lonicera japonica	10	Y		
2. Vitis rotundifolia	10	Y	FAC	
3				
4				
5		-		Hydrophytic
	20 =	Total Cov	er	Vegetation
50% of total cover: 10		tal cover:		Present? Yes V No
Remarks: (If observed, list morphological adaptations belo	and the second sec	97.9-3-0		

	1-11	1 - 41 - 1					m the abarmer	Sampling Point:
		to the dep	oth needed to docu			or contin	m the absence	of indicators.)
Depth (inches)	Color (moist)	%	Color (moist)	ox Feature %	s Type'	Loc ²	Texture	Remarks
0-6	10YR 4/3	100				1	F	
10	I NO III	90	7.5YR 5/6	10	0	M	6:1	1
	101212				0		1.61	
10-20	10125/2	80	7.57R5/6	20	0	FI	SILL	
Type: C=Co	oncentration, D=Dep	pletion, RM	Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
lydric Soil	Indicators: (Applic	cable to all	LRRs, unless othe	erwise not	ed.)		Indicators	for Problematic Hydric Soils ³ :
Black Hi Hydroge Stratified Organic 5 cm Mu	pipedon (A2) stic (A3) in Sulfide (A4) d Layers (A5) Bodies (A6) (LRR F ucky Mineral (A7) (L resence (A8) (LRR I	RR P, T, U	Thin Dark S Loamy Muc Loamy Gley Depleted M Redox Dark	ky Mineral yed Matrix atrix (F3) x Surface ( ark Surface	(F1) <b>(LR</b> F (F2) F6) e (F7)		Reduc Piedm Anoma (MLF Red Pi	Muck (A10) (LRR S) ed Vertic (F18) (outside MLRA 150A,B ont Floodplain Soils (F19) (LRR P, S, T) alous Bright Loarny Soils (F20) RA 153B) arent Material (TF2) shallow Dark Surface (TF12)
	uck (A9) (LRR P, T)	-	Marl (F10)	A CARL SHOT OF A CARL SHOT				(Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted O		(MLRA 1	51)	_	
	ark Surface (A12)		Iron-Manga					cators of hydrophytic vegetation and
Coast P	rairie Redox (A16) (				and the second se	', U)		land hydrology must be present,
	Aucky Mineral (S1) (	LRR O, S)						ess disturbed or problematic.
Sandy N	1		Reduced V	ertic (F18)				
Sandy M	Bleyed Matrix (S4)			loodalain (	Colle (E10)		14041	
Sandy M Sandy G Sandy F	Redox (S5)		Piedmont F					. 153D)
Sandy M Sandy G Sandy F Stripped	Redox (S5) Matrix (S6)	S, T, U)	Piedmont F				149A) .RA 149A, 153C	:, 153D)
Sandy M Sandy G Sandy F Stripped Dark Su	Redox (S5)		Piedmont F					;, 153D)
Sandy M Sandy G Sandy F Stripped Dark Su	Redox (S5) I Matrix (S6) Inface (S7) (LRR P,		Piedmont F					:, 153D)
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type:	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F					1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	/
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	/
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	/
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	/
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	/
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type:	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	1
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	/
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	/
Sandy M Sandy C Sandy F Stripped Dark Su estrictive Type: Depth (in	Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (if observed)		Piedmont F				RA 149A, 153C	/

Environmental Field Surveys Wetland Photo Page



Wetland data point wsuo037f_w facing south.



Wetland data point wsuo037f_w facing south.

Project/Site: ACP	Citu/Countur 5	FFAIK	Sampling Date: 3129116
Applicant/Owner: Dominion	City/CountyC		Sampling Point: Wsup037-u
Investigator(s): 5. Bryan, L. Roper			Samping Forn. Wy wood in the
Investigator(s): 5. Dryam, Erroper	Section, Township, I	Range: Novic	ave 21
Landform (hillslope, terrace, etc.): drainage	Local relief (concave	e, convex, none):	Slope (%): 0-21
Subregion (LRR or MLRA): LKK L	at: 30.07131	_ Long:	Datum: 00001
Soil Map Unit Name: Nansemond loamy	fine sand	NWI classifi	cation: NA
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes No		Remarks.)
Are Vegetation, Soil, or Hydrology si			present? Yes No
Are Vegetation, Soil, or Hydrology na		needed, explain any answe	
SUMMARY OF FINDINGS – Attach site map s	nowing sampling poin	t locations, transects	, important leatures, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampl	led Area	
Hydric Soil Present? Yes No	within a Wet		No
Wetland Hydrology Present? Yes No			
HYDROLOGY Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required: check all th	nat apply)		Cracks (B6)
	Fauna (B13)		getated Concave Surface (B8)
	posits (B15) (LRR U)		atterns (B10)
	n Sulfide Odor (C1)	Moss Trim L	CAN A CAN BE
	Rhizospheres along Living Ro	ots (C3) 🔲 Dry-Season	Water Table (C2)
Sediment Deposits (B2)	e of Reduced Iron (C4)	Crayfish Bu	rrows (C8)
	ron Reduction in Tilled Soils (C		/isible on Aerial Imagery (C9)
	ck Surface (C7)		Position (D2)
	xplain in Remarks)	Shallow Aqu	
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)		FAC-Neutra	moss (D8) (LRR T, U)
Field Observations:		Spriagham	1033 (00) (ERRY 1, 0)
Surface Water Present? Yes No Dep	th (inches): NA		
Water Table Present? Yes No V Dep			
Saturation Present? Yes No V Dep		Wetland Hydrology Prese	nt? Yes No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspectio	ons), if available:	
Remarks:			
incineiros.			

Sampling Point: wsu0037_u

2501 250	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30ft x 30ft 1. Pinus tacda	<u>% Cover</u> 15	Species? Y	FAC	Number of Dominant Species (A)
2. Liriodendron tulipifera 3.	10	Y	FACO	Total Number of Dominant 6 (B)
4	_		_	Percent of Dominant Species 50 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species         x 1 =
and the second		= Total Co		FACW species x 2 =
50% of total cover: 12,	5 20% of	total cover	5	FAC species $35 \times 3 = 105$
Sapling/Shrub Stratum (Plot size: 30Ft x 30Ft)				FACU species $30$ $x4 = 120$
1. Carpinus caroliniana		<u> </u>	FAC	UPL species
2. Liriodendron tulipitera	10	_ <u>y</u>	FACU	Column Totals: $65$ (A) $225$ (B)
3				
4				Prevalence Index = B/A = 3.46
5		-		Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				$\boxed{1}$ 3 - Prevalence Index is $\leq 3.0^{1}$
	20	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 10	20% of	total cover	. 4	_
Herb Stratum (Plot size: <u>30 ft x 30 ft</u> ) 1. None				¹ Indicators of hydric soil and wetland hydrology must 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				
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				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				
Cate Contraction of the		= Total Co		
50% of total cover:	20% of	f total cover	r:	
Woody Vine Stratum (Plot size: 30 Ft x 30 Ft)				
1. Vitis rotundifolia	10	_Y	FAC	
2. Loniura juponica	10	_Y	FACU	
3	-			
4				
5				Hydrophytic
	20	= Total Co	ver	Vegetation Present? Yes No
50% of total cover: 10	_ 20% of	f total cover	r: 4	Present? Yes No
Remarks: (If observed, list morphological adaptations belo	w).			
		_		

Sampling Point: wsw037-w

Depth	cription: (Describe Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc ²		Remark	S
0-2	104R 3/3	100					_L		
2-14	2.5466	100					SL		
4-20	2.54 6/8	100					SL		
	and the second								
	oncentration, D=Dep					ains.		Pore Lining, M=Ma Problematic Hydr	
	Indicators: (Applic	cable to all L	Polyvalue Be			PPSTI		(A9) (LRR O)	10 30115 .
Histoso Histic E	pipedon (A2)		Thin Dark Su					(A10) (LRR S)	
	istic (A3)		Loamy Muck					ertic (F18) (outsid	le MLRA 150A,B
Hydroge	en Sulfide (A4)		Loamy Gleye		(F2)			loodplain Soils (F	
and the second se	d Layers (A5)		Depleted Ma	a second second second second	50			Bright Loamy Soi	ls (F20)
	Bodies (A6) (LRR P ucky Mineral (A7) (LI		Redox Dark				(MLRA 1 Red Paren	53B) t Material (TF2)	
and the second se	resence (A8) (LRR L		Redox Depre					ow Dark Surface (1	(F12)
1 cm M	uck (A9) (LRR P, T)	1.1.1	Marl (F10) (L	RR U)				lain in Remarks)	
Contraction of the Contraction of the	d Below Dark Surfac	ce (A11)	Depleted Oc						
	ark Surface (A12)		Iron-Mangan					s of hydrophytic ve hydrology must be	
	rairie Redox (A16) ( Mucky Mineral (S1) (		Delta Ochric			, 0)		disturbed or proble	
	Gleyed Matrix (S4)		Reduced Ve			OA, 150B)			
	Redox (S5)		Piedmont Fle	oodplain S	Soils (F19)	(MLRA 14	(9A)		
	d Matrix (S6)		Anomalous I	Bright Loa	amy Soils (	F20) (MLR	A 149A, 153C, 15	3D)	
	Inface (S7) (LRR P, State Layer (if observed)						1		
Type:	Layer (il observed)								
	ches):						Hydric Soil Pre	sent? Yes	No_V
Remarks:			_				1		11.30V-

Environmental Field Surveys Wetland Photo Page



Upland data point wsuo037_u facing south.



Upland data point wsuo037_u facing west.

Project/Site: ACP City/C	ounty: Suffolk Sampling Date: 10/7/15
	State: VA Sampling Point: WSU0013F_w
Applicant/Owner: Dominion	
Investigator(s): Section Section	
Landform (hillslope, terrace, etc.): Local	
	02 Long: -76.85178 Datum: W65-84
Soil Map Unit Name: Levy Silty clay ban	NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of year? Y	
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology adjustments and the second	
SUMMARY OF FINDINGS – Attach site map showing sam	
Hydrophytic Vegetation Present? Yes <u>No</u> No	is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes Ko
Wetland Hydrology Present?         Yes No           Remarks:	
Bottomland hardwood forest	
Detterrite indewood forest	
	2
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) (LRI	
X Saturation (A3) Hydrogen Sulfide Odor (0	C1) Moss Trim Lines (B16)
X Water Marks (B1) Oxidized Rhizospheres a	long Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iro	n (C4) X Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in	Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remark	
Inundation Visible on Aerial Imagery (B7)	K FAC-Neutral Test (D5)
X Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No X Depth (inches): /	
Water Table Present? Yes X No Depth (inches):	<u>4</u>
Saturation Present? Yes X No Depth (inches): 5 (includes capillary fringe)	vrface_ Wetland Hydrology Present? Yes X_ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
buttressed trees	
Julius (ince)	

20 ×20		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 × 30 )		Species?		Number of Dominant Species of
1. Acer rubrum	35	<u> </u>	FAC	That Are OBL, FACW, or FAC: (A)
2. Nyssa biflora	25	<u> </u>	OBL	Total Number of Dominant
3. ILEX OPACY	15	1	FAC	Species Across All Strata: (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 00 (A/B)
6				
7				Prevalence Index worksheet:
8.				Total % Cover of:Multiply by:
	75	= Total Cov		OBL species x 1 =
50% of total cover: <u>37-5</u>				FACW species x 2 =
Sapling/Shrub Stratum (Plot size: <u>3° X 30</u> )	20 % 01	total cover.		FAC species x 3 =
	10	N	FAC	FACU species x 4 =
1. Ligustrum sinease	5	-1	FAC	UPL species x 5 =
2. Ilex opaca		-7		Column Totals: (A) (B)
3. Fraxinus pennsylvanica			FACW	
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	20	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	4	
Herb Stratum (Plot size: 30 × 30)				¹ Indicators of hydric soil and wetland hydrology must
1. MicroStegium Vimilieum	30	4	FAC	be present, unless disturbed or problematic.
2. Boehmeria Cylindrica	10	Y	FACW	Definitions of Four Vegetation Strata:
3		1		
4	-			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6				Continue/Charles Microduplants evaluation visco loss
7				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				or size, and troody plants reso than one of tan
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12	HO			
20		= Total Cov	er 🗸	
50% of total cover: 20	20% of	total cover	0	
Woody Vine Stratum (Plot size: 30 × 30)	5		Γ	
1. Lonicera japonica		4	FAC	
2				
3				
4				
5		a survey and		Hydrophytic
	5	= Total Cov	er	Vegetation
50% of total cover: 2.5		total cover	1	Present? Yes <u>No</u>
Remarks: (If observed, list morphological adaptations belo				

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Version 2.0

Sampling Point: WSUD 013F_W

Sampling Point: WS40013f-W

Profile Description: (Describe to the dept	h needed to docur	nent the Indicat	or or confirm	the absence of Ind	licators.)
Depth Matrix	Redo	x Features			
(inches) Color (moist) %	Color (moist)	<u>%</u> Type		Texture	Remarks
0-20 2,543/1 95	7.54R518	5 C	M	SIL	
1					
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, M	S=Masked Sand	Grains.	² Location: PL=P	ore Lining, M=Matrix.
Hydric Soll Indicators: (Applicable to all L					oblematic Hydric Soils ³ :
Histosol (A1)		low Surface (S8	(LRR S, T, U	I) 1 cm Muck (/	A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Su	urface (S9) (LRR	S, T, U)	2 cm Muck (/	
Black Histic (A3)		y Mineral (F1) (L	RR O)		rtic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)		ed Matrix (F2)			bodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Ma Redox Dark			(MLRA 15	Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U)		rk Surface (F7)			Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depre	S (S)			Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (L				in in Remarks)
Depleted Below Dark Surface (A11)	Depleted Oc	hric (F11) (MLRA	151)		
Thick Dark Surface (A12)		ese Masses (F1)			of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A		ace (F13) (LRR F			ydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)		(F17) (MLRA 15 rtic (F18) (MLRA	and the second sec		sturbed or problematic.
Sandy Gleyed Matrix (S4) Sandy Redox (S5)		podplain Soils (F			
Stripped Matrix (S6)				A 149A, 153C, 153E	))
Dark Surface (S7) (LRR P, S, T, U)					
Restrictive Layer (if observed):					
Туре:					
Depth (inches):				Hydric Soll Prese	ant? Yes <u>X</u> No
Remarks:					

Environmental Field Surveys Wetland Photo Page



Wetland data point wsuo013f_w facing east.



Wetland data point wsuo013f_w facing west.

Photo Sheet 1 of 3

Project/Site: ACP City	County: Suffolk Sampling Date: 10/7/15
Applicant/Owner: Dominion	State: VA Sampling Point: WSUD D13_01
Investigator(s): J. Benton Sec	
	al relief (concave, convex, none): <u>Concave</u> Slope (%): <u>0 ~ 2</u>
	894 Long: - 76.85/69 Datum: W65-84
	5 % slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil, or Hydrology significantly dist	urbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problem	matic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	to the Operated Area
Hydric Soil Present? Yes No X	Is the Sampled Area within a Wetland? Yes NoX
Wetland Hydrology Present? Yes No X	within a Wetland? Yes NoX
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) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LI	
Saturation (A3) Hydrogen Sulfide Odor	
	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced II Drift Deposits (B3) Recent Iron Reduction	
Algal Mat or Crust (B4) Thin Muck Surface (C7	
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 X Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes X No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Remarks:	

Sampling Point: W540 D13_41

2 2 2 2	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 x 30 )	% Cover	Species?	Status	Number of Dominant Species (
1. Liriodendron tulipifera	35	1	FACU	That Are OBL, FACW, or FAC: (A)
2. Liguidambar styraciflug	20	4	FAC	
	15	Y	FACU	Total Number of Dominant Species Across All Strata: 0 (B)
		-/	1/100	Species Across An Strata.
4				Percent of Dominant Species 75 (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
8	_			Total % Cover of: Multiply by:
	70	= Total Cov	er	OBL species x 1 =
50% of total cover: 35				FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30 × 30 )	_ 2070 01	total cover.		FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	15	V	EAr	FACU species x 4 =
1. Ilex opaca	6		FAC	UPL species x 5 =
2. Carpinus caroliniana	10	1	FAC	
3		·		Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				
				1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
8	7			3 - Prevalence Index is ≤3.0 ¹
17 -		= Total Cov	Sec. 1	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 17,5	20% of	total cover	+	
Herb Stratum (Plot size: <u>30 × 30</u> )				¹ Indicators of hydric soil and wetland hydrology must
1. Osmundastrum cinnamomeum	5	4	FACW	be present, unless disturbed or problematic.
2		-1-		Definitions of Four Vegetation Strata:
				Deministris of Four Vogetation Ortala.
3				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
		= Total Cov	er	
50% of total cover: 2.5	20% of	total cover	1	
Woody Vine Stratum (Plot size: 30 × 30 )				
1. Vitis rotunditolia	10	-1	FAC	
2. Lonicera japonica	5	1	EAC	
2. Lonican Juponica		_/	TAU	
3				
4				
5				Hydrophytic
	15	= Total Cov	er	Vegetation
50% of total cover: 7.5	20% of	total cover	3	Present? Yes No
Remarks: (If observed, list morphological adaptations belo				
Remarks. (Il observed, list morphological adaptations belo	w).			

US Army Corps of Engineers

epth	Matrix	0/		x Feature		1.002	Tautura	Bemerke
ches)	Color (moist)		Color (moist)	%	Type	Loc ²		Remarks
7-6	2.54 3/2	100					SL	
-20	104R'516	80	7.54R 518	20	C	M	SL	
	l.		1					
								~
		lation BM	-Reduced Matrix, M	S-Mackad	Sand Cr	inc	² Location: DI -	Pore Lining, M=Matrix.
	and the second se		LRRs, unless othe			1115.		Problematic Hydric Soils ³ :
Histosol	ipedon (A2)		Polyvalue Be Thin Dark Su				I) 1 cm Muck 2 cm Muck	
Black His			Loamy Muck					ertic (F18) (outside MLRA 150A,
	n Sulfide (A4)		Loamy Gleye	-		0,		loodplain Soils (F19) (LRR P, S,
	Layers (A5)		Depleted Ma		/			Bright Loamy Soils (F20)
	Bodies (A6) (LRR F	P. T. U)	Redox Dark		6)		(MLRA 1	
	cky Mineral (A7) (L						•	Material (TF2)
	esence (A8) (LRR L		Redox Depre				Very Shallo	w Dark Surface (TF12)
	ck (A9) (LRR P, T)		Marl (F10) (L	.RR U)				ain in Remarks)
Depleted	Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
Thick Da	rk Surface (A12)		Iron-Mangan	ese Mass	es (F12) (	LRR O, P,		s of hydrophytic vegetation and
			A) Umbric Surfa			, U)		hydrology must be present,
	ucky Mineral (S1) (	LRR O, S)	Delta Ochric					listurbed or problematic.
-	leyed Matrix (S4)		Reduced Ve					
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous E	Bright Loar	ny Solis (i	-20) (MILR	A 149A, 153C, 153	(D)
	face (S7) (LRR P, S ayer (If observed)						1	
Depth (inc	hes):						Hydric Soll Pres	sent? Yes No

Environmental Field Surveys Wetland Photo Page



Upland data point wsuo013_u1 facing east.



Upland data point wsuo013_u1 facing west.

Project/Site: ACP	City/County: 5	IFFOIK	Sampling Date: 10/7/15
Applicant/Owner: Dominion		State: VA	Sampling Point: WSUD 013 - UZ
Investigator(s): J. Benton			
Landform (hillslope, terrace, etc.): hillslope	Local relief (conca	ve conver none). Con	ave Shope (%) 2-4
Subregion (LRR or MLRA): LRRT Lat:	36.65954	- 76 85	161 Datum: W/05-84
Subregion (LRR or MLRA):	1 1 15%		N/A
Soil Map Unit Name: Nansemond loamy fine S	,		
Are climatic / hydrologic conditions on the site typical for this tim			
Are Vegetation, Soil, or Hydrology signil	ficantly disturbed?	Are "Normal Circumstances"	* present? Yes X No
Are Vegetation, Soil, or Hydrology natur	ally problematic?	(If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	owing sampling poi	nt locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present?       Yes No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes No         Remarks:       Yes No	Is the Sam within a W		No
upland inclusion			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indi	icators (minimum of two required)
Primary Indicators (minimum of one is required; check all that	apply)	Surface So	bil Cracks (B6)
Surface Water (A1) Aquatic Fau	na (B13)		/egetated Concave Surface (B8)
	its (B15) (LRR U)		Patterns (B10)
	ulfide Odor (C1)		Lines (B16)
	hizospheres along Living F		n Water Table (C2) urrows (C8)
	Reduced Iron (C4) Reduction in Tilled Soils		Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck S			hic Position (D2)
	ain in Remarks)		quitard (D3)
Inundation Visible on Aerial Imagery (B7)			ral Test (D5)
Water-Stained Leaves (B9)		Sphagnum	n moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present?         Yes No _X Depth (           Water Table Present?         Yes No _X Depth (	inches): <u>N/A</u>		
Water Table Present? Yes No X Depth (	inches): >20		
Saturation Present? Yes No _X_ Depth ( (includes capillary fringe)	(inches): 720	Wetland Hydrology Pres	ent? Yes No
Describe Recorded Data (stream gauge, monitoring well, aeria	al photos, previous inspec	tions), if available:	
Remarks:			

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 X 30 )		Species?		Number of Dominant Species
1. Liriodendron tulioifera	50	<u>    Y      </u>	FACU	That Are OBL, FACW, or FAC: (A)
2. Pinus taeda	30	<u> </u>	FAC	Total Number of Dominant
3				Species Across All Strata:
4				
5				Percent of Dominant Species 63 (A/B)
6				
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	80	= Total Cov		OBL species x 1 =
50% of total cover: 40				FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30 × 30 )	20% 01	total cover:	10	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	10	V	FAC	FACU species x 4 =
1. Carpinus caroliniana	10			UPL species x 5 =
2. Liquidambar styraciflua		1	FAC	Column Totals: (A) (B)
3. Cornus florida	2	1	FACU	
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
8			a transfer a statement of	3 - Prevalence Index is ≤3.0 ¹
	20	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:				
Herb Stratum (Plot size: <u>30 × 30</u> )		total cover.		
1. Polystichum acrostichoides	10	4	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Temuladetrico ciones alla	- <u>F</u>		FACW	
2. Osmundastrum cinnamoneum				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
5				height.
6				Sapling/Shrub - Woody plants, excluding vines, less
7			2	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				
11				Woody vine – All woody vines greater than 3.28 ft in height.
				noight.
12	15	= Total Cov		
50% of total cover: 7, 5		total cover:		
50% of total cover: 175	20% 01	total cover:		
Woody Vine Stratum (Plot size: 30 X 30)	F	,	EA.	
1. Lonicera japonica	2	4	FAC	
2				
3				
4				
5				Hydrophytic
	5 :	= Total Cov	er	Vegetation
50% of total cover: 2.5	20% of	total cover:	1	Present? Yes No
Remarks: (If observed, list morphological adaptations belo				
Remarks. (If observed, list morphological adaptations belo	w).			
				영상 그는 아이님, 또 도 난 것 때문에는 다
US Army Corps of Engineers				Atlantic and Gulf Coastal Plain Region - Version 2.0

epth	Matrix Color (moist)	%	Color (moist)	x Feature: %	s Type'	Loc ²	Texture	Remarks
nches) D-8	2.54 5/6	100			Type	LOC	SL	Rentarys
-14	1-1		7.54R 5/8	10	C	M	SL	
		90	Tis The	10				
4-20	7.54R 518	100					CL	
	oncentration, D=Depi Indicators: (Applica					ains.		Pore Lining, M=Matrix. Problematic Hydric Solis ^a :
Histosol			Polyvalue Be					
-	pipedon (A2)		Thin Dark Su					(A10) (LRR S)
-	stic (A3) en Sulfide (A4)		Loamy Mucky Loamy Gleye			0)		ertic (F18) (outside MLRA 150A,B loodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted Mat		12)			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	T, U)	Redox Dark S		6)		(MLRA 1	53B)
-	icky Mineral (A7) (LR							Material (TF2)
	esence (A8) (LRR U	)	Redox Depre Marl (F10) (L		8)			ow Dark Surface (TF12) ain in Remarks)
-	ck (A9) (LRR P, T) Below Dark Surface	e (A11)	Mari (F10) (L Depleted Oct		(MLRA 1	51)		
	ark Surface (A12)		Iron-Mangan		•		T) ³ Indicators	s of hydrophytic vegetation and
Coast P	rairie Redox (A16) (N	ILRA 1504	A) Umbric Surfa	ce (F13) (	LRR P, T	, U)		hydrology must be present,
	lucky Mineral (S1) (L	.RR O, S)	Delta Ochric					listurbed or problematic.
	Bleyed Matrix (S4)		Reduced Ver					
	edox (S5) Matrix (S6)		Piedmont Flo				A 149A, 153C, 153	וסו
	rface (S7) (LRR P, S	(, T, U)					,,	,
	Layer (if observed):							
Type:								
Depth (in	ches):						Hydric Soll Pres	sent? Yes No
marks:								



Upland data point wsuo013_u2 facing northeast.



Upland data point wsuo013_u2 facing southwest.

Applicant/Owner: DOMINION Investigator(s): LKR, CSM Se Landform (hillslope, terrace, etc.): DrWnAge Lo Subregion (LRR or MLRA): LPPT Lat: 36.6 Soil Map Unit Name: Nansemona IDamy Are climatic / hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significantly dis	sturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally proble SUMMARY OF FINDINGS – Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes     No       Hydric Soil Present?     Yes     No       Wetland Hydrology Present?     Yes     Yo	Is the Sampled Area within a Wetland? Yes <u>No</u> <u>No</u> <u>No</u> <u>No</u> <u>No</u> <u>No</u> <u>No</u> <u>No</u>
Abnormally dry conditions (based o HYDROLOGY	Forest <u>Secondary Indicators (minimum of two required)</u>
Sediment Deposits (B2)       Presence of Reduce         Drift Deposits (B3)       Recent Iron Reducti         Algal Mat or Crust (B4)       Thin Muck Surface (         Iron Deposits (B5)       Other (Explain in Reduction Visible on Aerial Imagery (B7)         Water-Stained Leaves (B9)	Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         (LRR U)         dor (C1)         res along Living Roots (C3)         ed Iron (C4)         ion in Tilled Soils (C6)         (C7)
Field Observations:       Surface Water Present?       Yes No Depth (inches)         Water Table Present?       Yes No Depth (inches)         Saturation Present?       Yes No Depth (inches)         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photon)	Wetland Hydrology Present? Yes No
Remarks:	

# Sampling Point:

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 × 30)	Absolute Dominant Indicator % Cover Species? Status	
1. Elriodendron tulipifera	20 Y Facu	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2. Fraximus pennsylvanica		Total Number of Dominant
3. Ligustrum sinense.	15 N FAC	Species Across All Strata: (B)
4		
5		Percent of Dominant Species That Are OBL, FACW, or FAC: 831, (A/B)
		That Are OBL, FACW, or FAC: 831, (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
8		
	= Total Cover	OBL species x 1 =
50% of total cover:	20% of total cover: 8	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 36×30)	20 % 01 total cover	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 00x 30)	20 Y FAC	FACU species x 4 =
1. Ligustrum sinense		UPL species         x 5 =
2. Ilex OPACA	10 N FAC	
3		Column Totals: (A) (B)
4		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		
	30 = Total Cover	☐ 3 - Prevalence Index is ≤3.01
		Problematic Hydrophytic Vegetation ¹ (Explain)
	15 20% of total cover:	
Herb Stratum (Plot size: DX30)		¹ Indicators of hydric soil and wetland hydrology must
1. Wood Wardia areolata	10 Y DBL	be present, unless disturbed or problematic.
2. Athyrium asplenioides	10 Y FAC	Definitions of Four Vegetation Strata:
	TO Y FAL	Bennicona of Four Vegetation Guatas
3. Liquistrum sinense	TU Y FAL	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4	and a particular property of the second s	more in diameter at breast height (DBH), regardless of
5	The second se	height.
6		Deutin (Dirule Mission Index such discussions loss
		<ul> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
7		- Than 5 m. Don and greater than 5.20 m (1 m) tan.
8	ter te service s	Herb - All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		
		- Woody vine - All woody vines greater than 3.28 ft in
11		_ height.
12		
	30 = Total Cover	
50% of total cover:	15 20% of total cover:	
Woody Vine Stratum (Plot size: 30×30)		
A La C Co Mund Club	10 Y FAL	
1. Vitis rotundifolia	PAL	<u>*</u>
2		-
3.		
and the second	the second s	-
4	an and a second se	-
5		- Hydrophytic
	= Total Cover	Vegetation
50% of total cover: _		Present? Yes No
Remarks: (If observed, list morphological adaptation:	s below).	

one peacith	tion: (Describe	to the dent	needed to docu	ment the indicator	or confirm the	e absence of indicator	mpling Point: WSWD012F_
epth	Matrix	to the depti		ox Features	or communitie		,
ches)	Color (moist)	%	Color (moist)	% Type'	Loc ²	Texture	Remarks
-6 17	DYR 3/2	98	104R 4/4	2 C		CL	
0-10 It	DYR 2/1	IDD				SCL	
1-20 1	5YR 5/2	106				S	
			Charles and the second second	- Anna Anna Anna Anna Anna Anna Anna Ann			
					1		
				-			Hard Constrained and the second s
				-			
						2	-ing MaMatrix
ype: C=Conc	entration, D=Dep	oletion, RM=	Reduced Matrix, M RRs, unless othe	IS=Masked Sand G	rains.	² Location: PL=Pore Li Indicators for Problem	
		cable to all L		erwise noted.) Selow Surface (S8) (		1 cm Muck (A9) (L	
Histosol (A Histic Epipe				Surface (S9) (LRR S		2 cm Muck (A10)	
Black Histic				ky Mineral (F1) (LR			18) (outside MLRA 150A,E
Hydrogen S			the second se	yed Matrix (F2)			ain Soils (F19) (LRR P, S, T
Stratified La			Depleted M			Anomalous Bright	Loamy Soils (F20)
	dies (A6) (LRR F	P, T, U)		k Surface (F6)		(MLRA 153B)	
	y Mineral (A7) (L			ark Surface (F7)		Red Parent Mater	
<ul> <li>The state of the s</li></ul>	ence (A8) (LRR I	Contraction of the second s		ressions (F8)		U Very Shallow Dar	
	(A9) (LRR P, T)		Marl (F10)	(LRR U) Ochric (F11) (MLRA	151)		Remarks)
<ul> <li>Provide a substant of the second secon</li></ul>	elow Dark Surfa Surface (A12)	ce (ATT)	the second se	anese Masses (F12)	Charles and the second second second second	³ Indicators of hy	drophytic vegetation and
	rie Redox (A16)	MLRA 150A	Presented and the second se	face (F13) (LRR P,			logy must be present,
	cky Mineral (S1)			ic (F17) (MLRA 151		unless disturb	ed or problematic.
	yed Matrix (S4)			/ertic (F18) (MLRA			
Sandy Red	dox (S5)			Floodplain Soils (F1			
Stripped N			Anomalous	s Bright Loamy Soils	(F20) (MLRA	149A, 153C, 153D)	
and the second s	ace (S7) (LRR P,			in the second		and the second second second second	na da anticipational anticipation de la composición presidente de la composición de la comp
	yer (if observed						
Type:						Hydric Soil Present?	Yes X No
and the second s					Same and the second	nyune contricedner	
Depth (inch	ies):			Charles and the second s	terre and the second second second	and the set of the set	
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	les):						
Depth (inch	ies):						·
Depth (inch	ies):						
Depth (inch	ies):						·
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Control Control of the William Art. 1974 of the Ville	ies):						
Depth (inch	ies):						
Depth (inch	ies):						
Depth (inch	ies):						

Environmental Field Surveys Wetland Photo Page



Wetland data point wsuo012f_w facing west.



Wetland data point wsuo012f_w facing south.

Photo Sheet 1 of 2

Project/Site: <u>ACP</u> Applicant/Owner: <u>DOM (niOn</u>	_ City/County: SUGOIKSampling Date: 9/22/15State: VASampling Point: SubDI2-4
Investigator(s): LKR, CSM	Section, Township, Range: Con Cave
Landform (hillslope, terrace, etc.): <u>HIS15Pe</u> Subregion (LRR or MLRA): <u>LPRT</u> Lat: <u>3</u> Soil Map Unit Name: <u>NANSEMOND</u> [DAMY f	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>10</u> 6. 66499 N Long: <u>76.85122 N</u> Datum: <u>WGS84</u> Give Sand 1615151 NWI classification: <u>None</u>
Are climatic / hydrologic conditions on the site typical for this time o	
Are Vegetation, Soil, or Hydrology signification	
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No         Wetland Hydrology Present?       Yes       No	Is the Sampled Area within a Wetland? Yes No
Abnormally dry conditions (ba HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	ply) Surface Soil Cracks (B6)
Surface Water (A1)       Aquatic Fauna         High Water Table (A2)       Marl Deposits         Saturation (A3)       Hydrogen Sulf         Water Marks (B1)       Oxidized Rhiz         Sediment Deposits (B2)       Presence of R	(B13)       Sparsely Vegetated Concave Surface (B8)         (B15) (LRR U)       Drainage Patterns (B10)         ide Odor (C1)       Moss Trim Lines (B16)         ospheres along Living Roots (C3)       Dry-Season Water Table (C2)         deduced Iron (C4)       Crayfish Burrows (C8)         eduction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         rface (C7)       Geomorphic Position (D2)
Field Observations:	410
Surface Water Present?       Yes No Depth (ir         Water Table Present?       Yes No Depth (ir         Saturation Present?       Yes No Depth (ir         (includes cabillary fringe)       Yes No Depth (ir	nches):
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:
Remarks:	

GETATION (Four Strata) - Ose scientific ha		Selection of the st	and they are	Sampling Found.
Liguidanbar Styraciflua	Absolute   % Cover			Dominance Test worksheet: Number of Dominant Species That Are OBL FACW or FAC: 3 (A)
Liriodendron Hilipifera	36	Y	FACU	That Are OBL, FACW, or FAC: (A)
				Species Across All Strata:(B)
			Construction and the second	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
			12.0010-07.04010-000	Prevalence Index worksheet:
				Total % Cover of: Multiply by:
	25	Total Cov		OBL species x 1 =
50% of total cover: 17.	5	Total Cov	Z ver	FACW species x 2 =
50% of total cover: <u>11</u>	<u>J</u> 20% of t	otal cover	:	FAC species x 3 =
Ligudambar styraciflua	5	~1	FAC	FACU species x 4 =
	10		Contraction of the local division of the loc	UPL species x 5 =
Liriodentron tulipitora		7	FACU	Column Totals: (A) (B)
Ilex Opaca		N	FAC	
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
				- Rapid Test for Hydrophytic Vegetation
	• • • • • • • • • • • • •			2 - Dominance Test is >50%
	20		Terrister and	3 - Prevalence Index is ≤3.0 ¹
10		= Total Co		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	r:	
Arundinaria Bigantea	15	Y	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Onoclea sensibilis	10	N	FACW	Definitions of Four Vegetation Strata:
Athyrium asplenioides	10	N	FAC	
OSmundia cinnamomea		N	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of
Ligustrum sinense	1.0	- 10	FAC	more in diameter at breast height (DBH), regardless of height.
	- 1.0	-13-	FAC	
Microstegium vimineum	<u> </u>		1.0000000000000000000000000000000000000	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, regardles of size, and woody plants less than 3.28 ft tall.
				Woody vine - All woody vines greater than 3.28 ft in
				height.
·				
	70	= Total Co	over	
50% of total cover: <u>3</u>	5 20% 01	f total cove	er: 14	
body Vine Stratum (Plot size: 30 ×30)			10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	
vitis rohunditolia	10	Y	FAL	
VIIC TOUS				-
		Carl Constants		No. In the second se
				-
na se departe de la secon es parte antidad en antidad en la transforma de la secon de la secon de la secon de En antidad en antidad en la seconda de la			······································	-
	- 70	· · · · · · · · · · · · · · · · · · ·		- Hydrophytic
	610	= Total C	• •	Vegetation Present? Yes No
50% of total cover:	20% 0	of total cov	rer:	-   103 105
emarks: (If observed, list morphological adaptations b	elow).	and the second		

Sampling Point: WSup D12-4

	Iption: (Describe t	to the depth ne			tor or confirm	n the absence of l	nuicators.)	
nches)	Matrix Color (moist)	% 0	Redox F color (moist)	% Typ	e ¹ Loc ²	Texture	Remarks	ne shukey sh
)-10	10 YR 4/3	106			nan san san san san san san san san san	SL		
0-12	10YR 4/3	95 7	5 YR 4/10	50	M	LS		
2-20	MYP 4/1	95 Tr	VP 4/10	50	M	LS		
<u>k qu</u> .	1011 11	10 10	<u> </u>	5.5	2 1 - 1			1
ype: C=Co	ncentration, D=Dep	letion, RM=Rec	luced Matrix, MS=	Masked San	d Grains.		=Pore Lining, M=Mat r Problematic Hydric	
The second second second	ndicators: (Applica	able to all LRR	Polyvalue Belo		SVIPPS T		k (A9) (LRR O)	00115 .
Histosol (	ipedon (A2)	- F	Thin Dark Surfa	Part of the part of the second s			ck (A10) (LRR S)	
Black His	[14] 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이	Ì	Loamy Mucky I			Reduced	Vertic (F18) (outside	MLRA 150A,E
	n Sulfide (A4)	Į	Loamy Gleyed				Floodplain Soils (F19	
	Layers (A5)		Depleted Matrix			Anomalo	us Bright Loamy Soils	(F20)
	Bodies (A6) (LRR P cky Mineral (A7) (LF		Redox Dark Su Depleted Dark			and the second	ent Material (TF2)	
The second second second second	esence (A8) (LRR U		Redox Depress				llow Dark Surface (TF	12)
	ck (A9) (LRR P, T)	'n Î	Marl (F10) (LR				xplain in Remarks)	
	Below Dark Surfac	e (A11)	Depleted Ochri					
	rk Surface (A12)	63 Malanat - 1	Iron-Manganes				ors of hydrophytic veg	
CONTRACTOR STREET, STR	airie Redox (A16) (I		Umbric Surface				nd hydrology must be s disturbed or problen	
the second se	lucky Mineral (S1) (I leyed Matrix (S4)	LRR 0, 5)	Delta Ochric (F Reduced Verti				a distarbed of problem	1210.
Contraction of the second second second	edox (S5)	1	Piedmont Floo					
And a state of the	Matrix (S6)	]				LRA 149A, 153C,	153D)	
	rface (S7) (LRR P, S				a landan an	and the second second	and the country of the	
		the block of the b				NAME OF AN ADDRESS OF A DESCRIPTION OF A DE		
Restrictive I	Layer (if observed)	):						
Туре:	Layer (if observed)	):	-					. Х
	Layer (if observed)	):	_			Hydric Soll F	Present? Yes	_ <u>No X</u>
Type: Depth (ind	Layer (if observed)		-			Hydric Soll F	Present? Yes	<u>No X</u>
Туре:	Layer (if observed)					Hydric Soil F	Present? Yes	<u> </u>
Type: Depth (ind	Layer (if observed)		-			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		-			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)					Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		_			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		_			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		-			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		-			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)					Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		_			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		_			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		-			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		-			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		_			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		_			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)					Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)					Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)					Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		-			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		_			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)		_			Hydric Soll F	Present? Yes	<u>No X</u>
Type: Depth (ind	Layer (if observed)	ς				Hydric Soll F	Present? Yes	<u>No X</u>

Environmental Field Surveys Wetland Photo Page



Upland data point wsuo012_u facing north.



Upland data point wsuo012_u facing east.

Project/Site: ACP City/County: SUESOI	Sampling Date: 12/17/15
Project/Site: 10 City/County.	State VA Sampling Point WSup 030e-u
Applicant/Owner: Dominion	StateSamping Form
Investigator(s): ESJ-J, Harbour, K. Marphrey Section, Township, Range:	Nn (2-7
Landform (hillslope, terrace, etc.): <u>drainage</u> Subregion (LRR or MLRA): <u>LRR</u> + Lat: 36,66753 Long	ex, none): CONCOVE Slope (%)
Subregion (LRR or MLRA): LRR+ Lat: 36,66755 Long	: - 16, 87416 Datum: Wes 0
Soil Map Unit Name: Gold Sboro fine sondy war, 2-5% slores, erode	d NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Nor	mal Circumstances" present? Yes No
	d, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point loca	ations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       No       Is the Sampled Are         Hydric Soil Present?       Yes       No       within a Wetland?         Wetland Hydrology Present?       Yes       No       within a Wetland?         Remarks:       No       No       No       No	
HYDROLOGY	() () () () () () () () () () () () () (
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Volidized Rhizospheres along Living Roots (C3	
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	V FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches): 41	
Saturation Present? Yes No Depth (inches): <u>SurFALE</u> Wetlar (includes capillary fringe)	nd Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if	available:
Remarks:	
Remarks.	

-3/4

Sampling Point: WSup 0300-W

2-5-142-5-5	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 308+X 308+)	% Cover			Number of Dominant Species
1. None present				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3.				Species Across All Strata: (B)
4				Percent of Dominant Species (000% (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				
	0	= Total Co	ver	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30F+X30F+)		total ooro		FAC species x 3 =
Saplind/Shrub Stratum (Plot size: 500 (7/300 ())				FACU species x 4 =
1. NUNE present			the second	UPL species x 5 =
2				Column Totals: (A) (B)
3				
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.				
7.				2 - Dominance Test is >50%
8	- 17			3 - Prevalence Index is ≤3.0 ¹
	_0_:			Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	r:	
Herb Stratum (Plot size: 308+X 308+)	1		01	¹ Indicators of hydric soil and wetland hydrology must
1. JUNUS REFUSUS	40	Y	OBL	be present, unless disturbed or problematic.
2 Onoclea sensibilis	10	N	FACW	Definitions of Four Vegetation Strata:
3. Solidoop gigantea	15	N	FACW	
4 ALOPERCURUS Carolinianus	5	N	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
	10	N		height.
5. Trifolium Platense			FACU	
6. ANDRUQUA Virginicus	2	N	FAC	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				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				
	82	= Total Co	ver	
50% of total cover: 41	20% of	total cove	16.4	
Woody Vine Stratum (Plot size 305+X305+)				
1. DUDE present				
		-		
2				
3				
4				
5				Hydrophytic
	0	= Total Co	ver	Vegetation
50% of total cover:	20% of	total cove	r:	Present? Yes No No
Remarks: (If observed, list morphological adaptations belo				
Remarks. (ii observed, list morphological adaptations beid				
		-		
		,		

US Army Corps of Engineers

Sampling Point: WSup030e-W

SUIL				mant the l	ndlastas	at a or firm	the abconce	of Indicators )
Profile Desc	cription: (Describe	to the dept				or contirm	tile anzerice	or marcators,
Depth	Matrix			× Features %	s Type	Loc	Texture	Remarks
(inches)	Color (moist)	- %	Color (moist)	2	C	PL	SL	Homany
0-20	104R3/1		04R3/6				and the second se	
			104R3/6	8	(	M	SL	
			1					
				-				
1	oncentration, D=De	-lalian DM-	Deduced Matrix M	S-Mackar	Eand Gr	ine	2 ocation	PL=Pore Lining. M=Matrix.
Type: C=C	Indicators: (Applie	cable to all I	RRs unless other	nuise not	ed.)	11113.	Indicators	for Problematic Hydric Solls ³ :
			Polyvalue Be					Muck (A9) (LRR O)
Histosol			Thin Dark Su					Muck (A10) (LRR S)
	pipedon (A2) istic (A3)		Loamy Muck				Reduc	ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	2		-,	Piedm	ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma				Алот	alous Bright Loamy Soils (F20)
	Bodies (A6) (LRR I	P, T, U)	Redox Dark		6)			RA 153B)
	ucky Mineral (A7) (L		Depleted Da					arent Material (TF2)
	resence (A8) (LRR I		Redox Depre		8)			Shallow Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L				Other	(Explain in Remarks)
	d Below Dark Surfa	ce (A11)	Depleted Oc		-			cators of hydrophytic vegetation and
	ark Surface (A12)		Iron-Mangan					tland hydrology must be present,
	rairie Redox (A16) (		Dalla Oabria			, 0)		ess disturbed or problematic.
	Mucky Mineral (S1)	(LKK U, S)	Delta Ochric Reduced Ve			0A 150B)		
	Gleyed Matrix (S4) Redox (S5)		Piedmont Flo					
	d Matrix (S6)		Anomalous B	Bright Loar	my Soils (	F20) (MLR	A 149A, 1530	C, 153D)
	urface (S7) (LRR P,	S. T. U)	_					
	Layer (if observed							
Type:								
	iches):						Hydric Sol	Present? Yes No
Remarks:								
Remarks.								
					-			



Wetland data point wsup030e_w facing northeast.



Wetland data point wsup030e_w facing southwest.

	12/17/15
Project/Site: ACC City/	County: SUFFOIIS Sampling Date: 12/17/15
Applicant/Owner: DOM: 100	State VH Sampling Point WS49050-4
Investigator(s): ESI-J. Harbour, 15. MURPHILLy Sect	tion, Township, Range:Nn
Landform (hillslope, terrace, etc.): hill510 Pe Loca	al relief (concave, convex, none): (Onvex Slope (%) 2 4
Subregion (LRR or MLRA): LRRT Lat: 36,66	al relief (concave, convex, none): $(0 \text{ Vex} \text{ Slope}(\%) \xrightarrow{2} 4$ 758 Long: $-76, 845034$ Datum: $W658$
Soil Map Unit Name: Goldslouro Fine Sandy Warn, 2-5	543, eroded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	
Are Vegetation, Soil, or Hydrology naturally problem	
	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks:	
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) (LF	RR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor	
	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced In	
Drift Deposits (B3) Recent Iron Reduction i	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	
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:	JA
Surface Water Present?     Yes No Depth (inches):       Water Table Present?     Yes No Depth (inches):	220
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	220 Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Remarks:	edae
Data Point taken at field	j
A service and the service service and the energy of the	
1 I I I I I I I I I I I I I I I I I I I	

. US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Version 2.0

1,5

Sampling Point: WSup 030- u

2.4. 12.62	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 308+ X308+ 1. NONE PRESENT	% Cover Species? Status	Number of Dominant Species (A)
2		Total Number of Dominant Species Across All Strata:(B)
4 5		Percent of Dominant Species
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
8		OBL species         x1 =
	= Total Cover	
50% of total cover:	20% of total cover:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 308+ X308+)		FAC species x 3 =
		FACU species $75 \times 4 = 300$
		UPL species x 5 =
2		Column Totals: 75 (A) 300 (B)
3		4.0
4		Prevalence Index = $B/A = -\frac{4}{0}$
5		Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.0 ¹
	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size: 30) F+ X 3054		¹ Indicators of hydric soil and wetland hydrology must
1. Trifoilum Pratease	10 N FACU	be present, unless disturbed or problematic.
2 FESTUCA VUBVA	GO Y FACM	Definitions of Four Vegetation Strata:
3. Allium conadense	S N FACU	
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
4		height.
5		
6		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7		than 5 In. DBH and greater than 5.20 h (1 h) tan
8		Herb - All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		Woody vine - All woody vines greater than 3.28 ft in
11		height.
12		
	75 = Total Cover	
50% of total cover: 37,	5 20% of total cover: 15	
Woody Vine Stratum (Plot size: 3) St X 3. 154		
1. NONE Present		
2		
3		
4		
5		Hydrophytic
	= Total Cover	Present? Yes No
50% of total cover:	20% of total cover:	
Remarks: (If observed, list morphological adaptations belo	ow).	
field edge		
- y -		
		Allestie and Cult Coostal Plain Region - Version 20

US Army Corps of Engineers

Sampling Point: WSup030-U

	the absence of Indica	IOFS.)
Profile Description: (Describe to the depth needed to document the indicator or confirm Depth Matrix Redox Features		
	Texture	Remarks
	SL	
0-20 104R2/2 100		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore	Lining. M=Matrix.
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Prob	lematic Hydric Solls ^a :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, L	J) 1 cm Muck (A9)	(LRR O)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A1	) (LRR S)
	Reduced Vertic	(F18) (outside MLRA 150A,B)
	Piedmont Floor	plain Soils (F19) (LRR P, S, T)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Anomalous Brid	ht Loamy Soils (F20)
Stratified Layers (A5) Depleted Matrix (F3)		
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 Ma	
Muck Presence (A8) (LRR U) Redox Depressions (F8)		ark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Other (Explain	n Remarks)
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)		
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P,	T) ³ Indicators of	hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hyd	rology must be present,
		bed or problematic.
	10.01	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14	19A)	
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLR	RA 149A, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)		
Restrictive Layer (if observed):		
		1
Туре:	Hydric Soll Present	7 Yes No
Depth (inches):	Hyune contrastin	
Remarks:		
	×	



Upland data point wsup030_u facing north.



Upland data point wsup030_u facing northwest.

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

Project/Site:       ACP       City/County:       Suffork       Sampling Date:       Offork         Applicant/Owner:       D&MINDN       State:       VA       Sampling Point:       Sampling Point:       Subsup 014e         Investigator(s):       R.TUYNbull       S. IOSEFa       Section, Township, Range:       N/A         Landform (hillslope, terrace, etc.):       Drainage       Local relief (concave, convex, none):       CONCAVE       Slope (%):       1-5         Subregion (LRR or MLRA):       LRRT       Lat:       36.66775       Long:       -76.83461       Datum:       M65.8         Soil Map Unit Name:       Rains fine sandy /aam       NWI classification:       PEM         Are climatic / hydrologic conditions on the site typical for this time of year? Yes       No       X. (If no, explain in Remarks.)         Are Vegetation       X. Soil       X. or Hydrology       significantly disturbed?       Are "Normal Circumstances" present? Yes       No         Are Vegetation       Soil       , or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks.)       SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Is the Sampled Area Hydric Soil Present? Yes No within a Wetland? Yes No Wetland Hydrology Present? Yes No within a Wetland? Yes No Remarks: Abnormally Dry conditions (Based on Sept. 15 Drought Monitor)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       Marl Deposits (B15) (LRR U)       Drainage Patterns (B10)         Vater Marks (B1)       Oxidized Rhizospheres along Living Roots (C3)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Icon Deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)       Shallow Aquitard (D3)
Field Observations:       Surface Water Present?       Yes       No       X       Depth (inches):       N/A         Water Table Present?       Yes       No       X       Depth (inches):       >Z.0       Wetland Hydrology Present?       Yes       No

			Ä			
VEGETAT	ION (For	ur Strata)	– Use so	cientific	names	of plants.

Sampling Point: WSup 014e-W

2012251	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30x3077</u> ) 1. nowe	<u>% Cover Species?</u> Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
23		Total Number of Dominant   Species Across All Strata: (B)
4		Percent of Dominant Species 100 (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of:Multiply by:
8		OBL species x 1 =
	= Total Cover	FACW species x 1 =
	20% of total cover:	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30 X 30 FT)		
		FACU species x 4 =
2		UPL species x 5 = (D)
3		Column Totals: (A) (B)
4		Prevalence Index = B/A =
5	<u> </u>	Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		$3 - \text{Prevalence Index is } \le 3.0^{1}$
	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size: 30x30ft)		¹ Indianters of hydric coll and watend hydrology must
1. Persinaria Sadittata	90 Yes OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Dichanthelium scoparium		Definitions of Four Vegetation Strata:
3. Arundinaria ajaantea	10 No FACW	
4. RUBUS argutus		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		more in diameter at breast height (DBH), regardless of height.
5		
6		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7		than 5 m. DBri and greater than 5.20 m (1 m) tan.
8		Herb – All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		Woody vine - All woody vines greater than 3.28 ft in
11		height.
12	125	
10	125 = Total Cover	
50% of total cover: 62.	S 20% of total cover: 25	
Woody Vine Stratum (Plot size: 30 X30FF)		
1. none		
2		
3		-
4		
5		- Hydrophytic
	0 = Total Cover	Monototion
50% of total cover:	20% of total cover:	Present? Yes No
Remarks: (If observed, list morphological adaptations b		-
(		

SOIL

Profile Des	cription: (Describe t	o the depth r	needed to docum	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix		Redox	K Feature	s			1000 L 040 12	
(inches)	Color (moist)	100-	Color (moist)	%	_Type ¹	_Loc ²	Texture	Remark	S
0-3	2.94112	100	以中的的世纪	100	111	11-1	CL	1.101	
3-20	2.5142	90	104R 416	5	C	PL	CL		
							2 M		
									0 
				=	-				
¹ Type: C=C	concentration, D=Depl	letion, RM=Re	educed Matrix, MS	S=Masked	Sand Gr	ains.	² Location:	PL=Pore Lining, M=M	atrix.
	Indicators: (Applica						Indicators	for Problematic Hydr	ric Soils ³ :
Histoso	I (A1)		Polyvalue Be	low Surfa	ce (S8) (L	RR S, T, I	U) 🗌 1 cm 1	Muck (A9) (LRR O)	
	pipedon (A2)	2.10	Thin Dark Su					Muck (A10) (LRR S)	
	listic (A3)		Loamy Mucky			l O)		ced Vertic (F18) (outsid	
	en Sulfide (A4)		Loamy Gleye		(F2)			ont Floodplain Soils (F	
	d Layers (A5)	<b>T</b> 10	Depleted Mat					alous Bright Loamy So	ils (F20)
	Bodies (A6) (LRR P, ucky Mineral (A7) (LR		Redox Dark S					RA 153B) Parent Material (TF2)	
Muck P	resence (A8) (LRR U	)	Redox Depre					Shallow Dark Surface (	TF12)
	uck (A9) (LRR P, T)		Marl (F10) (L		-/			(Explain in Remarks)	
	ed Below Dark Surface	e (A11)	Depleted Ocl		(MLRA 1	51)		, , , , , , , , , , , , , , , , , , , ,	
	ark Surface (A12)		Iron-Mangan					cators of hydrophytic v	
	Prairie Redox (A16) (N					", U)		tland hydrology must b	
	Mucky Mineral (S1) (L	_RR O, S)	Delta Ochric					less disturbed or proble	ematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver						
	d Matrix (S6)		Piedmont Flo				49A) RA 149A, 1530	2 45201	
	urface (S7) (LRR P, S	5. T. U)		Singin LUA	iny cons	(120) (ME	NA 145A, 155	5, 1550)	
	Layer (if observed):								
Type:								\ \	/
Depth (i	nches):						Hydric So	Il Present? Yes	No
Remarks:							1.		
							· · · ·		
1.									



Wetland data point wsup014e_w facing northeast.



Wetland data point wsup014e_w facing southeast.

Photo Sheet 1 of 3

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region         Project/Site:       ACP       City/County:       SuffOIK       Sampling Date:       09/19/14         Applicant/Owner:       DOMINION       State:       VA       Sampling Point:       WSup014f-w         Investigator(s):       R-TUYNDUIL       State       VA       Sampling Point:       WSup014f-w         Landform (hillslope, terrace, etc.):       Drainage       Local relief (concave, convex, none):       Concave       Slope (%):       0-2         Subregion (LRR or MLRA):       LRRT       Lat:       36.66796       Long:       -76.83453       Datum:       MUS 994         Soil Map Unit Name:       Rains       Fine       sandy I aam       NWI classification:       PFO         Are vegetation       , Soil       , or Hydrology       significantly disturbed?       Are "Normal Circumstances" present?       Yes       No         Are Vegetation       , Soil       , or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes <u>No</u> Is the Sampled Area Hydric Soil Present? Yes <u>No</u> within a Wetland? Yes <u>X</u> No Wetland Hydrology Present? Yes <u>No</u> <u>No</u> <u>Sept. 15 Drought Monidur</u>
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required: check all that apply)         Surface Water (A1)         High Water Table (A2)         Marl Deposits (B15) (LRR U)         Saturation (A3)         Hydrogen Sulfide Odor (C1)         Water Marks (B1)         Oxidized Rhizospheres along Living Roots (C3)         Sediment Deposits (B2)         Primery Indicator Crust (B4)         Inundation Visible on Aerial Imagery (B7)         Water-Stained Leaves (B9)
Field Observations:         Surface Water Present?       YesNo _XDepth (inches):Zo         Water Table Present?       YesNo _XDepth (inches):Zo         Saturation Present?       YesNo _XDepth (inches):Zo         Wetland Hydrology Present?       YesNo         Includes capillary fringe)       Depth (inches):Zo         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:         Remarks:

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

Sampling Point: Wsup DI4f-w

20,420	Absolute Dominant Indicato	
Tree Stratum (Plot size: <u>30 X30</u> ) 1. <u>ACLY YUDDAM</u>	<u>% Cover Species? Status</u> <u>20 Yes FAC</u>	That Are OBL, FACW, or FAC: (A)
2. Carpinus caroliniana	20 Yes FAC	Total Number of Dominant Species Across All Strata:(B)
4 5 6		Percent of Dominant Species That Are OBL, FACW, or FAC: <u>SO %</u> (A/B)
7		Prevalence Index worksheet:
8		Total % Cover of: Multiply by:
	90 = Total Cover	OBL species x1 =
50% of total cover: 20	20% of total cover:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 20 X30)		FAC species x 3 =
1. Carpinus caroliniana	50 Yes FAC	
2. Nyssa sylvatica	10 No FAC	
3		Column Totals: (A) (B)
4		Prevalence Index = B/A =
5		<ul> <li>Hydrophytic Vegetation Indicators:</li> </ul>
6		<ul> <li>— 1 - Rapid Test for Hydrophytic Vegetation</li> </ul>
7		- 2 - Dominance Test is >50%
8	00 = Total Cover	- 3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 30	20% of total cover: 12	Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: 30x30ft)		
1. NORE		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		
3		
4		
5		-
6		
B		
9		of size, and woody plants less than 3.28 ft tall.
10		
11		height.
12,	- Tatal Cause	-
FOR a field another	() = Total Cover	
50% of total cover:	20% of total cover:	
	5 No EAC	1)
1. Lonicera japonica	les The	
2. Smilar rotundifolia	15 Yes FAC	<u> </u>
3		
4		
5		Hydrophytic
	20 = Total Cover	Vegetation
50% of total cover:(	20% of total cover:	Present? Yes V No
Remarks: (If observed, list morphological adaptations b	elow).	

SOIL

Profile Des	cription: (Describe t	to the depth ne	eded to docur	nent the in	dicator	or confirm	the absence of ind	licators.)	
Depth	Matrix			x Features			-		
(inches) () - 14	2.5YA12		VRS10	_%	Type ¹	Loc ²	Texture	Remarks	
11 20		100 10	ikale	2	C	FL	Loam		
14-W	2.9411	100					Loam		
			•						
	0								
Type: C=C	oncentration, D=Depl	letion RM=Red	uced Matrix M	S=Maskad	Sand Gr	line	² Location: DL-D	ore Lining, M=Matri	
Hydric Soll	Indicators: (Applica	able to all LRR	s, unless othe	rwise note	d.)	an 15.		roblematic Hydric !	
Histoso		Г	Polyvalue Be			RR S. T. U		A9) (LRR O)	
Histic E	pipedon (A2)	Ì	Thin Dark Su					A10) (LRR S)	
	listic (A3)		Loamy Muck	y Mineral (	F1) (LRR		Reduced Ve	rtic (F18) (outside I	
	en Sulfide (A4)	Ę	Loamy Gleye		=2)			oodplain Soils (F19)	
	d Layers (A5) Bodies (A6) (LRR P,	P	Depleted Ma		<b>C</b> )			Bright Loamy Soils (	F20)
	ucky Mineral (A7) (LRR P		Redox Dark Depleted Da				(MLRA 15	3B) Material (TF2)	
	resence (A8) (LRR U		Redox Depr					v Dark Surface (TF1	2)
	uck (A9) (LRR P, T)	Ē	Marl (F10) (I		,			in in Remarks)	-,
	d Below Dark Surface	e (A11)	Depleted Oc						
	Park Surface (A12) Prairie Redox (A16) (N		Iron-Mangar					of hydrophytic vege	
	Mucky Mineral (S1) (1		Umbric Surfa					hydrology must be p sturbed or problema	
	Gleyed Matrix (S4)	Γ	Reduced Ve				011/235 01	sturbed of probleme	10.
Sandy	Redox (S5)	Ĩ	Piedmont FI				9A)		
	d Matrix (S6)	1	Anomalous	Bright Loar	ny Soils (	(F20) (MLR.	A 149A, 153C, 153	D)	
	urface (S7) (LRR P, S Layer (If observed):						1		
Type:	Layer (if observed):								
	nches):		5 a				Undela Call Duas	ent? Yes	
Remarks:	nones).		-				Hydric Soli Pres	entr res Z	
Tremarke.									
									1



Wetland data point wsup014f_w facing northeast.



Wetland data point wsup014f_w facing southeast.

WETLAND DETERMINATION DATA	FORM – Atlantic and Gulf Coastal Plain Region
Project/Site:ACP	City/County: CYTFOK Sampling Date: 09/15/15
Applicant/Owner: DOMINION	State: VA Sampling Point: W3 up DI4-U
Investigator(s): R. TURNBUIL S. IOSEFQ	Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, convex, none): Concave Slope (%): 5-10
Subregion (LRR or MLRA): LRRT Lat:	.66775 Long: -76.83451 Datum: MIGS 84
Soil Map Unit Name: Rains fine sandy loam	
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes No X (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal Circumstances" present? Yes X 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 X No Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X Remarks: Abnormally Dry conditions (Based	NO NO
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	/) Surface Soil Cracks (B6)
Surface Water (A1)	
High Water Table (A2)	
Saturation (A3)     Hydrogen Sulfide       Water Marks (B1)     Oxidized Rhizosi	
Sediment Deposits (B2)	
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	ce (C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in	Remarks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
U Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No <u>&gt;</u> Depth (inch	es): N/A
Water Table Present?     Yes     No $\checkmark$ Depth (inch	es): >20
Saturation Present? Yes No Depth (inch (includes capillary fringe)	es): <u>&gt;20</u> Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, monitoring well, aerial ph	notos, previous inspections), if available:
Remarks:	
	-
	,

20100151	Absolute [	Dominant	Indicator	Sampling Point: WSupGI
ree Stratum (Plot size: 30 X 30 Ft)	% Cover			
none	ii			That Are OBL, FACW, or FAC: (A)
•				
			and the second sec	Total Number of Dominant 4
·				Species Across All Strata: (B)
•				Percent of Dominant Species 15
*				That Are OBL, FACW, or FAC: (A/
·				
				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
	0 =	Total Cov	/er	OBL species x 1 =
50% of total cover:	-			FACW species x 2 =
apling/Shrub Stratum (Plot size: 30X 30 F1)	2078 01 1	Jiai cover		FAC species x 3 =
				FACU species x 4 =
none				
				UPL species x 5 =
				Column Totals: (A) (B
•				Provolonno Indov - P/A -
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
•				2 - Dominance Test is >50%
l				3 - Prevalence Index is ≤3.0 ¹
	=	Total Co	ver .	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of t	otal cover	:	
Herb Stratum (Plot size: 30×30ft)				Indiadays of hudda and undiand hudada as mus
1. Phytolacca americana	20	Y	FACU	¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.
RUBUS Grautus	40	V	FAC	
		1		Definitions of Four Vegetation Strata:
3. Senecia hieraciiFolius	20	7	FAC	Tree - Woody plants, excluding vines, 3 in. (7.6 cm
4. Arundinaria gigantee	2	N	FACW	more in diameter at breast height (DBH), regardless
5	18-5		11.0.25	height.
6				Sapling/Shrub - Woody plants, excluding vines, le
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb - All herbaceous (non-woody) plants, regardle
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft
11				height.
12				
	85	= Total Co	over	
50% of total cover: 4				
20V30Ft	20% 01	total cove		-
Woody Vine Stratum (Plot size: 30X30FT)	10	V	TAC	
1. Vitis rotunditolia	10	1	FAC	<u> </u>
2				
3				-
4				-
E				-
J				- Hydrophytic
		= Total C		Vegetation Present? Yes No
50% of total cover:	5 20% 0	total cov	er: 2	Present? Yes No No
Remarks: (If observed, list morphological adaptations	below).			
the second and the se	2310117.			X
	50		ē.	
				1

SOIL

Sampling Point: Wsup 014-4

Frome Description: (Describe to the depth	needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	-
$\frac{(\text{inches})}{0-9}  \frac{\text{Color (moist)}}{2.55142}  \frac{\%}{10()}$	Color (moist) % Type ¹ Loc ²	LOQM
		his is a second s
9-20 2.5Y 0/2100		andytoam
¹ Type: C=Concentration, D=Depletion, RM=R	educed Matrix MS=Masked Sand Grains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LF		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T, I	
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3)	Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4) Stratified Layers (A5)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	Anomalous Bright Loamy Soils (F20)
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)	Marl (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P.	
Coast Prairie Redox (A16) (MLRA 150A)		<ul> <li>T) ³Indicators of hydrophytic vegetation and wetland hydrology must be present,</li> </ul>
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, 150B	
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 1	
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (ML	RA 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed):		
Restrictive Layer (if observed): Type:		
Restrictive Layer (if observed):		Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type:		Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soll Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soll Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soll 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 Soll Present? Yes <u>No </u>
Restrictive Layer (if observed): Type: Depth (inches):		
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soll Present? Yes <u>No X</u>
Restrictive Layer (if observed): Type: Depth (inches):		
Restrictive Layer (if observed): Type: Depth (inches):		
Restrictive Layer (if observed): Type: Depth (inches):		
Restrictive Layer (if observed): Type: Depth (inches):		
Restrictive Layer (if observed): Type: Depth (inches):		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		



Upland data point wsup014_u facing northwest.



Upland data point wsup014_u facing southwest.

Project/Site: <u>ACP</u> City/C Applicant/Owner: <u>DOMINION</u> Investigator(s): <u>R.TWNDWII</u> , <u>S. IO.SEFCI</u> Section Landform (hillslope, terrace, etc.): <u>Drainage</u> Local Subregion (LRR or MLRA): <u>LRRT</u> Lat: <u>36.66</u>	relief (concave, convex, none): <u>concave</u> Slope (%): <u>2-5</u> 799 Long: <u>-76.83156</u> Datum: <u>WGS8</u> 4
Soil Map Unit Name: <u>Rains Fine sandy loam</u> Are climatic / hydrologic conditions on the site typical for this time of year? Y Are Vegetation X, Soil X, or Hydrology significantly distur Are Vegetation , Soil , or Hydrology naturally problema SUMMARY OF FINDINGS – Attach site map showing sam	ies       No       X       (If no, explain in Remarks.)         bed?       Are "Normal Circumstances" present? Yes       X       No         atlc?       (If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: Abnormally Dry conditions (Based on Se	Is the Sampled Area within a Wetland? Yes X No
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LR         Saturation (A3)       Hydrogen Sulfide Odor ( Oxidized Rhizospheres a Sediment Deposits (B2)         Drift Deposits (B3)       Recent Iron Reduction in Algal Mat or Crust (B4)         Innudation Visible on Aerial Imagery (B7)       Other (Explain in Remar Inundation Visible on Aerial Imagery (B7)	C1) Moss Trim Lines (B16) along Living Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) n Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Field Observations:         Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr         Remarks:       Remarks:	Wetland Hydrology Present? Yes X No

VEGETATION (	Four Strata) – U	lse scientific	names of plants.
--------------	------------------	----------------	------------------

Sampling Point: WSUP013e_W

Tree Stratum (Plot size: 30 X 30Ff)	Absolute Dominant Indicator	Dominance Test worksheet:
1. NONE		Number of Dominant Species (A)
2		Total Number of Dominant Species Across All Strata:(B)
4 5		Percent of Dominant Species That Are OBL, FACW, or FAC:O(A/B)
6		Prevalence Index worksheet:
7		Total % Cover of:Multiply by:
8		
	= Total Cover	OBL species x 1 =
50% of total cover:	20% of total cover:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 301 3011)		FAC species x 3 =
		FACU species x 4 =
1. NONE		UPL species x 5 =
2		Column Totals: (A) (B)
3		(A)(B)
4		Prevalence Index = B/A =
5		
		Hydrophytic Vegetation Indicators:
6		1- Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		$\square$ 3 - Prevalence Index is $\leq 3.0^{1}$
	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size: 30 x 30-F+)		the management of the second sec
1. Typha latifolia	IO N OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Rubus argutus		Definitions of Four Vegetation Strata:
3. Arundinaria gigantea	40 Y FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Impatiens capensis	10 N FACW	more in diameter at breast height (DEH), regardless of
5. Persicaria sacittata	40 Y OBL	height.
		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		
10		
		Woody vine - All woody vines greater than 3.28 ft in
11		height.
12		-
1	= Total Cover	
50% of total cover:	2 20% of total cover: _ OO	
Woody Vine Stratum (Plot size: 30 × 30 ft)		16
1. NORE		
		7
2		-
3		-
4		
5		Huden wheels
	= Total Cover	- Hydrophytic Vegetation
		Present? Yes No
50% of total cover:	20% of total cover:	-
Remarks: (If observed, list morphological adaptations b	elow).	
>		

#### SOIL

	cription: (Describ						and abcomee of			
Depth	Matrix		Redo	K Features	- 1		1.1			
(inches)	Color (moist)	2 100	Color (moist)	%	Type ¹	_Loc ²		R	emarks	
0-4	IUTR TI.	2 00	10110 - 11				SL_			
4-8	10Y 1941.	2 90	104R516	10	0	PL	SL	12.10	1	
8-20	IOVR 41	90	10YRO10	10	C	PL	5			
			1 2							
-					1.00					
¹ Type: C=C	Concentration, D=D	epletion, RM=I	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location: Pl	=Pore Lining	M=Matrix.	
Hydric Soll	Indicators: (Appl	licable to all L	RRs, unless other	wise note	d.)		Indicators fo			s ³ :
Histoso	ol (A1)		Potyvalue Be	low Surfac	ce (S8) (L	.RR S, T, U	) 🔲 1 cm Mud	k (A9) (LRR	D)	
	pipedon (A2)		Thin Dark Su				2 cm Mu	k (A10) (LRR	S)	
	listic (A3)		Loamy Muck			R O)		Vertic (F18) (		
	en Sulfide (A4)		Loamy Gleye		F2)			Floodplain S		
	ed Layers (A5)		Depleted Ma		-			us Bright Loar	ny Soils (F20)	)
	c Bodies (A6) (LRR lucky Mineral (A7) (		Redox Dark	A CONTRACTOR OF			(MLRA		50)	
	Presence (A8) (LRF		Depleted Date Redox Depre					ent Material (T llow Dark Sur		
	luck (A9) (LRR P, 1		Marl (F10) (L		5)			plain in Rem		
	ed Below Dark Surf		Depleted Oc		(MLRA 1	51)		(pitain in rectin	antoj	
Personal Contraction of Contractiono	Dark Surface (A12)		Iron-Mangan				T) ³ Indicat	ors of hydroph	nytic vegetatio	n and
Coast I	Prairie Redox (A16)	) (MLRA 150A	) 🔲 Umbric Surfa	ace (F13) (	LRR P,	r, U)		nd hydrology r		
	Mucky Mineral (S1		Delta Ochric					s disturbed or	problematic.	
	Gleyed Matrix (S4)		Reduced Ver							
	Redox (S5)		Piedmont Flo							
	ed Matrix (S6) Surface (S7) (LRR F	O C T IN	Anomalous B	Bright Loar	my Solls	(F20) (MLR	A 149A, 153C, 1	53D)		
	unace (SI) (LRR P	, 3, 1, 0)								
Restrictive	laver (if observe	d).					1			
	Eayer (if observe	ed):								
Type:		ed):			1		Undele Dell D		t.	
Type: Depth (i	a Layer (if observe	ed):					Hydric Soil P	resent? Ye	es L	lo
Type:		ed):					Hydric Soll P	resent? Ye	est 1	lo
Type: Depth (i		ed):					Hydric Soll P	resent? Ye	es L 1	lo
Type: Depth (i		ed):					Hydric Soil P	resent? Ye	es t	lo
Type: Depth (i		ed):				<u> </u>	Hydric Soll P	resent? Ye	es t	lo
Type: Depth (i		ed):					Hydric Soll P	resent? Ye	es L	la
Type: Depth (i		ed):			2 11 12		Hydric Soll P	resent? Ye	25 <u> </u>	lo
Type: Depth (i		ed):					Hydric Soll P	resent? Ye	25 <u></u> 1	lo
Type: Depth (i	inches):	ed):						resent? Ye	95 <u>X</u> 1	lo
Type: Depth (i	inches):						Hydric Soll P	resent? Ye	es L r	lo
Type: Depth (i	inches):							resent? Ye	es L r	lo
Type: Depth (i	inches):							resent? Ye	es L t	lo
Type: Depth (i	inches):							resent? Ye	es L	10
Type: Depth (i	inches):							resent? Ye	25 <u>t</u> 1	10
Type: Depth (i	inches):							resent? Ye	es <u>k</u> r	lo
Type: Depth (i	inches):								es X r	lo
Type: Depth (i	inches):								es X r	lo
Type: Depth (i	inches):								es L t	lo
Type: Depth (i	inches):								es L I	lo
Type: Depth (i	inches):								25 <u>t</u> 1	lo
Type: Depth (i	inches):								25 X 1	10
Type: Depth (i	inches):								25 X 1	lo
Type: Depth (i	inches):								es X I	lo
Type: Depth (i	inches):								es X 1	lo



Wetland data point wsup013e_w facing south.



Wetland data point wsup013e_w facing southeast.

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

Applicant/Owner:       DOMINION         Investigator(s):       R. TUYN bull, S. IOSEFQ         Landform (hillslope, terrace, etc.):       Drainage         Subregion (LRR or MLRA):       LRRT         Lat:       36.         Soil Map Unit Name:       Rains fine sandy loam         Are climatic / hydrologic conditions on the site typical for this time of y         Are Vegetation       , Soil         , Soil       , or Hydrology         Are Vegetation       , Soil	Local relief (concave, convex, none):       Concave       Slope (%):       Q-2         .66 758       Long:       -76.83182       Datum:       WGS84         .www.classification:       PFO         .vear?       Yes       No       Klf no, explain in Remarks.)         y disturbed?       Are "Normal Circumstances" present?       Yes       No
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: Abnormally Dry conditions (Based on	within a Wetland? Yes <u>Y</u> No
Sediment Deposits (B2)       Presence of Red         Drift Deposits (B3)       Recent Iron Red         Algal Mat or Crust (B4)       Thin Muck Surfact         Iron Deposits (B5)       Other (Explain in International Internation Internatinternatinteret International International Internation	B13)       Sparsely Vegetated Concave Surface (B8)         15) (LRR U)       Drainage Patterns (B10)         a Odor (C1)       Moss Trim Lines (B16)         beheres along Living Roots (C3)       Dry-Season Water Table (C2)         uced Iron (C4)       Crayfish Burrows (C8)         uction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         ce (C7)       Geomorphic Position (D2)
Field Observations:         Surface Water Present?       Yes       No       Depth (inch         Water Table Present?       Yes       No       Depth (inch         Saturation Present?       Yes       No       Depth (inch         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial ph         Remarks:	es): <u>N/A</u> es): <u>14</u> es): <u>5</u> Wetland Hydrology Present? Yes <u>No</u> <u>No</u>

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

Sampling Point: WSup DI3f_W

20 420		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 X30) 1. Magnalia Virginiana	<u>% Cover</u>	Species?	FACW	Number of Dominant Species 7 (A)
2. <u>Ilex opara</u> 3. Aur ribrim	30	Yes	FAC	Total Number of Dominant Species Across All Strata; (B)
4				Percent of Dominant Species 00 (A/B)
6				
7				Prevalence Index worksheet:
8				Total % Cover of:Multiply by:
		= Total Cov		OBL species x1 =
50% of total cover: 50	20% of	total cover	20	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 20x 30 )				FAC species x 3 =
1. Alnus serrulata	40	Yes	FACW	FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				- Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				$\square$ 3 - Prevalence Index is ≤3.0 ¹
	40	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:				
Herb Stratum (Plot size: 30 > 30 )	40			¹ Indicators of hydric soil and wetland hydrology must
1. Woodwardia areolata	10	Yes		be present, unless disturbed or problematic.
2. Anindinaria ajgantea	20	les	FACW	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
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, regardless 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	_		_	
	60	= Total C	over	
50% of total cover: 3	20%	of total cove	er: 12	
Woody Vine Stratum (Plot size: 30130)			1.0	
1. Smilax notundationia	10	Yes	FAC	
2				-
3				•
	_		-	-
4	-			-
5		_		- Hydrophytic
	10	= Total C		Vegetation Present? Yes No
50% of total cover:	2 20%	of total cov	rer:	Present? Yes V No
Remarks: (If observed, list morphological adaptations be	elow).		7.11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	

SOIL

		th needed to document the indicator or confi	rm the absence of indicators.)
Depth (inches)	Matrix Color (moist) %	Redox Features Color (moist) % Type ¹ Loc ²	TextureRemarks
0-16	10YR 2/1 100		Loam
10-20	10YR 31, 100		LOam
100-0			
		=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
		LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histoso		Polyvalue Below Surface (S8) (LRR S, T	
and the second se	pipedon (A2) listic (A3)	Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O)	2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B)
press of the local division of the local div	ucky Mineral (A7) (LRR P, T, U)		Red Parent Material (TF2)
	resence (A8) (LRR U) uck (A9) (LRR P, T)	Redox Depressions (F8) Marl (F10) (LRR U)	Ury Shallow Dark Surface (TF12)
	d Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	
	ark Surface (A12)	Iron-Manganese Masses (F12) (LRR O,	P, T) ³ Indicators of hydrophytic vegetation and
		A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
	Mucky Mineral (S1) (LRR O, S)		unless disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)	Reduced Vertic (F18) (MLRA 150A, 150	
	d Matrix (S6)	Piedmont Floodplain Soils (F19) (MLRA Anomalous Bright Loamy Soils (F20) (M	
	urface (S7) (LRR P, S, T, U)		LICK 1452, 1030, 103D
	Layer (If observed):		
Type:			
Depth (i	nches):	<u></u>	Hydric Soil Present? Yes Vo
Remarks:	na falt tanla dat fri kinka akstrada zet tir - start saker a kor - a		N
		Ŧ	
1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		
agentin et rem			
			99(112)

m' m



Wetland data point wsup013f_w facing north.



Wetland data point wsup013f_w facing west.

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

Applicant/Owner:       DOM INION         Investigator(s):       R. TW hbull S- Iasefa         Landform (hillslope, terrace, etc.):       HILGIOPE         Subregion (LRR or MLRA):       LRRT         Lat:       36.4         Soil Map Unit Name:       Rains Free sandy learn         Are climatic / hydrologic conditions on the site typical for this time of year         Are Vegetation       , Soil         , or Hydrology       naturally pro	ar? Yes No (If no, explain in Remarks.) disturbed? Are "Normal Circumstances" present? Yes No
Hydrophytic Vegetation Present? Yes No No Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X Remarks: Abnormally Dry conditions (Based on	Is the Sampled Area within a Wetland? Yes No X n Sept. 15 Drought Monitor)
Sediment Deposits (B2)	b) (LRR U)       Drainage Patterns (B10)         Dodor (C1)       Moss Trim Lines (B16)         beres along Living Roots (C3)       Dry-Season Water Table (C2)         ced Iron (C4)       Crayfish Burrows (C8)         ction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         e (C7)       Geomorphic Position (D2)
Field Observations:         Surface Water Present?       Yes No Depth (inchess         Water Table Present?       Yes No Depth (inchess         Saturation Present?       Yes No Depth (inchess         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial phot         Remarks:       Remarks:	s): <u>N/A</u> s): <u>&gt;20</u> wetland Hydrology Present? Yes <u>No</u>

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

Sampling Point: WSup013-4

70-209		Dominant Indi		Dominance Test worksheet:
Tree Stratum (Plot size: 30×30FJ.)		Species? St		Number of Dominant Species (A)
				Total Number of Dominant Species Across All Strata:(B)
-				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
				Prevalence Index worksheet:
				Total % Cover of:Multiply by:
				OBL species x 1 =
		= Total Cover		FACW species x 2 =
50% of total cover:	20% of	total cover:		FAC species x 3 =
apling/Shrub Stratum (Plot size: 30x 30 f.t.)				FACU species x 4 =
none				UPL species x 4 = UPL species x 5 =
•				
J				Column Totals: (A) (B)
				Prevalence Index = B/A =
·				Hydrophytic Vegetation Indicators:
•				1 Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
l,		= Total Cover		3 - Prevalence Index is ≤3.0 ¹
50% of total cover:				Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: 30×31) Ft)	20% 01			¹ Indicators of hydric soil and wetland hydrology must
Persicaria sagittata	40	Yes C		be present, unless disturbed or problematic.
Rubus arautus	50		EAC	Definitions of Four Vegetation Strata:
Phytolarca americana		the second secon	FACU	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) of
. Onoclea sensibilis	5	No F	ACW	more in diameter at breast height (DBH), regardless of
5				height.
i				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				The server of th
3 9				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10 11				Woody vine – All woody vines greater than 3.28 ft in height.
12				in synt
	115	= Total Cover		
50% of total cover:	51-5 20% 0	of total cover:	23	
Woody Vine Stratum (Plot size: 30X30F+ )				
1. VITIS rotundifolia	10	Yes -	EAC	
2				a
3				
4.				
5				
	10	= Total Cover	r	Hydrophytic Vegetation
50% of total cover:		of total cover: _	0	Present? Yes No
		or total cover		
Remarks: (If observed, list morphological adaptations	below).			

SOIL

Profile Description: (Describe to the dept	h needed to docu	ment the indica	ator or confirm	n the absence of	of indicators.)	
Depth Matrix	Redo	x Features			a dente calenda la conservación octava el 🕶	
$\frac{\text{(inches)}}{0-20} \frac{\text{Color (moist)}}{10YR} \frac{\%}{12} \frac{\%}{10}$	Color (moist)	<u>%</u> Ty	be' Loc ²	Texture	Remark	5
0-20 104R 412 100				56	- 4 Ma	
	6.					
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix M	S=Masked San	d Grains	² Location:	PL=Pore Lining, M=M	atriv
Hydric Soil Indicators: (Applicable to all L	RRs, unless othe	rwise noted.)	d orano.		for Problematic Hydr	
Histosol (A1)	Polyvalue B	elow Surface (S	8) (LRR S, T, I	U) 🛄 1 cm M	luck (A9) (LRR O)	
Histic Epipedon (A2)		urface (S9) (LR		2 cm M	luck (A10) (LRR S)	
Black Histic (A3)		ky Mineral (F1)	(LRR O)		ed Vertic (F18) (outsid	
Hydrogen Sulfide (A4) Stratified Layers (A5)	Depleted Ma	ed Matrix (F2) atrix (F3)			ont Floodplain Soils (F llous Bright Loamy Soi	
Organic Bodies (A6) (LRR P, T, U)		Surface (F6)			RA 153B)	io (1 20)
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Da	ark Surface (F7)		Red Pa	arent Material (TF2)	
Muck Presence (A8) (LRR U)		essions (F8)			hallow Dark Surface (	(F12)
1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11)	Marl (F10) (	LRR U) chric (F11) (MLI	74 151)	U Other (	(Explain in Remarks)	
Thick Dark Surface (A12)	processo .	nese Masses (F		T) ³ Indic	ators of hydrophytic ve	egetation and
Coast Prairie Redox (A16) (MLRA 150A	) 🔲 Umbric Surf	ace (F13) (LRR			land hydrology must b	
Sandy Mucky Mineral (S1) (LRR O, S)		c (F17) (MLRA		unle	ess disturbed or proble	
Sandy Gleyed Matrix (S4)		ertic (F18) (MLF				
Stripped Matrix (S6)		loodplain Soils		49A) RA 149A, 153C	153D)	
Dark Surface (S7) (LRR P, S, T, U)		bright county c		1434, 1330	, 1550)	
Restrictive Layer (if observed):						
Туре:						$\mathbf{Y}$
Depth (inches):				Hydric Soil	Present? Yes	No X
Remarks:						
					4	
					Ŧ	
				22		
2 						



Upland data point wsup013_u facing southwest.



Upland data point wsup013_u facing west.

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

Applicant/Owner: <u>DOMINION</u> Investigator(s): <u>ESJ-MiSMithylki, MURPHIPH</u> s Landform (hillslope, terrace, etc.): <u>CEPPESSion</u> Subregion (LRR or MLRA): <u>LRRT</u> Lat: <u>36.6</u> Soil Map Unit Name: <u>LeVY Silfy Clay (Dam</u> Are climatic / hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significantly di Are Vegetation, Soil, or Hydrology naturally prob	bccal relief (concave, convex, none):       (OnCAVE
SUMMARY OF FINDINGS – Attach site map showing s         Hydrophytic Vegetation Present?       Yes       No	Is the Sampled Area within a Wetland? Yes <u>No</u>
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (         Saturation (A3)       Hydrogen Sulfide Od         Water Marks (B1)       Oxidized Rhizosphere         Sediment Deposits (B2)       Presence of Reduced         Drift Deposits (B3)       Recent Iron Reduction         Algal Mat or Crust (B4)       Thin Muck Surface (C         Iron Deposits (B5)       Other (Explain in Ren         Water-Stained Leaves (B9)       Hard Surface (B1)	LRR U)       Drainage Patterns (B10)         or (C1)       Moss Trim Lines (B16)         es along Living Roots (C3)       Dry-Season Water Table (C2)         H ron (C4)       Crayfish Burrows (C8)         n in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         67)       Geomorphic Position (D2)
Field Observations:         Surface Water Present?       Yes       No       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):	4" SUV FACE SUV FACE Wetland Hydrology Present? Yes No

US Army Corps of Engineers

 $_{29}$ 

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

Sampling Point: Wsup026e-w

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 3054 X305+)		Species		-
1. NONE Present				Number of Dominant Species (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species 1052 294
5				Percent of Dominant Species 10090 (A/B)
6				
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	0	- Total Co		OBL species x 1 =
				FACW species x 2 =
50% of total cover:	20% of	total cover		FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 3084 X 3064)	- 50	$\mathbf{N}$	0.01	FACU species x 4 =
1. Cephalanthus occidentali	5 30	<u> </u>	OBL	
2. ACER RUBRUM	5	N	FAC	UPL species x 5 =
3. Taxodium distichum	5	N	OBL	Column Totals: (A) (B)
4				Developed Index - D/A
				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 ≤3.0 ¹
	60	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 30	20% of	total cover	- 12	
Herb Stratum (Plot size: 308+ X 308+)		10141 00101		
Herb Stratum (Plot size. 200 + A 200 + )	20	N	UNK	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. PANICUM SP.	0			
2. JUNCUS REEUSUS		<u></u>	OBL	Definitions of Four Vegetation Strata:
3. Avundinavia gigantea	45	<u>Y</u>	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Saccharum giganteum	20	N	FACW	more in diameter at breast height (DBH), regardless of
5. Persicaria Sagittata	20	N	OBL	height.
6. Eurotorium capillifolium	1	N	FACU	Carllen/Chrub Mandy plants evoluting vises lass
7. Rubus avantus		N	FAC	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		_/1		
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
	112	= Total Co	/er	
50% of total cover: 56	2004 of		: 22.4	
	20% 01	total cover		
Woody Vine Stratum (Plot size: 3064 X 3054)	1	01	FACU	
1. Lonicera japonica	10			
2. Smilax rotundisolia	10	4	FAC	
3.		/		
4				
F				
5	11			Hydrophytic Vegetation
		= Total Co		Present? Yes No
50% of total cover: <u>5+5</u>	20% of	total cover	d.d	
Remarks: (If observed, list morphological adaptations below	₩).			

US Army Corps of Engineers

S	Ο	11	
-	-		

Sampling Point: Wsup026e-w

rofile Description: (Describe to the de				
Depth <u>Matrix</u> inches) Color (moist) %	Redox Featur Color (moist) %	Type Loc ²	Texture	Remarks
0-4 104R3/2 100			L	
4-12 104R 5/1 90	104R5/6 10	C PL	SCL	
2-20 2.566/2 80	2.545/620	CM	SC	
			² l contion: DI -D	ore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, RI lydric Soil Indicators: (Applicable to a	I LRRs, unless otherwise no	oted.)		oblematic Hydric Solls ³ :
_ Histosol (A1)		face (S8) (LRR S, T, U)	1 cm Muck (/	49) (LRR O)
Histic Epipedon (A2)	Thin Dark Surface (S		2 cm Muck (/	A10) (LRR S)
Black Histic (A3)	Loamy Mucky Minera			tic (F18) <b>(outside MLRA 150A,E</b> odplain Soils (F19) <b>(LRR P, S, T</b>
<ul> <li>Hydrogen Sulfide (A4)</li> <li>Stratified Layers (A5)</li> </ul>	Loarny Gleyed Matrix Depleted Matrix (F3)			Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface		(MLRA 15	
5 cm Mucky Mineral (A7) (LRR P, T, I				Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depressions (	(F8)		/ Dark Surface (TF12) in in Remarks)
1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11)	Marl (F10) (LRR U) Depleted Ochric (F11)	1) (MLRA 151)		in in Nemars)
Thick Dark Surface (A12)		sses (F12) (LRR O, P, 1	T) ³ Indicators	of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 15				ydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S			unless dis	sturbed or problematic.
Sandy Gleyed Matrix (S4) Sandy Redox (S5)		) (MLRA 150A, 150B) Soils (F19) (MLRA 149	3A)	
Stripped Matrix (S6)		amy Soils (F20) (MLRA		))
Dark Surface (S7) (LRR P, S, T, U)				
lestrictive Layer (if observed):				/
Type:			Hydric Soll Prese	ent? Yes No
Depth (inches):			Hyunc Son Frese	
Remarks:				



Wetland data point wsup026e_w facing northeast.



Wetland data point wsup026e_w facing southwest.

Photo Sheet 1 of 3

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

1.0	1.16	10/19/15				
Project/Site: ACP	City/County: SUF	Sampling Date: 12/9/15				
Applicant/Owner: Dominion		State: VA Sampling Point: WSup Dalot-w				
Investigator(s): ESI-M.Smith, K.Murphrey	Section, Township, Rai	nge: NA				
Landform (hillslope, terrace, etc.); Depression	Local relief (concave, c	onvex, none): (On COVE Slope (%): U-2				
Subregion (LRR or MLRA): LRRT Lat: 36.6	06841 I	ong: -76. 82355 Datum: W6584				
Soil Map Unit Name: LEVY Silty Clay 1000	/	NWI classification: PFO				
Are climatic / hydrologic conditions on the site typical for this time of year		(If no, explain in Remarks.)				
		Normal Circumstances" present? Yes No				
Are Vegetation, Soil, or Hydrology significantly of						
Are Vegetation, Soil, or Hydrology naturally prol	blematic? (If ne	eded, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing	sampling point lo	ocations, transects, important features, etc.				
Hydrophytic Vegetation Present?     Yes     No       Hydric Soil Present?     Yes     Vo	Is the Sampled within a Wetlar					
Wetland Hydrology Present? Yes No	within a wetter					
Remarks:						
Beaver Pond						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)				
PrimaryIndicators (minimum of one is required; check all that apply)		Surface Soil Cracks (B6)				
Surface Water (A1) Aquatic Fauna (B13	5)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2) Marl Deposits (B15)	(LRR U)	Drainage Patterns (B10)				
Saturation (A3)Hydrogen Sulfide O	dor (C1)	Moss Trim Lines (B16)				
Water Marks (B1) Oxidized Rhizosphe	eres along Living Roots	(C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2) Presence of Reduce	ed Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3) Recent Iron Reducti	ion in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Thin Muck Surface (		Geomorphic Position (D2)				
Iron Deposits (B5) Other (Explain in Re	emarks)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)				
Field Observations:	1"					
Surface Water Present? Yes No Depth (inches):						
Water Table Present? Yes No Depth (inches):	1 11					
Saturation Present? Yes V No Depth (inches): (includes capillary fringe)	: We	tland Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well, aerial photos	s, previous inspections	), if available:				
Remarks:						

्री

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

Sampling Point: WSup Dalf.W

				Denting and the best
		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30F+X 30F+)		Species?		Number of Dominant Species 7
1. ALEV RUDRUM	30	<u> </u>	FAC	That Are OBL, FACW, or FAC: (A)
2. Liquidambor Storaciflua	20	Y	FAC	
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Descent of Descinent Species
5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
				That Are OBL, FACVV, OF FAC (AB)
6				Prevalence Index worksheet:
7				
8				Total % Cover of:Multiply by:
0	50			OBL species x 1 =
		= Total Cove		FACW species x 2 =
50% of total cover: 25	20% of	total cover:	10	
Sapling/Shrub Stratum (Plot size 308+X308+)				FAC species x 3 =
Saphing/Sindo Shatani (Fild Size.	26	Y	FAC	FACU species x 4 =
1. FLEX OPACO				UPL species x 5 =
2. Ligustrum sinense	25	4	FAC	A CONTRACTOR OF
3. Carpinus caroliniana	25	Y	FAC	Column Totals: (A) (B)
	0. 2			
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
				- 1-Rapid Test for Hydrophytic Vegetation
6				- A-Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.01
	75	= Total Cove	ar	
27				Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 37.	20% of	total cover:	15	
Herb Stratum (Plot size: 308+ X 308+)				¹ Indicators of hydric soil and wetland hydrology must
1. Woodwardia Virginica	10	N	OBL	be present, unless disturbed or problematic.
2. Woodwardie areolata	30		OBL	Definitions of Four Vegetation Strata:
3				Tree Mandustante evoluting vince 2 in (7.6 cm) or
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
4				height.
5				neight.
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				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.				
12.	40	THE		
0		= Total Cov	10	
50% of total cover: 20	20% of	total cover:	IA	
Woody Vine Stratum (Plot size: 3084 X 3084				
1 LODICERA japonica	5	N	EALA	
			TACUL	
2. Smilax rutandisolia	.5	2	FAC	
3 Vitis rotandisolia	50	Y	FAC	
	5	01	EAC	
4. Gelsemician sempervivens		N	FAC	
5.	2			
				Hydrophytic
	65	= Total Cov	er	Hydrophytic Vegetation
22		= Total Cov	12	Vegetation
50% of total cover: <u>3</u> 2,		= Total Cov	12	Vegetation
	5_ 20% of		12	Vegetation
50% of total cover: <u>3</u> 2, <u>6</u> Remarks: (If observed, list morphological adaptations belo	5_ 20% of		12	Vegetation
	5_ 20% of		12	Vegetation
	5_ 20% of		12	Vegetation
	5_ 20% of		12	Vegetation
	5_ 20% of		12	Vegetation
	5_ 20% of		12	Vegetation
	5_ 20% of		12	Vegetation

US Army Corps of Engineers

SOIL							Sampling Point: WS4pD26f
Profile Desc	cription: (Describe	to the dept	h needed to docur	nent the indicato	or or confirm t	he absence of Indica	ors.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features % Type	Loc ²	Texture	Remarks
0-1	104R4/1	100	1010516			L	
1-10	2.546/2	90	104R5/6	10 20 C	PI	<u>L</u> <u></u>	
0-20	104K - 1	80	109R4/6	20 (		<u> </u>	
17	oncentration, D=Dep	lation DM-	Reduced Matrix M	-Macked Sand (		² Location: PL=Pore	Lining M=Matrix
	Indicators: (Applic				51 41115.		ematic Hydric Soils ³ :
Histosol			Polyvalue Be		(LRR S, T, U)		
	pipedon (A2)			rface (S9) (LRR		2 cm Muck (A10	(LRR S)
	istic (A3)			y Mineral (F1) (LI			F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F2)			blain Soils (F19) (LRR P, S, T)
Stratified	d Layers (A5)		V Depleted Ma				t Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark			(MLRA 153B)	
	ucky Mineral (A7) (LI			k Surface (F7)		Red Parent Mate	erial (TF2) rk Surface (TF12)
	resence (A8) (LRR U	1)	Redox Depre			Other (Explain in	
	uck (A9) (LRR P, T)	- (414)	Marl (F10) (L	hric (F11) (MLRA	151)	Other (Explain in	Remarks)
	d Below Dark Surfac ark Surface (A12)	e (ATT)		ese Masses (F12		³ Indicators of h	ydrophytic vegetation and
	Prairie Redox (A16) (I	MIRA 150A					blogy must be present,
	Mucky Mineral (S1) (			(F17) (MLRA 151			bed or problematic.
	Gleyed Matrix (S4)			tic (F18) (MLRA			
	Redox (S5)			odplain Soils (F1		A)	
	d Matrix (S6)					149A, 153C, 153D)	
	urface (S7) (LRR P, S	S, T, U)					
Restrictive	Layer (if observed)						/
Type:	abaa):	P				Hydric Soll Present?	Yes No
	iches):					nyane con resona	
Remarks:							
10							



Wetland data point wsup026f_w facing northwest.



Wetland data point wsup026f_w facing southwest.

Photo Sheet 2 of 3

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

Applicant/Owner: Dominion Investigator(s): ESI-M.5m.Hy, K.MURPhrey Sect Landform (hillslope, terrace, etc.): <u>hillslope</u> Loca	relief (concave, convex, none):       (Onvex
SUMMARY OF FINDINGS - Attach site map showing sar	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No         Wetland Hydrology Present?       Yes       No         Remarks:       No       No	Is the Sampled Area within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)	C1)       Moss Trim Lines (B16)         long Living Roots (C3)       Dry-Season Water Table (C2)         n (C4)       Crayfish Burrows (C8)         Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)
Field Observations:         Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         Uncludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, presents;         Remarks;       Remarks;	Wetland Hydrology Present? Yes No

US Army Corps of Engineers

di

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

Sampling Point: WSup026.4

VEGETATION (Four Strata) = Ose scientific that				Sampling Font:
226112200			Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 305+X305+)	% Cover			Number of Dominant Species
1. Platanus occidentalis	20	Y	FACW	That Are OBL, FACW, or FAC: (A)
2. Pinus tarda	15	V	FAC	
	20	1.F	terror and the second s	Total Number of Dominant (/)
3. Liquidambar Styraci Elua	20	7	FAC	Species Across All Strata: (B)
4				
				Percent of Dominant Species SO 90 (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6				
7			and the second se	Prevalence Index worksheet:
		-		Total % Cover of: Multiply by:
8				OBL species x 1 =
	55	= Total Co	ver	
50% of total cover: 27.5				FACW species x 2 =
	_ 20700			FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 308+ X 308+	1.0	1		FACU species x 4 =
1. JICK OPOICO	10	1	FAC	
2. L'austrum sinense	5	Y	FAC	UPL species x 5 =
	10			Column Totals: (A) (B)
3. Carpinas caroliniana	10	Y	FAC	
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1-Rapid Test for Hydrophytic Vegetation
7			and the second sec	2 - Dominance Test is >50%
				_
8				3 - Prevalence Index is ≤3.0 ¹
	25 :	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 12.5	5 20% of	total cover	. 5	
Herb Stratum (Plot size 308+ X308+)	-	. 1	~ A .	¹ Indicators of hydric soil and wetland hydrology must
1. Avundinaria gigontea	>	N	FACW	be present, unless disturbed or problematic.
· POLEDI'llo COOPIEVE	10	V	FACU	Definitions of Four Vegetation Strata:
	10	N		Bonnitoris of Four Vogotation et ata
3. Phytolacca omericano		10	FACU	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Allium canadense	5	N	FACU	more in diameter at breast height (DBH), regardless of
5. WUDdwardia aveolator	5	N	OBL	height.
	9			
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				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				
	30	= Total Co	/er	
16			/	
50% of total cover: 15	20% of	total cover		
Woody Vine Stratum (Plot size 308+ X308+)		1.000		
1. Lonicera Joronica	20	Y	FACU	
	2	V		
2. VITIS NOTANGISOLIA	10	7	FAC	
3. Berchemia scandens	10	Y	FAC	
		1		
4				
5				Hydrophytic
	50 .	= Total Co	ver	Vegetation
15	-		10	Present? Yes No
50% of total cover: 25	20% of	total cover	10	
Remarks: (If observed, list morphological adaptations belo	w).			
	N 10 7 9 8			

US Army Corps of Engineers

SOIL								S	ampling Point:	NSUP 026-1
Profile Desc	cription: (Describe t	o the dep				or confirm	the absence	of Indicato	ors.)	
Depth	Matrix Color (moist)	%	Color (moist)	x Feature %	s Type	Loc ²	Texture		Remarks	
(inches)	2.546/4	100			Type		FSL			
10.14	2 5/3	100					SCL			
111-20	26.412	98	104R4/6		-	PI	Sel .			
14-20	1.54 112	10	109RIVO			10	RE			
								-		
				-						
	oncentration, D=Deple					ains.			ining, M=Matri matic Hydric :	
	Indicators: (Applica	DIE TO AII				PPSTI		luck (A9) (L		
Histosol Histic Er	(A1) bipedon (A2)		Polyvalue Bo Thin Dark So					luck (A10)		
	istic (A3)		Loamy Muck						•	ILRA 150A,B)
	en Sulfide (A4)		Loamy Gley						ain Soils (F19)	
	d Layers (A5)		Depleted Ma						Loamy Soils (	F20)
	Bodies (A6) (LRR P, ucky Mineral (A7) (LR		Redox Dark Depleted Da					RA 153B) arent Mater	ial (TE2)	
	esence (A8) (LRR U)		Redox Depr						k Surface (TF1	2)
	ick (A9) (LRR P, T)		Marl (F10) (I		,		Other	(Explain in I	Remarks)	
	d Below Dark Surface	(A11)	Depleted Oc				- 3		1 I. <i>I</i>	attan and
	ark Surface (A12)	1 0 4 4 5 0	Iron-Mangar						drophytic vegel ogy must be pi	
_	rairie Redox (A16) (M /lucky Mineral (S1) (L					, 0)		-	ed or problema	
	Gleyed Matrix (S4)		Reduced Ve			0A, 150B)			•	
	Redox (S5)		Piedmont FI			•				
	Matrix (S6)		Anomalous	Bright Loa	my Soils (	F20) (MLR	A 149A, 153C	, 153D)		
	rface (S7) (LRR P, S, Layer (if observed):	T, U)					1			
Type:	Layer (11 Observed).									/
	ches):						Hydric Soll	Present?	Yes	No
Remarks:										
rtomanto.										



Upland data point wsup026_u facing northeast.



Upland data point wsup026_u facing southwest.

Photo Sheet 3 of 3

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

Applicant/Owner:       Dominion         Investigator(s):       EST-M. Smith, K. Mulphrey         Landform (hillslope, terrace, etc.):       Flowdplain         Subregion (LRR or MLRA):       LRRT         Lat:36.1         Soil Map Unit Name:       RainS         Fine       Sondy         Are climatic / hydrologic conditions on the site typical for this time of year         Are Vegetation      , Soil        , Soil      , or Hydrology         naturally pr	Local relief (concave, convex, none):       (Uncave       Slope (%):       0-2         66764       Long:       76:       \$1936       Datum:       W6584         0        NWI classification:       PFO         ear? Yes        No        (If no, explain in Remarks.)         y disturbed?       Are "Normal Circumstances" present?       Yes        No
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No         Wetland Hydrology Present?       Yes       No         Remarks:       No       No	Is the Sampled Area within a Wetland? Yes No
Sediment Deposits (B2) Presence of Redu	13)      Sparsely Vegetated Concave Surface (B8)         5) (LRR U)      Drainage Patterns (B10)         Odor (C1)      Moss Trim Lines (B16)         heres along Living Roots (C3)      Dry-Season Water Table (C2)         ced Iron (C4)      Crayfish Burrows (C8)         ction in Tilled Soils (C6)      Saturation Visible on Aerial Imagery (C9)         e (C7)      Geomorphic Position (D2)
Field Observations: Surface Water Present? Yes <u>No</u> Depth (inchest Water Table Present? Yes <u>No</u> Depth (inchest Saturation Present? Yes <u>No</u> Depth (inchest (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial phot Remarks:	s): <u>211</u> s): <u>SurFace</u> s): <u>SurFace</u> Wetland Hydrology Present? Yes <u>No</u> <u>No</u>

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Version 2.0

374

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

Sampling Point: WSup 025f-W

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 305+X305)+		Species?		Number of Descinent Creation
1. Liquidambar Styraci Fluo	40	Y	FAC	That Are OBL, FACW, or FAC: (A)
2. ACET VUDRUM	40	V	FAC	
	10	_/	1110	Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				Percent of Dominant Species 86% (A/B)
6				
				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	4.0			OBL species x 1 =
	80	= Total Cov	er	
50% of total cover: 40	20% of	total cover	16	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30F+X 30F+)				FAC species x 3 =
1. Ilex OPOCO	15	Y	FAC	FACU species x 4 =
	6			UPL species x 5 =
2. Magnolia Virginiana		N	FACW	Column Totals: (A) (B)
3. Cyrilla racemifiora	10	Y	FACW	
4. Ligustrym sinense	2	N	FAC	Prevalence Index = B/A =
5. Carpinus carolinianon	5	N	FAC	
				Hydrophytic Vegetation Indicators:
б				A property of the second
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	37	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 18.5	20% of	total cover	7.4	
Herb Stratum (Plot size: 3084 X 3084		total ooror		
Herb Stratum (Plot size: Den 1 ABOR)	20	Y	OBL	Indicators of hydric soil and wetland hydrology must
1. Woudwardin aveolata	2			be present, unless disturbed or problematic.
2. Botrypus virginianus		N	FACU	Definitions of Four Vegetation Strata:
3.05mundastrum cinnamomeum	- 5	N	FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
				height.
5				
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				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	-			
		= Total Cov		
50% of total cover: 13.9	20% of	total cover	5.4	
Woody Vine Stratum (Plot size: 308+ X308)+				
	20	V	EARIA	
1. LONICERA japonica	10		FAC	
2. Bignunia capreulata	10		FAC	
3. SMILAX VOLUNDIFULIA	2	N	FAC	
4				
5				Unders hadle
5	22	Tatal Ca		Hydrophytic Vegetation
17		= Total Cov	/ / /	Present? Yes No
50% of total cover:	_ 20% of	total cover	0.T	
Remarks: (If observed, list morphological adaptations below	v).			

US Army Corps of Engineers

Des file Dese	alations (Describe	to the day	oth needed to docur	pont the	Indicator	orconfirm	the absence o			Wsup D25f
		to the dep				or commit		Indicate	13.)	
Depth (inches)	Color (moist)	%	Color (moist)	x Feature %	Type'	Loc ²	Texture		Remarks	
0-4	104R3/1	100					SL			
8-20	104R5/1	80	104R5/6	20	C		ML			
1 40	1041071	00	10410310	0		14.	TYTE			
			=Reduced Matrix, M	S-Masker	d Sand Gr	ains	² Location: F	PI =Pore I	ining, M=Matri	x.
			LRRs, unless othe			2013.			matic Hydric	
Histosol			Polyvalue Be			RR S. T. U				
	bipedon (A2)		Thin Dark Su					ick (A10)		
-	stic (A3)		Loamy Muck							VILRA 150A, B)
	en Sulfide (A4)		Loamy Gleye		(F2)					(LRR P, S, T)
-	d Layers (A5)		C Depleted Ma		-				Loamy Soils (	F20)
	Bodies (A6) (LRR		Redox Dark Depleted Da				•	A 153B) ent Mater	al (TE2)	
-	icky Mineral (A7) (L esence (A8) (LRR I		Redox Depre		1 1				Surface (TF1	2)
-	ick (A9) (LRR P, T)		Marl (F10) (L		0)				Remarks)	_/
	d Below Dark Surfac		Depleted Oc		(MLRA 1	51)				
	ark Surface (A12)		Iron-Mangan						drophytic vege	
_			A) Umbric Surfa			, U)		-	ogy must be p	
-	lucky Mineral (S1)	(LRR O, S)					unles	ss disturbe	ed or problema	ILIC.
	Gleyed Matrix (S4)		Reduced Ve Piedmont Florence				94)			
	(S5) Matrix (S6)						A 149A, 153C,	153D)		
	rface (S7) (LRR P,	S, T, U)				- , ,				
estrictive	Layer (if observed)	):								/
Type:										
Depth (in	ches):						Hydric Soll F	Present?	Yes	No
emarks:							1			
	-									

US Army Corps of Engineers



Wetland data point wsup025f_w facing northwest.



Wetland data point wsup025f_w facing south.

Photo Sheet 2 of 3

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

	12/2/16
Project/Site: ACV City/	County: SUFFOIK Sampling Date: 12/9/15
Applicant/Owner: DOM (Nid A	State: VA Sampling Point: WSup 025e-W
Investigator(s): ESI-M. SM. ThiK. MUTPhrey Sect	ion, Township, Range: NA
Landform (hillslope, terrace, etc.): DEPRESSION Loca	I relief (concave, convex, none): CONCAVE Slope (%): 0-2
Subregion (LRR or MLRA): LRR T Lat:36.667	65 Long:-76.81896 Datum:W65 504
Soil Map Unit Name: Rains Fine Sondy Warm	NWI classification: _PEM
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil, or Hydrology significantly distu	
Are Vegetation, Scil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? YesNo	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks:	
HYDROLOGY	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
Surface Water (A1) Aquatic Fauna (B13)	
High Water Table (A2) Mari Deposits (B15) (LF	
Saturation (A3) Hydrogen Sulfide Odor	
Water Marks (B1) Oxidized Rhizospheres	
Sediment Deposits (B2) Presence of Reduced Ir	
Drift Deposits (B3) Recent Iron Reduction i	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	
Iron Deposits (B5) Other (Explain in Rema	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Sphagnum moss (D8) (LRR T, U)
Water-Stained Leaves (B9)	
Field Observations: Surface Water Present? Yes No Depth (inches): N	A
Water Table Present?     Yes     No     Depth (inches):       Saturation Present?     Yes     No     Depth (inches):	UNEDCE Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	

. US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Version 2.0

194