Project/Site: Atlantic Coast Pipeline	City/County:	Johnston		_ Sampling Date: 2/1	3/2015
Applicant/Owner: Dominion			State: NC	Sampling Point:	wjob113e_w
Investigator(s): TP, RH	Section, Tov	/nship, Range: <u>No F</u>	PLSS in this are	a	
Landform (hillslope, terrace, etc.): drainage way	Local relief (con	cave, convex, none	e): concave	Slope	(%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 35.4106792	21	Long: <u>-78.35</u>	63113	Datum:	WGS 1984
Soil Map Unit Name: Leaf silt loam, 0 to 2 percent slopes			NWI classifi	cation: None	
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🧾	No (If	no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology significar	ntly disturbed?	Are "Normal (	Circumstances"	present? Yes	No 🔽
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, ex	plain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showi	ing sampling	point locatior	s, transects	s, important fea	tures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	~	No
Remarks:						

Emergent wetland as a result of recent logging activities. Connects to forested wetland at tract boundary. This area was logged outside of the growing season and no plants were observed. Leaves on the ground suggested water oak, cherry-bark oak, and swamp chestnut oak were the dominant tree species prior to logging.

wetiand Hydrology Indicate	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; ch	neck all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1)	<u>.</u>	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	<u>.</u>	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
<ul> <li>Saturation (A3)</li> </ul>		s (C3) Moss Trim Lines (B16)	
Water Marks (B1)	_	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	-	Recent Iron Reduction in Tilled Soils (	C6) Crayfish Burrows (C8)
Drift Deposits (B3)	_	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Ae	rial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (E	39)		<ul> <li>Microtopographic Relief (D4)</li> </ul>
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes 🖌 No 🔄	Depth (inches):0	
Water Table Present?	Yes 🖌 No \_	Depth (inches):0	
Saturation Present? (includes capillary fringe)	Yes 🖌 No 🔤	Depth (inches): 0	tland Hydrology Present? Yes _ ✔ No
Describe Recorded Data (stre	eam gauge, monitorir	ng well, aerial photos, previous inspections	), if available:
Remarks:	house and the second state of the second	diasted INA C/47/45	
Remarks: added surface water 0 since it	t wasn't previously inc	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously ind	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously inc	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously ind	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously ind	dicated. JM 6/17/15	
Remarks: added surface water 0 since if	t wasn't previously ind	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously in	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously ind	dicated. JM 6/17/15	

Sampling Point: wjob113e\_w

	,		<b>P</b>		
Trop Stratum (Plat aiza)	30	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Thee Stratum (Plot size.	)	% Cover	Species?	Status	Number of Dominant Species
1					That Are OBL, FACW, or FAC: (A)
2					Total Number of Dominant
3.					Species Across All Strata: 0 (B)
4					
4. <u></u>					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 0 (A/B)
6					
7					Prevalence Index worksneet:
		0	= Total Cove	٩r	Total % Cover of: Multiply by:
	50% of total cover: 0	20% of	f total cover:	0	OBL species x 1 =0
Capling/Charle Ctrature (Dist	15	2070 0			FACW species $0 \times 2 = 0$
Sapling/Shrub Stratum (Plot	size:)				$\frac{1}{1} = \frac{1}{1} = \frac{1}$
1					$\begin{array}{c} \text{FAC species} \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \\ \hline \\ \\ \\ \\ \\ \\ \\ $
2					FACU species $x 4 = 0$
3.					UPL species x 5 =
4			·		Column Totals: (A) (B)
5			·		$P_{revelopee}$ index $-P/A = 0$
6.					Prevalence index = B/A =
7.					Hydrophytic vegetation indicators:
8					1 - Rapid Test for Hydrophytic Vegetation
0					2 - Dominance Test is >50%
9		0			3 - Prevalence Index is ≤3.0 <sup>1</sup>
			= I otal Cove	r O	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	50% of total cover:	20% of	i total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5)				
1					
2					
					<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3					be present, unless disturbed or problematic.
4					Definitions of Four Vegetation Strata:
5					
6.					<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7		·			more in diameter at breast height (DBH), regardless of
·· <u> </u>					
8					Sapling/Shrub – Woody plants, excluding vines, less
9					than 3 in. DBH and greater than or equal to 3.28 ft (1
10					m) tall.
11.					Herb All borbassous (non woody) planta regardless
		0			of size and woody plants less than 3.28 ft tall
	50% of total covor: 0	20% 0	f total cover:	0	
	30% OF LOTAL COVEL.	20% 0	total cover.		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot siz	ze:)				height.
1			<b>.</b>		
2					
3					
<u>.                                    </u>					
4					Hydrophytic
					•
5					Vegetation
5		0	= Total Cove	<u>.</u>	Vegetation Present? Yes <u>V</u> No
5	50% of total cover: 0	0 20% of	= Total Cove	۲ 0	Vegetation Present? Yes <u>✓</u> No

As stated above, area recently logged, and no plants were observed. Forested wetland at tract boundary. Based on leaf litter, water oak, swamp chestnut oak, and cherry bark oak were prevalent prior to logging.

Profile Des	cription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirn	n the absence of	indicators.)
Depth	Matrix	<u> </u>	Redo	x Feature	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 4/1	95	10YR 4/6	5	С	M	SCL	
				·			<u> </u>	
				·				
1							2	
Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	I Sand Gra	ains.	Location: PL=F	Pore Lining, M=Matrix.
Hydric Soli				(07)			Indicator	
Histoso	l (A1) ninadan (A2)		Dark Surface	(S7) Iour Surfa			2 cm	Muck (A10) (MLRA 147)
HISUC E	pipedon (AZ)		Polyvalue Be	rface (SQ)	Ce (30) (IV	ILKA 147,	(146) <u>(</u> Coas	
Black H	an Sulfide ( $\Delta A$ )			d Matrix (		47, 140)	Pied	mont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		✓ Depleted Ma	trix (F3)	12)		1 icul (N	II RA 136, 147)
2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (F	6)		Verv	Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Othe	er (Explain in Remarks)
Thick D	ark Surface (A12)	. ,	Redox Depre	ssions (F	8)			
Sandy M	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> Indicat	tors of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<b>18)</b> wetlar	nd hydrology must be present,
Stripped	d Matrix (S6)		Red Parent N	Aaterial (F	21) <b>(MLR</b>	A 127, 147	7) unless	s disturbed or problematic.
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Pre	esent? Yes 🖌 No
Remarks:								



**Photo 1** Wetland data point wjob113e\_w facing east



**Photo 2** Wetland data point wjob113e\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Joh	nnston	Sampling Date: 2/13/2015
Applicant/Owner: Dominion		State: NC	Sampling Point: wjob113_u
Investigator(s): TP, RH	Section, Townsh	nip, Range: <u>No PLSS in this area</u>	1
Landform (hillslope, terrace, etc.): hill slope	Local relief (concav	e, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 38	5.40996934	Long:78.35714973	Datum: WGS 1984
Soil Map Unit Name: Leaf silt loam, 0 to 2 percent slopes		NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for t	his time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	_naturally problematic?	(If needed, explain any answe	rs in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	oils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _ Depth (inches):	
Surface Water Present?       Yes No _       Depth (inches):         Water Table Present?       Yes No _       Depth (inches):	
Surface Water Present?       Yes No _ Depth (inches):         Water Table Present?       Yes No _ Depth (inches):         Saturation Present?       Yes No _ Depth (inches):         (includes capillary fringe)       Yes No _ Depth (inches):	Wetland Hydrology Present? Yes No
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 inspective)	Wetland Hydrology Present? Yes No
Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       No Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No
Surface Water Present?       Yes No _        Depth (inches):         Water Table Present?       Yes No _        Depth (inches):         Saturation Present?       Yes No _        Depth (inches):         (includes capillary fringe)       Ves No _        Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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 inspec         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No ✓ tions), if available:
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 inspec         Remarks:	Wetland Hydrology Present? Yes No ✓ tions), if available:
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 inspec         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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 inspective         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspec         Remarks:       Remarks:	Wetland Hydrology Present? Yes No⊻ tions), if available:
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):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:

Sampling Point: wjob113\_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1 Pinus taeda	30	Yes	FAC	That Are OBL_EACW or EAC: 4 (A)
o Quercus pagoda	20	Yes	FACW	
	15	Ves	FAC	Total Number of Dominant
3. <u>Quercus nigra</u>	15	163	1 AC	Species Across All Strata: 5 (B)
4				
5.				Thet Are OBL EACIAL or EACIA
			······	
б				Prevalence Index worksheet
7				
	65	= Total Cove	r	
50% of total cover: 32.5	20% of	total cover:	13	OBL species $0 x 1 = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $20$ x 2 = $40$
/ llex onaca	20	Yes	FACU	FAC species $55 \times 3 = 165$
1	20	103	1700	$\frac{20}{20} \times 6 = \frac{80}{20}$
2				FACU species $x = 0$ $x = 0$
3.				UPL species x 5 =
1				Column Totals: <sup>95</sup> (A) <sup>285</sup> (B)
			·······	
5				Prevalence Index = $B/A = 3$
6				Hydrophytic Vegetation Indicators:
7.				riyuropriyuc vegetation inuicators:
0			·	1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is $\leq 3.0^1$
	20	= Total Cove	r	A Marshala sizel Adaptations <sup>1</sup> (Dravida surgranting
50% of total cover: <sup>10</sup>	20% of	total cover:	4	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Acer rubrum	10	Voo	EAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1	10	Tes	FAC	
2				
3.				Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed of problematic.
4				Definitions of Four Vegetation Strata:
5				
6				nee – woody plants, excluding vines, 3 in. (7.6 cm) of
7				height
·· <u>·</u>				hoight
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				
	10			Herb – All herbaceous (non-woody) plants, regardless
5		= I otal Cove	r 2	or size, and woody plants less than 3.26 it tall.
50% of total cover: 5	20% of	total cover:	Z	<b>Woody vine</b> – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1.				
2				
Z				
3				
4				Hydrophytic
5.				Vegetation
	0	Total Cava		Present? Yes V No
		= Total Cove	r O	· · · · · · · · · · · · · · · · ·
50% of total cover:	20% of	total cover:	<u> </u>	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe t	o the depth	needed to docun	nent the ir	ndicator	or confirm	the absence of indicators.)
Depth	Matrix		Redo	x Features	<u>.</u>		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture Remarks
0-3	10YR 2/1	100					SL
3-12	10YR 5/3	100					SCL
·							
1- 0.0							2
Type: C=C	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soli				(07)			
Histosol	(A1)		Dark Surface	(S7) Janu Curta a	··· (CO) /M		2 cm Muck (A10) (MLRA 147)
HISUC E	pipedon (AZ)		Polyvalue Be	iow Sunac	/MIDA 1	LKA 147,	(ML DA 147, 149)
Black II	Suc(A3)			nace (39) d Matrix (F		47, 140)	Piedmont Floodalain Soils (F19)
Stratifie	d Lavers (A5)		Depleted Mat	trix (F3)	<i>_</i> )		(MLRA 136, 147)
2 cm M	uck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	6)		Verv Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F8	3)		
Sandy M	/lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(I</b>	_RR N,	
MLR	A 147, 148)		MLRA 13	6)			
Sandy 0	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(I</b>	MLRA 13	6, 1 <b>22)</b>	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	<b>8)</b> wetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Aaterial (F2	21) <b>(MLR</b>	A 127, 147	y unless disturbed or problematic.
Restrictive	Layer (if observed):						
Туре:							
Depth (in	ches):						Hydric Soil Present? Yes No
Remarks:							•



Photo 1 Upland data point wjob113\_u facing east



Photo 2 Upland data point wjob113\_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Johnston	_ Sampling Date: 2/13/2015
Applicant/Owner: Dominion	State: <u>NC</u>	Sampling Point: wjob113f_w
Investigator(s): TP, RH	Section, Township, Range: No PLSS in this are	ea
Landform (hillslope, terrace, etc.): drainage way	ocal relief (concave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 35.4102366	Long:78.357244	Datum: WGS 1984
Soil Map Unit Name: Leaf silt loam, 0 to 2 percent slopes	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🖌 No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transect	s, important features, etc.

Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
al fields and	clear cut.			
	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u>	Yes <u>v</u> No Yes <u>v</u> No Yes <u>v</u> No No	Yes       V       No       Is the Sampled Area within a Wetland?         Yes       V       No       within a Wetland?         If fields and clear cut.       No       No	Yes       V       No       Is the Sampled Area within a Wetland?       Yes       V         Yes       V       No       Vo       Yes       Vo       Yes       Vo         If fields and clear cut.       Vo       Vo       Vo       Vo       Vo       Vo

wetiana Hyarology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
✓ Saturation (A3) ✓ Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Set	oils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>/</u> No Depth (inches): 0	
Water Table Present? Yes <u>Ves</u> No <u>Depth</u> (inches): 0	
Saturation Present? Yes <u>V</u> No Depth (inches): 0	Wetland Hydrology Present? Yes <u></u> No
(includes capillary fringe)	
Lascriba Recorded Lata (stream daude monitoring well aerial photoe previous inspec	
	cions), ir available.
Remarks:	cions), ir availadie:
Remarks:	ctions), ir availadie:
Remarks:	cions), ir avaliadie:
Remarks:	cions), ir avaliadie:
Remarks:	ctions), ir availadie:
Remarks:	cuons), ir avaliadie:
Remarks:	cuons), ir availadie:

Sampling Point: wjob113f\_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
Pinus taeda	35	Yes	FAC	That Are OBL EACW or EAC: $6$ (A)
I	20	Yes	FACW	
2. Quercus pagoda		<u> </u>	FAON	Total Number of Dominant
3. Quercus michauxii	15	Yes	FACW	Species Across All Strata: 7 (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>85./14285/1</u> (A/B)
6				
7.				Prevalence Index worksheet:
	70	Total Covo	-	Total % Cover of: Multiply by:
50% - ( total			14	OBL species $0 \times 1 = 0$
50% of total cover:	20% of	total cover:		45 90
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = \frac{30}{100}$
<sub>1.</sub> Ilex opaca	15	Yes	FACU	FAC species $33 \times 3 = 103$
2 Cvrilla racemiflora	10	Yes	FACW	FACU species $15$ x 4 = $60$
	10	Vee		
3. <u>Acer rubrum</u>	10	Tes	FAC	115 $x = 315$
4.				Column Totals: (A) (B)
5				
0			<u> </u>	Prevalence Index = B/A = 2.73
6				Hydrophytic Vegetation Indicators:
7				1. Donid Toot for Understadie Manufalle
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
9				$\checkmark$ 3 - Prevalence Index is <3 0 <sup>1</sup>
	35	= Total Cove	r	
50% of total cover: 17.5	20% of	total cover:	7	4 - Morphological Adaptations" (Provide supporting
Liente Otrecture (Dist size) 5				data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Acer rubrum	10	Yes	FAC	
2				
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5.				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
0				more in diameter at breast height (DBH), regardless of
7				height.
8.				
0	·			Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Harb All borbassaus (pap woodu) planta, regardlass
	10	Total Caura		of size, and woody plants less than 3.28 ft tall
50% - ( total	000/ - (		2	
	20% of	total cover:	2	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
۷				
3				
4.				
				Hydrophytic
ə				Vegetation
		= Total Cove	r	Present? res <u>No</u>
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a senarate s	hoot )			
Remarks. (include photo numbers here of on a separate s	neet.)			

Profile Des	cription: (Describe t	o the dep	oth needed to docur	ment the i	ndicator	or confirm	n the absence of	indicators.)	
Depth	Matrix		Redo	x Feature	s	0			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type'	Loc <sup>2</sup>	Texture	Remarks	<u> </u>
0-12	10YR 4/2	95	10YR 5/3	5	C	PL	SCL		
						·			<u> </u>
	·					······	·		<u> </u>
	·								<u> </u>
1							2	<b>-</b>	
Type: C=C	Concentration, D=Depl	etion, RM	=Reduced Matrix, M	S=Masked	Sand Gra	ains.	Location: PL=	Pore Lining, M=Matrix.	dria Caila <sup>3</sup> .
	indicators:			(07)			indicato		aric Solis :
Histoso	I (A1)		Dark Surface	e (S7)			2 cn	n Muck (A10) <b>(MLRA 1</b>	47)
	pipedon (A2)		Polyvalue Be	vrfage (SO)	CE (58) (IV	LRA 147,	148) <u> </u>		
	nsuc (A3) on Sulfido (A4)			Mace (59)		47, 140)	(I Pior	MLKA 147, 140)	(E10)
Tryutogi Stratifia	d Lavers (A5)		Loany Gleye ✓ Depleted Ma	triv (F3)	ΓΖ)			MIRA 136 147)	(F19)
0 a a a a a a a a a a a a a a a a a	uck (A10) (I RR N)		Redox Dark	Surface (F	-6)		Very	v Shallow Dark Surface	(TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	e (F7)		Othe	er (Explain in Remarks)	)
Thick D	ark Surface (A12)	()	Redox Depre	essions (F	8)				,
Sandy I	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	_RR N,			
MLR	A 147, 148)	·	MLRA 13	6)					
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	ace (F13) (	(MLRA 13	6, 122)	<sup>3</sup> Indica	ators of hydrophytic veg	etation and
Sandy I	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<b>I8)</b> wetla	ind hydrology must be p	present,
Stripped	d Matrix (S6)		Red Parent	Material (F	21) <b>(MLR</b>	A 127, 147	7) unles	s disturbed or problem	atic.
Restrictive	Layer (if observed):								
Туре:									
Depth (in	nches):						Hydric Soil Pr	resent? Yes 🖌	No
Remarks:									



**Photo 1** Wetland data point wjob113f\_w facing east



**Photo 2** Wetland data point wjob113f\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Johnston		_ Sampling Date: 2/1	3/2015
Applicant/Owner: Dominion			State: NC	Sampling Point:	wjob113e_w
Investigator(s): TP, RH	Section, Tov	/nship, Range: <u>No F</u>	PLSS in this are	a	
Landform (hillslope, terrace, etc.): drainage way	Local relief (con	cave, convex, none	e): concave	Slope	(%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 35.4106792	21	Long: <u>-78.35</u>	63113	Datum:	WGS 1984
Soil Map Unit Name: Leaf silt loam, 0 to 2 percent slopes			NWI classifi	cation: None	
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🧾	No (If	no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology significar	ntly disturbed?	Are "Normal (	Circumstances"	present? Yes	No 🔽
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, ex	plain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showi	ing sampling	point locatior	s, transects	s, important fea	tures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	~	No
Remarks:						

Emergent wetland as a result of recent logging activities. Connects to forested wetland at tract boundary. This area was logged outside of the growing season and no plants were observed. Leaves on the ground suggested water oak, cherry-bark oak, and swamp chestnut oak were the dominant tree species prior to logging.

wetiand Hydrology Indicate	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; ch	neck all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1)	<u>.</u>	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	<u>.</u>	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
<ul> <li>Saturation (A3)</li> </ul>		Oxidized Rhizospheres on Living Root	s (C3) Moss Trim Lines (B16)
Water Marks (B1)	_	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	-	Recent Iron Reduction in Tilled Soils (	C6) Crayfish Burrows (C8)
Drift Deposits (B3)	_	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Ae	rial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (E	39)		<ul> <li>Microtopographic Relief (D4)</li> </ul>
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes 🖌 No 🔄	Depth (inches):0	
Water Table Present?	Yes 🖌 No \_	Depth (inches):0	
Saturation Present? (includes capillary fringe)	Yes 🖌 No 🔤	Depth (inches): 0	tland Hydrology Present? Yes _ ✔ No
Describe Recorded Data (stre	eam gauge, monitorir	ng well, aerial photos, previous inspections	), if available:
Remarks:	house and the second states in a	diasted INA C/47/45	
Remarks: added surface water 0 since it	t wasn't previously inc	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously ind	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously inc	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously inc	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously ind	dicated. JM 6/17/15	
Remarks: added surface water 0 since if	t wasn't previously ind	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously in	dicated. JM 6/17/15	
Remarks: added surface water 0 since it	t wasn't previously ind	dicated. JM 6/17/15	

Sampling Point: wjob113e\_w

	,		<b>P</b>		
Trop Stratum (Plat aiza)	30	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Thee Stratum (Plot size.	)	% Cover	Species?	Status	Number of Dominant Species
1					That Are OBL, FACW, or FAC: (A)
2					Total Number of Dominant
3.					Species Across All Strata: 0 (B)
4					
4. <u></u>					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 0 (A/B)
6					
7					Prevalence Index worksneet:
		0	= Total Cove	٩r	Total % Cover of: Multiply by:
	50% of total cover: 0	20% of	f total cover:	0	OBL species x 1 =0
Capling/Charle Ctrature (Dist	15	2070 0			FACW species $0 \times 2 = 0$
Sapling/Shrub Stratum (Plot	size:)				$\frac{1}{1} = \frac{1}{1} = \frac{1}$
1					$\begin{array}{c} \text{FAC species} \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \\ \hline \\ \\ \\ \\ \\ \\ \\ $
2					FACU species $x 4 = 0$
3.					UPL species x 5 =
4			·		Column Totals: (A) (B)
5			·		$P_{revelopee}$ index $-P/A = 0$
6.					Prevalence index = B/A =
7.					Hydrophytic vegetation indicators:
8					1 - Rapid Test for Hydrophytic Vegetation
0					2 - Dominance Test is >50%
9		0			3 - Prevalence Index is ≤3.0 <sup>1</sup>
			= I otal Cove	r O	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	50% of total cover:	20% of	i total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5)				Droblemetic Lludrophytic Megeteticn <sup>1</sup> (Evaluity)
1					
2					
					<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3					be present, unless disturbed or problematic.
4					Definitions of Four Vegetation Strata:
5					
6.					<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7		·			more in diameter at breast height (DBH), regardless of
·· <u> </u>					
8					Sapling/Shrub – Woody plants, excluding vines, less
9					than 3 in. DBH and greater than or equal to 3.28 ft (1
10					m) tall.
11.					Herb All borbassous (non woody) planta regardless
		0			of size and woody plants less than 3.28 ft tall
	50% of total covor: 0	20% 0	f total cover:	0	
	30% OF LOTAL COVEL.	20% 0	total cover.		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot siz	ze:)				height.
1			<b>.</b>		
2					
3					
<u>.</u>					
4					Hydrophytic
					•
5					Vegetation
5		0	= Total Cove	<u>.</u>	Vegetation Present? Yes <u>V</u> No
5	50% of total cover: 0	0 20% of	= Total Cove	ir 0	Vegetation Present? Yes <u>✓</u> No

As stated above, area recently logged, and no plants were observed. Forested wetland at tract boundary. Based on leaf litter, water oak, swamp chestnut oak, and cherry bark oak were prevalent prior to logging.

Profile Des	cription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirn	n the absence of	indicators.)
Depth	Matrix	<u> </u>	Redo	x Feature	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 4/1	95	10YR 4/6	5	С	M	SCL	
				·			<u> </u>	
				·				
1							2	
Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	I Sand Gra	ains.	Location: PL=F	Pore Lining, M=Matrix.
Hydric Soli				(07)			Indicator	
Histoso	l (A1) ninadan (A2)		Dark Surface	(S7) Iour Surfa			2 cm	Muck (A10) (MLRA 147)
HISUC E	pipedon (AZ)		Polyvalue Be	rface (SQ)	Ce (30) (IV	ILKA 147,	(146) <u>(</u> Coas	
Black H	an Sulfide ( $\Delta A$ )			d Matrix (		47, 140)	Pied	mont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		✓ Depleted Ma	trix (F3)	12)		1 icul (N	II RA 136, 147)
2 cm M	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		Verv	Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Othe	er (Explain in Remarks)
Thick D	ark Surface (A12)	. ,	Redox Depre	ssions (F	8)			
Sandy M	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> Indicat	tors of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<b>18)</b> wetlar	nd hydrology must be present,
Stripped	d Matrix (S6)		Red Parent N	Aaterial (F	21) <b>(MLR</b>	A 127, 147	7) unless	s disturbed or problematic.
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Pre	esent? Yes 🖌 No
Remarks:							1	



**Photo 1** Wetland data point wjob113e\_w facing east



**Photo 2** Wetland data point wjob113e\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Joh	nnston	Sampling Date: 2/13/2015
Applicant/Owner: Dominion		State: NC	Sampling Point: wjob113_u
Investigator(s): TP, RH	Section, Townsh	nip, Range: <u>No PLSS in this area</u>	1
Landform (hillslope, terrace, etc.): hill slope	Local relief (concav	e, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 38	5.40996934	Long:78.35714973	Datum: WGS 1984
Soil Map Unit Name: Leaf silt loam, 0 to 2 percent slopes		NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for t	his time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	_naturally problematic?	(If needed, explain any answe	rs in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	oils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _ Depth (inches):	
Surface Water Present?       Yes No _       Depth (inches):         Water Table Present?       Yes No _       Depth (inches):	
Surface Water Present?       Yes No _ Depth (inches):         Water Table Present?       Yes No _ Depth (inches):         Saturation Present?       Yes No _ Depth (inches):         (includes capillary fringe)       Yes No _ Depth (inches):	Wetland Hydrology Present? Yes No
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 inspective)	Wetland Hydrology Present? Yes No
Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       No Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No
Surface Water Present?       Yes No _        Depth (inches):         Water Table Present?       Yes No _        Depth (inches):         Saturation Present?       Yes No _        Depth (inches):         (includes capillary fringe)       Ves No _        Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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 inspec         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No ✓ tions), if available:
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 inspec         Remarks:	Wetland Hydrology Present? Yes No ✓ tions), if available:
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 inspec         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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 inspective         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspec         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:

Sampling Point: wjob113\_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1 Pinus taeda	30	Yes	FAC	That Are OBL_EACW or EAC: 4 (A)
o Quercus pagoda	20	Yes	FACW	
	15	Ves	FAC	Total Number of Dominant
3. <u>Quercus nigra</u>	15	163	1 AC	Species Across All Strata: 5 (B)
4				
5.				Thet Are OBL EACIAL or EACIA
			······	
б				Prevalence Index worksheet
7				
	65	= Total Cove	r	
50% of total cover: 32.5	20% of	total cover:	13	OBL species $0 x 1 = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $20$ x 2 = $40$
/ llex onaca	20	Yes	FACU	FAC species $55 \times 3 = 165$
1	20	103	1700	$\frac{20}{20} \times 6 = \frac{80}{20}$
2				FACU species $x = 0$ $x = 0$
3.				UPL species x 5 =
1				Column Totals: <sup>95</sup> (A) <sup>285</sup> (B)
			·······	
5				Prevalence Index = $B/A = 3$
6				Hydrophytic Vegetation Indicators:
7.				riyuropriyuc vegetation inuicators:
0			·	1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is $\leq 3.0^1$
	20	= Total Cove	r	A Marshala sizel Adaptations <sup>1</sup> (Dravida surgranting
50% of total cover: <sup>10</sup>	20% of	total cover:	4	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Acer rubrum	10	Voo	EAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1	10	Tes	FAC	
2				
3.				Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed of problematic.
4				Definitions of Four Vegetation Strata:
5				
6				nee – woody plants, excluding vines, 3 in. (7.6 cm) of
7				height
·· <u>·</u>				hoight
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				
	10			Herb – All herbaceous (non-woody) plants, regardless
5		= I otal Cove	r 2	or size, and woody plants less than 3.26 it tall.
50% of total cover: 5	20% of	total cover:	Z	<b>Woody vine</b> – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1.				
2				
Z				
3				
4				Hydrophytic
5.				Vegetation
	0	Total Cava		Present? Yes V No
			r O	· · · · · · · · · · · · · · · · ·
50% of total cover:	20% of	total cover:	<u> </u>	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Features	<u>.</u>				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture Remarks		
0-3	10YR 2/1	100					SL		
3-12	10YR 5/3	100					SCL		
·									
1- 0.0							2		
Type: C=C	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
Hydric Soli				(07)					
Histosol	(A1)		Dark Surface	(S7) Janu Curta a	··· (CO) /M		2 cm Muck (A10) (MLRA 147)		
HISUC E	pipedon (AZ)		Polyvalue Be	iow Sunac	/MIDA 1	LKA 147,	(ML DA 147, 149)		
Black II	Suc(A3)			nace (39) d Matrix (F		47, 140)	Piedmont Floodalain Soils (F19)		
Stratifie	d Lavers (A5)		Depleted Mat	trix (F3)	<i>_</i> )		(MLRA 136, 147)		
2 cm M	uck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	6)		Verv Shallow Dark Surface (TF12)		
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)		
Thick D	ark Surface (A12)		Redox Depre	ssions (F8	3)				
Sandy M	/lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(I</b>	_RR N,			
MLR	A 147, 148)		MLRA 13	6)					
Sandy 0	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(I</b>	MLRA 13	6, 1 <b>22)</b>	<sup>3</sup> Indicators of hydrophytic vegetation and		
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14					(MLRA 14	<b>8)</b> wetland hydrology must be present,			
Stripped	Matrix (S6)		Red Parent N	Aaterial (F2	21) <b>(MLR</b>	A 127, 147	y unless disturbed or problematic.		
Restrictive	Layer (if observed):								
Туре:									
Depth (in	ches):						Hydric Soil Present? Yes No		
Remarks:							•		



Photo 1 Upland data point wjob113\_u facing east



Photo 2 Upland data point wjob113\_u facing west

Project/Site: SERP	City/County: Johnston	Sampling Date: 7/28/2	2014
Applicant/Owner: DOMINION		State: <u>NC</u> Sampling Point: <u>W</u>	JOA012f_W
Investigator(s): GB, TP, LE	Section, Township, Range: <u>No Pl</u>	SS in this area	
Landform (hillslope, terrace, etc.): FLAT	Local relief (concave, convex, none)	concave Slope (%	<sub>b):</sub> 2
Subregion (LRR or MLRA): P	_ Lat: <u>35.40217411</u> Long: <u>-78.365</u>	59556 Datum: WC	GS 1984
Soil Map Unit Name: Augusta sandy loam, 0 to 2	percent slopes, occasionally flooded	NWI classification: None	
Are climatic / hydrologic conditions on the site typ	vical for this time of year? Yes <u>v</u> No (If u	io, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology	y significantly disturbed? Are "Normal Ci	rcumstances" present? Yes	No
Are Vegetation, Soil, or Hydrology	y naturally problematic? (If needed, exp	ain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach si	ite map showing sampling point location	s, transects, important featu	res, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes 🥢 No		
Remarks:						
Wetland data point taken on a flat in a c	lepressed a	area within a portion of a	PFO wetland with a saturate	d hydrologic regime		

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Field Observations:	
Surface Water Present? Yes No 🔽 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No V Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes <u>V</u> No
Remarks:	

Sampling Point: WJOA012f\_W

	Alexalette	-	. Prates	Deminence Test weeksheet
Tree Stratum (Distaire)	Absolute	Dominant I	ndicator	Dominance Test worksneet:
<u>Piece stratum</u> (Flot size)	25	<u>Species</u>	FAC	Number of Dominant Species
1. Pinus taeda	25	res	170	That Are OBL, FACW, or FAC: <u>8</u> (A)
<sub>2.</sub> Nyssa aquatica	25	Yes	OBL	
2 Liquidambar styraciflua	10	No	FAC	Total Number of Dominant
3	10	No	EAC	Species Across All Strata: (B)
4. Acer rubrum		110		Percent of Dominant Species
<sub>5.</sub> Magnolia virginiana	2	No	FACW	That Are OBL EACW, or EAC: $100$ (A/B)
6				
0				Prevalence Index worksheet:
7				
	72	= Total Cove	r	I otal % Cover or: Multiply by:
50% of total cover: 36	20% of	total cover:	14.4	OBL species44 x 1 =44
Carling/Chrute Ctratume (Dist sizes 15		·····		FACW species $20$ x 2 = $40$
	10	N/s s		$570 \text{ max}^2 = 57 \text{ max}^2 = 171$
1. vaccinium corymposum	10	Yes	FACW	FAC species $x_3 = $
2. Viburnum nudum	10	Yes	OBL	FACU species x 4 =
Acer rubrum	5	No	FAC	UPL species $0 \times 5 = 0$
3		No		$\frac{125}{125}$
4. Liquidambar styracifiua	5	INU	FAC	Column Totals: (A) (B)
5. Magnolia virginiana	5	No	FACW	
	4	No	FACU	Prevalence Index = $B/A = 2.10$
6. <u>nox opada</u>				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
0				2 - Dominance Test is >50%
9		·	<u> </u>	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	39	= Total Cove	r	 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 19.5	20% of	total cover:	7.8	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
Woodwardia areolata	З	Vaa		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Woodwardia arcolata		165	FACW	
2. Saururus cernuus	3	Yes	OBL	1
3				Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4		·		Definitions of Four Vegetation Strata:
5		. <u> </u>		
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
-				more in diameter at breast height (DBH), regardless of
7		<u> </u>		height.
8				Conting/Chrub Wardy planta avaluding vince loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
40				m) tall
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	6	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 3	20% of	total cover:	1.2	
30	2070.01	total cover		Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. Smilax laurifolia	6	Yes	OBL	
2. Toxicodendron radicans	2	Yes	FAC	
3				
4				Hydrophytic
5				Vegetation
	8	Tatal O		Present? Yes V No
/		= Total Cove	r 16	
50% of total cover: 4	20% of	total cover:	1.0	
Remarks: (Include photo numbers here or on a separate sl	heet.)			

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix	Redo	x Feature	S1	- 2			
(inches)	Color (moist)		Color (moist)	%	Type'	Loc	Texture	Remarks
0-3	101R 2/2	100					SL	
3-6	10YR 3/1	100					SCL	
6-20	10YR 4/1	96	10YR 4/6	4	С	PL	SCL	
			·				·	
					·			
							<u> </u>	
						·······		
						<u> </u>	·	
. <u></u>						. <u> </u>	·	
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RN	I=Reduced Matrix, MS	S=Maske	d Sand Gra	ains.	<sup>2</sup> Location: PL=P	ore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicator	s for Problematic Hydric Soils <sup>°</sup> :
Histosol	(A1)		Dark Surface	e (S7)	(0.0) (1)		2 cm	Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ace (S8) <b>(N</b>	ILRA 147,	148) <u>Coas</u>	t Prairie Redox (A16)
	ISUC (A3) on Sulfide (A4)			Mace (59	(IVILKA 1	47, 140)	(IVI Piedr	LRA 147, 140) mont Floodolain Soils (F19)
Stratifie	d Lavers (A5)		✓ Depleted Ma	trix (F3)	(1 2)		(M	I RA 136, 147)
0 aratimet	uck (A10) (LRR N)		Redox Dark	Surface (I	F6)		Verv	Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	e (F7)		Other	r (Explain in Remarks)
Thick D	ark Surface (A12)	. ,	Redox Depre	essions (F	8)			
Sandy M	/lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Mass	ses (F12) <b>(</b> I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy C	Eleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)				<sup>3</sup> Indicate	ors of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	8) wetlan	d hydrology must be present,
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147					) unless	disturbed or problematic.		
Restrictive	Layer (If observed):							
Type:								
Depth (in	ches):						Hydric Soil Pre	esent? Yes <u> </u>
Remarks:								



Photo 1 Wetland data point WJOA012f\_w facing east



Photo 2 Wetland data point WJOA012f\_w facing west

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

Project/Site: ACP City/C	County: Johnston Sampling Date: 6/2/16
Applicant/Owner: Dominiun	State: NC Sampling Point: WJ0a 0124f3_W
Investigator(s): ESI-J. Harbour, K. MURPUREY Section	on, Township, Range: N A
Landform (hillslope, terrace, etc.): DePression Local	relief (concave, convex, none): <u>COn Cave</u> Slope (%): <u>2-4</u>
Subregion (LRR or MLRA): LRR P Lat: 35, 404	23 Long: -78.36455 Datum: 10/65 84
Soil Map Unit Name: Bibb Sondy 1000, 0-2%, Freque	entry stouded NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of year? Y	/es No (If no, explain in Remarks.)
Are Vegetation Soil or Hydrology significantly distur	bed? Are "Normal Circumstances" present? Yes No
Are Vegetation Soil , or Hydrology naturally problema	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	pling 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
NCWAM: Bottomland Hardwood Forest	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Mari Deposits (B15) (LK)	C1) Dramage Patients (B10)
Water Marks (B1) Qxidized Rhizospheres a	long Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	in (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Geomorphic Position (D2)
Iron Deposits (B5)	(s) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)     Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? YesNo Depth (inches): M	A
Water Table Present? Yes No Depth (inches):	4 martine
Saturation Present? Yes V No Depth (inches): 50	NG No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	
itemane,	

Sampling Point: Wj09012#34w

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 Ft X 2, Ft)	% Cover	Species?	Status	
A cel rubrace	20	U	EA C	Number of Dominant Species
1. ALEI IDIDIDIII		-1-	FAC	That Are OBL, FACVV, of FAC: (A)
2. Nyssa Sylvatica	20	Y	FAC	T-t-1Number of Deminent
2		1	ANTINE ANT	Foreging Agroup All Strata:
3		1.00		Species Across All Strata.
4	A Contraction	(Berlin Stranger	<u></u>	Percent of Dominant Species
5				That Are OBL EACIN or EAC. (00 10 (A/B)
	A State of State of State	deserve and	The second second second	
6				Brovalance Index worksheet:
7	and the second		1	Flevalence muck worksheet.
	Constant and	1990 N 1990	C. State State State	Total % Cover of: Multiply by:
0,		C. Statement and C.	the state of the second second	OBL species x1=
	50	= Total Cov	/er	
50% of total cover: 25	20% of	total cover	. 0	FACW species X 2 =
2061V2061		1-1-1-1-1-1	CHERT AND INCOME.	FAC species x 3 =
Sapling/Shrub Stratum (Piot size: Dect & Dect)	10	1	TARIA	EACII species x4 =
1. Magnolia Vivginiana	10	1	FACW	
2 Symploces tinctocia	2	2	FAC	UPL species x 5 =
2	The second second			Column Totals: (A) (B)
3.			as the distance is	
4.				Prevalence Index = B/A =
	Second Second	Company of the	Statistics and	
D	Constitution of the party of	Tologina para di	Teach and the second	Hydrophytic Vegetation Indicators:
6	Sector Sector	AND STREET	1. Solid his 2	1-Rapid Test for Hydrophytic Vegetation
7				THA Demission Test is \$50%
	Constant and	T NEWS COMM	CONTRACTOR OF	2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	12	= Total Cov	/er	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
ED% of total cover:	20% of	total cover	. 2,4	
200 V 2 SI	_ 20 /0 01	total cover	·	
Herb Stratum (Plot size: 2007 A 2007)	11-	.1	01	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1 SAUVUIUS ERIAUUS	40	Y	OBL	be present, unless disturbed or problematic.
- Mandu avida accalate	5	N	HOI	Deficitions of Four Vegetation Strate:
2. WOUCHAICION ANEOLATA			COL	Definitions of Four Vegetation Strata.
3. UNOCLEA SENSIBILIS	5	N	FACW	Tree Weedy plants excluding vines 3 in (7.6 cm) or
1 NUSSA SULVATION	5	N	FAC	more in diameter at breast height (DBH) regardless of
4. 100/336 99/004100		- 1	ENC	hole in diameter at breast neight (DBH), regardless of
5. Reer Tubrum	2	IV	TAC	neight.
6				Sanling/Shruh - Woody plants excluding vines, less
	THE REAL PROPERTY.	COMPLETION OF	- Contraction of	than 3 in DBH and greater than 3.28 ft (1 m) tall.
·		Contraction of the second second	The second secon	
8	a distanti an	a start the start	A REAL PROPERTY.	Herb - All herbaceous (non-woody) plants, regardless
Q				of size, and woody plants less than 3.28 ft tall.
	and the second second	Representation of	The receipt of	
10				Woody vine - All woody vines greater than 3.28 ft in
11.	and the state	1 Section in a	Section 200	height.
12		analite et	CTAN STREET	
12	10		The second second	
	a.	= Total Cov	/er	which we do not set to be a set of the set of
50% of total cover: 30	20% of	total cover	: 12	
20012164			and the second	
woody Vine Stratum (Plot size: Dark 2001)	-	1	TAC	
1. Smilax rotundifolia	5	1	TAC	
3	CONTROL OF	L'and Loring	and the second	
	100 20 00 00 00 00 00 00 00 00 00 00 00 0	AT THE PROPERTY	S.C.S. AN CREW	
3.	S.S.M. 1289	Carabier Sheet	the second	
4				
The second s	Contraction of the	and a subject	NY CONTRACTOR	
5			The second s	Hydrophytic
	5	= Total Cov	/er	Vegetation
FOR of total cover: 2.5	20% of	total covor		Present? Yes No No
50% of total cover.	_ 20% 01	total cover		A service of the serv
Remarks: (If observed, list morphological adaptations below	N).			
and the second				
	NGPARAN SS HEALT	1022011 (P.S. (1934)	na na shina da an	ra se by were reading that the second of a second second of a second second second second second second second

#### SOIL

# Sampling Point: wjoa012f3W

Profile Description: (Describe to	o the depth needed	to document the	Indicator	or confirm	the absence of in	dicators.)
Depth Matrix		Redox Feature	Turnal	1002	Taxtura	Remarks
(inches) Color (moist)	<u>%</u> <u>Color (i</u>	noist) %	Type.	LOC	Silter	Nendika
0-20 109K3/1		ANTINAN CONTRACTO			3119 4	
	CORD SALARS					
				1		
	terre and the second	States and a second	-		THE REAL PROPERTY AND	
	The second s		-			
					2,	Deep Lining M-Metric
Type: C=Concentration, D=Deple	etion, RM=Reduced	Matrix, MS=Maske	d Sand Gra	ains.	*Location: PL=	Pore Lining, M=Matrix. Problematic Hydric Soils <sup>3</sup> :
Hydric Soil Indicators: (Applica	ble to all LKRs, unl	ess otherwise no	tea.)	DDET		(Ag) (I RR O)
Histosol (A1)		Dark Surface (Se	ace (58) (L	T. U)	2 cm Muck	(A10) (LRR S)
Black Histic (A3)		my Mucky Mineral	(F1) (LRR	0)	Reduced V	ertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loa	my Gleyed Matrix	(F2)		Piedmont F	loodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	De	pleted Matrix (F3)			Anomalous	Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P,	T, U) 🗌 Re	lox Dark Surface (	F6)		(MLRA 1	53B) Matarial (TE2)
5 cm Mucky Mineral (A7) (LR	RP,T,U) De	pleted Dark Surfac	e (F7)		Very Shall	w Dark Surface (TF12)
1 cm Muck Presence (A8) (LRR U)		d (F10) (LRR II)	0)		Other (Exp	lain in Remarks)
Depleted Below Dark Surface	(A11) De	pleted Ochric (F11	(MLRA 1	51)		
Thick Dark Surface (A12)	I Hou	Manganese Mas	ses (F12) (	LRR O, P,	T) <sup>3</sup> Indicator	s of hydrophytic vegetation and
Coast Prairie Redox (A16) (M	ILRA 150A) Un	bric Surface (F13)	(LRR P, T	, U)	wetland	hydrology must be present,
Sandy Mucky Mineral (S1) (L		ta Ochric (F17) (M	LRA 151)		unless	disturbed or problematic.
Sandy Gleyed Matrix (S4)		duced Vertic (F18)	(MLKA 15	(MIRA 14	(AP	1
Stripped Matrix (S6)		omalous Bright Loa	amy Soils (	F20) (MLR	A 149A, 153C, 15	3D)
Dark Surface (S7) (LRR P, S	, T, U)					
Restrictive Layer (if observed):			NY N	24 A. C. A.	all and the second second	
Туре:	the film of					
Depth (inches):					Hydric Soil Pre	sent? Yes No No
Remarks:		MANNE STORE			Construction of the second second	ALTERNAL TRADE IN A CONTRACT OF A CONTRACT O

Environmental Field Surveys Wetland Photo Page



Wetland data point wjoa012f3\_w facing northwest.



Wetland data point wjoa012f3\_w facing south.

Photo Sheet 1 of 2

Project/Site: SERP	City/County: Johnston	S	ampling Date: 7/28/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA012_U
Investigator(s): GB, TP, LE	Section, Township, Range:	No PLSS in this area	
Landform (hillslope, terrace, etc.): TOE OF SLOPE	Local relief (concave, convex,	none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P Lat: 35.4020072	23 Long:	78.3656569	Datum: WGS 1984
Soil Map Unit Name: Tomotley sandy loam, 0 to 2 percent slopes, i	arely flooded	NWI classificati	on: None
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes 🖌 No	(If no, explain in Rem	narks.)
Are Vegetation, Soil, or Hydrology significat	ntly disturbed? Are "Nor	mal Circumstances" pres	sent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If neede	d, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map showi	ng sampling point loca	tions, transects, i	mportant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	/ /	Is the Sampled Area within a Wetland?	Yes	No 🖌	
Remarks: Upland data point taken at the toe of slope for a PFO wetland located in a slight depression on a 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) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)		
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)		
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)		
Sediment Deposits (B2) Recent Iron Reduction in Tilled Set	oils (C6) Crayfish Burrows (C8)		
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)		
Iron Deposits (B5)	Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)		
Water-Stained Leaves (B9)	Microtopographic Relief (D4)		
Aquatic Fauna (B13)	FAC-Neutral Test (D5)		
Field Observations:			
Surface Water Present? Yes No 🖌 Depth (inches):			
Water Table Present? Yes No 🖌 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 inspec	tions), if available:		
Remarks:			
only one secondary hydrology indicator			

Sampling Point: WJOA012\_U

	Abcoluto	- Dominant I	ndicator	Dominanco Tost workshoot:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksneet.
Pinus taeda	40	Yes	FAC	Number of Dominant Species
	15	Voc	EAC	That Are OBL, FACW, or FAC: (A)
2. Liquidambar styracilida				Total Number of Dominant
3. Quercus nigra	15	Yes	FAC	Species Across All Strata: 10 (B)
4 Acer rubrum	5	No	FAC	· · · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·		Percent of Dominant Species
o		·		That Are OBL, FACW, or FAC: (A/B)
6		·		Drevelance in dev warkets est
7				Prevalence index worksneet:
	75	= Total Cove	r	Total % Cover of:Multiply by:
50% of total cover: 37.5	20% of	total cover:	15	OBL species 0 x 1 = 0
	2070 01			FACW species 10 x 2 = 20
Sapling/Shrub Stratum (Plot size:)		.,		
1. Clethra alnifolia	25	Yes	FAC	FAC species $x^3 = \frac{120}{0}$
2. Acer rubrum	15	Yes	FAC	FACU species $15$ x 4 = $60$
	10	Yes	FACW	UPL species $0 \times 5 = 0$
3				$\frac{166}{166}$
4		·		Column rotals: (A) (B)
5				Dravalance Index D/A 3.03
6				
-		·		Hydrophytic Vegetation Indicators:
1		·		<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> </ul>
8		. <u></u>		$\checkmark$ 2 - Dominance Test is $>50\%$
9.				
	50	- Total Cava		3 - Prevalence Index is ≤3.01
50% ( total a sum 25	000/ -1		10	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% 01	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				$Direction^{1}(Function$
<sub>1.</sub> Athyrium asplenioides	4	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
2 Microstegium vimineum	2	Yes	FAC	
2		·		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3		·		be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata
5.				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
0		· · · · · · · · · · · · · · · · · · ·	<u> </u>	more in diameter at breast height (DBH), regardless of
7				height.
8				Conting/Church Weads plants such diagonians loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10		· · · · · · · · · · · · · · · · · · ·	·	m) tall
10		· . <u></u>	·	
11				Herb – All herbaceous (non-woody) plants, regardless
	6	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <sup>3</sup>	20% of	total cover:	1.2	
Woody Vine Stratum (Plot size: 30 )		_		Woody vine – All woody vines greater than 3.28 ft in
Vitis aestivalis	15	Ves	FACU	height.
	10			
2. Vitis rotundifolia	15	Yes	FAC	
3. Smilax rotundifolia	5	No	FAC	
1				
4		· · · · · · · · · · · · · · · · · · ·	<u> </u>	Hydrophytic
5		·		Vegetation
	35	= Total Cove	r	Present? Yes <u>Ves</u> No
50% of total cover: 17.5	20% of	total cover:	7	
Pomarke: (Include photo numbers here or on a congrate s	hoot)			
Remarks. (include photo numbers here of on a separate s	neel.)			

Profile Des	cription: (Describe	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absence o	of indicato	rs.)		
Depth	Matrix	<u> </u>	Redox Features								
(inches)	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks		
0-15	10YR 3/2	100					SL				
15-20	10YR 5/2	100					SL				
	10YR 5/2	100					SL				
		·					- <u> </u>				
		<u> </u>					·				
		<u> </u>									
		·				<u> </u>					
		<u> </u>				<u> </u>					
		<u> </u>									
<sup>1</sup> Type: C=C	concentration, D=Depl	etion, RM=l	Reduced Matrix, M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=	=Pore Linir	ng, M=Matrix	•	
Hydric Soil	Indicators:						Indicat	ors for Pr	oblematic H	ydric Soi	ls³:
Histoso	l (A1)		Dark Surface	e (S7)			2 c	m Muck (A	10) <b>(MLRA</b>	147)	
Histic E	pipedon (A2)		Polyvalue Be	elow Surfac	ce (S8) <b>(N</b>	ILRA 147,	148) <u>Co</u>	ast Prairie	Redox (A16)	)	
Black H	listic (A3)		Thin Dark Su	urface (S9)	(MLRA 1	47, 148)	(	(MLRA 14	7, 148)		
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (I	F2)		Pie	edmont Flo	odplain Soils	s (F19)	
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			(	(MLRA 13	6, 147)		
2 cm M	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		Ve	ry Shallow	Dark Surfac	e (TF12)	
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface	(F7)		Oth	ner (Explai	n in Remarks	5)	
Thick D	ark Surface (A12)		Redox Depre	essions (F8	3)						
Sandy I	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	LRR N,					
MLR	A 147, 148)		MLRA 13	6)							
Sandy	Gleyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> Indic	ators of hy	drophytic ve	getation a	nd
Sandy I	Redox (S5)		Piedmont Flor	odplain So	oils (F19)	(MLRA 14	8) wetla	and hydrol	ogy must be	present,	
Strippe	d Matrix (S6)		Red Parent I	Material (F2	21) <b>(MLR</b>	A 127, 147	<b>')</b> unle	ss disturbe	ed or problen	natic.	
Restrictive	Layer (if observed):										
Type: N	ONE										
Depth (ir	nches):						Hydric Soil P	Present?	Yes	No	~
Remarks:							1				



Photo 1 Upland data point WJOA012\_u facing east



Photo 2 Upland data point WJOA012\_u facing west

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

Project/Site: ACP C	ity/County: Johnsten Sampling Date: 6/12/16
Applicant/Owner: Dom I O	State: NC Sampling Point: WJ0A012-413
Investigator(s): ESI-J. Harbow, K. Murphley S	ection, Township, Range:NA
Landform (hillslope, terrace, etc.): WILSLOPE	ocal relief (concave, convex, none): CONVEX Slope (%): 2-4
Subregion (IBB or MIBA): LRRP Lat 35.40	0427 Long: -78.36452 Datum: W65 54
Sail Man Linit Name: Bibb Sandya 1000 0-290 50	RES STERGERALL ELEVINI classification: NA
An all and in the set of the site that the site the s	2 Yes No. (If no. evolain in Remarks.)
Are climatic / hydrologic conditions on the site typical for this time of year	in the day in the second discussion of the sec
Are Vegetation, Soil, or Hydrology significantly di	
Are Vegetation, Soil, or Hydrology naturally prob	lematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing s	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
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Mari Deposits (B15)	or (C1) Moss Trim Lines (B16)
Water Marks (B1)	es along Living Roots (C3)
Sediment Deposits (B2)	d Iron (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	on in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C	C7) Geomorphic Position (D2)
Iron Deposits (B5) Dther (Explain in Ren	marks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR 1, 0)
Field Observations:	NA
Surrace vvater Present? Yes No Deput (inches):	720
Solution Brocont2 Ves No Depth (inches):	>20 Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	, previous inspections), if available:
Remarks:	

Sampling Point: W00012-43

0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: XVF+X 20194)	% Cover	Species?	Status FA-C	Number of Dominant Species (A)
2. Acer rubrum	40	- <u>/</u>	FAC	Total Number of Dominant
3. Quercas rabia		<u>N</u>	1-ACM	Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6.	1.1.7.1.8.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.			Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	65	- Total Co		OBL species x 1 =
EDW of total cover: 30 - 5	20% of	total cover	13	FACW species x 2 =
Sapling/Shrub Stratum (Plot size 30 FK 30 Ft )	207001	total cover	· <u> </u>	FAC species x 3 =
1 TIEV OPACA	20	V	FAC	FACU species x 4 =
1			1.1-	UPL species x 5 =
3				Column Totals: (A) (B)
4	1.44 1			Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
б	-			1 Rapid Test for Hydrophytic Vegetation
7			<u>C. E. M. C. L. L.</u>	2 - Dominance Test is >50%
8				☐ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	20	= Total Cov	rer	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: 10	20% of	total cover	4	
Herb Stratum (Plot size: 305+ X 305+)				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		1323540.20		Definitions of Four Vegetation Strata:
3				
4		TOTAL SOL		Tree – Woody plants, excluding vines, 3 In. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5	TAN MEL		GESSENS.	height.
6		127711925		Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8	Sector State			Harth All bothaceous (non-woody) plants regardless
9			0.1210.202	of size, and woody plants less than 3.28 ft tall.
10				Mandaulan Allumeduulans grapter than 3.28 ft in
11.		ANNI SAL		height.
12	AN STREET			
A CARLES AND A CARL CARLS	Ò	= Total Cov	er	A second s
50% of total cover:	20% of	total cover	Las Maria	
Woody Vine Stratum (Plot size: 3054 X 3051)			A Marca - Sand	
1. PAYtheoverssus Quinque Folia	5	4	FACI	
2 TOXTrodeadrun radicans	10	Y	FAC	
3.				
4			The second	
5.	The strengt		ANTE DE	Hudrophytic
	15	= Total Cov	er	Vegetation
50% of total cover: 7,5	20% of	total cover	3	Present? Yes No No
Remarks: (If observed, list morphological adaptations belo	w).	an order and	120000000000	
				the second second second second second second second second

#### SOIL

Profile Desc	ription: (Describe t	o the depth ne	eded to docu	ment the indicator or	confirm the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	olor (moist)	% Type	Loc <sup>2</sup> Texture Remarks
()- 2.)	ICV-R3/H	100	and though		EN Sond
	<u> </u>				
And					
-			Call Ser State		
	And the second second	Salas and Salas			
The second s					
1Tune: 0=0		ation RM=Rad	uced Matrix M	S=Masked Sand Grain	ns <sup>2</sup> Location: PL=Pore Lining, M=Matrix,
Hydric Soil	Indicators: (Applica	ble to all LRR	s, unless othe	rwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
	(A1)	Γ	7 Polyvalue B	low Surface (S8) (LRF	R S, T, U) 1 cm Muck (A9) (LRR O)
Histic E	pipedon (A2)	Ì	Thin Dark St	urface (S9) (LRR S, T,	, U) 2 cm Muck (A10) (LRR S)
Black H	istic (A3)	Ē	Loamy Muck	y Mineral (F1) (LRR O	D) Reduced Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)	Ē	Loamy Gley	ed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)	F	Depleted Ma	trix (F3)	Anomalous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P,		Benlated D	surface (F6)	Red Parent Material (TF2)
S cm Mi	lesence (AR) (LR	(, , , , U)	Reday Depr	essions (F8)	Very Shallow Dark Surface (TF12)
	JCK (A9) (LRR P. T)	' F	Marl (F10) (	LRR U)	Other (Explain in Remarks)
Deplete	d Below Dark Surface	• (A11)	Depleted Oc	hric (F11) (MLRA 151)	1)
Thick D	ark Surface (A12)	Ī	Iron-Mangar	ese Masses (F12) (LR	RR O, P, T) <sup>3</sup> Indicators of hydrophytic vegetation and
Coast P	rairie Redox (A16) (N	ILRA 150A)	Umbric Surf	ace (F13) (LRR P, T, U	U) wetland hydrology must be present,
Sandy N	Aucky Mineral (S1) (L	.RR 0, S)	Delta Ochric	(F17) (MLRA 151)	unless disturbed or problematic.
Sandy (	Bleyed Matrix (S4)	Ļ	Reduced Ve	mic (F18) (MLRA 1504	A, 150B) MI DA 149A)
Sandy F	Redox (S5)	+	Anomalous	oodplain Solis (F19) (N Bright Learny Solis (F2)	MERA 149A) 20) (MI RA 149A, 153C, 153D)
Dark Su	Inface (S7) (LRRP S	.T.U)		Englit Loarny Solis (F2	20) (mark 1936) 1999)
Restrictive	Layer (if observed):				
Туре:					
Depth (in	ches):				Hydric Soil Present? Yes No
Remarks:	and the contract of the second		Sand Street	enter antipation 1 de de	
Sec. C. T.					
344 S. 13					
San Stalls					
CONTRACTOR OF THE					

Environmental Field Surveys Wetland Photo Page



Upland data point wjoa012\_u3 facing northeast.



Upland data point wjoa012\_u3 facing southeast.
Project/Site: SERP	City/County:	lohnston	Sampling Date: 7/28/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA011f_W
Investigator(s): GB, TP, LE	Section, Towr	ship, Range: <u>No PLSS in this area</u>	а
Landform (hillslope, terrace, etc.): FLAT	Local relief (conc	ave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 35.4	0044098	Long: <u>-78.36604528</u>	Datum: WGS 1984
Soil Map Unit Name: Tomotley sandy loam, 0 to 2 percent s	slopes, rarely flooded	NWI classifie	cation: PFO1C
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	ignificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology n	aturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling	point locations, transects	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	<pre> No No No</pre>	Is the Sampled Area within a Wetland?	Yes 🥓 No
Remarks:				
Wetland data point taken on a flat in a d	epressed a	rea within a portion of a	PFO wetland with a saturated	d hydrologic regime

wetiand Hydrology indicators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No 🔽 Depth (inches):	
Saturation Present? Yes No Coporth (inches)	Wetland Hydrology Present? Yes <u>V</u> No
(includes capillary fringe)	('a ca) 'C accellate
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:

Sampling Point: WJOA011f\_W

	A	Dentition	Paratan	Deminence Test worksheet
Trop Stratum (Plot size: 30)	Absolute	Dominant	Indicator	Dominance Test worksheet:
Nucce aquetice	<u>50</u>	<u>Species</u>	OBI	Number of Dominant Species
1. Nyssa aqualica	10	No	EAC	That Are OBL, FACW, or FAC: (A)
2. Acer rubrum	10			Total Number of Dominant
3. Liquidambar styraciflua	10	NO	FAC	Species Across All Strata: 7 (B)
<sub>4.</sub> Magnolia virginiana	2	No	FACW	
5				Percent of Dominant Species
		·	<u> </u>	That Are OBL, FACW, or FAC:(A/B)
6		·	<u> </u>	Prevalence Index worksheet:
7		·		
	72	= Total Cove	er	
50% of total cover: 36	20% of	total cover:	14.4	OBL species $\frac{69}{20}$ x 1 = $\frac{69}{20}$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species20 x 2 =40
Viburnum nudum	10	Yes	OBL	FAC species $32 \times 3 = 96$
	10	Vos	EACW/	EACU species 4 x 4 - 16
		165		
3. <u>Magnolia virginiana</u>	5	NO	FACW	UPL species $x = 221$
4. Liquidambar styraciflua	5	No	FAC	Column Totals: (A) (B)
5 Acer rubrum	5	No	FAC	1.70
c llex opaca	4	No	FACU	Prevalence Index = $B/A = 1.76$
<u> </u>	· ·			Hydrophytic Vegetation Indicators:
7		·		<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> </ul>
8				$\checkmark$ 2 - Dominance Test is >50%
9.				
	39	- Total Cove		3 - Prevalence Index is ≤3.0°
50% of total cover 19.5	20% of		7.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20 /0 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	2			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Saururus cernuus	3	Yes	OBL	
2. Woodwardia areolata	3	Yes	FACW	1
3				'Indicators of hydric soil and wetland hydrology must
		·		be present, unless disturbed or problematic.
4		·	<u> </u>	Definitions of Four Vegetation Strata:
5		·		<b>Trop</b> Woody planta avaluding vince 2 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7.				height.
8				
0		·	<u> </u>	Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		·		m) tall.
11				Herb – All berbaceous (non-woody) plants, regardless
	6	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 3	20% of	total cover:	1.2	
Woody Vino Stratum (Plot size: 30)		<u>-</u>		Woody vine – All woody vines greater than 3.28 ft in
Smiley laurifolia	6	Ves	OBI	height.
2. I oxicodendron radicans	2	Yes	FAC	
3.				
1		·		
		·	······	Hydrophytic
5		·	<u> </u>	
	8	= Total Cove	er 10	Present? Yes <u>No</u> No
50% of total cover: 4	20% of	total cover:	1.0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	cription: (Describe	the de	pth needed to docur	nent the	indicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Feature	S	0		
(inches)	Color (moist)		Color (moist)	%	Type'	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-3	10YR 2/2	100					SL	
3-6	10YR 3/1	100					SCL	
6-20	10YR 4/1	96	10YR 4/6	4	С	PL	SCL	
<sup>1</sup> Type: C=C	oncentration, D=Dep	etion, RM	I=Reduced Matrix, MS	S=Maske	d Sand Gra	ains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	cators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)				2 cm Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polvvalue Be	low Surfa	ice (S8) <b>(N</b>	ILRA 147.	148) (	Coast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	Irface (S9	) (MLRA 1	47. 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleve	ed Matrix	(F2)	,,	ſ	Piedmont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		Depleted Ma	trix (F3)	(• =)			(MLRA 136, 147)
2 cm Mi	uck (A10) <b>(I RR N)</b>		Redox Dark	Surface (I	-6)		Ň	Very Shallow Dark Surface (TE12)
2 on the	d Below Dark Surface	(A11)	Depleted Da	rk Surface	• (F7)			Other (Explain in Remarks)
Depicte	ark Surface (A12)	, (411)	Depicted Dat	esione (E	2 (1 <i>1 )</i> 38)		`	
Thick D	Auchy Minoral (S1) (I		Ited OX Depie		0) 00 (E12) <b>(</b>			
Sanuy MI R	Δ 147 148)	.KK <b>N</b> ,	<u> </u>	ese mass 6)	es (F12) (	LKK N,		
Sandy C	Gleved Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	、 Soils (F19)	(MLRA 14	8) w	etland hydrology must be present,
Stripped	d Matrix (S6)		Red Parent M	Material (F	21) (MLR	A 127, 147	<b>7)</b> ur	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type: no	one							
Depth (in	ches):						Hydric Soi	il Present? Yes 🖌 No
Remarks:								
1								
I								



**Photo 1** Wetland data point WJOA011f\_w facing east



Photo 2 Wetland data point WJOA011f\_w facing north

Project/Site: SERP		City/County: Joh	nston	Sampling Date: 7/28/2014
Applicant/Owner: DOMINION			State: NC	Sampling Point: WJOA011_U
Investigator(s): GB, TP, LE		Section, Townsh	ip, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): TOE	OF SLOPE	Local relief (concave	e, convex, none): <u>none</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): P	Lat: 35.400289	918	_ Long: <u>-78.36614998</u>	Datum: WGS 1984
Soil Map Unit Name: Tomotley sandy lo	oam, 0 to 2 percent slopes,	rarely flooded	NWI classifi	cation: None
Are climatic / hydrologic conditions on t	he site typical for this time	of year? Yes 🔽	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or	Hydrology significa	antly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or	Hydrology naturall	y problematic?	(If needed, explain any answ	ers in Remarks.)
	ttack alta man akan		int la satisma transsat	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	No No No	Is the Sampled Area within a Wetland?	Yes	No		
Remarks:         Upland data point taken at the toe of slope for a PFO wetland located in a slight depression on a 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) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled S	oils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No 🗸 Depth (inches):	
Saturation Present? Yes No V Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	Wetland Hydrology Present?       Yes       No         ctions), if available:
Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective         Remarks:       Remarks:	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Mo Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)         Remarks:         No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No
Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       No hydrology indicators present.	Wetland Hydrology Present? Yes No

Sampling Point: WJOA011\_U

	Absolute	Dominant I	ndicator	Dominance Test worksheet
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
<sub>1.</sub> Pinus taeda	40	Yes	FAC	That Are OBL, FACW, or FAC: 9 (A)
2. Quercus nigra	15	Yes	FAC	
3 Liquidambar styraciflua	15	Yes	FAC	Total Number of Dominant
∧ Acer rubrum	5	No	FAC	
+. <u></u>		·		Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: 90 (A/B)
6		·		Prevalence Index worksheet:
7	75			Total % Cover of: Multiply by:
	/5	= Total Cove	r 4 F	
50% of total cover:37.5	20% of	f total cover:	15	$\begin{array}{c} \text{OBL species} & \underline{} & $
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x^2 = \frac{20}{423}$
1. Clethra alnifolia	25	Yes	FAC	FAC species $423$
2. Acer rubrum	15	Yes	FAC	FACU species5 x 4 =60
3. Magnolia virginiana	10	Yes	FACW	UPL species x 5 =0
4		·		Column Totals: <sup>166</sup> (A) <sup>503</sup> (B)
4				
5		· · · · · · · · · · · · · · · · · · ·	·	Prevalence Index = $B/A = $ 3.03
6		·		Hydrophytic Vegetation Indicators:
7		·		<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> </ul>
8		. <u> </u>		✓ 2 - Dominance Test is >50%
9		. <u> </u>		$\frac{1}{2} = 2 \text{ Browalance Index is } < 2.0^{1}$
	50	= Total Cove	r	5 - Flevalence index is 25.0
50% of total cover: 25	20% of	f total cover:	10	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: <sup>5</sup> )				data in Remarks or on a separate sheet)
Athyrium asplenioides	4	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Microstegium vimineum	2	Yes	FAC	
2		·		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3		·		be present, unless disturbed or problematic.
4		·		Definitions of Four Vegetation Strata:
5		·		<b>Tree</b> Weady plants evoluting vince 2 in (7.6 cm) or
6		·		more in diameter at breast height (DBH), regardless of
7				height.
8				
9.				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				,
· · · · ·	6			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 3	20% of	= 10tal Cove	r 12	or size, and woody plants less than 3.26 it tall.
	20% 0	lotal cover.		Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)	15	Vaa	EAC	height.
	15			
2. Vitis aestivalis	15	Yes	FACU	
3. Smilax rotundifolia	5	No	FAC	
4				Under schutin
5				Hydrophytic Vegetation
	35	- Total Cove	r	Present? Yes <u>V</u> No
50% of total cover: 17.5	20% of	f total cover:	7	
Pomorko: (Includo nhoto numboro horo or on o concreto o	2070 0			
Remarks. (include photo numbers here of on a separate s	neet.)			

Profile Des	cription: (Describe	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absence of i	ndicators.)	
Depth	Matrix		Redo	x Features	5				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks	6
0-15	10YR 2/1	100					SL		
15-20	10YR 5/2	100					SL		
	10YR 5/2	100					SL		
		·				·			
						·	·		
						<u> </u>			
<sup>1</sup> Type: C=C	oncentration. D=Dep	etion. RM=	Reduced Matrix. M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=P	ore Lining, M=Matri	x.
Hydric Soil	Indicators:		· · · · · · · · · · · · · · · · · · ·				Indicator	s for Problematic I	Hydric Soils <sup>3</sup> :
Histoso	l (A1)		<ul> <li>Dark Surface</li> </ul>	e (S7)			2 cm	Muck (A10) (MLRA	147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfac	ce (S8) <b>(N</b>	ILRA 147,	148) Coas	t Prairie Redox (A16	5)
Black H	listic (A3)		Thin Dark Su	Irface (S9)	(MLRA 1	47, 148)	, <u>—</u> (М	LRA 147, 148)	,
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (I	, F2)		Piedr	nont Floodplain Soil	s (F19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)	,		(M	LRA 136, 147)	
2 cm M	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		Very	Shallow Dark Surfa	ce (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface	(F7)		Othe	r (Explain in Remarl	(S)
Thick D	ark Surface (A12)	. ,	Redox Depre	essions (F8	3)				
Sandy I	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	LRR N,			
MLR	A 147, 148)		MLRA 13	6)	. , .				
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	, ice (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> Indicate	ors of hydrophytic v	egetation and
Sandy I	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetlan	d hydrology must be	e present,
Stripped	d Matrix (S6)		Red Parent M	/aterial (F	21) <b>(MLR</b>	A 127, 147	') unless	disturbed or proble	matic.
Restrictive	Layer (if observed):								
Type: N	ONE								
Depth (in	nches):						Hydric Soil Pre	esent? Yes 🖌	No
Remarks:							•		



**Photo 1** Upland data point WJOA011\_u facing south



Photo 2 Upland data point WJOA011\_u facing west

Project/Site: SERP	City/County: Joh	nston	Sampling Date: 7/28/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA010f_W
Investigator(s): GB, TP, LE	Section, Townsh	ip, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): FLAT	Local relief (concave	e, convex, none): <u>concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): P L	at: <u>35.39497202</u>	_ Long: <u>-78.36808733</u>	Datum: WGS 1984
Soil Map Unit Name: Tomotley sandy loam, 0 to 2 p	ercent slopes, rarely flooded	NWI classifie	cation: None
Are climatic / hydrologic conditions on the site typica	I for this time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology _	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology _	naturally problematic?	(If needed, explain any answe	ers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	レ レ レ	No No No	Is the Sampled Area within a Wetland?	Yes	No	
Remarks: Wetland data point for a saturated PEO	vetland	locater	l in a slight denressi	on on a flat			
Wetland data point for a saturated PFO wetland located in a slight depression on a 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) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	ils (C6) Crayfish Burrows (C8)
✓ Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions) if available:
Describe recorded Data (stream gauge, monitoring weil, achai photos, previous inspec	
Remarks:	

Sampling Point: WJOA010f\_W

	,	Abaaluta	Dominant I	ndiaatar	
Tree Stratum (Plot size:	30 )	% Cover	Species?	Status	Dominance rest worksneet.
▲ Liquidambar styraciflua	/	30	Yes	FAC	Number of Dominant Species
<ul> <li>Quercus laurifolia</li> </ul>		20	Yes	FACW	$\frac{1}{1}$
2. <u>Cer rubrum</u>		20	Yes	FAC	Total Number of Dominant
3. <u>Pipus toodo</u>		7	No	FAC	Species Across All Strata: (B)
4. Pinus taeda					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 100 (A/B)
6					Drevelence Index werkeheet
7					Prevalence Index worksneet:
		77	= Total Cove	r	Total % Cover of: Multiply by:
	50% of total cover: 38.5	20% of	f total cover:	15.4	OBL species $4 \times 1 = 4$
Sapling/Shrub Stratum (Plot size	e: 15 )				FACW species $57$ x 2 = $114$
1 Quercus nigra	/	10	Yes	FAC	FAC species $\frac{95}{x 3} = \frac{285}{x 3}$
Magnolia virginiana		10	Yes	FACW	FACU species $0   x 4 = 0$
Acer rubrum		10	Yes	FAC	UPL species $0$ x 5 = $0$
		7	No	EACW/	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $
4. Leucothoe axiliaris					(A)(B)
5. Viburnum nudum		4	No	OBL	Prevalence Index = $B/A = 2.58$
6. Quercus laurifolia		4	No	FACW	Hydrophytic Vogetation Indicators:
7.					
8					1 - Rapid Test for Hydrophytic Vegetation
0			·		2 - Dominance Test is >50%
9		45			$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	500/ of total answer 22.5	000/ -4	= I otal Cove	r 9	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	50% of total cover:	20% 01	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	<u> </u>	10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Woodwardia areolata		16	Yes	FACW	
2. Microstegium vimineum		4	No	FAC	1 - The disease of the data and the state of
3					he present unless disturbed or problematic
4					Definitions of From Venetation Official
5			- <u></u>		Definitions of Four vegetation Strata:
			·		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
6			·		more in diameter at breast height (DBH), regardless of
7			·		height.
8			·		Sapling/Shrub – Woody plants, excluding vines, less
9			<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10					m) tall.
11.					Herb All berbasseus (pen weeds) plants regardless
		20	- Total Cove	r	of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 12	20% of	total cover:	4.8	
Woody Vine Stratum (Plot size:	30 )				Woody vine – All woody vines greater than 3.28 ft in
Toxicodendron radicans	)	10	Yes	FAC	neight.
- Smilax rotundifolia		4	Ves	FAC	
2. 3111142 1010110114			163	170	
3					
4			. <u> </u>		Hydrophytic
5					Vegetation
		14	= Total Cove	r	Present? Yes V No
	50% of total cover: 7	20% of	total cover:	2.8	
Remarks: (Include photo numbe	rs here or on a separate s	neet)			
rtemarke. (moldae prioto nambe		1001.)			

Profile Des	cription: (Describe to	o the dep	oth needed to docun	nent the	indicator of	or confirm	the absence of	indicators.)
Depth	Matrix		Redo	K Feature	S1	. 2	_	
(inches)	Color (moist)		Color (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks
0-3	10YR 2/2	100					SCL	
3-20	10YR 4/1	95	7.5YR 4/6	5	С	PL/M	SC	
					·	·		
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gra	ains	<sup>2</sup> Location: PL =	Pore Lining, M=Matrix
Hydric Soil	Indicators:			maente			Indicato	rs for Problematic Hydric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	(S7)			2 cm	n Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ace (S8) <b>(N</b>	ILRA 147,	148) Coa	st Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	rface (S9	) (MLRA 1	47, 148)	(N	/LRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix	(F2)		Pied	lmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Mat	rix (F3)			(N	/LRA 136, 147)
2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (I	F6)		Very	/ Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	∋ (F7)		Othe	er (Explain in Remarks)
I NICK D	ark Surface (A12)		Redox Depre	SSIONS (F	·8) 			
Sandy MI P	Mucky Mineral (ST) (LI A 147 148)	KK N,	MIRA 13		es (F12) <b>(</b>	LKK N,		
Sandy (	Gleved Matrix (S4)		Umbric Surfa	<b></b> ce (E13)	(MI RA 13	6, 122)	<sup>3</sup> Indica	tors of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	Goils (F19)	(MLRA 14	8) wetla	nd hydrology must be present.
Stripped	d Matrix (S6)		Red Parent M	laterial (F	-21) (MLR	、 A 127, 147	') unles	s disturbed or problematic.
Restrictive	Layer (if observed):				, ,			·
Type: CI	LAY							
Depth (in	iches):						Hydric Soil Pr	esent? Yes 🖌 No
Remarks	-							



**Photo 1** Wetland data point WJOA010f\_w facing east



Photo 2 Wetland data point WJOA010f\_w facing west

Project/Site: SERP		City/County: Job	Inston	Samplin	g Date: 7/28/2014
Applicant/Owner: DOMINION			State	: <u>NC</u> Samp	ling Point: WJOA010_U
Investigator(s): GB, TP, LE		Section, Townsh	nip, Range: <u>No PLSS</u>	in this area	
Landform (hillslope, terrace, etc.):	TOE OF SLOPE	Local relief (concav	e, convex, none): <u>nc</u>	ne	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P	Lat: <u>35.394</u>	85976	Long: <u>-78.368064</u>	66	Datum: WGS 1984
Soil Map Unit Name: Tomotley sar	ndy loam, 0 to 2 percent slop	es, rarely flooded	N	WI classification: <u>No</u>	one
Are climatic / hydrologic conditions	on the site typical for this tir	ne of year? Yes	No (If no, e	explain in Remarks.)	
Are Vegetation, Soil	_, or Hydrology sign	ificantly disturbed?	Are "Normal Circur	nstances" present?	Yes 🖌 No
Are Vegetation, Soil	_, or Hydrology natu	rally problematic?	(If needed, explain	any answers in Rem	narks.)
	Attack atta man ak		-int locations t		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken on toe of slope	just above a Pf	FO wetland located v	vithin a depressional 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) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	g Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled S	Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No <u></u>	
Water Table Present? Yes No 🔽 Depth (inches):	
Water Table Present?       Yes No _        Depth (inches):         Saturation Present?       Yes No _        Depth (inches):         (includes capillary fringe)       Yes No _        Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       No       ✓       Depth (inches):         (includes capillary fringe)       Ves       Ves       Ves       Ves         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)       Ves       Ves       Ves	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Mo _       ✓         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No
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, previous inspective         Remarks:	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Depth (inches):       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:       No _       Image: No         Remarks:       no hydrology indicators       Image: No       Image: No       Image: No	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Depth (inches):       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:       no hydrology indicators	Wetland Hydrology Present? Yes No
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, previous inspective         Remarks:       no hydrology indicators	Wetland Hydrology Present? Yes No
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 inspective Remarks:       No _ ✓         Remarks:       no hydrology indicators	Wetland Hydrology Present? Yes No
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 inspective Remarks:	Wetland Hydrology Present? Yes No
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 inspective Remarks: no hydrology indicators	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Depth (inches):       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:       no hydrology indicators	Wetland Hydrology Present? Yes No
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 inspective Remarks:	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Depth (inches):       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:       no hydrology indicators	Wetland Hydrology Present? Yes No
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, previous inspective Remarks:         no hydrology indicators       No _ ✓ Depth (inches):	Wetland Hydrology Present? Yes No

Sampling Point: WJOA010\_U

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
<sub>1.</sub> Pinus taeda	45	Yes	FAC	That Are OBL, FACW, or FAC: 9 (A)
2. Quercus nigra	10	No	FAC	
3. Liriodendron tulipifera	10	No	FACU	Species Across All Strata 11 (B)
A Acer rubrum	10	No	FAC	
5				Percent of Dominant Species
		·		That Are OBL, FACW, or FAC: (A/B)
0		·		Prevalence Index worksheet:
7	75			Total % Cover of: Multiply by:
27.6		= Total Cove	er 15	$\frac{1}{OBL species} = 0 \qquad x = 0$
50% of total cover:	20% of	total cover:	15	$\frac{9}{18}$
Sapling/Shrub Stratum (Plot size:)				FACW species $x^2 = 411$
1. Quercus nigra	15	Yes	FAC	FAC species $37$ $x 3 = 116$
2. Liriodendron tulipifera	15	Yes	FACU	FACU species $29$ x 4 = $10$
3. Acer rubrum	15	Yes	FAC	UPL species $0   x 5 = 0$
∠ Liquidambar styraciflua	15	Yes	FAC	Column Totals: (A) 545 (B)
5. Clethra alnifolia	8	No	FAC	
o Magnolia virginiana	3	No	FACW	Prevalence Index = B/A =3.11
6. Magnona virginiana		110	1701	Hydrophytic Vegetation Indicators:
7		·		<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> </ul>
8		·		✓ 2 - Dominance Test is >50%
9				$\frac{1}{2} = \frac{1}{2} = \frac{1}$
	71	= Total Cove	r	3 - Frevalence index is ≤3.0
50% of total cover: 35.5	20% of	total cover:	14.2	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Arundinaria gigantea	4	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
o Microstegium vimineum	3	Yes	FAC	
			EACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Osmundastrum cinnamomeum	Z	res	FACW	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.				height.
8				
0		·		Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		·		ni) tan.
11		·		Herb – All herbaceous (non-woody) plants, regardless
	9	= Total Cove	er A G	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 4.5	20% of	total cover:	1.8	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. Smilax rotundifolia	10	Yes	FAC	
2 Smilax bona-nox	4	Yes	FACU	
3 Gelsemium sempervirens	4	Yes	FAC	
A Toxicodendron radicans	2	No	FAC	
				Hydrophytic
5		·		Vegetation
	20	= Total Cove	er 🔒	Present? Yes <u>No</u> No
50% of total cover: 10	20% of	total cover:	4	
Remarks: (Include photo numbers here or on a separate s	heet.)			·

Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	% Type	<sup>1</sup> Loc <sup>2</sup>	Texture	Remark	S
0-5	10YR 3/2	100				SCL		
5-20	10YR 4/6	50				SCL		
	10YR 4/2	50				SCL		
		<u> </u>						
				- <u></u> <u></u>				
		<u> </u>						
				·				
				<u> </u>				
				<u> </u>	<u> </u>			
		·		<u> </u>				
Type: C=C	Concentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked Sand	Grains.	<sup>2</sup> Location: PL=Po	re Lining, M=Matr	ix.
yaric Soli	I Indicators:					Indicators	for Problematic	Hydric Solis :
_ Histosc	ol (A1)		Dark Surface	e (S7)		2 cm N	luck (A10) <b>(MLR</b>	A 147)
Histic E	Epipedon (A2)		Polyvalue Be	elow Surface (S8)	(MLRA 147,	, <b>148)</b> Coast	Prairie Redox (A1	6)
_ Black F	Histic (A3)		Thin Dark Su	urface (S9) (MLR	A 147, 148)	(ML	RA 147, 148)	
_ Hydrog	jen Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedmo	ont Floodplain So	ils (F19)
Stratifie	ed Layers (A5)		Depleted Ma	atrix (F3)		(ML	RA 136, 147)	
2 cm M	luck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6)		Very S	hallow Dark Surfa	ace (TF12)
_ Deplete	ed Below Dark Surfac	e (A11)	Depleted Da	rk Surface (F7)		Other (	Explain in Remai	ˈks)
Thick D	Dark Surface (A12)		Redox Depre	essions (F8)				
Sandv	Mucky Mineral (S1) (I	RR N.	Iron-Mangan	ese Masses (F12	) (LRR N.			
MIR	A 147, 148)	,	MI RA 13	(* · · ·	, (,			
Sandy	Gleyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(MLRA</b>	136, 122)	<sup>3</sup> Indicator	s of hydrophytic	vegetation and
Sandy	Redox (S5)		Piedmont Flo	oodplain Soils (F1	9) (MLRA 14	48) wetland	hydrology must b	e present,
Strippe	d Matrix (S6)		Red Parent I	Material (F21) <b>(M</b>	LRA 127, 14	7) unless o	listurbed or proble	ematic.
Restrictive	Layer (if observed):							
Type:								
Depth (ir	ncnes):					Hydric Soil Pres	ent? Yes	NO



Photo 1 Upland data point WJOA010\_u facing west



Photo 2 Upland data point WJOA010\_u facing east

Project/Site: SERP	City/County: Johnst	on	_ Sampling Date: 7/28/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA009f_W
Investigator(s): GB, TP, LE	Section, Township,	Range: No PLSS in this are	ea
Landform (hillslope, terrace, etc.): SWALE	Local relief (concave, c	onvex, none): <u>concave</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P	_ Lat: <u>35.39082383</u> L	ong: <u>-78.37023244</u>	Datum: WGS 1984
Soil Map Unit Name: Gilead sandy loam, 2 to 8	percent slopes	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typ	pical for this time of year? Yes 🔽 No		Remarks.)
Are Vegetation, Soil, or Hydrolog	y significantly disturbed? A	re "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrolog	y naturally problematic? (If	needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach s	ite map showing sampling poin	t locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes 🥢 No		
Remarks:						
Wetland data point for a PFO wetland in a wet swale; along a NHD stream line - does not meet criteria for a stream but just drainage patterns in wetland						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Field Observations:	
Surface Water Present? Yes No V Depth (inches):	
Water Table Present?       Yes No       Depth (inches):         Saturation Present?       Yes No       Depth (inches):         (includes capillary fringe)       Yes No       Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	

Sampling Point: WJOA009f\_W

, , , , , , , , , , , , , , , , , , ,	Abcoluto	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminerat Creasing
1 Pinus taeda	30	Yes	FAC	That Are OBL EACW or EAC: 7 (A)
Liquidambar styraciflua	20	Yes	FAC	
2. Overcus laurifolia	10	No	FACW	Total Number of Dominant
3. Quercus lauriona	10	No	EAC	Species Across All Strata: (B)
4. Acer rubrum	10		TAC	Percent of Dominant Species
5		. <u> </u>		That Are OBL, FACW, or FAC: 87.5 (A/B)
6				, , ,
7.				Prevalence Index worksheet:
	70	- Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 35	20% of	total cover	14	OBL species0 x 1 =0
	20 /0 01	total cover		FACW species $30 \times 2 = 60$
<u>Sapling/Shrub Stratum</u> (Plot size:)	20	Voo	EACU	$\frac{140}{140} \times 2 = \frac{420}{140}$
	20		FACU	$x_{3} = 100$
2. Liquidambar styraciflua	10	Yes	FAC	FACU species $4 = 0$
3. Acer rubrum	10	Yes	FAC	UPL species $0 x 5 = 0$
4. llex opaca	5	No	FACU	Column Totals:195 (A)580 (B)
5				
3. <u> </u>		·		Prevalence Index = $B/A = 2.97$
٥				Hydrophytic Vegetation Indicators:
7				<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> </ul>
8				✓ 2 - Dominance Test is >50%
9				$\checkmark$ 2 Drevelance Index is <2.0 <sup>1</sup>
	45	= Total Cove	r	$\sim$ 3 - Prevalence index is $\leq 3.0$
50% of total cover: 22.	5 20% of	total cover:	9	4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Microstegium vimineum	25	Ves	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	15	<u> </u>		
	- 15		FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Osmundastrum cinnamomeum	5	No	FACW	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata
5.				Deminions of Four Vegetation of ata.
6		·		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
		·		more in diameter at breast height (DBH), regardless of
7				height.
8		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Harb All borbassaus (non woody) planta, regardlaga
	45	- Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 22.	5 20% of	total cover	9	
Weedy Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
Toxicodendron radicans	25	Voc	EAC	height.
2. Vitis rotundifolia	5	<u>N0</u>	FAC	
3. Lonicera japonica	5	No	FAC	
4.				
5				Hydrophytic
	35	Tatal Cause		Present? Yes No
50% of total acuary 17	<u> </u>		7	
50% of total cover:	20% 01	total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Descr	ription: (Describe t	o the depth	n needed to docum	nent the indica	tor or confirm	n the absence of inc	dicators.)
Depth	Matrix		Redo	x Features	1 . 2	_	
(inches)	Color (moist)		Color (moist)	<u>% Typ</u>		Texture	Remarks
0-3	10YR 2/2	100		<u> </u>		L	
3-6	10YR 4/1	100				SL	
6-20	10YR 5/1	100				SL	
				<u> </u>			
		<u> </u>		······			
				<u> </u>			
<u> </u>		<u> </u>		<u> </u>			
<sup>1</sup> Type: C=Co	ncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	S=Masked Sand	d Grains.	<sup>2</sup> Location: PL=Por	e Lining, M=Matrix.
Hydric Soil Ir	ndicators:					Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol (	(A1)		Dark Surface	e (S7)		2 cm M	uck (A10) <b>(MLRA 147)</b>
Histic Epi	ipedon (A2)		Polyvalue Be	low Surface (St	B) <b>(MLRA 147</b> ,	148) Coast I	Prairie Redox (A16)
Black His	tic (A3)		Thin Dark Su	Irface (S9) (MLI	RA 147, 148)	(MLI	RA 147, 148)
Hydroger	n Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedmo	ont Floodplain Soils (F19)
Stratified			Depleted Ma	TIX (F3)			(A 136, 147)
	Relow Dark Surface	Δ11)		rk Surface (FO)		Very Si Other (	Explain in Remarks)
Thick Da	rk Surface (A12)	(,,,,)	Redox Depre	essions (F8)			
Sandy M	ucky Mineral (S1) <b>(L</b>	RR N.	Iron-Mangan	ese Masses (F1	2) <b>(LRR N</b> .		
MLRA	147, 148)	,	MLRA 13	6)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Sandy GI	eyed Matrix (S4)		Umbric Surfa	, ice (F13) <b>(MLR</b>	A 136, 122)	<sup>3</sup> Indicator	s of hydrophytic vegetation and
Sandy Re	edox (S5)		Piedmont Flo	odplain Soils (F	- 19) <b>(MLRA 14</b>	(18) wetland	hydrology must be present,
<u>Stripped</u>	Matrix (S6)		Red Parent N	Material (F21) <b>(</b>	MLRA 127, 147	7) unless d	isturbed or problematic.
Restrictive L	ayer (if observed):						
Type: NO	NE						
Depth (inc	hes):					Hydric Soil Pres	ent? Yes 🖌 No
Remarks:							



Photo 1 Wetland data point WJOA009f\_w facing north



Photo 2 Wetland data point WJOA009f\_w facing south

Project/Site: SERP		City/County:	Iohnston	_ Sampling Date: 7/28/2014
Applicant/Owner: DOMINION			State: NC	Sampling Point: WJOA009_U
Investigator(s): GB, TP, LE		Section, Towr	nship, Range: <u>No PLSS in this are</u>	ea
Landform (hillslope, terrace, etc.):	SIDESLOPE	Local relief (conc	ave, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): P	L	at: <u>35.39083278</u>	Long: <u>-78.37033975</u>	Datum: WGS 1984
Soil Map Unit Name: Gilead sand	y loam, 2 to 8 perc	ent slopes	NWI classif	ication: None
Are climatic / hydrologic conditions	s on the site typica	I for this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil	_, or Hydrology _	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil	_, or Hydrology _	naturally problematic?	(If needed, explain any answ	vers in Remarks.)
		we are a la construction de construction de	waint la actional transport	- incompany for strange and

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No	
Remarks: Upland data point taken just above toe	of slope for a P	FO wetland in a wet	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)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Oxidized Rhizospheres on Living</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Other (Explain in Remarks)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface water 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 inspec	tions), if available:
Remarks: no hydrology indicators	

Sampling Point: WJOA009\_U

	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminent Creation
Pinus taeda	35	Yes	FAC	Number of Dominant Species
Acer ruhrum	15	Yes	FAC	
2. Accirtubium	15	Voc	EAC	Total Number of Dominant
3. Liquidambar styracifiua		165	FAC	Species Across All Strata: / (B)
4. Morus rubra	5	No	FACU	Demont of Deminent Operation
5.				That Are OBL EACW or EAC: 71.42857142 (A/B)
6				
-		·		Prevalence Index worksheet:
7	70		<u> </u>	Total % Cover of: Multiply by:
	70	= Total Cove	er	
50% of total cover: 35	20% of	total cover:	14	OBL species $x_1 = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 = 0$
Ligustrum sinense	35	Yes	FACU	FAC species $x = 480$
o Liquidambar styraciflua	5	No	FAC	FACU species $65 \times 4 = 260$
3. Califcarpa americana	5	INO	FACU	OPL species         X 5 =           225         740
4. Acer rubrum	5	No	FAC	Column Totals: (A) (B)
5.				2.00
o		·		Prevalence Index = $B/A = 3.28$
0		· · · · · · · · · · · · · · · · · · ·		Hydrophytic Vegetation Indicators:
7		·		1 - Rapid Test for Hydrophytic Vegetation
8				$\checkmark$ 2. Deminance Test is $\sim 50\%$
9				
	50	Total Caur		3 - Prevalence Index is ≤3.0'
50% - ( total	000/ -/		10	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% 01	total cover:	-	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Microstegium vimineum	50	Yes	FAC	
2 Asplenium platyneuron	5	No	FACU	
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
- 5		·		be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6.				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of beight
7		·	·	neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
	55	Total Caur		<b>Herb</b> – All herbaceous (non-woody) plants, regardless
E0% of total action 27 5			יי 11	
50% 01 total cover	20% 0	total cover:		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)	~~			height.
1. I oxicodendron radicans	30	Yes	FAC	
<sub>2.</sub> Parthenocissus quinquefolia	10	Yes	FACU	
3 Lonicera iaponica	5	No	FAC	
Vitis aestivalis	5	No	FACU	
4. 1113 403117413				Hydrophytic
5				Vegetation
	50	= Total Cove	er	Present? Yes <u>v</u> No
50% of total cover: 25	20% of	total cover:	10	
Remarks: (Include photo numbers here or on a separate s	heet )	-		

Profile Des	cription: (Describe t	o the dept	h needed to docun	nent the indi	icator c	or confirm	the absence of indicate	ors.)
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>    %     </u> 1	Гуре'	Loc <sup>2</sup>	Texture	Remarks
0-8	10YR 3/2	100					SL	
8-20	10YR 4/3	100					SL	
·		· ·						
		<u> </u>						
		·					·	
	·							
1								
		·					,	
<sup>1</sup> Type: C=C	Concentration, D=Depl	etion, RM=I	Reduced Matrix, MS	S=Masked Sa	and Gra	ins.	<sup>2</sup> Location: PL=Pore Lini	ng, M=Matrix.
Hydric Soil	Indicators:						Indicators for P	oblematic Hydric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	(S7)			2 cm Muck (	A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	low Surface	(S8) <b>(M</b>	LRA 147,	148) Coast Prairie	Redox (A16)
Black H	listic (A3)		Thin Dark Su	rface (S9) <b>(N</b>	ILRA 14	47, 148)	(MLRA 14	7, 148)
Hydrog	en Sulfide (A4)		Loamy Gleye	d Matrix (F2)	)		Piedmont Florence	oodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Mat	rix (F3)			(MLRA 13	6, 147)
2 cm M	uck (A10) <b>(LRR N)</b>	( <b></b>	Redox Dark S	Surface (F6)	_`		Very Shallow	Dark Surface (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Dar	k Surface (F	7)		Other (Expla	in in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F8)				
Sandy I	VIUCKY MINERAI (S1) (L	RR N,		ese Masses (	(F12) <b>(L</b>	.RR N,		
MLR	A 147, 148)		WILRA 13	0) 00 (F12) <b>(M</b> I	DA 430	C 400)	<sup>3</sup> Indiantara of h	dranky tic vegetation and
Sandy (	Bieyeu Malinx (54)		Uniblic Sulla	ce (F13) (IVIL adalaia Saila	-KA 130	), 122) (MI D A 44	nuicators or n	logy must be present
Sanuy i	d Motrix (S6)		Pleumont Plo	Jotorial (E21)	(FI9)( (MID/	UILKA 14	b) welland hydro	od or problematic
Supper	Laver (if observed):					4 127, 147		
	ONE							
Type:								
Depth (ir	iches):						Hydric Soil Present?	Yes <u>No</u>
Remarks:								



**Photo 1** Upland data point WJOA009\_u facing north



**Photo 2** Upland data point WJOA009\_u facing south

Project/Site: SERP	City/County: Johnst	on	Sampling Date: 7/25/2014							
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA008f_W							
Investigator(s): GB, TP, LE	Section, Township,	Range: No PLSS in this Are	a							
Landform (hillslope, terrace, etc.): SWALE	Local relief (concave, c	convex, none): <u>concave</u>	Slope (%): <u>1</u>							
Subregion (LRR or MLRA): P Lat: 3	35.3842118 I	_ong: <u>-78.37642493</u>	Datum: WGS 1984							
Soil Map Unit Name: Gilead sandy loam, 2 to 8 percent	slopes	NWI classifi	cation: None							
Are climatic / hydrologic conditions on the site typical for this time of year? Yes 🗾 🖌 No (If no, explain in Remarks.)										
Are Vegetation, Soil, or Hydrology	_significantly disturbed? A	re "Normal Circumstances"	present? Yes 🖌 No							
Are Vegetation, Soil, or Hydrology	_naturally problematic? (It	f needed, explain any answe	ers in Remarks.)							
SUMMARY OF FINDINGS – Attach site ma	SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes_	~	No
Remarks:							
Data point for a PFO wetland located in a	a wet sv	vale int	ersection, stream SJ	OB004 flows through feature.			

## HYDROLOGY

I

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) Hydrogen Sulfide Odor (C1)	✓ Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Ro	bots (C3) Moss Trim Lines (B16)
Water Marks (B1)     Presence of Reduced Iron (C4)     Sediment Deposits (B2)     Recent Iron Reduction in Tilled Solid	Dry-Season Water Table (C2)
Drift Deposits (B3)     Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
✓ Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No <u>′</u> Depth (inches):	
Water Table Present? Yes <u>V</u> No Depth (inches): 6	
Saturation Present? Yes <u>V</u> No Depth (inches): <u>3</u>	Wetland Hydrology Present? Yes 🥓 No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ons), if available:
Remarks:	

Sampling Point: WJOA008f\_W

	Abcoluto	- Dominant li	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	
1 Liquidambar styraciflua	30	Yes	FAC	Number of Dominant Species
Quercus laurifolia	20	Yes	FACW	
2. Acer rubrum	15	Yes	FAC	Total Number of Dominant
3. Acer rubrum		No	EACU	Species Across All Strata: (B)
4. Liriodendron tulipifera		INU	TACU	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 91.666666666 (A/B)
6				( ,
7				Prevalence Index worksheet:
	70	- Total Covo	r	Total % Cover of: Multiply by:
50% of total cover: 35	20% of	total cover:	14	OBL species $0   x   1 = 0$
	20 % 01	total cover		FACW species $42$ x 2 = $84$
Sapling/Shrub Stratum (Plot size:)	15	Vaa		$\frac{111}{12} \times 2 = \frac{333}{112}$
1. Morena centera	15	res	FAC	$\begin{array}{c} \text{FAC species} \\ \hline 15 \\ \hline 60 \\ \hline \end{array}$
2. Liquidambar styraciflua	10	Yes	FAC	FACU species $x 4 = 0$
3. Acer rubrum	10	Yes	FAC	UPL species $0 \times 5 = 0$
₄ Ligustrum sinense	10	Yes	FACU	Column Totals:(A)(B)
5. Aronia arbutifolia	5	No	FACW	
- Vaccinium conymbosum	5	No	FACW	Prevalence Index = B/A =2.83
6. vaccimum corymbosam			TACI	Hydrophytic Vegetation Indicators:
7		. <u> </u>		1 - Rapid Test for Hydrophytic Vegetation
8				2 Deminence Test is > 50%
9.				
	55	- Total Cove	r	y 3 - Prevalence Index is ≤3.0
50% of total cover: 27.5	20% of	total cover:	11	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Llank Strature (Blat size: 5	20 /0 01	total cover		data in Remarks or on a separate sheet)
Microstegium vimineum	15	Vaa		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	10	<u>tes</u>		
2. Arundinaria gigantea	10	Yes	FACW	<sup>1</sup> Indiantors of hydria cail and watland hydrology must
3. Chasmanthium sessiliflorum	8	Yes	FAC	be present, unless disturbed or problematic.
4. Boehmeria cylindrica	2	No	FACW	Definitions of Four Vegetation Strates
5				Deminions of Four vegetation Strata.
<u>.</u>				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
б				more in diameter at breast height (DBH), regardless of
7				height.
8				Sanling/Shrub – Woody plants, excluding vines, less
9		. <u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
	35	Tatal Cause		Herb – All herbaceous (non-woody) plants, regardless
50% of total appears 17.5	200/ of		7	or size, and woody plants less than 5.20 it tail.
	20% 01	total cover.	· · ·	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)	_		540	height.
1	5	Yes	FAC	
2. Smilax rotundifolia	3	Yes	FAC	
3.				
4				
5				Hydrophytic Venetation
<sup>0</sup>	0			Present? Vas V No
	8	= Total Cove	r 16	
50% of total cover: 4	20% of	total cover:	1.0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Cinches)         Color (moist)         %         Color (moist)         %         Type         Loc <sup>7</sup> Texture         Remarks           0-4         10YR 3/2         98         7.5YR4/6         2         C         PL         SCL           4-18         10YR 4/1         92         7.5YR4/6         8         C         PL/M         SC           4-18         10YR 4/1         92         7.5YR4/6         8         C         PL/M         SC	Depth	Matrix		Redo	x Feature	S			
0-4         10YR 3/2         98         7.5YR 4/6         2         C         PL         SCL           4-18         10YR 4/1         92         7.5YR 4/6         8         C         PL/M         SC	(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
4-18       10YR 4/1       92       7.5YR 4/6       8       C       PL/M       SC	0-4	10YR 3/2	98	7.5YR4/6	2	С	PL	SCL	
Image:	4-18	10YR 4/1	92	7.5YR 4/6	8	С	PL/M	SC	
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓ Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1) (LRR N,         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       CLAY       Hed Parent Material (F21) (MLRA 127, 147)       Inless disturbed or problematic.         Remarks:       4       Hydric Soil Present? Yes       No			·						
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓ Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,       Iron-Manganese Masses (F12) (LRR N,         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 147)       unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present,         Stripped Matrix (S6)       Red Parent Mate			·						
Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)	<sup>1</sup> Type: C=0	Concentration, D=Dep	letion, RM	=Reduced Matrix, M	S=Masked	d Sand Gra	ains.	<sup>2</sup> Location: PL=Por	re Lining, M=Matrix.
Histosol (A1)					(07)				
	Histoso	DI (A1) Faireales (AO)		Dark Surface	e (57)			2 cm M	IUCK (A10) <b>(MLRA 147)</b>
Black Histic (A3)       Inin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)	HISTIC E	pipedon (A2)			Now Surra	ice (58) <b>(</b> N	ILRA 147,	148) Coast I	
	віаск н	HISTIC (A3)		Thin Dark St	Irrace (59		47, 148)		RA 147, 148)
Stratified Layers (A5) <ul> <li>Depleted Matrix (F3)</li> <li>2 cm Muck (A10) (LRR N)</li> <li>Redox Dark Surface (F6)</li> <li>Very Shallow Dark Surface (TF12)</li> <li>Depleted Below Dark Surface (A11)</li> <li>Depleted Dark Surface (F7)</li> <li>Thick Dark Surface (A12)</li> <li>Redox Depressions (F8)</li> <li>Sandy Mucky Mineral (S1) (LRR N,</li> <li>Iron-Manganese Masses (F12) (LRR N,</li> <li>MLRA 136, 122)</li> <li>Sandy Gleyed Matrix (S4)</li> <li>Umbric Surface (F13) (MLRA 136, 122)</li> <li>Stripped Matrix (S6)</li> <li>Red Parent Material (F21) (MLRA 127, 147)</li> <li>unless disturbed or problematic.</li> </ul> Restrictive Layer (if observed):           Type:         CLAY               Depth (inches):         4               Depth (inches): <li>Memarks:</li>	Hydrog	jen Sulfide (A4)		Loamy Gleye	d Matrix (	(F2)		Piedmo	ont Floodplain Soils (F19)
2 cm Muck (A10) (LRR N)	Stratifie	ed Layers (A5)		Depleted Ma	trix (F3)			(MLI	RA 136, 147)
	2 cm N	luck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	-6)		Very S	hallow Dark Surface (TF12)
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,	Deplete	ed Below Dark Surface	e (A11)	Depleted Da	rk Surface	e (F7)		Other (	Explain in Remarks)
	Thick D	Dark Surface (A12)		Redox Depre	essions (F	8)			
MLRA 147, 148)       MLRA 136)	Sandy	Mucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	LRR N,		
	MLR	A 147, 148)		MLRA 13	6)				
	Sandy	Gleyed Matrix (S4)		Umbric Surfa	ice (F13)	(MLRA 13	6, 122)	<sup>3</sup> Indicator	s of hydrophytic vegetation and
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Restrictive Layer (if observed): Type: CLAY Depth (inches): 4 Hydric Soil Present? Yes ✓ No Remarks:	Sandy	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	8) wetland	hydrology must be present,
Restrictive Layer (if observed):         Type:       CLAY         Depth (inches):       4         Remarks:       Hydric Soil Present? Yes No	Strippe	d Matrix (S6)		Red Parent N	Aaterial (F	21) (MLR	A 127, 147	) unless d	isturbed or problematic.
Type:     CLAÝ       Depth (inches):     4       Remarks:     Hydric Soil Present?	Restrictive	Layer (if observed):						-	-
Depth (inches):         4         Hydric Soil Present?         Yes         ✓         No           Remarks:	Type: C	LAÝ							
Remarks:	Depth (ii	nches): <u>4</u>						Hydric Soil Pres	ent? Yes 🖌 No
	Remarks:								



Photo 1 Wetland data point WJOA008f\_w facing north



Photo 2 Wetland data point WJOA008f\_w facing east

Project/Site: SERP		City/County: Joh	nston	Sampling Date: 7/25/2014
Applicant/Owner: DOMINION			State: NC	Sampling Point: WJOA008_U
Investigator(s): GB, TP, LE		Section, Townsh	ip, Range: No PLSS in this	Area
Landform (hillslope, terrace, etc.):	TOE OF SLOPE	Local relief (concave	e, convex, none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P	Lat: 35.3841	6849	_ Long: <u>-78.3764068</u>	Datum: WGS 1984
Soil Map Unit Name: Gilead sandy	loam, 2 to 8 percent slopes		NWI cla	ssification: None
Are climatic / hydrologic conditions	on the site typical for this time	e of year? Yes 🔽	No (If no, explain	in Remarks.)
Are Vegetation, Soil	_, or Hydrology signifi	cantly disturbed?	Are "Normal Circumstanc	es" present? Yes 🖌 No
Are Vegetation, Soil	_, or Hydrology natura	ally problematic?	(If needed, explain any ar	nswers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point for a saturated PFO v	vetland located	in a wet swale syste	m.		

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Oxidized Rhizospheres on Living</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No <u>V</u> Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks: no hydrology indicators	

Sampling Point: WJOA008\_U

	Absolute	Dominant lu	ndicator	Dominance Test worksheet
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminerat Creasing
↓ Liriodendron tulipifera	30	Yes	FACU	Number of Dominant Species
	30	Yes	FAC	
2. Elquidambar styracinua	45			Total Number of Dominant
3. Pinus taeda	15	Yes	FAC	Species Across All Strata:11 (B)
4.				
				Percent of Dominant Species
				That Are OBL, FACW, or FAC: (A/B)
6				Brovelence Index worksheet
7				Prevalence index worksheet.
	75	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 37.5	20% of	total cover:	15	OBL species x 1 =0
Carling/Chruh Chrature (Blat size) 15				FACW species $4 \times 2 = 8$
Sapling/Shrub Stratum (Plot size:)	05	Vaa		124 x 2 $372$
1. Liquidambar styracifiua	25	res	FAC	FAC species $x_3 = \underline{160}$
2. Acer rubrum	20	Yes	FAC	FACU species $40$ x 4 = $100$
3 Liriodendron tulipifera	10	No	FACU	UPL species x 5 =0
· Pinus taeda	5	No	FAC	Column Totals: 168 (A) 540 (B)
4. 1 mus taeda				
5. Morella cerifera	5	NO	FAC	Prevalence Index $= B/A = 3.21$
6.				
7				Hydrophytic Vegetation Indicators:
·				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				
	65	= Total Cove	r	
50% of total cover: 32.5	20% of	total cover:	13	4 - Morphological Adaptations' (Provide supporting
Userb Ctreature (Dist size: 5				data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	4		540	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Chasmanunum sessimorum	4	Yes	FAC	
2. Arundinaria gigantea	2	Yes	FACW	4
3 Boehmeria cylindrica	2	Yes	FACW	Indicators of hydric soil and wetland hydrology must
·				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6.				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
· · · · · · · · · · · · · · · · · · ·				neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
····	8			<b>Herb</b> – All herbaceous (non-woody) plants, regardless
		= Total Cove	r 16	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 4	20% of	total cover:	1.0	<b>Woody vine</b> – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
<sub>1.</sub> Lonicera japonica	8	Yes	FAC	
o Smilax rotundifolia	5	Yes	FAC	
Colorium componitono		Ves	FAC	
3. Geisernium sempervirens		163		
4. Toxicodendron radicans	3	No	FAC	Hydrophytic
5.				Vegetation
	20	Tatal Cause		Present? Yes V No
50% (+++ 10		= Total Cove	r 4	· · · · · · · · · · · · · · · · ·
50% of total cover:	20% of	total cover:	·	
Remarks: (Include photo numbers here or on a separate s	heet.)			

	Matrix	Pade	v Features					
(inches)	Color (moist)	%	Color (moist)	% Tvp	$e^1 \log^2$	Texture	Rema	rks
0-8	10YR 3/2	100				SL		
8-20	10YR 5/4	100				SL		
		·						
				<u> </u>		<u> </u>		
		·						
<sup>1</sup> Type: C=0	Concentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked Sand	Grains.	<sup>2</sup> Location: PL=Pc	ore Lining, M=Ma	ıtrix.
Hydric Soil	I Indicators:	1	,			Indicators	for Problemati	c Hydric Soils <sup>3</sup> :
Histosc	bl (A1)		Dark Surface	e (S7)		2 cm 1	Muck (A10) (MLF	RA 147)
Histic E	Epipedon (A2)		Polvvalue Be	elow Surface (S8	) (MLRA 147.	148) Coast	Prairie Redox (A	(16)
Black H	Histic (A3)		Thin Dark S	urface (S9) (MLR	A 147, 148)	, <u> </u>	RA 147, 148)	,
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix (F2)		Piedm	ont Floodplain S	oils (F19)
Stratifie	ed Layers (A5)		Depleted Ma	atrix (F3)		(ML	RA 136, 147)	( - )
2 cm M	luck (A10) (LRR N)		Redox Dark	Surface (F6)		Verv S	Shallow Dark Sur	face (TF12)
Deplete	ed Below Dark Surfac	e (A11)	Depleted Da	rk Surface (F7)		Other	(Explain in Rem	arks)
Thick E	Dark Surface (A12)	· · ·	Redox Depr	essions (F8)				,
Sandv	Mucky Mineral (S1) (I	.RR N.	Iron-Mangar	nese Masses (F1	2) (LRR N.			
MLR	A 147. 148)	,	MLRA 13	36)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Sandy	Gleved Matrix (S4)		Umbric Surfa	ace (F13) <b>(MLRA</b>	136, 122)	<sup>3</sup> Indicato	rs of hydrophytic	vegetation and
Sandy	Redox (S5)		Piedmont Fl	oodplain Soils (F	19) <b>(MLRA 1</b> 4	(18) wetland	ł hydrology must	be present.
Strippe	d Matrix (S6)		Red Parent	Material (F21) (N	LRA 127, 14	7) unless	disturbed or prot	plematic.
Restrictive	Laver (if observed):			· · · · · · · · · · · · · · · · · · ·	,	,		
Type:	one							
Depth (ir	nches):					Hydric Soil Pres	sent? Yes	No
Remarks:								



**Photo 1** Upland data point WJOA008\_u facing south



Photo 2 Upland data point WJOA008\_u facing west

Project/Site: SERP	City/County:	Johnston	_ Sampling Date: 7/24/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA007f_W
Investigator(s): GB, TP, LE	Section, Tov	vnship, Range: <u>No PLSS in this Are</u>	ea
Landform (hillslope, terrace, etc.): SWALE	Local relief (cor	ncave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P	Lat: <u>35.37000705</u>	Long: <u>-78.38074079</u>	Datum: WGS 1984
Soil Map Unit Name: Gilead sandy loam, 2 to	8 percent slopes	NWI classif	ication: None
Are climatic / hydrologic conditions on the site	typical for this time of year? Yes	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydro	logy significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydro	logy naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attack	າ site map showing sampling	g point locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes _ Yes _	ン ン	No No	Is the Sampled Area	Vas 🗸	No
Wetland Hydrology Present?	Yes _	~	No		103	NO
Remarks:						
Wetland data point for a wet swale; satura	ated PF	O wet	and; drainage patter	ns and an intermittent stream	within swale.	
weitand data point for a wet swale, satur		e wea			within Swale.	

wetiand 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)     Moss Trim Lines (B16)     Dry-Season Water Table (C2)     Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C9)     Stunted or Stressed Plants (D1)     ✓     Geomorphic Position (D2)     Shallow Aquitard (D3)     Microtopographic Relief (D4)     FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🔽 Depth (inches):	
Water Table Present? Ves No 🗸 Depth (inches): 14	
Saturation Present? Yes <u>V</u> No Depth (inches): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>V</u> No
Saturation Present?       Yes No Depth (inches): 10         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:

Sampling Point: WJOA007f\_W

	,	Abcoluto	Dominant I	ndicator	Dominanco Tost workshoot:	
Tree Stratum (Plot size:	30 )	% Cover	Species?	Status	Dominance Test worksheet.	
1 Quercus laurifolia	/	30	Yes	FACW	Number of Dominant Species	(A)
		20	Yes	FAC		_ (A)
- Liriodendron tulinifera		10	No	FACU	Total Number of Dominant	
3. Enoderidion talphera		10	No		Species Across All Strata: o	(B)
4. Acer rubrum		10		FAC	Percent of Dominant Species	
5					That Are OBL, FACW, or FAC: 87.5	(A/B)
6						_ 、 ,
7.					Prevalence Index worksheet:	
		70	- Total Cove	r	Total % Cover of: Multiply by:	
	50% of total cover: 35	20% of	total cover:	14	OBL species 0 x 1 = 0	
Capling (Chrysh Ctrature (Distain	15	2070.01			FACW species $39 \times 2 = 78$	
Sapling/Shrub Stratum (Plot siz	e:)	20	Voc	EACU	$\frac{58}{58} \times 3 = \frac{174}{174}$	
1. Ligustrum sinense		20		FACO	$\begin{array}{c} \text{FAC species} \\ \hline 34 \\ \hline 34 \\ \hline 36 \\$	
2. Acer rubrum		10	Yes	FAC	FACU species $x 4 = 0$	
3. Quercus laurifolia		7	No	FACW	UPL species $0$ $x 5 = 0$	
<sub>4.</sub> llex opaca		4	No	FACU	Column Totals: (A)	(B)
5					0.00	
3. <u> </u>					Prevalence Index = B/A = 2.96	
6			·	······	Hydrophytic Vegetation Indicators:	
7			·		1 - Rapid Test for Hydrophytic Vegetation	
8			. <u> </u>		✓ 2 - Dominance Test is >50%	
9			. <u></u>		$\checkmark$ 3 Browslopes Index is $\leq 3.0^{1}$	
		41	= Total Cove	r	<u> </u>	
	50% of total cover: 20.5	20% of	total cover:	8.2	4 - Morphological Adaptations (Provide s	upporting
Herb Stratum (Plot size:	5)		_		data in Remarks or on a separate shee	et)
<i>Microstegium vimineum</i>	/	8	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Exp	lain)
Arundinaria gigantea		2	Ves	FACW		
2. Arunumana gigantea		2	165	TACW	<sup>1</sup> Indicators of hydric soil and wetland hydrolog	/ must
3			·		be present, unless disturbed or problematic.	,
4					Definitions of Four Vegetation Strata:	
5						
6					Tree – Woody plants, excluding vines, 3 in. (7	6 cm) or
7			·		more in diameter at breast height (DBH), rega	dless of
7			·		neight.	
8			·		Sapling/Shrub - Woody plants, excluding vin	es, less
9				······	than 3 in. DBH and greater than or equal to 3.	28 ft (1
10					m) tall.	
11					Herb - All berbaceous (non-woody) plants, re	ardlass
		10	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.	juluicoo
	50% of total cover: 5	20% of	total cover:	2		
Woody Vine Stratum (Plot size:	30				<b>Woody vine</b> – All woody vines greater than 3.	28 ft in
Smilax rotundifolia	)	6	Yes	FAC	neight.	
			Ves	FAC		
2. <u>Lonicera japonica</u>			165	TAC		
3						
4					Hydrophytic	
5.					Vegetation	
		10	- Total Cove		Present? Yes <u>V</u> No	
	50% of total cover: 5	20% of		2		-
		20 % 01	total cover.			
Remarks: (Include photo numbe	ers here or on a separate s	heet.)				

Depth	pth <u>Matrix</u>		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/1	96	10YR 4/6	4	С	PL	SCL	
4-18	10YR 4/1	80	7.5YR 4/6	20	С	PL/M	SC	
Type: C=0	Concentration, D=Dep	letion, RM	/=Reduced Matrix, M	S=Maskee	d Sand Gra	ains.	<sup>2</sup> Location: PL=Por	e Lining, M=Matrix.
iyaric Sol	I Indicators:			( <b>-</b> -)			Indicators	for Problematic Hydric Solis
Histoso	ol (A1)		Dark Surface	e (S7)			2 cm M	uck (A10) <b>(MLRA 147)</b>
Histic E	Epipedon (A2)		Polyvalue Be	low Surfa	ice (S8) <b>(N</b>	ILRA 147,	148) Coast F	Prairie Redox (A16)
Black H	Histic (A3)		Thin Dark Su	urface (S9	) <b>(MLRA 1</b>	47, 148)	(MLF	रA 147, 148)
Hydrog	gen Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedmo	ont Floodplain Soils (F19)
Stratifie	ed Layers (A5)		Depleted Ma	trix (F3)			(MLF	२А 136, 147)
_ 2 cm N	1uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (I	=6)		Very SI	nallow Dark Surface (TF12)
_ Deplete	ed Below Dark Surface	e (A11)	Depleted Da	rk Surface	e (F7)		Other (	Explain in Remarks)
Thick D	Dark Surface (A12)		Redox Depre	essions (F	8)			
Sandv	Mucky Mineral (S1) (L	.RR N.	Iron-Mangan	ese Mass	, es (F12) <b>(</b>	LRR N.		
MIR	A 147, 148)	,	MIRA 13	6)	( ) (	,		
Sandy	Gleved Matrix (S4)		Umbric Surfa	-, ce (F13)	(MI RA 13	6 122)	<sup>3</sup> Indicator	s of hydrophytic vegetation and
Sandy	Reday (S5)		Diedmont El	odnlain S		(MI DA 1/	8) wetland	bydrology must be present
Oandy Strippo	Matrix (S6)		Red Parent I	Matarial (F	21) (MI P	A 127 1/7	() unless d	isturbed or problematic
	Laver (if cheerved)			vialenai (i		~ 121, 141		isturbed of problematic.
	Layer (il observeu).							
Type:								
Depth (ii	nches):						Hydric Soil Pres	ent? Yes 🚩 No _
Remarks:								



Photo 1 Wetland data point WJOA007f\_w facing east



Photo 2 Wetland data point WJOA007f\_w facing north
Project/Site: SERP	City/County: Johnst	on	Sampling Date: 7/24/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA007_U
Investigator(s): GB, TP, LE	Section, Township,	Range: No PLSS in this are	a
Landform (hillslope, terrace, etc.): SIDESLOPE	Local relief (concave, c	onvex, none): <u>none</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): P Lat: 35	5.3699253 L	.ong:78.38077038	Datum: WGS 1984
Soil Map Unit Name: Gilead sandy loam, 2 to 8 percent s	lopes	NWI classifie	cation: None
Are climatic / hydrologic conditions on the site typical for the	his time of year? Yes No	o (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	_significantly disturbed? A	e "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	_naturally problematic? (If	needed, explain any answe	ers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken on a sideslope	just above a we	et swale containing a	PFO wetland.		

Wetland Hydrology Indicators	s:		0	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one is required; che	ck all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)		True Aquatic Plants (B14)	_	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		_ Hydrogen Sulfide Odor (C1)	_	Drainage Patterns (B10)
Saturation (A3)	_	Oxidized Rhizospheres on Living	Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	_	Presence of Reduced Iron (C4)	_	Dry-Season Water Table (C2)
Sediment Deposits (B2)		_ Recent Iron Reduction in Tilled So	oils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	_	Thin Muck Surface (C7)	_	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	-	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			_	Geomorphic Position (D2)
Inundation Visible on Aerial	l Imagery (B7)		-	Shallow Aquitard (D3)
Water-Stained Leaves (B9)			-	Microtopographic Relief (D4)
Aquatic Fauna (B13)			-	FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🔽	_ Depth (inches):		
Water Table Present?	Yes No 🔽	_ Depth (inches):		
Water Table Present? Saturation Present? (includes capillary fringe)	Yes No Yes No	_ Depth (inches): _ Depth (inches):	Wetland Hy	rdrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	rdrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy ctions), if availa	vdrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks:	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy ctions), if availa	rdrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	odrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	rdrology Present? Yes <u>No</u>
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy tions), if availa	rdrology Present? Yes No able:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy tions), if availa	rdrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	rdrology Present? Yes <u>No</u>
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	ndrology Present? Yes <u>No</u>
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	rdrology Present? Yes <u>No</u>
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stread Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	rdrology Present? Yes <u>No</u>
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	rdrology Present? Yes <u>No</u>
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: no hydrology indicators	Yes No Yes No m gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hy	rdrology Present? Yes <u>No</u>

Sampling Point: WJOA007\_U

	Abcoluto	Dominant Ir	adicator	Dominanco Tost workshoot:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance rest worksheet.
<u>Liriodendron tulipifera</u>	30	Yes	FACU	Number of Dominant Species
Liquidambar styraciflua	25	Yes	FAC	
2. <u>Digardamisari otgradinida</u>	10	No	FAC	Total Number of Dominant
3. Quercus nigra	10		EACU	Species Across All Strata: (B)
4. Ilex opaca	10		FACU	Percent of Dominant Species
5		<u> </u>		That Are OBL, FACW, or FAC: 71.42857142 (A/B)
6.				
7				Prevalence Index worksheet:
··	75			Total % Cover of: Multiply by:
50% of total cover: 37.5	20%		15	OBL species $0   x   1 = 0$
	20 /0 01			EACW species $\frac{2}{x^2} = \frac{4}{x^2}$
Sapling/Shrub Stratum (Plot size:)	45	Vaa		$FAC appendix = \frac{60}{2} \times 2 = \frac{180}{2}$
1. Ligustrum sinense	40		FACU	$\begin{array}{c} \text{FAC species} \\ \hline 103 \\ \hline 412 \\ \hline \end{array}$
2. Ilex opaca	10	No	FACU	FACU species $4 = 0$
3. Callicarpa americana	6	No	FACU	UPL species $0 \times 5 = 0$
4.				Column Totals:165 (A)596 (B)
5				
		·		Prevalence Index = $B/A = 3.61$
б		·		Hydrophytic Vegetation Indicators:
7		·		1 - Rapid Test for Hydrophytic Vegetation
8		. <u></u>		$\checkmark$ 2 - Dominance Test is >50%
9				$\frac{2}{2} = \frac{2}{2} = \frac{2}{2} = \frac{1}{2} = \frac{1}$
	61	= Total Cover	r	$\sim$ 3 - Flevalence index is $\leq$ 5.0
50% of total cover: 30.5	5 20% of	total cover:	12.2	4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Microstegium vimineum	5	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	2	Vos		
2. Arununana gigantea	2	Tes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3		·		be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
7		·		neight.
δ				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10		·		m) tall.
11		. <u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	7	= Total Cover	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 3.5	20% of	total cover:	1.4	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
Smilax rotundifolia	10	Yes	FAC	neight.
	8	Yes	FAC	
2. Comocia japonica		No	EACU	
3. Partnenocissus quinquerolla			TACU	
4. Vitis rotundifolia	2	No	FAC	Hydrophytic
5				Vegetation
	22	= Total Cover	r	Present? Yes V No
50% of total cover: 11	20% of	total cover:	4.4	
Remarks: (Include photo numbers here or on a separate s	heet )	-		
	moot.)			

Profile Des	cription: (Describe	to the dep	th needed to docur	nent the i	ndicator	or confirm	the absence	of indicators	s.)	
Depth	Matrix		Redo	x Features	s					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-10	10YR 3/1	100					SL			
10-20	10YR 5/4	60					SL			
	10YR 5/6	40					SL			
	. <u> </u>									
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL	_=Pore Lining	g, M=Matrix.	
Hydric Soil	Indicators:						Indica	tors for Pro	blematic Hy	dric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	e (S7)			2	cm Muck (A1	0) (MLRA 14	17)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(N</b>	ILRA 147,	148) Co	oast Prairie F	Redox (A16)	
Black H	istic (A3)		Thin Dark Sι	Irface (S9)	(MLRA 1	47, 148)		(MLRA 147,	148)	
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)		Pi	edmont Floo	dplain Soils (	F19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136,	147)	
2 cm M	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		Ve	ery Shallow D	Dark Surface	(TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface	(F7)		 O1	ther (Explain	in Remarks)	. ,
 Thick D	ark Surface (A12)	· · ·	Redox Depre	essions (F	8)			<b>、</b> 1	,	
Sandy I	Mucky Mineral (S1) (L	.RR N.	Iron-Mangan	ese Masse	es (F12) <b>(</b>	LRR N.				
MLR	A 147. 148)		MLRA 13	6)	( )(					
Sandv (	Gleved Matrix (S4)		Umbric Surfa		MLRA 13	6, 122)	<sup>3</sup> Indi	cators of hvd	Irophytic yea	etation and
Sandy I	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wet	land hvdrolo	av must be p	resent.
Stripped	d Matrix (S6)		Red Parent	Aaterial (F	21) (MLR	、 A 127, 147	') unle	ess disturbed	d or problema	itic.
Restrictive	Laver (if observed):			,	, (	,			•	
Type: N	ONE									
Depth (in	iches):						Hydric Soil	Present?	Yes	No 🖌
Remarks:							1			



Photo 1 Upland data point WJOA007\_u facing south



Photo 2 Upland data point WJOA007\_u facing west

Project/Site: SERP	City/County: _ <sup>J</sup>	ohnston	_ Sampling Date: 7/24/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA006f_W
Investigator(s):	Section, Town	ship, Range: <u>No PLSS in this Are</u>	ea
Landform (hillslope, terrace, etc.): SWALE	Local relief (conca	ave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P	Lat: 35.36355729	Long: <u>-78.38200331</u>	Datum: WGS 1984
Soil Map Unit Name: Gilead sandy loam, 2 to 8	percent slopes	NWI classif	ication: None
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrolog	y significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrolog	y naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach s	ite map showing sampling	point locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Wetland data point for a PFO wetland in	a wet s	wale				

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	
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):         Includes capillary fringe)       Vo Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:

Sampling Point: WJOA006f\_W

	A.L	<b>-</b>	Densis en la	Perten	Deminence Test werdebest	
Trop Stratum (Plat size: 30	Abso	lute	Dominant Ir	dicator	Dominance Test worksheet:	
	) <u>%0</u>	<u>over</u> 0		FAC	Number of Dominant Species	
1. Acer rubrum		0	Vac		That Are OBL, FACW, or FAC:9 (A)	
2. Liriodendron tulipifera	2	0	Yes	FACU	Total Number of Dominant	
<sub>3.</sub> _Liquidambar styraciflua	2	0	Yes	FAC	Species Across All Strata: 10 (B)	
<sub>4.</sub> Pinus taeda	1	5	Yes	FAC	、	
5					Percent of Dominant Species	
6					That Are OBL, FACW, or FAC: (A/	в)
0			<u> </u>		Prevalence Index worksheet:	
7		5	·		Total % Cover of: Multiply by:	
	07.5	<u> </u>	Total Cover	. 15		
50% of 1	otal cover: <u>37.5</u> 20	)% of t	otal cover:	15		
Sapling/Shrub Stratum (Plot size:	15)				FACW species $x^2 = 0$	
<sub>1.</sub> Liquidambar styraciflua	2	5	Yes	FAC	FAC species $130$ x 3 = $390$	
2 Acer rubrum	1:	5	Yes	FAC	FACU species $23$ x 4 = $92$	
Pinus taeda	1(	0	Yes	FAC	UPL species $0 \times 5 = 0$	
3					Column Totals: 153 (A) 482 (E	2)
4						5)
5			·		Prevalence index = $B/A = 3.15$	
6					Hydrophytic Vegetation Indicatore:	
7.					Hydrophytic vegetation indicators:	
8			······································		1 - Rapid Test for Hydrophytic Vegetation	
8. <u></u>	;;				2 - Dominance Test is >50%	
9		0	·		3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	0r	=	Total Cover	. 10	4 - Morphological Adaptations <sup>1</sup> (Provide supporti	ina
50% of 1	otal cover: 25 20	)% of t	otal cover:	10	data in Remarks or on a separate sheet)	
Herb Stratum (Plot size: 5	)					
<sub>1.</sub> Microstegium vimineum	5	5	Yes	FAC	Problematic Hydrophytic Vegetation' (Explain)	
2 Chasmanthium sessiliflorum	5	5	Yes	FAC		
2.					<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
3			·		be present, unless disturbed or problematic.	
4	,		·		Definitions of Four Vegetation Strata:	
5						
6.					<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm)	or
7					height	OT
· ·					noight.	
8	·		·		Sapling/Shrub - Woody plants, excluding vines, less	s
9	·		<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1	
10	·				m) tall.	
11					Herb – All herbaceous (non-woody) plants, regardles	35
	10	0 =	Total Cover		of size, and woody plants less than 3.28 ft tall.	
50% of t	otal cover: 5 20	)% of t	otal cover:	2		
Woody Vine Stratum (Plot size:	30 )				Woody vine – All woody vines greater than 3.28 ft in	1
Smilax rotundifolia	,	5	Yes	FAC	neight.	
1. Crimax rotananona		<u> </u>				
2. <u>Smilax bona-nox</u>		0	INO	FACU		
3						
4.					the described in	
5					Hydrophytic	
0	1	8	Tatal Cause		Present? Yes V No	
500/ -1		$\underline{0}$ =	Total Cover	36		
50% of 1	otal cover: <u> </u>	J% of t	otal cover:	0.0		
Remarks: (Include photo numbers here	or on a separate sheet.)					

Profile Desc	cription: (Describe to	o the dep	oth needed to docun	nent the i	indicator	or confirm	the absence o	of indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)		Color (moist)	%	Type'	Loc	<u>Texture</u>	Remarks
0-3	101R 2/2	100					SCL	
3-10	10YR 3/1	95	10YR 4/6	5	С	PL/M	SC	
10-18	10YR 4/1	90	10YR 4/6	10	С	PL/M	SC	
·	·							
	·							
·								
	·							
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	<sup>2</sup> Location: PL	=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicat	tors for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 c	cm Muck (A10) <b>(MLRA 147)</b>
Histic El	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(N</b>	ILRA 147,	148) <u> </u>	past Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	rface (S9	) (MLRA 1	47, 148)	5.	(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (	(F2)		PI6	
Stratilied			Podox Dark 9	IIIX (F3) Surfaca (E	56)			(MILKA 130, 147)
2 cm M	d Below Dark Surface	(A11)	Depleted Dark	k Surface	0) (F7)		Ve	her (Explain in Remarks)
Thick Da	ark Surface (A12)	(/(11)	Redox Depre	ssions (F	8)		0	
Sandy N	/lucky Mineral (S1) (L	RR N.	Iron-Mangane	ese Mass	-, es (F12) <b>(I</b>	LRR N.		
MLR	A 147, 148)		MLRA 13	6)	· / ·			
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	<sup>3</sup> Indic	cators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetl	and hydrology must be present,
Stripped	l Matrix (S6)		Red Parent M	Aaterial (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> unle	ess disturbed or problematic.
Restrictive	Layer (if observed):							
Type: CL	_AY							
Depth (in	ches):						Hydric Soil F	Present? Yes 🖌 No
Remarks:								



**Photo 1** Wetland data point WJOA006f\_w facing east



Photo 2 Wetland data point WJOA006f\_w facing north

Project/Site: SERP		City/County: Joh	inston	Sampling Date: 7/24/2014
Applicant/Owner: DOMINION			State: NC	Sampling Point: WJOA006_U
Investigator(s): GB, TP, LE		Section, Townsh	ip, Range: <u>No PLSS in this /</u>	Area
Landform (hillslope, terrace, etc.):	SIDESLOPE	_ Local relief (concav	e, convex, none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P	Lat: <u>35.36346</u>	401	_ Long: <u>-78.38197674</u>	Datum: WGS 1984
Soil Map Unit Name: Gilead sandy	loam, 2 to 8 percent slopes		NWI clas	sification: None
Are climatic / hydrologic conditions	on the site typical for this time	of year? Yes	No (If no, explain i	n Remarks.)
Are Vegetation, Soil	, or Hydrology signific	cantly disturbed?	Are "Normal Circumstance	es" present? Yes 🔽 No
Are Vegetation, Soil	, or Hydrology natura	lly problematic?	(If needed, explain any ans	swers in Remarks.)
	Attack alto man alto			-t- two - stant footunes at -

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken on a gentle side	eslope just outsi	de a wet swale cont	aining a PFO wetland.		
			Ū		

Totalia Hyarology maloatorol	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present?       Yes       No	
Saturation Present? Yes No Concern Depth (inches): Concern Con	Wetland Hydrology Present? Yes No
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No

Sampling Point: WJOA006\_U

, , ,	Abaaluta	- Dominant	Indicator	Deminence Test werksheet
Trop Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Status	Dominance Test worksneet:
Livia dan dran tulinifara	25	<u>Species</u>	FACI	Number of Dominant Species
1. Linodendron tulipitera	25	165	1700	That Are OBL, FACW, or FAC: (A)
<sub>2.</sub> Liquidambar styraciflua	20	Yes	FAC	
<ul> <li>Pinus taeda</li> </ul>	15	Yes	FAC	Total Number of Dominant
3		No	EACU	Species Across All Strata: (B)
4. Quercus alba			FACU	Demonst of Deminent Creation
5. Prunus serotina	5	No	FACU	That Are ORL EACIAL or EAC: 70 (A/R)
		·		
0. <u> </u>				Prevalence Index worksheet:
7		·		
	70	= Total Cove	۹r	Total % Cover of: Multiply by:
50% of total cover: 35	20% of	f total cover:	14	OBL species0 x 1 =0
	20/0 01			FACW species $3$ x 2 - 6
Sapling/Shrub Stratum (Plot size:)				
1. Liriodendron tulipifera	20	Yes	FACU	FAC species $\frac{70}{200}$ x 3 = $\frac{200}{250}$
2 Liquidambar styraciflua	20	Yes	FAC	FACU species $\frac{63}{252}$ x 4 = $\frac{252}{252}$
- Acer rubrum	10	No	FAC	LIPL species $0 \times 5 - 0$
3				
4. Ilex opaca	5	No	FACU	Column Totals: (A) (B)
5				
J				Prevalence Index = B/A = <u>3.41</u>
6		- <u> </u>		Hydrophytic Vegetation Indicators:
7.				
0				1 - Rapid Test for Hydrophytic Vegetation
0		·		2 - Dominance Test is >50%
9				3 - Prevalence Index is $\leq 3.0^{1}$
	55	= Total Cove	er	
50% of total cover: 27.	5 20% of	f total cover:	11	4 - Morphological Adaptations' (Provide supporting
5	2070 01			data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Arundinaria gigantea	3	Yes	FACW	
2 Chasmanthium sessiliflorum	2	Yes	FAC	
<ul> <li>Microstegium vimineum</li> </ul>	1	No	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Which ostegium vinime am			170	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata
5				Demilions of Four Vegetation of ata.
		- <u></u> -		<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
б. <u></u>		·		more in diameter at breast height (DBH), regardless of
7				height.
8				
		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10		<u> </u>		m) tall.
11.				
	6			Herb – All nerbaceous (non-woody) plants, regardless
		= Total Cove	er 1 0	or size, and woody plants less than 5.26 it tall.
50% of total cover: <u>5</u>	20% of	total cover:	1.2	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height
1 Vitis rotundifolia	5	Yes	FAC	
- Smilax rotundifolia	5	Ves	FAC	
2		103		
<sub>З.</sub> Smilax bona-nox	3	Yes	FACU	
4				
4				Hydrophytic
5				Vegetation
	13	= Total Cove	er	Present? Yes Ves No
50% of total cover: 6.5	20% of	f total cover:	2.6	
Remarks: (include photo numbers here of on a separate	sneet.)			

Depth     Matrix     Redox Features       (inches)     Color (moist)     %     Color (moist)     %     Type <sup>1</sup> Loc <sup>2</sup> Texture     Remarks       0-8     10YR 3/3     100
(inches)         Color (moist)         %         Color (moist)         %         Type <sup>1</sup> Loc <sup>2</sup> Texture         Remarks           0-8         10YR 3/3         100
0-8 10YR 3/3 100 SL
6-20 IUTR 5/2 IUU 5L
<sup>1</sup> Type: C-Concentration D-Depletion RM-Reduced Matrix MS-Masked Sand Grains <sup>2</sup> Location: PL-Pore Lining M-Matrix
Hype: 0-contentiation, D-Depletion, NW-Reduced Matrix, Mo-Masked Gand Grans. Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MI RA 147)
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16)
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19)
Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147)
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks)
Thick Dark Surface (A12) Redox Depressions (F8)
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
MLRA 147, 148) MLRA 136)
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present,
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.
Restrictive Layer (if observed):
Type:
Depth (inches): No
Remarks:



**Photo 1** Upland data point WJOA006\_u facing south



Photo 2 Upland data point WJOA006\_u facing east

Project/Site: SERP	City/County: Johnston	Samplir	ng Date: 7/24/2014
Applicant/Owner: DOMINION		_ State: <u>NC</u> Samp	oling Point: WJOA005f_W
Investigator(s): GB, TP, LE	Section, Township, Range: <u>Nc</u>	PLSS in this Area	
Landform (hillslope, terrace, etc.): FLOODPLAIN	Local relief (concave, convex, nor	ne): <u>concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): P	Lat: <u>35.35625302</u> Long: <u>-78.3</u>	38817653	Datum: WGS 1984
Soil Map Unit Name: Nahunta silt loam, 0 to 2 perc	ent slopes	NWI classification: Pl	F01C
Are climatic / hydrologic conditions on the site typic	al for this time of year? Yes 🖌 No	(If no, explain in Remarks.)	)
Are Vegetation, Soil, or Hydrology _	significantly disturbed? Are "Normal	I Circumstances" present?	Yes 🖌 No
Are Vegetation, Soil, or Hydrology _	naturally problematic? (If needed, e	explain any answers in Ren	narks.)
SUMMARY OF FINDINGS – Attach site	e map showing sampling point location	ons, transects, impo	rtant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes_✔	No
Remarks:					
Wetland data point for a saturated to se		flooded PEO wetlan	d White Oak Branch	Stream channels are	not readily distinguished within

Wetland data point for a saturated to semi-permanently flooded PFO wetland, White Oak Branch. Stream channels are not readily distinguished within wetland boundary as OHWM is not visible at most places.

Wetland Hydrology Indicators	s:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one is required;	check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> </ul>		Sparsely Vegetated Concave Surface (B8)	
<ul> <li>High Water Table (A2)</li> </ul>		Drainage Patterns (B10)	
Saturation (A3)		Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
<ul> <li>Water Marks (B1)</li> </ul>		Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Second	oils (C6) Crayfish Burrows (C8)
Drift Deposits (B3)		Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial	Imagery (B7)		Shallow Aquitard (D3)
✓ Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes 🖌 No _	Depth (inches):1	
Water Table Present?	Yes 🖌 No _	Depth (inches):0	
Saturation Present?	Yes 🖌 No _	Depth (inches):0	Wetland Hydrology Present? Yes <u></u> No
(includes capillary fringe)	m aquia a monito	ring well, corial photos, provinus increa	tiono) if available:
Describe Recorded Data (strear	n gauge, monito	ning well, aerial priotos, previous inspec	cuons), il avallable.
Remarks:			

Sampling Point: WJOA005f\_W

, , ,	Abaaluta	• Deminent I	. d'antau	Deminence Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksneet:
A Acer rubrum	15	Yes	FAC	Number of Dominant Species
	10	Yes	FACW	That Are OBL, FACW, of FAC: (A)
2. Quercus launona	10	Voc	EAC	Total Number of Dominant
3	10	Tes		Species Across All Strata: 8 (B)
4. Quercus nigra	5	No	FAC	Demonstrat Demoisson
<sub>5.</sub> Magnolia virginiana	5	No	FACW	That Aro OBL EACIAL or EAC: 100 (A/B)
6 Quercus laurifolia	5	No	FACW	
7		·		Prevalence Index worksheet:
1	50			Total % Cover of: Multiply by:
		= Total Cove	r 10	$\frac{1}{0} \frac{1}{0} \frac{1}$
50% of total cover: 25	20% of	total cover:	10	47 $94$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = \frac{34}{240}$
<sub>1.</sub> Liquidambar styraciflua	20	Yes	FAC	FAC species $300 \times 3 = 240$
2 Acer rubrum	20	Yes	FAC	FACU species x 4 =0
Aganolia virginiana	10	Yes	FACW	UPL species $0 \times 5 = 0$
3. <u></u>				$\begin{array}{c} 127 \\ 127 \\ (\Lambda) \\ 334 \\ (P) \\ \end{array}$
4		·		
5				Provolonco Index - P/A - 2.62
6.				
7				Hydrophytic Vegetation Indicators:
··			·	1 - Rapid Test for Hydrophytic Vegetation
δ		·	<u> </u>	✓ 2 - Dominance Test is >50%
9		·		✓ 3 - Prevalence Index is $\leq 3.0^1$
	50	= Total Cove	r	4 Marphalagical Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 25	20% of	total cover:	10	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
Arundinaria gigantea	15	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
- Bidens tripartita	2	No	EACW	
	Z		TACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3		. <u></u>		be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata
5				Deminions of Four Vegetation Strata.
<u> </u>		·		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
0		·		more in diameter at breast height (DBH), regardless of
7				height.
8		. <u> </u>		Sanling/Shruh Woody planta excluding vines loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
		·		,
	17	·		Herb – All herbaceous (non-woody) plants, regardless
	17	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 8.5	20% of	total cover:	3.4	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. Smilax rotundifolia	10	Yes	FAC	- Holghi
3				
٥			<u> </u>	
4				Hydrophytic
5				Vegetation
	10	- Total Cove	r	Present? Yes <u>No</u>
50% of total cover: 5	20% of	total cover:	2	
	20 /0 01	.otu 00001		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 4/1	98	10YR 4/6	2	С	PL/M	SC	
	Concentration D-Den	lation PM	-Reduced Matrix M	S-Masker	4 Sand Gr		<sup>2</sup> Location: PL-Pore	Lining M-Matrix
lydric Soil	Indicators:					anio.	Indicators f	or Problematic Hydric Soils <sup>3</sup>
Histoso Histic E Black H	l (A1) pipedon (A2) listic (A3)		Dark Surface Polyvalue Be Thin Dark Su	e (S7) elow Surfa urface (S9	.ce (S8) <b>(N</b> ) <b>(MLRA 1</b>	ILRA 147, 47, 148)	2 cm Mu 148) Coast P (MLR	uck (A10) <b>(MLRA 147)</b> rairie Redox (A16) <b>A 147, 148)</b>
<ul> <li>Hydrog</li> <li>Stratifie</li> </ul>	en Sulfide (A4) ed Layers (A5)		Loamy Gleye	ed Matrix ( trix (F3)	(F2)		Piedmon (MLR	nt Floodplain Soils (F19) A 136, 147)
2 cm M Deplete	uck (A10) <b>(LRR N)</b> ed Below Dark Surfac	e (A11)	Redox Dark Depleted Da	Surface (F rk Surface	<sup>F</sup> 6) e (F7)		Very Sh Other (E	allow Dark Surface (TF12) Explain in Remarks)
Thick D	oark Surface (A12)		Redox Depre	essions (F	8) 20 (E12) <b>(</b> )		、	. ,
MLR	A 147, 148)	-nn N,	MLRA 13	6)	es (F12) <b>(</b>	LNN N,		
Sandy	Gleyed Matrix (S4) Redox (S5)		Umbric Surfa	ace (F13) podplain S	(MLRA 13	6, 122) /MI RA 14	<sup>3</sup> Indicators	of hydrophytic vegetation and
Strippe	d Matrix (S6)		Red Parent I	Material (F	<sup>2</sup> 21) <b>(MLR</b>	(IVIERA 14 A 127, 147	<b>')</b> unless di	sturbed or problematic.
Restrictive Type: C	<b>Layer (if observed):</b> LAY							
Depth (ir	nches):						Hydric Soil Prese	nt? Yes 🖌 No 🔜
Remarks:							•	



**Photo 1** Wetland data point WJOA005f\_w facing east



Photo 2 Wetland data point WJOA005f\_w facing north

Project/Site: SERP	City/County: Joh	inston	_ Sampling Date: 7/24/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA005_U
Investigator(s): GB, TP, LE	Section, Townsh	ip, Range: <u>No PLSS in this Are</u>	а
Landform (hillslope, terrace, etc.): TOE OF SLOPE	Local relief (concav	e, convex, none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P Lat: 35.	35612695	_ Long: <u>-78.38819322</u>	Datum: WGS 1984
Soil Map Unit Name: Nahunta silt loam, 0 to 2 percent slop	es	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for thi	is time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF EINDINGS Attach site man	showing sampling p	oint locations transacte	important features etc

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken along toe of slo	pe above a PF0	O wetland			

			Secondary Indicators (mini	mum of two required)		
Primary Indicators (minimum of one is required; check all that apply)			Surface Soil Cracks (B	Surface Soil Cracks (B6)		
timary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)         Saturation (A3)       Oxidized Rhizospheres on Living Roots (         Water Marks (B1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)         Drift Deposits (B3)       Thin Muck Surface (C7)         Algal Mat or Crust (B4)       Other (Explain in Remarks)         Iron Deposits (B5)       Iron Set (Explain in Remarks)		Surface Soil Cracks (B     Sparsely Vegetated Co     Drainage Patterns (B1)     Moss Trim Lines (B16)     Dry-Season Water Tat     (C6) Crayfish Burrows (C8)     Saturation Visible on A     Geomorphic Position (	bo) oncave Surface (B8) 0) ole (C2) verial Imagery (C9) lants (D1) D2)			
Inundation Visible on Aerial	Imagery (B7)		Shallow Aquitard (D3)			
Water-Stained Leaves (B9)			Microtopographic Relie	ef (D4)		
Aquatic Fauna (B13)			FAC-Neutral Test (D5)	)		
Field Observations:						
Surface Water Present? Y	′es No _	Depth (inches):				
Water Table Present? Y	/es No 🔽	Depth (inches):				
Saturation Present? Y (includes capillary fringe)	′es No _ ✔	Depth (inches):	Vetland Hydrology Present? Yes	No		
Saturation Present? Y (includes capillary fringe) Describe Recorded Data (stream	<pre>/es No</pre> n gauge, monitoring w	Depth (inches): rell, aerial photos, previous inspect	Vetland Hydrology Present?       Yes         ns), if available:	No		

Sampling Point: WJOA005\_U

	Absoluto	Dominant In	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Deminant Species
1. Pinus taeda	30	Yes	FAC	That Are OBL, FACW, or FAC 6 (A)
2 Liquidambar styraciflua	30	Yes	FAC	
o Acer rubrum	15	No	FAC	Total Number of Dominant
	5	No	FACU	Species Across All Strata: (B)
4. Fluinus selouina				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Describer on the description of the
7				Prevalence Index worksneet:
	80	= Total Cover		Total % Cover of:Multiply by:
50% of total cover: 40	20% of	total cover:	16	OBL species $0   x 1 = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 =20$
1. Acer rubrum	20	Yes	FAC	FAC species $x 3 ={561}$
2 Liquidambar styraciflua	20	Yes	FAC	FACU species $5 \times 4 = 20$
<ul> <li>Magnolia virginiana</li> </ul>	10	No	FACW	UPL species $0 \times 5 = 0$
S. Magnona Virginiana	7		EAC	$\begin{array}{c} 202 \\ \hline \\ 202 \\ \hline \\ \hline \\ \\ \end{array} $
4. Pinus taeda			FAC	Column rotals (A) (B)
5				Prevalence Index = $B/A = 2.97$
6				
7.				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
9	57			$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
28 5		= Total Cover	114	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>20.3</u>	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5)	_			Problematic Hydrophytic Vegetation <sup>1</sup> (Evolain)
1. Microstegium vimineum	5	Yes	FAC	
2.				4
3.				Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed of problematic.
			<u> </u>	Definitions of Four Vegetation Strata:
S				<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				<b>Conting/Chrub</b> Weady plants evaluating visco loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				,
11	5			Herb – All herbaceous (non-woody) plants, regardless
50% (1) (1) (1) (2)		= Total Cover	1	or size, and woody plants less than 3.26 it tall.
50% of total cover: <u>2.3</u>	20% of	total cover:	<u> </u>	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 50 )	40		540	height.
1. Smilax rotundifolia	40	Yes	FAC	
2. Gelsemium sempervirens	10	No	FAC	
3. Vitis rotundifolia	10	No	FAC	
4				
··				Hydrophytic
J	60			Vegetation Present? Yes V
		= Total Cover	12	
50% of total cover:	20% of	total cover:	12	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the dept	n needed to docum	nent the i	ndicator	or confirm	the absence	of indicators	s.)	
Depth	Matrix		Redo	x Features	S					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-5	10YR 3/2	100					SL			
5-14	10YR 4/3	100					SL			
14-20	10YR 4/4	100					SCL			
			<u> </u>							
		<u> </u>								
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	I Sand Gra	ains.	<sup>2</sup> Location: Pl	_=Pore Lining	, M=Matrix.	
Hydric Soil	Indicators:	,	,				Indica	tors for Prob	plematic Hyd	ric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A1	0) (MLRA 147	7)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(N</b>	ILRA 147,	148) <u> </u>	oast Prairie R	edox (A16)	
Black H	ISTIC (A3)			rface (59)		47, 148)	D	(IVILRA 147,	148) Anlain Saila (F	10)
	d Lovers (A5)		Loarny Gleye	u Maliix (E2)	FZ)		PI		147) apiain Solis (F	19)
3tratilie			Depleted Ma	llik (F3) Surface (E	6)		V	(IVIERA 130, ary Shallow D	147) Jark Surface (*	TE12)
2 cm kit	d Below Dark Surface	(A11)	Depleted Dark	k Surface (i	(F7)			ther (Explain	in Remarks)	11 12)
Thick D	ark Surface (A12)	(,,,,,)	Redox Depre	ssions (F	() B)		0		in Romano)	
Sandy M	Aucky Mineral (S1) (L	RR N.	Iron-Mangan	ese Masse	es (F12) <b>(</b>	LRR N.				
MLR	A 147. 148)	,	MLRA 13	6)	οο ( <u>_</u> ) (.	,				
Sandy C	Gleved Matrix (S4)		Umbric Surfa	-, ce (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> Indi	cators of hvd	rophytic veaet	ation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) we	tland hvdrolog	av must be pre	esent.
Stripped	d Matrix (S6)		Red Parent N	Aaterial (Fi	21) <b>(MLR</b>	A 127, 147	7) unl	ess disturbed	or problemati	ic.
Restrictive	Layer (if observed):				, (		1		•	
Type: N	ONE									
Depth (in	ches):						Hydric Soil	Present?	Yes	No 🖌
Remarks:							•			



**Photo 1** Upland data point WJOA005\_u facing south



**Photo 2** Upland data point WJOA005\_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Job	Inston	Sampling Date: 1/23/2015
Applicant/Owner: Dominion		State: NC	Sampling Point: wjob104f_w
Investigator(s): TP, AS	Section, Townsh	nip, Range: No PLSS in this area	a
Landform (hillslope, terrace, etc.): drainageway	Local relief (concav	e, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 35	5.34507655	Long:78.40159073	Datum: WGS 1984
Soil Map Unit Name: Gilead sandy loam, 2 to 8 percent sl	opes	NWI classifie	cation: None
Are climatic / hydrologic conditions on the site typical for the	nis time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling po	pint locations, transects	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	V V V	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks: PEO wetland in drainage way of clear cu	It domin:	ated by	water tupelo			
	t domin	lica by	water tapelo.			

HYDROLOG
----------

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes 🖌 No Depth (inches):1	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 (includes capillary fringe)	Wetland Hydrology Present? Yes <u>V</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Pemarke:	
Remains.	

Sampling Point: wjob104f\_w

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	Status EACW	Number of Dominant Species
1. Nyssa bitiora		res	TACI	That Are OBL, FACW, or FAC:4 (A)
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				Demonstrat Demoiser
5				That Are OBL_EACW_or_EAC <sup>·</sup> 80 (A/B)
6.				
7.				Prevalence Index worksheet:
	30	- Total Cove		Total % Cover of:Multiply by:
50% of total cover: 15	20% of	total cover:	6	OBL species x 1 =15
Sapling/Shrub Stratum (Plot size: 15		·····		FACW species x 2 = 150
<u>oupmigromub otratam</u> (Flot size)	20	Yes	FACW	FAC species $0 \times 3 = 0$
1	15	Yes	FACU	FACU species $15 \times 4 = 60$
2. <u>Alguerian sinches</u>	15	Ves	FACW	$\frac{1}{100} \frac{1}{100} \frac{1}$
3. Wagnolia virginiana	10	No		$\begin{array}{c} 105 \\$
4. Leucothoe axillaris	10	NO	FACW	Column Totals: (A) (B)
5				Prevalence Index = $B/A = 2.14$
6				
7				A Deniel Test for University of a state
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
	60	Total Cau		$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
500% of total covery 30	:		12	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1				
2				The disatenes of buddies as it and under a buddets are except
3				be present unless disturbed or problematic
4.				Definitions of Four Vagetation Strates
5				Deminitions of Four vegetation Strata.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
/				neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover:	0	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
1 Smilax laurifolia	15	Yes	OBL	
·				
2				
3				
4				Hydrophytic
5				Vegetation
	15 .	= Total Cove	er	Present? Yes V No
50% of total cover: 7.5	20% of	total cover:	3	
Remarks: (Include photo numbers here or on a separate s	heet.)			1

Profile Desc	cription: (Describe to	the depth	needed to docun	nent the ir	ndicator o	or confirm	the absence	of indicators.)
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 2/1	100					SCL	
					<u> </u>			
<sup>1</sup> Type: C=C	oncentration D=Deple	tion RM=R	educed Matrix MS	S=Masked	Sand Gra	ains	<sup>2</sup> Location: P	=Pore Lining M=Matrix
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(Δ1)		Dark Surface	(97)			2	cm Muck (A10) (MI RA 147)
Histic Fi	ninedon (A2)		Polyvalue Be	low Surfac	e (S8) <b>(M</b>	I RA 147	148)	Coast Prairie Redox (A16)
Black Hi	istic (A3)		Thin Dark Su	rface (S9)	(MI RA 1	47 148)	<u> </u>	(MI RA 147 148)
<u> </u>	n Sulfide (A4)		Loamy Gleve	d Matrix (F		41, 140)	F	Piedmont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		Depleted Mat	rix (F3)	_)		·	(MI RA 136, 147)
2 cm Mi	uck (A10) (LRR N)		Redox Dark S	Surface (F6	6)		V	(erv Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)			Other (Explain in Remarks)
Thick Da	ark Surface (A12)	()	Redox Depre	ssions (F8	()			
Sandy N	/lucky Mineral (S1) (LF	RR N.	Iron-Mangane	ese Masse	., es (F12) <b>(I</b>	_RR N.		
MLR/	A 147. 148)	,	MLRA 13	6)	· · · · · / ·	,		
Sandy G	Gleved Matrix (S4)		<ul> <li>Umbric Surfa</li> </ul>	-, ce (F13) <b>(I</b>	MLRA 13	6, 122)	<sup>3</sup> Inc	licators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	<b>8)</b> we	etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	Iaterial (F2	21) (MLR	、 A 127, 147	) un	less disturbed or problematic.
Restrictive	Layer (if observed):				, ,		1	•
Type:								
Depth (in	ches).						Hydric Soil	Present? Yes 🗸 No
Departure Demontres							ingune con	
Remarks.								



**Photo 1** Wetland data point wjob104f\_w facing north



Photo 2 Wetland data point wjob104f\_w facing west

J
4

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes _✔	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No V Depth (inches):	
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):6         (includes capillary fringe)       Kes No Depth (inches):6	Wetland Hydrology Present? Yes <u></u>
Water Table Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       Ves       Depth (inches):         (includes capillary fringe)       No       Depth (inches):       6         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)       0	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):6         (includes capillary fringe)       No Depth (inches):6         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection)	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
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 inspective)         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Mo Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):6         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Mo Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes <u>Yes</u> No tions), if available:
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, previous inspective         Remarks:       Remarks:	Wetland Hydrology Present? Yes <u>Yes</u> No tions), if available:
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, previous inspective         Remarks:       Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
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 inspective         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point:<sup>wjob104\_u</sup>

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1 Liriodendron tulipifera	20	Yes	FACU	That Are OBL FACW or FAC: $2$ (A)
o Prunus serotina	15	Yes	FACU	
2				Total Number of Dominant
3				Species Across All Strata: 6 (B)
4				
5				Percent of Dominant Species
o				That Are OBL, FACW, of FAC:(A/B)
6				Prevalence Index worksheet
7				
	35	= Total Cove	er	
50% of total cover: 17.5	20% of	total cover:	7	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =0
Ligustrum sinense	15	Yes	FACU	FAC species $25 \times 3 = 75$
<u>Pumploses tinetorie</u>	45		<u> </u>	1000000000000000000000000000000000000
2. Symplocos tinctoria	15	res	FAC	FACO species $\underline{\qquad}$ $x = \underline{\qquad}$
<sub>3.</sub> llex ораса	10	Yes	FACU	UPL species $0 \times 5 = 0$
⊿ Liquidambar styraciflua	10	Yes	FAC	Column Totals:85 (A)315 (B)
5				Prevalence Index = $B/A = 3.7$
6				Hydrophytic Vegetation Indicators:
7				A Daniel Task for the dearboards March at
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	50	= Total Cove	er	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 25	20% of	total cover:	10	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sneet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4.				Definitions of Four Variation Strate:
5				Deminions of Four vegetation Strata.
<u> </u>				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		<u> </u>		more in diameter at breast height (DBH), regardless of
7				height.
8.				
0				Sapling/Shrub – Woody plants, excluding vines, less
				than 3 In. DBH and greater than or equal to 3.28 ft (1
10		<u> </u>		m) tan.
11				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover:	0	
Woody Vipo Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3.				
1				
				Hydrophytic
5				Vegetation
	0	= Total Cove	ər	Present? Yes No Ves
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			1
	1000.)			

Profile Desc	cription: (Describe t	o the depth	needed to docun	nent the ir	ndicator	or confirm	the absence of indicators.)
Depth	Matrix		Redo	x Features	<u>.</u>		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture Remarks
0-5	10YR 2/1	100					SL
5-12	10YR 3/3	100					SCL
							· · · · · · · _ · _ ·
							· · · · · · · · · · · · · · · · · · ·
							·
1- 0.0				. <u> </u>			2
Type: C=C	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soli				(07)			
Histosol	(A1)		Dark Surface	(S7) Iour Curtor	··· (CO) /M		2 cm Muck (A10) (MLRA 147)
	pipedon (AZ)		Polyvalue Be	rface (SO)	/MIDA1	LKA 147,	(MI DA 147, 149)
Black II	Suc(A3)			nace (39) d Matrix (F		47, 140)	Piedmont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		Depleted Mat	trix (F3)	<i>_</i> )		(MLRA 136, 147)
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	6)		Verv Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F8	3)		
Sandy M	/lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(I</b>	_RR N,	
MLR	A 147, 148)		MLRA 13	6)			
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(I</b>	MLRA 13	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	<b>8)</b> wetland hydrology must be present,
Stripped	l Matrix (S6)		Red Parent M	Aaterial (F2	21) <b>(MLR</b>	A 127, 147	y) unless disturbed or problematic.
Restrictive	Layer (if observed):						
Туре:							
Depth (in	ches):		_				Hydric Soil Present? Yes No
Remarks:							•



**Photo 1** Upland data point wjob104\_u facing north



Photo 2 Upland data point wjob104\_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Joh	nston	_ Sampling Date: 1/22/2015		
Applicant/Owner: Dominion		State: NC	_ Sampling Point: wjob103s_w		
Investigator(s): TP, AS	Section, Townsh	p, Range: No PLSS in this area			
Landform (hillslope, terrace, etc.): drainage way	Local relief (concave	e, convex, none): <u>concave</u>	Slope (%): <u>2</u>		
Subregion (LRR or MLRA): P Lat:	35.34483067	Long: <u>-78.40285156</u>	Datum: WGS 1984		
Soil Map Unit Name: Gilead sandy loam, 2 to 8 percent	slopes	NWI classific	ation: None		
Are climatic / hydrologic conditions on the site typical fo	r this time of year? Yes	No (If no, explain in Re	emarks.)		
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No		
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answer	rs in Remarks.)		
SUMMARY OF FINDINGS Attach site m	on chowing compling no	int locations, transacto	important factures ato		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u>	No No No	Is the Sampled Area within a Wetland?	Yes	No			
Remarks:								
PSS wetland located in the drainage wa	PSS wetland located in the drainage way of a clear cut. Timbered approximately 10 to 15 years ago.							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present?       Yes	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point: wjob103s\_w

	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminent Species
Acer rubrum	5	Yes	FAC	That Are OBL EACW/ or EAC: $5$ (A)
l		· ·		
2		· ·		Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				· · · · · · · · · · · · · · · · · · ·
		· ·		Percent of Dominant Species
5		· <u> </u>	<u> </u>	That Are OBL, FACW, or FAC: (A/B)
6				
7.				Prevalence Index worksheet:
	5			Total % Cover of: Multiply by:
25			1	OBL species $0 \times 1 = 0$
50% of total cover: <u>2.0</u>	20% of	total cover:		$\frac{522}{55} \times 2 \times \frac{110}{110}$
Sapling/Shrub Stratum (Plot size: 13 )				FACW species $x = 105$
<sub>1.</sub> Acer rubrum	20	Yes	FAC	FAC species $33$ x 3 = $103$
2 Liquidambar styraciflua	10	Yes	FAC	FACU species $0   x 4 = 0$
2				$\frac{1}{10} \frac{1}{10} \frac$
3				$\frac{\text{OFL species}}{90} \times 5 = \underline{215}$
4.				Column Totals: (A) (B)
5				
<u>.</u>		· ·		Prevalence Index = $B/A = 2.38$
b		· ·		Hydrophytic Vegetation Indicators:
7		· ·		1 - Ranid Test for Hydronhytin Vegetation
8.				
0		· ·		2 - Dominance Test is >50%
9		· <u> </u>	<u> </u>	$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	30	= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 15	20% of	total cover:	6	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
A Arundinaria gigantea	20	Ves	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u></u>			FACIN	
2. Onoclea sensibilis	15	Yes	FACW	<sup>1</sup> Indiantors of hydric coll and watland hydrology must
<sub>З.</sub> Juncus effusus	10	No	FACW	he present upless disturbed or problematic
∧ Scirpus cvperinus	10	No	FACW	be present, unless disturbed of problematic.
4		· ·		Definitions of Four Vegetation Strata:
5				
6				I ree – woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
/		· ·		neight.
8		· ·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
		· ·		,
11		· <u> </u>	<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
	55	= Total Cover	•	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5	20% of	total cover:	11	We a devide a Allow a devide a second at the electron (the second s
Woody Vine Stratum (Plot size: 30)				woody vine – All woody vines greater than 3.28 ft in
,				
l		· <u> </u>		
2				
3				
4				
		· ·		Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes Ves No
50% of total cover: 0	20% of	total cover:	0	
Pomorko: (Includo photo numboro horo or on o conoroto o	hoot)			
Remarks. (include photo numbers here of on a separate s	neet.)			

Profile Desc	ription: (Describe t	o the dep	th needed to docur	nent the i	ndicator o	or confirm	the absence	e of indicators.)		
Depth	Matrix		Redo	x Features	3					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-12	10YR 3/2	95	10YR 4/6	5	С	М	SCL			
						·				
						<u> </u>				
						<u> </u>				
						·				
<sup>1</sup> Type: C=C	oncentration. D=Deple	etion. RM=	=Reduced Matrix. M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:						Indic	cators for Problematic Hydric Soils <sup>3</sup> :		
Histosol	(A1)		Dark Surface	e (S7)				2 cm Muck (A10) <b>(MLRA 147)</b>		
Histic Fr	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(M</b>	LRA 147.	148) (	Coast Prairie Redox (A16)		
Black Hi	stic (A3)		Thin Dark Su	Irface (S9)	(MLRA 1	47. 148)		(MLRA 147, 148)		
Hydroge	n Sulfide (A4)		Loamy Gleve	ed Matrix (	<b>F</b> 2)	, -,	1	Piedmont Floodplain Soils (F19)		
Stratified	Lavers (A5)		<ul> <li>Depleted Ma</li> </ul>	trix (F3)	,			(MLRA 136, 147)		
2 cm Mu	ick (A10) (LRR N)		Redox Dark	Surface (F	6)		,	Very Shallow Dark Surface (TF12)		
Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	(F7)		Other (Explain in Remarks)			
Thick Da	ark Surface (A12)		Redox Depre	essions (F8	3)					
Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(I</b>	_RR N,				
MLR	A 147, 148)		MLRA 13	6)						
Sandy G	eleyed Matrix (S4)		Umbric Surfa	ice (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> In	dicators of hydrophytic vegetation and		
Sandy F	edox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) w	etland hydrology must be present,		
Stripped	Matrix (S6)		Red Parent M	Material (F	21) <b>(MLR</b>	A 127, 147	<b>7)</b> ui	nless disturbed or problematic.		
Restrictive	_ayer (if observed):									
Type:										
Depth (in	ches):						Hvdric Soi	il Present? Yes 🖌 No		
Pemarke:							.,			
itemains.										



**Photo 1** Wetland data point wjob103s\_w facing north



Photo 2 Wetland data point wjob103s\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Joh	nston	Sampling Date: <u>1/22/2015</u>			
Applicant/Owner: Dominion		State: NC	Sampling Point: wjob103_u			
Investigator(s): TP, AS	Section, Townsh	Section, Township, Range: No PLSS in this area				
Landform (hillslope, terrace, etc.): hill slope	Local relief (concave	e, convex, none): <u>none</u>	Slope (%): <u>0</u>			
Subregion (LRR or MLRA): P Lat	35.34477482	_ Long: <u>-78.40272195</u>	Datum: WGS 1984			
Soil Map Unit Name: Gilead sandy loam, 2 to 8 percer	nt slopes	NWI classific	cation: None			
Are climatic / hydrologic conditions on the site typical for	or this time of year? Yes	No (If no, explain in R	emarks.)			
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes 🖌 No			
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	rs in Remarks.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland point in clear cut.					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled So	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No_
(includes capillary fringe)	·
L Describe Recorded Data (stream dauge, monitoring well, aerial photos, previous inspec	ions), it available:
Remarke:	
Remarks:	

Sampling Point: wjob103\_u

-	•	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	% Cover	Species?	Status	Number of Dominant Species
1					That Are OBL, FACW, or FAC:4 (A)
2					
3					Total Number of Dominant
3					Species Across All Strata. (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 80 (A/B)
6					Describer on Index workshoet.
7					Prevalence index worksneet:
		0	= Total Cove	er	Total % Cover of:Multiply by:
	50% of total cover: 0	20% of	total cover:	0	OBL species $0   x 1 = 0$
Sapling/Shrub Stratum (Plot siz	ze: 15 )				FACW species $\begin{array}{c} 0 \\ x 2 = \\ \end{array}$
1 Liquidambar styraciflua	,	15	Yes	FAC	FAC species $x_3 ={150}$
2 Quercus alba		10	Yes	FACU	FACU species $10   x 4 = 40$
- Acer rubrum		10	Ves	FAC	$\frac{1}{1} \frac{1}{1} \frac{1}$
3. <u>700110010111</u>			No		$\begin{array}{c} 60 \\ 60 \\ 60 \\ 60 \\ 60 \\ 60 \\ 60 \\ 60 $
4. Pinus taeda		5		FAC	Column Totals: (A) (B)
5					Prevalence Index $- B/A - 3.16$
6					
7.					Hydrophytic vegetation indicators:
8					1 - Rapid Test for Hydrophytic Vegetation
0					2 - Dominance Test is >50%
9		40			3 - Prevalence Index is ≤3.0 <sup>1</sup>
	20	40	= Total Cove	er 8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	50% of total cover: $20$	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5)				Problematic Hydrophytic Magatation <sup>1</sup> (Evaluin)
1					
2.					
3					Indicators of hydric soil and wetland hydrology must
					be present, unless disturbed or problematic.
4					Definitions of Four Vegetation Strata:
5					<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
6					more in diameter at breast height (DBH), regardless of
7					height.
8					Conting (Chrysh - Weach, plants, such diagoniase, loss
9.					than 3 in DBH and greater than or equal to 3.28 ft (1
10.					m) tall.
11					
11		0			Herb – All herbaceous (non-woody) plants, regardless
	500/ - ( ) - 1		= Total Cove	er 2	or size, and woody plants less than 3.28 it tall.
	50% of total cover:	20% of	total cover:	2	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size	:)	4.0			height.
1. Gelsemium sempervirens		10	Yes	FAC	
2. Lonicera japonica		10	Yes	FAC	
3.					
4					
					Hydrophytic
5					Vegetation Present? Ves V
	10	20	= Total Cove	er 1	
	50% of total cover: 10	20% of	total cover:	+	
Remarks: (Include photo numb	ers here or on a separate s	heet.)			
1					

Profile Des	cription: (Describe t	o the depth	needed to docun	nent the in	ndicator	or confirm	the absend	ce of indicato	ors.)	
Depth	Matrix		Redo	x Features	8					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-4	10YR 2/1	100					SL			
4-12	10YR 5/4	100					SCL			
				·						<u> </u>
				<u> </u>						
				<u> </u>						
										<u> </u>
				<u> </u>						<u> </u>
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location:	PL=Pore Lini	ng, M=Matrix	
Hydric Soil	Indicators:						Ind	icators for Pr	oblematic H	ydric Soils":
Histoso	l (A1)		Dark Surface	(S7)				2 cm Muck (/	410) <b>(MLRA</b> ′	147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfac	ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie	Redox (A16)	1
Black H	istic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 14	7, 148)	( <b>—</b> )
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	F2)					
Stratifie	d Layers (A5)		Depleted Mat	trix (F3)	•			(MLRA 13	6, 147)	
2 cm Mi	uck (A10) <b>(LRR N)</b> d Dalam Dark Curfess	(	Redox Dark 3	Surface (F	6) (F7)		Very Shallow Dark Sufface (TF12) Other (Explain in Remarks)			
Depiete	o Below Dark Surface	e (ATT)	Depleted Dar	K Surface	(F7)			Other (Expla	in in Remarks	5)
	ark Surface (ATZ)				) )) (E12) <b>(</b>					
Sanuy n	A 147 148)	<b>ΓΓ Ν</b> ,		555 Masse	55 (F12) <b>(</b> 1					
Sandy (	Cleved Matrix (S4)		Limbric Surfa	0) CP (F13) (I	MI RA 13	6 122)	<sup>3</sup> I	ndicators of b	drophytic ve	netation and
Sandy E	Redox (S5)		Diedmont Flo	odolain Sc	nile (F1Q)	0, 122) (ΜΙ ΒΔ 14	.8) \	vetland bydro	loav must be	nresent
Stripped	d Matrix (S6)		Red Parent M	Aaterial (F2	21) (MLR)	A 127. 147	ν) ()	unless disturb	ed or problem	atic.
Restrictive	l aver (if observed):					,	/ 、			
Type:										
Type.							Line data Ca		Vee	
Depth (in	icnes).						Hydric Sc	on Present?	res	<u> </u>
Remarks:										



**Photo 1** Upland data point wjob103\_u facing east



Photo 2 Upland data point wjob103\_u facing north
# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: SERP	City/County: Johnston		Sampling Date:	7/23/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point:	WJOA004e_W
Investigator(s): GB, TP, LE	_ Section, Township, Range: [	No PLSS in this Are	а	
Landform (hillslope, terrace, etc.): SWALE	Local relief (concave, convex	a, none): <u>concave</u>	Sloj	pe (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 35.34	398561 Long:	-78.40251502	Da	atum: WGS 1984
Soil Map Unit Name: Gilead sandy loam, 2 to 8 percent slopes		NWI classific	ation: None	
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes 🖌 No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Norm	al Circumstances" p	oresent? Yes	✓ No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locat	ons, transects	, important f	eatures, etc.
Hydrophytic Vegetation Present?       Yes        V       No         Hydric Soil Present?       Yes        V       No         Wetland Hydrology Present?       Yes        V       No	Is the Sampled Area within a Wetland?	Yes 🔽	No	_
Remarks: Wetland data point for a saturated PEM wetland in a wet swale; loca	ted in a recent clear cut			
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of	f two required)
Primary Indicators (minimum of one is required; check all that apply	)	Surface Soil	Cracks (B6)	
Surface Water (A1)     Aquatic Fauna (B       High Water Table (A2)     Marl Deposits (B1	13) 5) <b>(LRR U)</b>	Sparsely Veg	getated Concave tterns (B10)	Surface (B8)

High Water Table (A2)		_ Mari 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) (9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present?	Yes No	<ul> <li>Depth (inches):</li> </ul>	
Water Table Present?	Yes No	Depth (inches):	
Saturation Procent?	Yos No	Dopth (inches): 14	Watland Hydrology Brosont? Yas V
(includes capillary fringe)	163 110 _	Deptil (inches).	
Describe Recorded Data (stre	eam gauge, monito	ring well, aerial photos, previous inspec	tions), if available:
Remarks:			

# Sampling Point: WJOA004e\_W

0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 0)	% Cover	Species?	Status	Number of Dominant Species
1		<u> </u>		That Are OBL, FACW, or FAC:4 (A)
2				Total Number of Dominant
3				Species Across All Strata:4 (B)
4				
5.				That Are OBL_EACW or EAC <sup>1</sup> 100 (A/B)
6.				
7		·		Prevalence Index worksheet:
8		·	<u> </u>	Total % Cover of: Multiply by:
0	0	- Total Cov		OBL species X 1 = 70
	2001/ -4		0	FACW species $40$ x 2 = $80$
	20% of	total cover:		FAC species $5 \times 3 = 15$
Sapling/Shrub Stratum (Plot size: 0)	15	Vaa		EACU species $0$ $x 4 = 0$
1. Salix nigra	15	res	OBL	$\frac{1111}{1111} = \frac{1111}{1111} = \frac{1111}{1111} = \frac{1111}{1111} = \frac{11111}{1111} = \frac{11111}{1111} = \frac{11111}{1111} = \frac{11111}{1111} = \frac{11111}{1111} = \frac{111111}{11111} = \frac{111111}{11111} = \frac{1111111}{111111} = \frac{11111111}{11111111} = \frac{111111111}{11111111111111111111111111$
2				$\begin{array}{c} \text{Column Tatala:} & 115 \\ \text{Column Tatala:} & 115 \\ \text{Column Tatala:} & 165 \\ \text{Column Tatala:} & 108 \\ Column Ta$
3				Column Totals: (A) (B)
4				Prevalence Index = $B/A = 1.43$
5				Hydrophytic Vegetation Indicators:
6				<ul> <li>I - Ranid Test for Hydronbytic Vocatation</li> </ul>
7				
8				
0	15	- Total Cov	or.	<u> </u>
50% of total covers 7.5			3	Problematic Hydrophytic Vegetation' (Explain)
	20% 01	total cover.		
Herb Stratum (Plot size:)	25	Vaa		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		res		be present, unless disturbed or problematic.
2. Panicum dichotomitiorum	20	Yes	FACW	Definitions of Four Vegetation Strata:
3. Juncus effusus	20	Yes	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Persicaria glabra	10	No	OBL	more in diameter at breast height (DBH), regardless of
5. Arundinaria gigantea	10	No	FACW	height.
6. Saccharum giganteum	10	No	FACW	Sapling/Shrub – Woody plants, excluding vines, less
7. Solidago rugosa	5	No	FAC	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				
0		·		Herb – All herbaceous (non-woody) plants, regardless 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	100			
50	100	= Total Cove	er	
50% of total cover: 50	20% of	total cover:	20	
Woody Vine Stratum (Plot size: 0)				
1				
2				
3.				
4			<u> </u>	
5		·		
	0	- Total Cov		Hydrophytic Vegetation
<b>6</b> 00/ -64-64 0			0	Present? Yes <u>No</u>
	20% of	total cover:		
Remarks: (If observed, list morphological adaptations belo	w).			

SOIL

Profile Desc	ription: (Describe	o the depth	needed to docun	nent the ir	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redo	x Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-14	10YR 2/1	100					SL	
14-20	10YR 4/1	100					SL	
		ation DM-D	oduced Metrix MC		Cond Cr		<sup>2</sup> l costion:	DI - Dara Lining, M-Matrix
Hvdric Soil	Indicators: (Application)	able to all L	RRs. unless other	wise note	sand Gr	ains.	Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Be	low Surfac	re (S8) <b>(I</b>	RRSTII)	1 cm M	
Histic Er	ninedon (A2)		Thin Dark Su	rface (S9)		T II)	2 cm M	Auck (A10) (I RR S)
Black Hi	stic (A3)		Loamy Mucky	/ Mineral (	(EIXIX 0, (EIXIX 0,	2 (0)	2 cm r	red Vertic (E18) (outside MI RA 150A B)
Hydroge	en Sulfide (A4)		Loamy Gleve	d Matrix (F	=2)	,	Piedm	ont Floodplain Soils (F19) (I RR P. S. T)
Stratified	1 avers (A5)		Depleted Mat	rix (E3)	_)		Anom	alous Bright Loamy Soils (E20)
Organic	Bodies (A6) <b>(I RR P</b>	т н)	Bedox Dark 9	Surface (Fi	6)		/MI	RA 153B)
<u> </u>	icky Mineral (A7) (I R	RPTIN	Depleted Dar	k Surface	(F7)		Red P	arent Material (TE2)
O chi Mu		N ( , 1, 0)	Depicted Dai	esione (E8	(i / ) 2)		Netry S	Shallow Dark Surface (TE12)
		,	Net(E10) (I	<b>DD II</b>	,		Other	(Evolain in Remarks)
	d Rolow Dark Surface	(11)		nn U) aria (E11) (		51)		
Depleted	a Below Dark Sullace						3 <sup>3</sup> India	sators of hydrophytic vogotation and
	ark Sundee (A12)						) 1100	tand budrology must be present
Coast Pl	Tairle Redux (AT6) (IN	ILRA 150A)	Onibric Suria	Ce (FIS) (I	LKK P, I	, 0)	we	liand hydrology must be present,
Sandy iv	lucky Mineral (S1) (L	RR 0, 5)	Delta Ochric	(F17) <b>(IVIL</b> )	RA 151)		uni	ess disturbed or problematic.
Sandy G	Sieyed Matrix (S4)		Reduced ver	tic (F18) <b>(I</b>	WLRA 15	UA, 150B)	•	
Sandy R	(S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 149	A)	
Stripped	Matrix (S6)		Anomalous B	right Loan	ny Soils (	F20) <b>(MLRA</b>	149A, 153C	, 153D)
Dark Su	rface (S7) (LRR P, S	, T, U)						
Restrictive I	Layer (if observed): NE							
Depth (in	ches):						Hydric Soil	Present? Yes 🗸 No
Remarks:							ingano con	
rtemarto.								



Photo 1 Wetland data point WJOA004e\_w facing west



Photo 2 Wetland data point WJOA004e\_w facing north

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

Project/Site: SERP		_ City/County: Jo	hnston		Sampling Dat	e: 7/23/2014
Applicant/Owner: DOMINION				State: NC	Sampling Poir	nt: WJOA004_U
Investigator(s): <u>GB, TP, LE</u>		_ Section, Towns	hip, Range: <u>N</u>	o PLSS in this A	rea	
Landform (hillslope, terrace, etc.): TOE OF	SLOPE	_ Local relief (con	icave, convex,	none): none	S	lope (%): <u>4</u>
Subregion (LRR or MLRA): P	Lat: <u>35.34</u>	397574	Long: _	78.4024376		Datum: WGS 1984
Soil Map Unit Name: Gilead sandy loam, 2	to 8 percent slopes			NWI classi	fication: None	
Are climatic / hydrologic conditions on the	site typical for this time of	/ear?Yes 🖌	No	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hy	drology significant	y disturbed?	Are "Norma	I Circumstances'	" present? Yes	✓ No
Are Vegetation, Soil, or Hy	drology naturally p	roblematic?	(If needed, e	explain any answ	vers in Remarks.	)
SUMMARY OF FINDINGS - Atta	ch site map showin	g sampling p	oint locatio	ons, transect	ts, important	features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Upland data point just above toe of slope	Yes         V         No           Yes         No         V           Yes         No         V           Yes         No         V	- Is the Sa - within a 	ampled Area Wetland? t	Yes	No	
HYDROLOGY Wetland Hydrology Indicators:				Secondary India	cators (minimum	of two required)
Primary Indicators (minimum of one is rea	quired; check all that apply	)		Surface So	oil Cracks (B6)	
Surface Water (A1)	Aquatic Fauna (B	13)		Sparsely V	egetated Conca	ve Surface (B8)
High Water Table (A2)	Marl Deposits (B	15) (LRR U)		Drainage F	Patterns (B10)	

High Water Table (A2)			(K U)	Drainage Patterns (B10)	
Saturation (A3)			(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 Ir	ron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)			Recent Iron Reduction i	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 Rema	ırks)	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	Hydrology Present? Yes No 🖌
Describe Recorded Data (stre	am gauge	monitori	ng well, aerial photos, pr	revious inspections), if ava	ailable:
insufficient hydrology indicator	3				
Remarks:					

Sampling Point: WJOA004\_U

0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 0)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Liquidambar styracifiua	5	Yes	FAC	That Are OBL, FACW, or FAC:9 (A)
2. Acer rubrum	3	Yes	FAC	Total Number of Dominant
3				Species Across All Strata:9 (B)
4				
5.				That Are OBL_EACW or EAC <sup>1</sup> 100 (A/B)
6				
7				Prevalence Index worksheet:
0				Total % Cover of: Multiply by:
0	8	Tatal Car		OBL species0 x 1 =0
			er 1.6	FACW species $20$ x 2 = $40$
50% of total cover:	20% of	total cover:		EAC species $\frac{143}{x_3} = \frac{429}{x_3}$
Sapling/Shrub Stratum (Plot size: 0)	40	Vee		EACLI species $0$ $x = 0$
1. Liquidambar styracifiua	40	Yes	FAC	
2. Rubus argutus	15	Yes	FAC	$163 \times 35 - 163 \times 169 \times 100$
3. Clethra alnifolia	10	No	FACW	Column Totals: (A) (B)
4. Pinus taeda	10	No	FAC	Prevalence index = $B/A = 2.87$
5. Acer rubrum	10	No	FAC	
6 Magnolia virginiana	10	No	FACW	Hydrophytic vegetation indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
0	95			<u>v</u> 3 - Prevalence Index is ≤3.0'
47.5		= Total Cov	er 10	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: $-77.5$	20% of	total cover:	19	
Herb Stratum (Plot size: 0)				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. <u>Solidago rugosa</u>	15	Yes	FAC	be present, unless disturbed or problematic.
2. Juncus tenuis	10	Yes	FAC	Definitions of Four Vegetation Strata:
3. Microstegium vimineum	10	Yes	FAC	Tree Mondu plante evoluting vinge 2 in (7.0 em) en
4.				more in diameter at breast height (DBH) regardless of
5				height.
6				O an line (Ohmahaa) Maada ahar barta aa ahadin aa daar
7				than 3 in DBH and greater than 3 28 ft (1 m) tall
/·				
0				<b>Herb</b> – All herbaceous (non-woody) plants, regardless
9			·	or 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				
	35	= Total Cov	er	
50% of total cover: 17.5	20% of	total cover:	7	
Woody Vine Stratum (Plot size: 0)				
1 Smilax rotundifolia	15	Yes	FAC	
2 Gelsemium sempervirens	10	Yes	FAC	
2.				
3				
4			·	
5				Hydrophytic
	25	= Total Cov	er _	Vegetation
50% of total cover:12.5	20% of	total cover:	5	Present? res No
Remarks: (If observed, list morphological adaptations belo	w).			
	,			

SOIL

Profile Desc	cription: (Describe t	o the depth	needed to docu	ment the i	ndicator	or confirm	the absence of	f indicators.)
Depth	Matrix		Redo	ox Features	5			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-8	10YR 3/2	100					SL	
8-20	10YR 5/3	100					SL	
						·		
						<u> </u>		
<sup>1</sup> Turney 0-0					Cand Ca	·	<sup>2</sup> l a setient D	
	Indicators: (Applica		Reduced Matrix, M	S=Masked		ains.	Location: P	r Problematic Hydric Soils <sup>3</sup> :
Hydric Soli	indicators. (Applica		KKS, unless onle	i wise nou	eu.)		indicators to	
Histosol	(A1)		Polyvalue Be	elow Surfac	ce (S8) (L	RR S, T, U) 	1 cm Mu	ck (A9) (LRR O)
HISTIC E	pipedon (A2)			urface (S9)	(LRRS,	I, U)	2 cm Mu	CK (A10) (LRR S)
	ISTIC (A3)			(y Mineral (	(F1) <b>(LKK</b> F2)	0)	Reduced	t Fleedelein Seile (F10) (LBB D S T)
Hydroge	d Lovero (AE)		Loamy Gley	ed Matrix (	FZ)		Pleamon	It Floodplain Solis (F19) (LRR P, S, T)
	U Layers (AS)	<b>T</b> 11	Depleted Wa	Surface (F	(G)			A 162D)
Organic	boules (A0) (LKK P,	и, <i>U)</i> в в т их	Redux Dalk		(57)			ant Material (TE2)
5 cm Muck P		κ Γ, Ι, Ο)	Depieted Da		(17) 2)			allow Dark Surface (TE12)
			Marl (E10) (		5)		Other (E)	volain in Remarks)
Tenlete	d Below Dark Surface	(A11)	Depleted Oc	hric (F11)	(MI RA 14	51)		
Thick D	ark Surface (A12)	, (, (, (, ),	Iron-Mangar	nese Masse	es (F12) (	RR 0. P. 1	<sup>3</sup> Indicat	ors of hydrophytic vegetation and
Coast P	rairie Redox (A16) <b>(M</b>	II RA 150A)	Umbric Surf	ace (F13) <b>(</b>		)	wetlar	nd hydrology must be present
Sandy N	Aucky Mineral (S1) (L	RR O. S)	Delta Ochric	(F17) <b>(ML</b>	RA 151)	, -,	unles	s disturbed or problematic
Sandy C	Gleved Matrix (S4)		Reduced Ve	rtic (F18) (	MLRA 15	0A. 150B)		
Sandy F	Redox (S5)		Piedmont Fl	oodplain S	oils (F19)	(MLRA 149	A)	
Stripped	d Matrix (S6)		Anomalous I	Bright Loar	ny Soils (I		, 149A, 153C, 1	53D)
Dark Su	Irface (S7) (LRR P, S	, T, U)		0	, (		, ,	
Restrictive	Layer (if observed):							
Type: NC	DNE							
Depth (in	ches):						Hydric Soil P	resent? Yes No
Remarks:								
l								



**Photo 1** Upland data point WJOA004\_u facing east



**Photo 2** Upland data point WJOA004\_u facing south

Project/Site: SEEP	City/County: Job	Inston	Sampling Date: 7/22/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA003f_W
Investigator(s): GB, TP, LE	Section, Townsh	nip, Range: No PLSS in this Area	1
Landform (hillslope, terrace, etc.): DEPRESSION	Local relief (concav	e, convex, none): <u>convex</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): P Lat: 35	5.33865801	Long: <u>-78.40709169</u>	Datum: WGS 1984
Soil Map Unit Name: Bibb sandy loam, 0 to 2 percent slop	oes, frequently flooded	NWI classific	ation: PFO1F
Are climatic / hydrologic conditions on the site typical for th	nis time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answer	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling p	oint locations, transects	, important features, etc.

Hydrophytic Vegetation Present?	Yes	<u> </u>	No	Is the Sampled Area		,	
Hydric Soll Present?	Yes	•	N0	within a Wetland?	Yes	~	Νο
Wetland Hydrology Present?	Yes	~	No				
Remarks:							

Wetland data point for a PFO wetland. Due to human diversions and beaver activity, hydrology varies from saturated to permanently flooded. Feature has been partially logged. Cover type varies as well due to logging and beaver activity; cannot cross or navigate through feature to capture cover type changes. Feature is a complex of open water, PEM, PSS, and PFO; categorized as PFO to reflect the natural state of feature without disturbance. Stream channels are not apparent due to disturbance and beavers; cannot locate OHWM to map channels.

Secondary Indicators (minimum of two required)
Surface Soil Cracks (B6)
d Hydrology Present? Yes <u>V</u> No
vailable:

Sampling Point: WJOA003f\_W

	Abaaluta	Densinent	la dia atau	Deminence Test worksheet	
Tree Stratum (Plot size: 0)	% Cover	Species?	Status	Dominance Test worksneet:	
Nucce biflere	<u>30</u>	<u>Species:</u> Vee	FACW	Number of Dominant Species	
	10	Yes	FACW	That Are OBL, FACW, or FAC: (	A)
2. Liquidambar aturnoiflua		No	FAC	Total Number of Dominant	
3. Liquidambar styracinua				Species Across All Strata:	B)
4. Quercus nigra	2	NO	FAC	Percent of Dominant Species	
5				That Are OBL, FACW, or FAC: 100 (A	A/B)
6					
7.				Prevalence Index worksheet:	
	44	= Total Cov	er	Total % Cover of: Multiply by:	
50% of total cover: 22	20% of	total cover:	8.8	OBL species <u>34</u> x 1 = <u>34</u>	
Sapling/Shrub Stratum (Plot size: 0				FACW species $\frac{86}{x^2} = \frac{172}{x^2}$	
<u>Cyrilla racemiflora</u>	18	Yes	FACW	FAC species $\frac{47}{x^3} = \frac{141}{x^3}$	
1. Clethra alaifalia	10	Voc	EAC	$\frac{1}{1} = \frac{1}{1} = \frac{1}$	
				$1 \text{ ACO Species} \qquad 0 \qquad x 4 = \underline{\qquad} 0$	
3. Leucothoe axiliaris	8		FACW	$\begin{array}{c} \text{OPL species} \\ 167 \\ 347 \\ 347 \\ \end{array}$	
4. Liquidambar styraciflua	5	No	FAC	Column Totals: (A)	(B)
5. Acer rubrum	4	No	FAC	Prevalence Index - B/A - 2.07	
<sub>6.</sub> Itea virginica	4	No	OBL		
7. Symplocos tinctoria	4	No	FAC	Hydrophytic vegetation indicators:	
0				1 - Rapid Test for Hydrophytic Vegetation	
8				2 - Dominance Test is >50%	
9	53			$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
26.5		= Total Cov	er 10.6	4 - Morphological Adaptations <sup>1</sup> (Provide suppo	orting
50% of total cover: <u>20.3</u>	20% of	total cover:		data in Remarks or on a separate sheet)	-
Herb Stratum (Plot size: 0)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
1. Justicia lanceolata	15	Yes	OBL		
2. Sparganium americanum	15	Yes	OBL		
3. Panicum dichotomiflorum	10	No	FACW	Indicators of hydric soil and wetland hydrology mu	ist
4. Arundinaria gigantea	10	No	FACW	Definitions of Four Vanatation Strates	
5 Microstegium vimineum	5	No	FAC	Definitions of Four vegetation Strata:	
6	-			Tree – Woody plants, excluding vines, 3 in. (7.6 cm	n) or
0				more in diameter at breast height (DBH), regardles	s of
[ /				neight.	
8				Sapling/Shrub – Woody plants, excluding vines, le	ess
9				than 3 in. DBH and greater than or equal to 3.28 ft	(1
10				m) tall.	
11				Herb – All herbaceous (non-woody) plants, regard	less
	55	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.	
50% of total cover: 27.5	20% of	total cover:	11		
Woody Vine Stratum (Plot size: 0)				<b>Woody vine</b> – All woody vines greater than 3.28 ft	IN
1 Smilax rotundifolia	15	Yes	FAC	neight.	
2					
3					
4				Hydrophytic	
5				Vegetation	
	15	= Total Cov	er	Present? Yes Vo No	
50% of total cover: 7.5	20% of	total cover:	3		
Remarks: (Include photo numbers here or on a separate s SELECTIVELY LOGGED RECENTLY	heet.)				

Denth	Matriv		Redo	v Foaturos				
(inches)	Color (moist)	%	Color (moist)	% T	vpe <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 2/1	100					CL	
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked Sa	nd Gra	ins.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	cators for Problematic Hydric Soils <sup>3</sup> :
Histosol Histic Eµ Black Hi Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M MLRA	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) <b>(LRR N)</b> d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) <b>(L</b> A 147, 148)	e (A11) RR N,	<ul> <li>Dark Surface</li> <li>Polyvalue Be</li> <li>Thin Dark Su</li> <li>Loamy Gleye</li> <li>Depleted Ma</li> <li>Redox Dark</li> <li>Depleted Da</li> <li>Redox Depre</li> <li>Iron-Mangan</li> <li>MLRA 13</li> </ul>	e (S7) elow Surface ( urface (S9) <b>(M</b> ed Matrix (F2) ttrix (F3) Surface (F6) rk Surface (F7 essions (F8) esse Masses ( <b>6</b> )	S8) <b>(M</b> LRA 1 7) F12) <b>(L</b>	LRA 147, 47, 148) _RR N,	148)	2 cm Muck (A10) <b>(MLRA 147)</b> Coast Prairie Redox (A16) <b>(MLRA 147, 148)</b> Piedmont Floodplain Soils (F19) <b>(MLRA 136, 147)</b> Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Sandy G Sandy R	Gleyed Matrix (S4) Redox (S5)		Umbric Surfa Piedmont Flo	ace (F13) <b>(ML</b> bodplain Soils Material (F21)	RA 13 (F19) (MI R	6, 122) (MLRA 14 0 127 147	<sup>3</sup> ln 8) w	dicators of hydrophytic vegetation and etland hydrology must be present, pless disturbed or problematic
Restrictive	Laver (if observed):					· · · · · · · · · · · · · · · · · · ·	) u	
Type: no	ne							
Depth (in	ches):						Hydric Soi	il Present? Yes 🖌 No
Remarks:								



Photo 1 Wetland data point WJOA003f\_w facing east



Photo 2 Wetland data point WJOA003f\_w facing west

Project/Site: SERP		City/County: Johr	nston	Sampling Date: 7/22/2014
Applicant/Owner: DOMINION			State: NC	Sampling Point: WJOA003_U
Investigator(s): GB, TP, LE		Section, Townshi	p, Range: <u>No</u> PLSS in this A	rea
Landform (hillslope, terrace, etc.):	TOE OF SLOPE	_ Local relief (concave	, convex, none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P	Lat: 35.33852	2999	Long: <u>-78.40704498</u>	Datum: WGS 1984
Soil Map Unit Name: <u>Augusta san</u>	dy loam, 0 to 2 percent slopes	occasionally flooded	NWI class	ification: None
Are climatic / hydrologic conditions	s on the site typical for this time	of year? Yes	No (If no, explain ii	n Remarks.)
Are Vegetation, Soil	_, or Hydrology signific	cantly disturbed?	Are "Normal Circumstances	s" present? Yes 🖌 No
Are Vegetation, Soil	_, or Hydrology natura	lly problematic?	(If needed, explain any ans	wers in Remarks.)
	Attack alte man alter			to incompany for the state

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken on toe of slope	just above a PF	O wetland.			

Wetland Hydrology Indicate	ors:		Secondary Indicators (minimum of two required			
Primary Indicators (minimum	of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1)	-	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	_	Drainage Patterns (B10)				
Saturation (A3)	-	Roots (C3) Moss Trim Lines (B16)				
Water Marks (B1)	-	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	-	Recent Iron Reduction in Tilled So	oils (C6) Crayfish Burrows (C8)			
Drift Deposits (B3)	-	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	-	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)			Geomorphic Position (D2)			
Inundation Visible on Aer	ial Imagery (B7)		Shallow Aquitard (D3)			
Water-Stained Leaves (B	9)		Microtopographic Relief (D4)			
Aquatic Fauna (B13)			FAC-Neutral Test (D5)			
Field Observations:						
Surface Water Present?	Yes No 📕	Depth (inches):				
Water Table Present?	Yes No 📕	Depth (inches):				
Water Table Present? Saturation Present? (includes capillary fringe)	Yes No Yes No	<pre>_ Depth (inches): Depth (inches):</pre>	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree	Yes No Yes No aam gauge, monitorin	<ul> <li>Depth (inches):</li> <li>Depth (inches):</li> <li>Ing well, aerial photos, previous inspective</li> </ul>	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No _ • Yes No _ • eam gauge, monitorin	Depth (inches):     Depth (inches):     Depth (inches):     g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes No _	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks: no hydrology indicators	Yes No _	<ul> <li>Depth (inches):</li> <li>Depth (inches):</li> <li>In Depth (inches):</li></ul>	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks: no hydrology indicators	Yes No _	<ul> <li>Depth (inches):</li> <li>Depth (inches):</li> <li>ng well, aerial photos, previous inspective</li> </ul>	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: no hydrology indicators	Yes No _	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: no hydrology indicators	Yes No _	Depth (inches):     Depth (inches):  g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: no hydrology indicators	Yes No _	Depth (inches):     Depth (inches):  g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: no hydrology indicators	Yes No _	Depth (inches):     Depth (inches):  g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: no hydrology indicators	Yes No _• Yes No _• eam gauge, monitorin	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: no hydrology indicators	Yes No _	Depth (inches): Depth (inches): ng well, aerial photos, previous inspective of the second	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: no hydrology indicators	Yes No _	Depth (inches):     Depth (inches):  g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: no hydrology indicators	Yes No _	Depth (inches):     Depth (inches):  g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No			

Sampling Point: WJOA003\_U

	Abaaluta	• Deminent In	diaatan	
Tree Stratum (Plot size: 0)	Absolute % Cover	Species?	dicator Status	Dominance Test worksneet:
Pinus taeda	25	Yes	FAC	Number of Dominant Species
1. Liquidambar aturaciflua	15	Ves	FAC	That Are OBL, FACW, or FAC: (A)
	15	<u> </u>		Total Number of Dominant
3. Quercus nigra	15	res	FAC	Species Across All Strata: 8 (B)
4. Oxydendrum arboreum	5	No	UPL	Demost of Demission ( Oracity
5.				Percent of Dominant Species That Are OBL EACW or EAC: $87.5$ (A/B)
6				
7				Prevalence Index worksheet:
/	60			Total % Cover of: Multiply by:
500/ of total accord 30	000( -(	= Total Cover	12	OBL species $0 \times 1 = 0$
50% of total cover: <u>50</u>	20% of	total cover:		$\frac{25}{25} \times 2 = \frac{50}{50}$
Sapling/Shrub Stratum (Plot size:)	0-		<b>FA 014</b>	$\begin{array}{c} 7 \text{ ACW species} \\ \hline 95 \\ \hline 95 \\ \hline 285 \\ \hline 285 \\ \hline \end{array}$
1. Leucothoe axillaris	25	Yes	FACW	FAC species $33 = 200$
2. Liquidambar styraciflua	10	Yes	FAC	FACU species $17$ x 4 = $08$
3. Ilex opaca	7	No	FACU	UPL species $10$ x 5 = $50$
A Symplocos tinctoria	5	No	FAC	Column Totals:(A)(B)
5. Oxydendrum arboreum	5	No	UPI	
5. Oxydendrum arboreum	5	No	FAC	Prevalence Index = B/A =3.08
6. <u>Acer rubrum</u>			TAC	Hydrophytic Vegetation Indicators:
7				<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> </ul>
8				✓ 2 - Dominance Test is >50%
9.				
	57	= Total Cover		3 - Prevalence Index is ≤3.0
50% of total cover: 28.5	20% of	total cover:	11.4	4 - Morphological Adaptations' (Provide supporting
Horb Stratum (Plot size: 0 )				data in Remarks or on a separate sheet)
Pteridium aquilinum	10	Vaa	EACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u></u>	10	res	FACU	
2				<sup>1</sup> Indiantors of hydric coil and watland hydrology must
3				he present unless disturbed or problematic
4				Definitions of Four Manatolian Official
5				Definitions of Four Vegetation Strata:
<u> </u>				<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				<b>Conting/Chrut</b> Weady plants avaluating visco loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
<sup>   </sup>	10			Herb – All herbaceous (non-woody) plants, regardless
500/ // / 5		= Total Cover	2	or size, and woody plants less than 3.28 ft tall.
50% of total cover:	20% of	total cover:	2	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. Smilax rotundifolia	15	Yes	FAC	
2. Vitis rotundifolia	5	Yes	FAC	
3				
4				
4				Hydrophytic
5				Vegetation
	20	= Total Cover		Present? Yes <u> </u>
50% of total cover: 10	20% of	total cover:	4	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absence	of indicators.	.)	
Depth	Matrix		Redo	x Features	S					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-4	10YR 3/2	100					SL			
4-12	10YR 3/3	100					SL			
12-20	10YR 4/4	100					SL			
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	I Sand Gra	ains.	<sup>2</sup> Location: Pl	L=Pore Lining,	M=Matrix.	
Hydric Soil	Indicators:						Indica	ators for Prob	lematic Hyd	ric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10	D) (MLRA 14	7)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(N</b>	ILRA 147,	148) C	oast Prairie Re	edox (A16)	
Black Hi	istic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, <sup>-</sup>	148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)		Pi	iedmont Flood	plain Soils (F	-19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, <sup>-</sup>	147)	
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		V	ery Shallow Da	ark Surface (	TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Date	k Surface	(F7)		0	ther (Explain i	n Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	essions (F	8)					
Sandy N	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	LRR N,				
MLR	A 147, 148)		MLRA 13	6)			3			
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)	°Indi	icators of hydr	ophytic vege	tation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) we	tland hydrolog	y must be pr	esent,
Stripped	d Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	7) unl	ess disturbed	or problemat	ic.
Restrictive	Layer (if observed):									
Type: N										
Depth (in	ches):						Hydric Soil	Present? Y	′es	No
Remarks:							•			



Photo 1 Upland data point WJOA003\_u facing east



Photo 2 Upland data point WJOA003\_u facing west

Project/Site: SERP	City/County:	Johnston	Sampling Date: 7/22/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA002f_W
Investigator(s): <u>GB, TP, LE</u>	Section, Tov	vnship, Range: No PLSS in this Are	а
Landform (hillslope, terrace, etc.): depres	sion Local relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): P	Lat: <u>35.32792468</u>	Long: <u>-78.41568461</u>	Datum: WGS 1984
Soil Map Unit Name: Bibb sandy loam, 0	to 2 percent slopes, frequently flooded	NWI classifie	cation: PEM1Fh
Are climatic / hydrologic conditions on the	site typical for this time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hy	/drology significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hy	vdrology naturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Atta	ach site map showing sampling	point locations, transects	s, important features, etc.

Hydrophytic Vegetation Present?	Yes_	~	No	is the Sampled Area			
Hydric Soil Present?	Yes	~	No	within a Wetland?	Yes	~	Νο
Wetland Hydrology Present?	Yes _	~	No				
Remarks:							

Wetland data point for a PFO wetland. Due to human diversions and beaver activity, hydrology varies from saturated to permanently flooded. Feature has been partially logged. Cover type varies as well due to logging and beaver activity; cannot cross or navigate through feature to capture cover type changes. Feature is a complex of open water, PEM, PSS, and PFO; categorized as PFO to reflect the natural state of feature without disturbance. Stream channels are not apparent due to diturbance and beavers; cannot locate OHWM to map channels.

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓       Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Roots (C3)       Moss Trim Lines (B16)
<ul> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Dry-Season Water Table (C2)         Crayfish Burrows (C8)         Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         ✓         Geomorphic Position (D2)         Shallow Aquitard (D3)         ✓         FAC-Neutral Test (D5)
Field Observations:         Surface Water Present?       Yes          Vater Table Present?       Yes          Vater Table Present?       Yes          Vater Table Present?       Yes          Vo       Depth (inches):         0       0         Saturation Present?       Yes          Ves        No         Depth (inches):       0         (includes capillary fringe)       0	Wetland Hydrology Present? Yes <u>✓</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	
hydrology varies from saturated to permanenty flooded	

Sampling Point: WJOA002f\_W

Tree Stratum (Plot size: 0)       9: Cover Species? Species? Species?       Number of Dominant Species       11       (A)         2. Quercus nign       10       Yes       FAC       Tatal Number of Dominant Species       11       (B)         2. Quercus nign       10       Yes       FAC       Tatal Number of Dominant Species       11       (B)         4. Apsase bifore       7       No       FAC       Tatal Number of Dominant Species       10       (A)         5.       7       No       FAC       FAC       Tatal Number of Dominant Species       10       (A)         6.       7       No       FAC       FAC       Provalence Index worksheet:       10       (A)         7.       30       Tatal Y Species       10       Yes       FAC       Provalence Index worksheet:       10       11       (A)       50       2       2       2       10       (A)       50       10       X S = 0       10       Yes       FAC       Provalence Index worksheet:       10       12       Yes       FAC       Provalence Index Set 2       2       10       10       Yes       FAC       Yes       FAC       Yes       FAC       Yes       FAC       Yes       FAC       Yes       10		Absolute	Dominant	Indicator	Dominance Test worksheet:		
1. Louidambar stynaction       12       Yes       FAC         2. Querces ingram       10       Yes       FAC         3. Any orbit with the interval of the interval	Tree Stratum (Plot size: 0)	% Cover	Species?	Status	Number of Dominant Species		
2         0         0         Yes         FAC           3. Aer rubrum         10         Yes         FAC           4. Myssa Mora         7         No         FAC           5         7         No         FAC           7         Sopia Mora         10           7         Sopia Stratum (Pot size:         0           10         Yes         FAC           10         Yes         FAC           2         Leucothce axillaris         10         Yes           1         Chila sampain         10         Yes         FAC           2         Leucothce axillaris         10         Yes         FAC           2         Leucothce axillaris         10         Yes         FAC           2         Leucothce axillaris         10         Yes         FAC           3         Leucothce axillaris         10         Yes         FAC           2         Loucota axillaris	1. Liquidambar styraciflua	12	Yes	FAC	That Are OBL FACW or FAC:	11	(A)
3. Accr         Acc         FAC         Total Number of Deminant         11         (B)           4. Mysse bift/re         7         No         FAC         Percent of Dominant Species           5.	2 Quercus nigra	10	Yes	FAC			(,,)
4. Myssa bitlora       7       No       FACW       Percent O Dominant Species       (o)         5.       7       No       FACW       Percent O Dominant Species       100       (AB)         7.       No       7.       No       FACW       Percent O Dominant Species       100       (AB)         7.       Solid of total cover       39       = Total Cover       Total Xec OBL, FACW, or FAC:       100       (AB)         7.       No       FACW       Percent O Dominant Species       100       Yes       FACW       Percent O Dominant Species       100       Yes       FACW       PEACW species       100       Yes       FACW       PACW species       100       Yes       FACW       PACW species       100       Yes       FACW       PAC species       33       x3       = Zet       224       100       Yes       FACW       PAC species       100       Yes       FAC VP       PAC species       100       Yes       FAC VP       PAC species       100       Yes       FAC VP       PAC species       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100	3 Acer rubrum	10	Yes	FAC	Total Number of Dominant	11	(B)
5	۵ ۸ Nyssa biflora	7	No	FACW	opecies Across Air Strata.		(D)
6	5.				Percent of Dominant Species	100	(
7.	6.		·		That Ale OBL, FACW, OF FAC.		(A/D)
Total Cover         To	7.		·		Prevalence Index worksheet:		
50% of total cover:       19.5       20% of total cover:       7.8         SaplindShrub Stratum (Plot size:       0       1       Yes       FACW         J. Jaudathara stratularia       10       Yes       FACW       FACW         J. Laudathara stratularia       10       Yes       FACW       FACW         J. Laudathara stratularia       10       Yes       FACW       FACW         J. Laudathara stratularia       8       Yes       FACW       FACW       FACW         J. Laudathara stratularia       8       Yes       FACW       FACW       FACW       FACW         J. Laudathara stratularia       6       No       FAC       FACW       Yes       FACW       Yes       FACW       Yes       FACW       Yes       SofW of total cover:       10       Yes       SofW of total cover:       10       Yes       SofW of total cover:       10       Yes       FACW       FACW       FACW       FACW       FACW       FACW       FACW       FACW       FACW		39	= Total Cove	ər	Total % Cover of:	Multiply by:	
SanialShub Stratum (Plot size:       0       1       FACW species       10       × 2 = 210         1. Gyrlla racentifica       10       Yes       FACW species       05       × 2 = 240         2. Leucotice availarias       10       Yes       FACW species       0       × 3 = 249         3. Liquidambar styracfulua       10       Yes       FAC       Pecies       0       × 5 = 0         3. Liquidambar styracfulua       10       Yes       FAC       Pecies       0       × 5 = 0         4. Cetrus almitola       8       Yes       FAC       UP Ispecies       0       × 5 = 0         6. Robos argutus       6       No       FAC       Provalence Index = UA = 2.35       Hydrophytic Vegetation Inflictors:         7. Quercus nigra       5       No       FAC       Solvia ot total cover:       4       No       FAC         9. Adversite centera       4       No       FAC       Yes       FACW       Yes       Ye	50% of total cover: 19.5	5 20% of	total cover:	7.8	OBL species 19 x	1 =19	_
Cynlin acconting       18       Yes       FAC         Loguration acconting       10       Yes       FAC         2. Loguration as structural       10       Yes       FAC         2. Loguration as structural       10       Yes       FAC         4. Clettria structural       10       Yes       FAC         9. Interview structural       6       No       FAC         9. Robus argutus       6       No       FAC         9. Morelia cenfera       4       No       FAC         9. Morelia cenfera       25       Yes       FAC         9. Morelia cenfera       25       Yes       FAC         10. Juncta affustas       25       Yes       FAC         11. Juncta affustas       12       No       FAC         9. Morelia cenfera       7       No       FAC         11. Juncta affust gigatea       15       No       FAC         12. Aundrahang gigatea <td< td=""><td>Sapling/Shrub Stratum (Plot size: 0</td><td></td><td>-</td><td></td><td>FACW species 105 x</td><td>2 =210</td><td>_</td></td<>	Sapling/Shrub Stratum (Plot size: 0		-		FACW species 105 x	2 =210	_
10       Yes       FACW         2. Leucothe axiliaris       10       Yes       FACW         3. Liquidambar styracifila       10       Yes       FAC         4. Cetrina alnobia       8       Yes       FAC         6. Rea vignina       7       No       OBL         7. Quercus nigra       5       No       FAC         9. Morelia centera       4       No       FAC         9. Morelia centera       4       No       FAC         9. Morelia centera       40       25       Yes         9. Morelia centera       12       Yes       FACW         10. Junces distass       125       Yes       FACW         11. Juncus distass       125       Yes       FACW         12. Aundinaria gigantea       15       Yes       FACW         14. Moobardiat areolata       8       No       FACW         9. Belens ripartia       7       No       FACW         10	Cvrilla racemiflora	18	Yes	FACW	FAC species 83 x	3 = 249	
2       Liquidantar styracflua       10       Yes       FAC         4       Clefting almitolia       8       Yes       FAC         6       No       FAC       Column Totals:       213       (A)       502       (B)         7       No       OBL       Prevalence index = BA =       2.35       Hydrophytic Vegetation Indicators:       1       Agaid Test for Hydrophytic Vegetation       1       Agaid Test for Hydrophytic Vegetation       2.35       1 <td>2 Leucothoe axillaris</td> <td>10</td> <td>Yes</td> <td>FACW</td> <td>FACU species 6 x</td> <td>4 = 24</td> <td>_</td>	2 Leucothoe axillaris	10	Yes	FACW	FACU species 6 x	4 = 24	_
3.       Celtra almitolia       8       Yes       FAC         5.       Morella carifera       7       No       OBL         9.       Morella carifera       6       No       FACU         9.       Morella carifera       4       No       FAC         9.       Morella carifera       4       No       FAC         9.       Morella carifera       4       No       FAC         1.       20% of total cover:       40       20% of total cover:       1         1.       Juncus effusus       25       Yes       FACW         2.       Amorella carifera       1       Yes       FACW         1.       Juncus effusus       25       Yes       FACW         1.       Juncus effusus       25       Yes       FACW         1.       Juncus effusus       25       Yes       FACW         1.       Juncus effusus       12       No       FACW         3.       Impatens capensis       12       No       FACW         4.       Woodvardia areolata       8       No       FACW         5.       More fastign invinineum       5       No       FACW         6. </td <td>2</td> <td>10</td> <td>Yes</td> <td>FAC</td> <td>UPL species 0 x</td> <td>5 = 0</td> <td>_</td>	2	10	Yes	FAC	UPL species 0 x	5 = 0	_
a.       Total control       Total control       Prevalence index = B/A =	3 ∧ Clethra alnifolia	8	Yes	FAC	Column Totals: 213 (A	502	(B)
0. mod manual		7	No	OBL		,	_ ( )
0.       Our of the distribution of the distr	s. <u>Rubus argutus</u>	6	 No	FACU	Prevalence Index = B/A =	2.35	_
7.       No       FAC         8.       Acer rubrum       5       No       FAC         9.       Morella centera       4       No       FAC         9.       Morella centera       4       No       FAC         50% of total cover:       4       No       FAC         1.       50% of total cover:       10       20% of total cover:       10         1.       1.       20% of total cover:       10       4       Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)         2.       Anundinaria gigantee       15       Yes       FACW         1.       Addowardia areolata       8       No       FACW         4.       Modowardia areolata       7       No       FACW         6.       Microstegium vimineum       5       No       FACW         7.       No       FACW       Percolematic Hydrophytic Vegetation Strata:         7.       No       FACW       Percolematic Hydrophytic Vegetation Strata:         8.       No       FACW       Percolematic Hydrophytic Vegetation Strata:         9.       .       .       .       .         10.       .       .       .       .		5	No	FAC	Hydrophytic Vegetation Indica	tors:	
8	Acer rubrum	5	No	FAC	✓ 1 - Rapid Test for Hydrophyt	tic Vegetation	
9. Moreina cerriera       -       -       No       PAC         80       = Total Cover       16         Herb.Stratum (Plot size:       0       )       20% of total cover:       16         1. Juncus effusis       25       Yes       FACU         2. Arundinaria gigantea       15       Yes       FACU         3. Impatiens capensis       12       No       FACU         4. Woodwarda areolata       8       No       FACU         5. Bidens tripartita       7       No       FACU         9.       -       -       -       Definitions of Four Vegetation Strata:         10.       -       -       -       -       Definitions of Four Vegetation Strata:         10.       -       -       -       -       -       Definitions of Four Vegetation Strata:         10.       -       -       -       -       -       Definitions of sculading vines, asculading vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tail.         11.       -       -       -       -       -       Siles tripartita sculading vines, less than 3.28 ft tail.         2.       Stratum (Plot size:       0       -       -       -       -       of size, and woody plants, regar	8. Acer lubium			EAC	✓ 2 - Dominance Test is >50%	D	
000       = Total Cover       16         1       0       20% of total cover:	9. Morella cerifera	4	NO	TAC	<u>✓</u> 3 - Prevalence Index is ≤3.0	1	
Solve of total cover:       4       20% of total cover:       10         1       Juncus effusus       25       Yes       FACW         2       Arundinaria gigantea       15       Yes       FACW         3       Impattens capensis       12       No       FACW         4       Woodwardia areolata       8       No       FACW         5       Bidens fiparitia       7       No       FACW         6       Microstegium vimineum       5       No       FAC         7	10		= Total Cove	er 16	4 - Morphological Adaptation	ns <sup>1</sup> (Provide sup	porting
Herb Stratum (Plot size:	50% of total cover: $-40$	20% of	total cover:	10	data in Remarks or on a s	separate sheet)	
1       20       Yes       FACW         2. Arundinaria gigantea       15       Yes       FACW         3. Impatiens capensis       12       No       FACW         4. Woodwardia areolata       8       No       FACW         5. Bidens tripartita       7       No       FACW         6. Microstegium vimineum       5       No       FACW         7.       5       No       FACW         9.	Herb Stratum (Plot size: 0)	05			Problematic Hydrophytic Ver	getation <sup>1</sup> (Expla	in)
2. Annalinaria gigantea       15       Yes       FACW         3. impatiens capensis       12       No       FACW         4. Woodwardia arcolata       8       No       FACW         5. Bidens tripartita       7       No       FACW         6. Microstegium vimineum       5       No       FACW         7.       No       FACW         8.       9.	1. Juncus eπusus	25	Yes	FACW		gotation (Expla	,
3.       Impatiens capensis       12       No       FACW       Inducators disturbed or problematic.         4.       Woodwardia areolata       8       No       FACW       Definitions of Four Vegetation Strata:         5.       Bidens tripartita       7       No       FACW       Definitions of Four Vegetation Strata:         6.       Microstegium vimineum       5       No       FAC       Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         8.	2. Arundinaria gigantea	15	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wet	land hydrology r	nuet
4. Woodwardia areolata       8       No       FACW         5. Bidens tripartia       7       No       FACW         6. Microstegium vimineum       5       No       FAC         7	3. Impatiens capensis	12	No	FACW	be present, unless disturbed or p	problematic.	nusi
5. Bidens tripartita       7       No       FACW         6. Microstegium vimineum       5       No       FAC         7	4 <sub>.</sub> Woodwardia areolata	8	No	FACW	Definitions of Four Vegetation	Strata:	
6. Microstegium vimineum       5       No       FAC         7	5. Bidens tripartita	7	No	FACW		onatai	
7	6. Microstegium vimineum	5	No	FAC	Tree – Woody plants, excluding	vines, 3 in. (7.6	cm) or
8	7				height.	it (DBH), Tegalui	622 01
9	8.						
Jording       Image: Second state of the state in the of equal to 3.25 ft (1 m) tail.         10	9		·		<b>Sapling/Shrub</b> – Woody plants,	excluding vines	, less
11.       72 = Total Cover         50% of total cover:       36         11.       72 = Total Cover         50% of total cover:       14.4         Woody Vine Stratum (Plot size:       0         1.       12       Yes         2.       Smilax rotundifolia       12         3.       10       Yes         4.       22       = Total Cover         5.       22       = Total Cover         50% of total cover:       10       Yes         4.       22       = Total Cover         50% of total cover:       12       Yes         6       50% of total cover:       10         72       = Total Cover       10         9       Yes       FAC         10       Yes       FAC         11       20% of total cover:       4.4         Hydrophytic       Yes       Yes         Yes       No       10         22       = Total Cover       10         50% of total cover:       11       20% of total cover:       4.4         Remarks: (Include photo numbers here or on a separate sheet.)       Yes       No	10				m) tall.	01 equal to 5.20	, it ( i
Image: Solid condition of the stratum stratum (Plot size:	10						
50% of total cover:       36       20% of total cover:       14.4         Woody Vine Stratum (Plot size:       0       )         1. Smilax laurifolia       12       Yes       OBL         2. Smilax rotundifolia       10       Yes       FAC         3.	···· <u> </u>	72	- Total Cov		Herb – All herbaceous (non-woo	ody) plants, rega Jan 3 28 ft tall	rdless
Woody Vine Stratum (Plot size:       0       12       Yes       OBL         1. Smilax laurifolia       12       Yes       OBL         2. Smilax rotundifolia       10       Yes       FAC         3.	50% of total cover: 36	20% of	total cover:	14.4			
1. Smilax laurifolia       12       Yes       OBL         2. Smilax rotundifolia       10       Yes       FAC         3.       10       Yes       FAC         4.       10       Yes       Yes         5.       22       = Total Cover       Yes         50% of total cover:       11       20% of total cover:       4.4         Remarks: (Include photo numbers here or on a separate sheet.)       Yes       Yes	Woody Vine Stratum (Plot size: 0 )				Woody vine – All woody vines g	reater than 3.28	8 ft in
2. Smilax rotundifolia     10     Yes     FAC       3.	Smilax laurifolia	12	Yes	OBL	neight.		
3	Smilax rotundifolia	10	Yes	FAC			
3.	2.						
4	S:		·				
5.	4		·		Hydrophytic		
50% of total cover:     11     20% of total cover:     4.4       Remarks: (Include photo numbers here or on a separate sheet.)	5	22			Vegetation Present? Yes	No	
Remarks: (Include photo numbers here or on a separate sheet.)	500% of total approximation 11	22	= I otal Cove	er 4.4	100 <u></u>		
Remarks. (include photo numbers here of on a separate sneet.)	SU% OI IOIai COVER.	20% 01	iotal cover:				
		, , , , , , , , , , , , , , , , , , , ,					

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the inc	dicator o	or confirm	the absence of indica	itors.)
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10 YR 2/1	100					CL	
							<u> </u>	
							<u> </u>	
<sup>1</sup> Type: C=Co	ncentration. D=Deple		educed Matrix. MS	S=Masked S	Sand Gra	ins.	<sup>2</sup> Location: PL=Pore Li	ning. M=Matrix.
Hydric Soil I	ndicators:	,	·····,				Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		<ul> <li>Dark Surface</li> </ul>	(S7)			2 cm Muck	(A10) <b>(MLRA 147)</b>
Histic En	ipedon (A2)		Polvvalue Be	low Surface	e (S8) <b>(M</b>	LRA 147.	148) Coast Prai	rie Redox (A16)
Black His	stic (A3)		Thin Dark Su	rface (S9) (	MLRA 1	47. 148)	(MLRA)	147. 148)
	n Sulfide (A4)		L oamy Gleve	d Matrix (F:	2)	,,	Piedmont I	Floodplain Soils (F19)
Stratified	Ll avers (A5)		Depleted Mat	rix (F3)	-)			136 147)
2 cm Mu	ck (A10) <b>(I BB N)</b>		Bedox Dark 9	Surface (F6)	<b>`</b>		Very Shall	w Dark Surface (TE12)
2 on ma	Below Dark Surface	(A11)	Nepleted Dar	k Surface (I	, F7)		Other (Exp	lain in Remarks)
Depicted	urk Surface (A12)	(////)	Bedox Denre	ssions (F8)	.,			
Nick Da	lucky Mineral (S1) (L				(E12) <b>/I</b>			
		\I\ I <b>\</b> ,		530 Masses	5 (1 12) <b>(1</b>	-ixix i <b>x</b> ,		
Sondy C	(147, 140)		Interna 13	0) 00 (E12) <b>(M</b>	U D A 12	s 100)	<sup>3</sup> Indiantara of	hydrophytic vegetation and
Sandy G			Oniblic Sulla	odeleie Cei		$(\mathbf{M} \mid \mathbf{D} \land \mathbf{A})$		
Sanuy R	edux (SS)			ouplain Sol		(WILKA 14)	b) welland hyd	rology must be present,
Supped	wallix (50)			ialenai (F2		4 127, 147	uniess distu	rbed of problematic.
Type.	ayer (il observeu).							
Depth (inc	:hes):		_				Hydric Soil Present	? Yes 🖍 No
Remarks:								



Photo 1 Wetland data point WJOA002f\_w facing southeast



Photo 2 Wetland data point WJOA002f\_w facing southwest

Project/Site: SERP		City/County: Joh	nston	_ Sampling Date: 7/22/2014
Applicant/Owner: DOMINION			State: NC	Sampling Point: WJOA002_U
Investigator(s): GB, TP, LE		Section, Townsh	ip, Range: <u>No PLSS in this Are</u>	a
Landform (hillslope, terrace, etc.):	TOE OF SLOPE	Local relief (concave	e, convex, none): <u>none</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): P	Lat: <u>35.3276</u>	4792	_ Long: <u>-78.41612164</u>	Datum: WGS 1984
Soil Map Unit Name: Bibb sandy I	oam, 0 to 2 percent slopes, fre	equently flooded	NWI classifi	cation: None
Are climatic / hydrologic conditions	s on the site typical for this tim	e of year? Yes	No (If no, explain in I	Remarks.)
Are Vegetation, Soil	_, or Hydrology signif	icantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil	_, or Hydrology natur	ally problematic?	(If needed, explain any answ	ers in Remarks.)
			int lo option of the second	- the set of the strengt of the

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken at the toe of slo	ipe just above a	a PFO wetland	<u>.</u>		

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living I	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes <u>&lt;</u> No <u>Depth</u> (inches): <u>22</u>	
Saturation Present? Yes <u></u>	Wetland Hydrology Present? Yes No_
(includes capillary fringe)	· · / · · · · · · · · · ·
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), it available:
Remarks:	
Temans.	

Sampling Point: WJOA002\_U

, , ,	Abcoluto	• Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 0)	% Cover	Species?	Status	
Pinus taeda	30	Yes	FAC	Number of Dominant Species
Quercus nigra	20	Yes	FAC	
2. Liquidambar styraciflua	15	Yes	FAC	Total Number of Dominant
3. Liquidambal styracilida	10	103	TAO	Species Across All Strata:9 (B)
4				Demonst of Dominant Species
5				That Are OBL_EACW_ or EAC: 100 (A/B)
6				
7				Prevalence Index worksheet:
1	65		<u> </u>	Total % Cover of: Multiply by:
32.5		= Total Cover	13	OBL species $0$ $x_1 = 0$
50% of total cover:	20% of	total cover:	10	$\frac{10}{10} = \frac{20}{20}$
Sapling/Shrub Stratum (Plot size: 0)				FACW species $x_2 = 570$
1. Quercus nigra	15	Yes	FAC	FAC species $330$ x 3 = $370$
<sub>2.</sub> Liquidambar styraciflua	15	Yes	FAC	FACU species x 4 =
3 Acer rubrum	10	Yes	FAC	UPL species0 x 5 =0
A Symplocos tinctoria	5	No	FAC	Column Totals: 200 (A) 590 (B)
A. Cympiocos unotona		No	EAC	
5. Pinus taeda	C		FAC	Prevalence Index = $B/A = 2.95$
6				Hydrophytic Vegetation Indicators:
7.				
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
9	E0			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	50	= Total Cover	. 10	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 25	20% of	total cover:	10	data in Romarks or on a soparate sheet)
Herb Stratum (Plot size: 0)				
<sub>1.</sub> Microstegium vimineum	30	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
2 Chasmanthium sessiliflorum	15	Yes	FAC	
2. Commelina communis	10	No	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	10			be present, unless disturbed or problematic.
4. Arundinaria gigantea	10	INO	FACW	Definitions of Four Vegetation Strata:
5				
6.				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of beight
·· <u> </u>				noight.
o				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb - All herbaceous (non-woody) plants, regardless
	65	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 32.5	20% of	total cover:	13	
Weady Vina Stratum (Blat size: 0)				Woody vine – All woody vines greater than 3.28 ft in
Smilax rotundifolia	20	Ves	FAC	height.
1	20	163	T AC	
2				
3				
4.				
5				Hydrophytic Verentitien
<u> </u>	20			Present? Yes No
		= Total Cover		
50% of total cover:	20% of	total cover:	-	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absence	of indicators	.)	
Depth	Matrix		Redo	x Features	S					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-9	10YR 3/3	100					SL			
9-18	10YR 4/3	100					SL			
18-22	10YR 3/1	100					SL			
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	I Sand Gra	ains.	<sup>2</sup> Location: Pl	L=Pore Lining	, M=Matrix.	
Hydric Soil	Indicators:						Indica	ators for Prob	lematic Hydrid	c Soils <sup>3</sup> :
<u> </u>	(A1)		Dark Surface	(S7)			2	cm Muck (A10	0) (MLRA 147)	
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(N</b>	ILRA 147,	148) C	oast Prairie R	edox (A16)	
Black H	istic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147,	148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		P	iedmont Flood	plain Soils (F19	9)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136,	147)	
2 cm Mi	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		V	ery Shallow D	ark Surface (TF	-12)
Deplete	d Below Dark Surface	(A11)	Depleted Date	k Surface	(F7)		0	ther (Explain i	in Remarks)	
Thick D	ark Surface (A12)		Redox Depre	ssions (Fa	8)					
Sandy M	/lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	LRR N,				
MLR	A 147, 148)		MLRA 13	6)						
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (	MLRA 13	6, 122)	<sup>3</sup> Indi	icators of hydr	ophytic vegetat	ion and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<b>8)</b> we	tland hydrolog	y must be pres	ent,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F	21) (MLR	A 127, 147	7) unl	ess disturbed	or problematic.	
Restrictive	Layer (if observed):						-			
Type: N	ONE									
Depth (in	ches):						Hydric Soil	Present?	resN	lo
Remarks:										



Photo 1 Upland data point WJOA002\_u facing north



Photo 2 Upland data point WJOA002\_u facing east

Project/Site: Atlantic Coast Pipeline	City/County: Joh	nston	Sampling Date: 11/19/2014
Applicant/Owner: Dominion		State: NC	Sampling Point: WJOB100f_w
Investigator(s): TP, RH	Section, Townsh	ip, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): drainage way	ocal relief (concave	e, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: <u>35.32369146</u>		_ Long: <u>-78.420597</u>	Datum: WGS 1984
Soil Map Unit Name: Gilead sandy loam, 2 to 8 percent slopes		NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this time of y	rear?Yes 🖌	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic?	(If needed, explain any answer	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling po	oint locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌 No	o
Remarks: PFO wetland in drainage way. Wetlands	are located al	bove and below a po	nd constructed in the drainage	e way.	

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Presence of Reduced Iron (C4)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes <u>V</u> No Depth (inches): <u>10</u>	
Water Table Present?       Yes	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present?       Yes	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point: WJOB100f\_w

	Abcoluto	- Dominant Ir	dicator	Dominanco Tost workshoot:	
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksneet.	
Nyssa aquatica	25	Yes	OBL	Number of Dominant Species	
	20	Voc	EAC	That Are OBL, FACW, or FAC: (A)	)
2. <u>Acer rubrum</u>	20	165	TAC	Total Number of Dominant	
3. Quercus nigra	15	Yes	FAC	Species Across All Strata: 7 (B)	)
4.					
E				Percent of Dominant Species	
				That Are OBL, FACW, or FAC: (A)	/B)
6			<u> </u>	Provalance Index worksheet:	
7					
	60	= Total Cover		Total % Cover of: Multiply by:	
50% of total cover: 30	20% of	total cover:	12	OBL species $\frac{35}{x} \times 1 = \frac{35}{x}$	
Sopling/Shrub Stratum (Blot aiza: 15				FACW species $70$ x 2 = $140$	
Saping/Shiub Stratum (Piot Size)	10	Vaa	EAC	$\frac{45}{135}$	
1. Quercus nigra	10	165	FAC	$\begin{array}{c} \text{FAC species} \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \\ \hline \\ \\ \\ \\ \\ \\ \\ $	
2. Magnolia virginiana	10	Yes	FACW	FACU species $x 4 = 0$	
3				UPL species $0 \times 5 = 0$	
4	-			Column Totals: $150$ (A) $310$ (F	B)
4					-,
5				Prevalence Index = $B/A = 2.06$	
6					
7				nyurophytic vegetation indicators:	
				1 - Rapid Test for Hydrophytic Vegetation	
8				✓ 2 - Dominance Test is >50%	
9				$\checkmark$ 3 - Prevalence Index is <3.0 <sup>1</sup>	
	20	= Total Cover		0 Thevalence index is =0.0	• • •
50% of total cover: <sup>10</sup>	20% of	total cover:	4	4 - Morphological Adaptations" (Provide support	ing
Horb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)	
Arundinaria gigantea	60	Vaa		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
1. <u>Alununana gigantea</u>	00	res	FACW		
2					
3.				Indicators of hydric soil and wetland hydrology must	i
1				be present, unless disturbed or problematic.	
				Definitions of Four Vegetation Strata:	
5				Tree Mandy planta avaluding vince 2 in (7.6 cm)	~ *
6				more in diameter at breast height (DBH) regardless	of
7.				height.	01
0					
0				Sapling/Shrub - Woody plants, excluding vines, les	S
9				than 3 in. DBH and greater than or equal to 3.28 ft (1	1
10				m) tall.	
11.				Herb All berbaccous (non woody) plants, regardle	~~
	60	- Total Cover		of size, and woody plants less than 3.28 ft tall.	55
50% of total cover: 30	20% of	total cover:	12		
	2078 01			Woody vine - All woody vines greater than 3.28 ft ir	۱
Woody Vine Stratum (Plot size:)	40			height.	
1. Smilax laurifolia	10	Yes	OBL		
2.					
3					
4				Hydrophytic	
5				Vegetation	
	10	= Total Cover		Present? Yes Ves No	
50% of total cover: 5	20% of	total cover:	2		
Bomarka: (Include photo numbero horo er en e concrete a	haat )				
Remarks. (include photo numbers here of on a separate s	neet.)				
1					

Profile Desc	ription: (Describe t	o the dept	n needed to docur	nent the indic	ator or confir	m the absenc	e of indicators.)
Depth	Matrix		Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Ty	pe <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-3	10YR 4/4	100				SICL	
3-12	10YR 2/1	100			·	SCI	
				<u> </u>			
		•					
		<u> </u>				<u></u>	
		·		<u> </u>			
	·	·				• • • •	
		·		<u> </u>			
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RM=I	Reduced Matrix, MS	S=Masked San	d Grains.	<sup>2</sup> Location: I	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:					Indie	cators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)			2 cm Muck (A10) <b>(MLRA 147)</b>
Histic Ep	oipedon (A2)		Polyvalue Be	low Surface (S	8) <b>(MLRA 147</b>	7, 148)	Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Sι	Irface (S9) (ML	.RA 147, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)			Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)			(MLRA 136, 147)
2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F6)			Very Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface (F7)			Other (Explain in Remarks)
Thick Da	ark Surface (A12)	· · ·	Redox Depre	essions (F8)			
 Sandv N	/uckv Mineral (S1) <b>(L</b>	RR N.	Iron-Mangan	ese Masses (F	12) <b>(LRR N.</b>		
MLR	A 147. 148)	,	MLRA 13	6)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Sandy G	Bleved Matrix (S4)		<ul> <li>Umbric Surfa</li> </ul>		A 136, 122)	<sup>3</sup> In	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Soils (	F19) (MLRA 1	<b>48)</b> w	vetland hydrology must be present.
Stripped	Matrix (S6)		Red Parent M	Material (F21)	MLRA 127. 14	17) u	nless disturbed or problematic.
Restrictive	Laver (if observed):			(· _ · ) (	···, · ·		
Type:							
Type							
Depth (in	ches):					Hydric So	il Present? Yes <u>No</u> No
Remarks:							
1							
Sandy G Sandy F Stripped Restrictive I Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Layer (if observed): ches):		✓ Umbric Surfa     Piedmont Flo     Red Parent №	oce (F13) <b>(MLR</b> podplain Soils ( Material (F21) <b>(</b>	<b>:A 136, 122)</b> F19) <b>(MLRA 1</b> MLRA 127, 14	<sup>3</sup> In 48) w 17) u Hydric So	idicators of hydrophytic vegetation and vetland hydrology must be present, nless disturbed or problematic.



Photo 1 Wetland data point WJOB100f\_w facing south



Photo 2 Wetland data point WJOB100f\_w facing north

oject/Site: Atlantic Coast Pipeline	City/County: Johnston		Sampling Date: <u>11/19/2014</u>
oplicant/Owner:		State: NC	Sampling Point: WJOB100_u
vestigator(s): <u>TP, RH</u>	Section, Township, Rang	ge: No PLSS in this area	a
andform (hillslope, terrace, etc.): hill slope	Local relief (concave, conve	ex, none): <u>none</u>	Slope (%): <u>4</u>
ubregion (LRR or MLRA): <u>P</u>	_ Lat: <u>35.32372277</u> Long	-78.42046184	Datum: WGS 1984
bil Map Unit Name: Gilead sandy loam, 2 to 8 p	ercent slopes	NWI classifi	cation: None
e climatic / hydrologic conditions on the site typ	vical for this time of year? Yes No	(If no, explain in F	Remarks.)
e Vegetation, Soil, or Hydrology	y significantly disturbed? Are "N	Iormal Circumstances"	present? Yes 🖌 No
e Vegetation, Soil, or Hydrology	y naturally problematic? (If nee	ded, explain any answe	ers in Remarks.)
vestigator(s): TP, RH andform (hillslope, terrace, etc.): <u>hill slope</u> ubregion (LRR or MLRA): <u>P</u> bil Map Unit Name: <u>Gilead sandy loam, 2 to 8 p</u> re climatic / hydrologic conditions on the site typ re Vegetation, Soil, or Hydrology re Vegetation, Soil, or Hydrology	Section, Township, Rang Local relief (concave, conve Lat: <u>35.32372277</u> Long ercent slopes bical for this time of year? Yes <u>✓</u> No y significantly disturbed? Are "N y naturally problematic? (If nee	ge: No PLSS in this area ex, none): none -78.42046184 NWI classific (If no, explain in F lormal Circumstances"   ded, explain any answe	a Slope (%): 4 Datum: WGS 1984 cation: None Remarks.) present? Yes No ers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	bils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _ Depth (inches):	
Surface Water Present?       Yes No _       Depth (inches):         Water Table Present?       Yes No _       Depth (inches):	
Surrace water Present?       Yes No _       Depth (inches):         Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (include: a consilient/friend)       Yes No _       Depth (inches):	Wetland Hydrology Present? Yes No
Surrace 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, previous inspect)	Wetland Hydrology Present? Yes No
Surface Water Present?       Yes No _        Depth (inches):         Water Table Present?       Yes No _        Depth (inches):         Saturation Present?       Yes No _        Depth (inches):         (includes capillary fringe)       No _        Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No tions), if available:
Surrace Water Present?       Yes No _       Depth (inches):         Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       Ves No _       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present?       Yes No _       Depth (inches):         Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         (includes capillary fringe)       No _       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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 inspec         Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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 inspec         Remarks:	Wetland Hydrology Present? Yes No ✓ tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:
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, previous inspec         Remarks:       Remarks:	Wetland Hydrology Present? Yes No ✓ tions), if available:
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, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes No tions), if available:

Sampling Point: WJOB100\_u

	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminant Creasies
Liquidambar styraciflua	20	Yes	FAC	Number of Dominant Species $7$ (A)
Pinus taeda	15	Yes	FAC	
2. <u>1 Illus taeda</u>	45			Total Number of Dominant
3. Quercus nigra	15	Yes	FAC	Species Across All Strata: 7 (B)
4				
				Percent of Dominant Species
o				That Are OBL, FACW, or FAC: (A/B)
6				
7.				Prevalence Index worksheet:
	50			Total % Cover of: Multiply by:
50% of total appears 25			10	OBL species $0   x 1 = 0$
50% of total cover	20% 01	total cover:	-	
Sapling/Shrub Stratum (Plot size: )				$\begin{array}{c} \text{FACW species} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $
<sub>1.</sub> Symplocos tinctoria	15	Yes	FAC	FAC species $30$ x 3 = $270$
2 Quercus nigra	10	Yes	FAC	FACU species $0$ x 4 = $0$
Liquidambar styraciflua	10	Ves	FAC	$1$ IPI species $0$ $x_5 = 0$
3.	10	165	TAC	$\frac{1}{90} \times 5 = \underline{270}$
4				Column Totals: (A) (B)
5				
0				Prevalence Index = $B/A = \frac{3}{3}$
6				Hydrophytic Vegetation Indicators:
7				1 Papid Test for Hydrophytic Vegetation
8				
<u> </u>				2 - Dominance Test is >50%
9	25			Y 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	<u></u>	= Total Cover	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 17.5	20% of	total cover:	/	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sneet)
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1				
2				
3				Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6.				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
1		·		neight.
8				Sanling/Shrub Woody plants excluding vines loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover:	0	
				Woody vine – All woody vines greater than 3.28 ft in
<u>vvoody vine Stratum</u> (Plot size:)	_			height.
1. Vitis rotundifolia	5	Yes	FAC	
2				
		·		
3				
4				Hydrophytic
5.				Vegetation
	5			Present? Yes No
25		= Total Cover	1	
50% of total cover: 2.3	20% of	total cover:	·	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	ription: (Describe to	o the dept	h needed to docur	nent the ir	ndicator	or confirm	the absence of indica	itors.)
Depth	Matrix		Redo	x Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 3/3	100					LS	
		<u> </u>						
				. <u> </u>		·		
·		<u> </u>						
·		·					·	
$^{1}$ Type: C-C		tion PM-I	Poducod Matrix M	S-Mackad	Sand Gr	aine	<sup>2</sup> Location: PL-Poro Li	ning M-Matrix
	Indicators:			J=IVIASKEU	Sanu Gia	airi5.	Indicators for	Problematic Hydric Soils <sup>3</sup>
History	(A1)		Dark Surface	(67)			2 om Musk	
Histosof	(AI)			(07) Iow Surfor			149) Coost Broi	
	stic (A2)		Thin Dark Su	rface (SQ)		12NA 147,	(MIDA)	147 149)
	SiiC(AS)			d Motrix (		47, 140)		Hardalain Saile (E10)
Tryuruge			Loany Oleye	triv (E3)	2)			136 147)
Orallie	Layers (A3)		Depleted Ma	unz (13) Surface (Ei	6)			Dark Surface (TE12)
2 cm Mc	d Below Dark Surface	(Δ11)		k Surface	(F7)		Other (Evo	lain in Remarks)
Depicted	ark Surface (A12)	(411)	Beday Depre	R Ourrace	(i <i>'i)</i> R)			
Sandy M	Ancev Mineral (S1) (L		Iron-Mangan	asa Massa	) s (F12) <b>(</b>			
	147 148)	\\\ <b>\</b>	MIRA 13	6)	5 (I IZ) <b>(</b>	LIXIX I <b>X</b> ,		
Sandy G	Heved Matrix (S4)		Umbric Surfa	on Ce (F13) (I	MI R 4 13	6 122)	<sup>3</sup> Indicators of	hydrophytic vegetation and
Sandy B	(S5)		Piedmont Flo	odolain Sc	nils (F19)	(MIRA 14)	8) wetland hyd	rology must be present
Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) (MI R	A 127, 147	) unless distu	rbed or problematic
Restrictive	aver (if observed):			natorial (i i	, ( <b>_</b>			
Type:								
Type.	-1							
Depth (In	cnes):						Hydric Soli Present	
Remarks:								



**Photo 1** Upland data point WJOB100\_u facing south



Photo 2 Upland data point WJOB100\_u facing north

Project/Site: SERP	City/County: Johnstor	ו	_ Sampling Date: 7/21/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: WJOA001f_W
Investigator(s): GB, TP, LE	Section, Township, R	ange: <u>No PLSS</u> in this are	ea
Landform (hillslope, terrace, etc.): SWALE	Local relief (concave, cor	nvex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P	Lat: 35.31531147 Lot	ng: <u>-78.43081878</u>	Datum: WGS 1984
Soil Map Unit Name: Bibb sandy loam, 0 to 2 perce	ent slopes, frequently flooded	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typic	al for this time of year? Yes 🔽 No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology _	significantly disturbed? Are	"Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology _	naturally problematic? (If n	eeded, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site	e map showing sampling point	locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes 🖌 N	lo			
Remarks:								
Wetland data point for a saturated to temporarily flooded PFO wetland located in a wet swale which receives ample run off from surrounding agricultural fields								

	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; chec	k all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aer</li> <li>Water-Stained Leaves (B</li> <li>Aquatic Fauna (B13)</li> </ul>	   ial Imagery (B7) 9)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	
Field Observations:			
Surface Water Breent?	Yes No 🗸	Depth (inches):	
Surface water Fresent?			
Water Table Present?	Yes 🖌 No	Depth (inches):3	
Water Table Present? Saturation Present? (includes capillary fringe)	Yes / No Yes / No	Depth (inches): 3 Depth (inches): 0	Wetland Hydrology Present? Yes <u>✓</u> No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>V</u> No Yes <u>V</u> No eam gauge, monitoring v	Depth (inches): 3 Depth (inches): 0 well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>V</u> No Yes <u>No</u> eam gauge, monitoring v	Depth (inches): 3 Depth (inches): 0 well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks: receives run off from surround	Yes <u>/</u> No <u>/</u> Yes <u>/</u> No <u>/</u> eam gauge, monitoring v	Depth (inches): <u>3</u> Depth (inches): <u>0</u> well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point: WJOA001f\_W

Tree Stratum (Plot size:0Mobilite Dominant Indicator1. Nyssa biflora $\frac{45}{9}$ Species?StatusNumber of Dominant Species2. Liquidambar styraciflua10NoFACThat Are OBL, FACW, or FAC:73. Acer rubrum10NoFACTotal Number of DominantSpecies?Total Number of Dominant4. Woodwardia areolata8NoFACWPercent of Dominant Species85Total Number of Dominant Species6750% of total cover:36.520% of total cover:14.x1 =50% of total cover:15YesFACUOBL species14x1 =1. Ligustrum sinense15YesFACWFAC species50x3 =1502. Nyssa biflora15YesFACUFAC species15x4 =603. Acer rubrum10YesFAC4. Clethra alnifolia4NoFAC<	(A) (B) (A/B) - - - - - - - - - - - - (B)
International of the stateInternational constraint strateInternational constraint strate <thinternational constraint="" strate<="" td="" th<=""><td>(A) (B) (A/B) - - - - - - - - - - - - (B)</td></thinternational>	(A) (B) (A/B) - - - - - - - - - - - - (B)
1. Nyssa billora10NoFes11.0002. Liquidambar styraciflua10NoFAC3. Acer rubrum10NoFAC4. Woodwardia areolata8NoFAC5.67.50% of total cover:36.550% of total cover:36.520% of total cover:11115YesFACU7.50% of total cover:1512. Nyssa biflora15Yes3. Acer rubrum10Yes4. Clethra alnifolia4No5. Symplocos tinctoria4No6710YesFAC10YesFAC10YesFAC10YesFAC1110Yes12Nyssa biflora1310Yes141515Yes10Yes10Yes10Yes10Yes10Yes10Yes10Yes110Yes110Yes110Yes111115111115111115111115111115111115111115111115111115111115111115111115111115 <td>(A) (B) (A/B) - - - - - - - - - - - (B)</td>	(A) (B) (A/B) - - - - - - - - - - - (B)
2. Liquidambar styraciflua10NoFAC3. Acer rubrum10NoFAC4. Woodwardia areolata8NoFACW5.8NoFACW6.73= Total Cover7.50% of total cover:36.550% of total cover:36.520% of total cover:11. Ligustrum sinense15Yes2. Nyssa biflora15Yes3. Acer rubrum10Yes4. Clethra alnifolia4No5. Symplocos tinctoria4No6.732.437.10Yes7.10Yes7.10Yes7.10Yes7.10Yes7.10Yes7.10Yes7.10Yes7.10Yes7.10 <t< td=""><td>(B) (A/B) - - - - - - - - - - (B)</td></t<>	(B) (A/B) - - - - - - - - - - (B)
3. Acer rubrum10NoFACTotal Number of Dominant84. Woodwardia areolata8NoFACWPercent of Dominant Species87.55	(B) (A/B) - - - - - - - - - (B)
a.Woodwardia areolata8NoFACWPercent of Dominant Species That Are OBL, FACW, or FAC:87.56Percent of Dominant Species That Are OBL, FACW, or FAC:87.56Prevalence Index worksheet:750% of total cover:36.520% of total cover:14.612.Nyssa biflora3.Acer rubrum10YesFACUFACUFACU species4612.Nyssa biflora3.Acer rubrum46 </td <td>(A/B) - - - - - (B)</br></br></td>	(A/B) - - - - 
4.Percent of Dominant Species That Are OBL, FACW, or FAC:87.56.7.73= Total Cover Total % Cover of:97.57.50% of total cover:36.520% of total cover:14.6Sapling/Shrub Stratum (Plot size:015YesFACU FACW98.51. Ligustrum sinense15YesFACU FACWFAC species152. Nyssa biflora15YesFACU FACUFAC species153. Acer rubrum10YesFAC FAC0x 4 =4. Clethra alnifolia4NoFAC FAC0x 5 =05. Symplocos tinctoria4NoFAC FACPrevalence Index = B/A =2.434. Clethra alnifolia4NoFACPrevalence Index = B/A =2.434. Clethra alnifolia4NoFACPrevalence Index = B/A =2.434. Clethra alnifolia4NoFACPrevalence Index = B/A =2.435. Symplocos tinctoria4NoFACPrevalence Index = B/A =2.436	(A/B) - - - - (B)
5.	(A/B) - - - - (B)
6.Prevalence Index worksheet:7. $50\%$ of total cover: $36.5$ $20\%$ of total cover: $14.6$ Sapling/Shrub Stratum (Plot size:0 $0$ $0$ $0$ 1. Ligustrum sinense $15$ YesFACUFAC species $50$ $x 3 =$ $150$ 2. Nyssa biflora $15$ YesFACUFACU species $15$ $x 4 =$ $60$ 3. Acer rubrum $10$ YesFACUPL species $0$ $x 5 =$ $0$ 4. Clethra alnifolia $4$ NoFACColumn Totals: $152$ $(A)$ $370$ 5. Symplocos tinctoria $4$ NoFACPrevalence Index = B/A = $2.43$ 7. $4$ NoFAC $1 - Rapid Test for Hydrophytic Vegetation Indicators:$	- - - _ _ (B)
Prevalence Index worksheet:Total Cover 50% of total cover:Multiply by: OBL species50% of total cover:36.520% of total cover:14.6Sapling/Shrub Stratum 1. Ligustrum sinense15YesFACU2. Nyssa biflora15YesFACU3. Acer rubrum10YesFAC4. Clethra alnifolia4NoFAC5. Symplocos tinctoria4NoFAC6.7.1. Bapid Test for Hydrophytic Vegetation7.1. Bapid Test for Hydrophytic Vegetation	- - - - _ (B)
Total Cover 50% of total cover:Total % Cover of:Multiply by:50% of total cover:36.520% of total cover:14.6 $OBL$ species14 $x 1 = 14$ Sapling/Shrub Stratum(Plot size:0) $OBL$ species73 $x 2 = 146$ 1. Ligustrum sinense15YesFACUFAC species50 $x 3 = 150$ 2. Nyssa biflora15YesFACWFACU species15 $x 4 = 60$ 3. Acer rubrum10YesFACUPL species0 $x 5 = 0$ 4. Clethra alnifolia4NoFACColumn Totals:152(A)3705. Symplocos tinctoria4NoFACPrevalence Index = B/A =2.436	- - - - _ (B)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	- - - - _ (B)
Some of total cover: 38.320% of total cover: 14.0ODL species $X + 1 = 146$ Sapling/Shrub Stratum (Plot size: 0)0)15YesFACUFACW species $73$ $x 2 = 146$ 1. Ligustrum sinense15YesFACUFAC species $50$ $x 3 = 150$ 2. Nyssa biflora15YesFACWFAC species $15$ $x 4 = 60$ 3. Acer rubrum10YesFACUPL species $0$ $x 5 = 0$ 4. Clethra alnifolia4NoFACColumn Totals: $152$ (A) $370$ 5. Symplocos tinctoria4NoFACPrevalence Index = B/A = 2.43 $2.43$ 6	- - - - _ (B)
Sapling/Shrub Stratum 1. Ligustrum sinense0 $X = 140$ 1. Ligustrum sinense15YesFACU2. Nyssa biflora15YesFACW3. Acer rubrum10YesFAC4. Clethra alnifolia4NoFAC5. Symplocos tinctoria4NoFAC6.7.9.00107.1.00YesFAC7.1.00YesYes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.00Yes7.1.007.1	- - - _ (B)
1. Ligustrum sinense15YesFACUFAC species50 $x 3 =$ 1502. Nyssa biflora15YesFACWFACWFAC species15 $x 4 =$ 603. Acer rubrum10YesFACUPL species0 $x 5 =$ 04. Clethra alnifolia4NoFACColumn Totals:152(A)3705. Symplocos tinctoria4NoFACPrevalence Index = B/A =2.43671 - Rapid Test for Hydrophytic Vegetation	- - _ (B)
2. Nyssa biflora15YesFACWFACU species15 $x 4 = 60$ 3. Acer rubrum10YesFACUPL species0 $x 5 = 0$ 4. Clethra alnifolia4NoFACColumn Totals:152(A)3705. Symplocos tinctoria4NoFACPrevalence Index = B/A = 2.432.4367	- - _ (B)
2. Ayout and a       Acer rubrum       10       Yes       FAC       UPL species       0 $x 5 =$ 0         3. Acer rubrum       4       No       FAC       UPL species       0 $x 5 =$ 0         4. Clethra alnifolia       4       No       FAC       Column Totals:       152       (A)       370         5. Symplocos tinctoria       4       No       FAC       Prevalence Index = B/A =       2.43         6.	_ _ (B)
3. Acter rubrum       10       res       rAC       OPL species       x 5 =       370         4. Clethra alnifolia       4       No       FAC       Column Totals:       152       (A)       370         5. Symplocos tinctoria       4       No       FAC       Prevalence Index = B/A =       2.43         6.	_ _ (B)
4. Clethra alnifolia       4       No       FAC       Column Totals:       102       (A)       500         5. Symplocos tinctoria       4       No       FAC       Prevalence Index = B/A =       2.43         6.       7.       4       No       FAC       Hydrophytic Vegetation Indicators:	_ (B)
5. Symplocos tinctoria       4       No       FAC       Prevalence Index = B/A =2.43         6	
0.       Prevalence Index = B/A =A         7.       Hydrophytic Vegetation Indicators:         7.       1 - Rapid Test for Hydrophytic Vegetation	
6       Hydrophytic Vegetation Indicators:         7       I - Rapid Test for Hydrophytic Vegetation	_
7 / I - Rapid Test for Hydrophytic Vegetation	
I Station I - Radio Lest for Every prophytic vederation	
9 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
$\frac{48}{1000}$ = Total Cover $\frac{1}{10000000000000000000000000000000000$	norting
50% of total cover: $24$ 20% of total cover: $9.6$	Johning
Herb Stratum (Plot size: 0) data in Remarks or on a separate sheet)	
Microstegium vimineum	n)
2. Boehmeria cylindrica 5 Yes FACW	
3. Indicators of nyonc soil and wetland myorology	nust
be present, unless disturbed of problematic.	
4 Definitions of Four Vegetation Strata:	
5	``
6 Woody plants, excluding vines, 3 in. (7.6	cm) or
7	ass of
8 Sapling/Shrub - Woody plants, excluding vines	less
9 than 3 in. DBH and greater than or equal to 3.2(	ft (1
10. m) tall.	`
Herb – All herbaceous (non-woody) plants, rega	dless
= Total Cover of size, and woody plants less than 3.28 ft tall.	
50% of total cover: 8.5 20% of total cover: 3.4	£4. 1.4
Woody Vine Stratum (Plot size: 0 )	πin
A Smilax laurifolia 8 Yes OBI	
3	
3	
3            4         Hydrophytic	
3          Hydrophytic         4         Hydrophytic         5        Vegetation       Vegetation	
3	
3.	
3.	
3.	
3.	
3.	
3.	
3.	
3.	
3.	
3.	
3.	

Profile Des	scription: (Describe t	o the de	pth needed to docun	nent the i	ndicator o	or confirm	the absence of ind	icators.)	
Depth	Matrix		Redo	x Features	s				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-3	10YR 3/1	100					SL		
3-18	10YR 4/1	98	10YR 4/6	2	С	PL	SL		
							·		
			. <u> </u>						
1-							2		
Type: C=0	Concentration, D=Deple	etion, RN	I=Reduced Matrix, MS	S=Masked	Sand Gra	ains.	Location: PL=Pore	e Lining, M=Matrix.	dria Saila <sup>3</sup> ,
				(07)					
HISTOS	DI (A1) Eninadan (A2)		Dark Surface	(S7) Iour Surfa	aa (CO) <b>/M</b>		2 cm Mi	JCK (A1U) <b>(MLRA 1</b> 4 roirie Dedex (A16)	+7)
HISTIC I	=pipedon (A2)		Polyvalue Be	rfooo (SO)	Ce (58) (IVI	LRA 147,	148) Coast P		
	$\operatorname{res}\left(\operatorname{AS}\right)$			d Motrix (		47, 140)		A 147, 140) at Eloodalaia Soile (	E10)
Stratifi	ed Lavers (A5)		✓ Depleted Mat	trix (F3)	12)		<u>(MI R</u>	A 136 147)	1 13)
0.raum 2 cm M	luck (A10) <b>(I RR N)</b>		Redox Dark S	Surface (F	6)		Verv Sh	allow Dark Surface	(TF12)
Deplet	ed Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (E	Explain in Remarks)	(
Thick [	Dark Surface (A12)	( )	Redox Depre	ssions (F8	8)			, ,	
Sandy	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	, es (F12) <b>(I</b>	_RR N,			
MLF	RA 147, 148)		MLRA 13	6)					
Sandy	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	(MLRA 13	6, 122)	<sup>3</sup> Indicators	of hydrophytic veg	etation and
Sandy	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetland h	ydrology must be p	resent,
Strippe	ed Matrix (S6)		Red Parent N	Aaterial (F	21) <b>(MLR</b>	A 127, 147	7) unless dis	sturbed or problema	itic.
Restrictive	Layer (if observed):								
Type: N	IONE								
Depth (i	nches):						Hydric Soil Prese	nt? Yes 🖌	No
Remarks:							·		



**Photo 1** Wetland data point WJOA001f\_w facing east



Photo 2 Wetland data point WJOA001f\_w facing west
## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SERP		City/County:	ohnston	Sampling Date: 7/21/2014
Applicant/Owner: DOMINION			State: NC	Sampling Point: WJOA001_U
Investigator(s): GB, TP, LE		Section, Towns	ship, Range: <u>No PLSS in this .</u>	Area
Landform (hillslope, terrace, etc.):	TOE OF SLOPE	Local relief (conca	ve, convex, none): <u>none</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): P	Lat: 35.31	534083	Long: <u>-78.43080455</u>	Datum: WGS 1984
Soil Map Unit Name: Bibb sandy l	pam, 0 to 2 percent slopes,	frequently flooded	NWI clas	sification: None
Are climatic / hydrologic conditions	on the site typical for this ti	me of year? Yes	_ No (If no, explain	in Remarks.)
Are Vegetation, Soil	_, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstance	es" present? Yes 🔽 No
Are Vegetation, Soil	_, or Hydrology nat	urally problematic?	(If needed, explain any an	swers in Remarks.)
	Attack atta man ak		aint la satisma turnas	ata turu antan tifa atuma ata

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

Hydric Soil Present?YesWetland Hydrology Present?Yes	No 🖌 No 🖌	within a Wetland?	Yes	No	
Remarks: Upland data point taken on toe of slope above a	a PFO wetland located	in a wet swale			

#### HYDROLOGY

Wetland Hydrology Indicato	ors:	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum	of one is required; chec	Surface Soil Cracks (B6)		
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aer</li> <li>Water-Stained Leaves (B</li> <li>Aquatic Fauna (B13)</li> </ul>	— — — — ial Imagery (B7) 9)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>	
Field Observations:				
Surface Water Present?	Yes No 🔽	_ Depth (inches):		
Water Table Present?	Yes No 🔽	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes No _	_ Depth (inches):	Wetland Hydrology Present? Yes No	
Describe Recorded Data (stre	eam gauge, monitoring	well, aerial photos, previous inspec	ions), if available:	
Remarks: no hydrology indicators				

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

Sampling Point: WJOA001\_U

, , , , , , , , , , , , , , , , , , ,	Abaaluta	• Dominant	la d'a stan	
Trop Strotum (Diot gize: 0)		Dominant Species2	Stotuo	Dominance Test worksneet:
Liewidember et meeiflue	30	<u>Species</u>	EAC	Number of Dominant Species
1. Liquidambar styracifiua		Tes	TAU	That Are OBL, FACW, or FAC:4 (A)
<sub>2</sub> Liriodendron tulipifera	25	Yes	FACU	
	5	No	FACU	Total Number of Dominant
3. <u>"** opdou</u>				Species Across All Strata: (B)
4				
5				Percent of Dominant Species
0				That Are OBL, FACW, or FAC: (A/B)
6				Decoder as to decouve whether of
7.				Prevalence index worksneet:
	60	Total Cav		Total % Cover of: Multiply by:
30			12	OBL species $0 \times 1 = 0$
50% of total cover:	20% of	total cover:	12	
Sapling/Shrub Stratum (Plot size:0				FACW species $x^2 = 10^{-10}$
1 Ligustrum sinense	25	Yes	FACU	FAC species $70   x 3 = 210$
- Symplocos tinctoria	10	Voc	EAC	FACU species 57 x 4 = 228
	10	165	FAC	$\begin{array}{c} x \neq = \\ 0 \\ \end{array}$
<sub>3.</sub> Magnolia virginiana	8	No	FACW	UPL species x 5 =
Acer rubrum	7	No	FAC	Column Totals: $135$ (A) $454$ (B)
4. ////				
5. Ilex opaca	2	NO	FACU	Provolonco Indox - P/A - 3.36
6				
_				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8.				
0				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	52	= Total Cov	er	
50% of total cover: 26	20% of	total cover:	10.4	
Lierh Stretum (Plet eize) 0				data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1				
2				
-			·	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4.				Definitions of Four Vegetation Strates
5				Demitions of Four vegetation Strata.
0				<b>Tree</b> – Woody plants, excluding vines, 3 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7				height
				noight
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10				,
11				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover:	0	
	2070 01			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 0 )				height.
<sub>1.</sub> Smilax rotundifolia	15	Yes	FAC	
Vitis rotundifolia	8	Yes	FAC	
2				
3				
4				
T				Hydrophytic
5				Vegetation
	23	= Total Cov	er	Present? Yes Vo No
50% of total cover: 11.5	20% of	total cover:	4.6	
50 % 01 total cover.	2078.01			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe t	o the dept	h needed to docun	nent the inc	dicator o	or confirm	the absence	e of indicato	rs.)		
Depth	Matrix		Redo	x Features	1						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc	Texture	·	Remarks		
0-5	10YR 3/2	100					SL				
5-20	10YR 5/4	100					SL				
							·				
								·			
I											
				<u> </u>		<u> </u>		· <u> </u>			
<sup>1</sup> Type: C=C	concentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked S	Sand Gra	ins.	<sup>2</sup> Location: F	PL=Pore Linii	ng, M=Matrix		
Hydric Soil	Indicators:						Indic	ators for Pr	oblematic H	ydric Soi	ls³:
Histoso	l (A1)		Dark Surface	(S7)			2	2 cm Muck (A	(MLRA	147)	
Histic E	pipedon (A2)		Polyvalue Be	low Surface	e (S8) <b>(M</b>	LRA 147,	148)(	Coast Prairie	Redox (A16	)	
Black H	listic (A3)		Thin Dark Su	rface (S9) <b>(</b>	MLRA 1	47, 148)		(MLRA 14	7, 148)		
Hydrog	en Sulfide (A4)		Loamy Gleye	d Matrix (F2	2)		I	Piedmont Flo	odplain Soils	s (F19)	
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 13	6, 147)		
2 cm M	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6)	)		\	Very Shallow	Dark Surfac	e (TF12)	
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)					(	Other (Explai	n in Remark	s)			
Thick D	ark Surface (A12)		Redox Depre	essions (F8)							
Sandy I	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masses	s (F12) <b>(l</b>	.RR N,					
MLR	A 147, 148)		MLRA 13	6)							
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(M</b>	ILRA 13	6, 1 <b>22)</b>	<sup>3</sup> Inc	dicators of hy	/drophytic ve	getation a	ind
Sandy I	Redox (S5)		Piedmont Flo	odplain Soil	ls (F19)	(MLRA 14	8) w	etland hydro	ogy must be	present,	
Strippe	d Matrix (S6)		Red Parent N	Aaterial (F21	1) <b>(MLR</b> /	A 127, 147	<b>')</b> ur	nless disturb	ed or probler	natic.	
Restrictive	Layer (if observed):										
Type: N	ONE										
Depth (ir	nches):						Hydric Soi	I Present?	Yes	No	~
Remarks:											



**Photo 1** Upland data point WJOA001\_u facing east



Photo 2 Upland data point WJOA001\_u facing west

WETLAND DETERMINATION DATA	ORM – Atlantic and Gulf Coastal Pla	in Region
Brainat/Site: ACP	situ/county: Tohnston	Sampling Date: 10/28/14
Applicant/Owner: Dominion	State: N(.	Sampling Point: Wiop 023f-W
Investigator(s): FST (1-ROART RTURNOULL)	Section Township Range: NOVR	
Landform (hillsione terrace atc.): Quicin un de un	ocal relief (concave convex none): (ON())	Ve Slope (%): 2-51
Subrasian (I PB or MI PA): 1 P L P	3049B Long -78,4393	Datum: W1584
Soll Man Hait Name: Binh Sandy Loam, D=	i slopes NWI classific	ation: PFO
Are climatic / hydrologic conditions on the startynical for this time of y	ar2 Yes No (If no explain in Re	emarks.)
Are Vergetetion Soil or Hydrology significant	disturbed? Are "Normal Circumstances" n	resent? Yes No
Are Vegetation Soil or Hydrology naturally p	blematic? (If needed, explain any answer	s in Remarks.)
SUMMARY OF EINDINGS Attach site man showin	sampling point locations transacts	important features, etc.
SUMMART OF FINDINGS - Attach she map showin		, important leatures, etc.
Hydrophytic Vegetation Present? YesNo	is the Sampled Area	/
Hydric Soil Present? Yes No	within a Wetland? Yes 🗾	No
Remarks:		
chains as blue line on	napping, flagged	as wetland
5100011 105 0100		
	· · · · · · · · · · · · · · · · · · ·	
Wetland Hydrology Indicators:	Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply		Cracks (B6)
Surface Water (A1)	3) Dersely Ve	getated Concave Surface (B8)
High Water Table (A2)	5) (LRR U)	ttems (B10)
Saturation (A3)	Odor (C1) 🛄 Moss Trim L	ines (B16) Motor Table (C2)
Vater Marks (B1) Oxidized Rhizos	ced Iron (C4)	rows (C8)
Drift Deposits (B3)	ction in Tilled Soils (C6)	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	e (C7)	Position (D2)
Iron Deposits (B5)	Remarks)	uitard (D3)
Water-Stained Leaves (B9)		moss (D8) (LRR T. U)
Field Observations:		
Surface Water Present? Yes No 🔽 Depth (inch	s): <u>NA</u>	
Water Table Present? Yes No Depth (inch	s):	
Saturation Present? Yes Ves No Depth (incl	s): <u>SW TACE</u> Wetland Hydrology Prese	ent? Yes 🚬 No
Describe Recorded Data (stream gauge, monitoring well, aerial pl	tos, previous inspections), if available:	
Remarks:	J . 1	
portions of wetland inund	14	
,		

·····

....

VEGETATION (Four Strata) – Use scientific fil	arries of pl	ants.		Sampling Point: VI
30,318	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Alnus serrulata	10	Y	FACW	That Are OBL FACW or FAC: (A)
2				
Z				Total Number of Dominant
3				Species Across All Strata: (B)
4.				
5				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				
7.				Prevalence Index worksheet:
0			·	Total % Cover of: Multiply by:
0			• <del>•</del> * - • • •	
		= Total Co	ver _	
50% of total cover:	⊃ 20% of	total cove	r: 2	FACW species x 2 =
Carling/Charle Stratum (Distainer 30, 130 A				FAC species x 3 =
		V.	COF	
1. TIEN ODALA	<u>   10    </u>		<u>FTTC</u>	1 ACO species X4
2 Magnoilia Virginiana	15	Y	FACW	UPL species x 5 =
			<u> </u>	Column Totals: (A) (B)
3		<b></b>	• •	
4				Prevalence Index = B/A =
5.	_			
				Hydrophytic Vegetation Indicators:
٥				Apple 12 Papid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8.				
0	76		•	☐ 3 - Prevalence Index is ≤3.0'
	$-\frac{\omega}{2}$	= Total Co	over c	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover:	<u>4.5</u> 20% o	f total cove	<u> </u>	
Herb Stratum (Plot size: 30x30 ft)				
iner Stratum (Flot size. <u>Concort</u> )	15	M	ORI	Indicators of hydric soil and wetland hydrology must
1. NODOWARATA AVEDIALA	_ 15		UNC	be present, unless disturbed or problematic.
2. Typha latifolia	10	У	DBL	Definitions of Four Vegetation Strata:
2 11		. — ,		
0. <u></u>		• • • • • • • • • • • • • • • • • • • •		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5.				height.
b				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				or size, and woody plants less than 3.28 ft tall.
10				Woody vine All woody vines greater than 2.39 ft in
11				beight
		•		, neigin.
12				
	25	_ = Total C	over	
50% of total cover:	2.5 20%	- of total cov	sr. 5	
	20/60	JI 10101 00V	ci. <u> </u>	•
Woody Vine Stratum (Plot size: 50 X 30 P)				
1. Smilax rotunditolia	10	, Y	FAC	•
2 Vitrz rapinalitation	1	<u> </u>	Enr	
4 THIS TYNUT ALIUNAS		/		
3				_
4.				
				-
5				– Hydrophytic
	-20	_ = Total C	over	Vegetation
50% of total covor:	13 20%	of total cou		Present? Yes V No
	2078		/cr	-
Remarks: (If observed, list morphological adaptations I	below).			

VEGETATION (Four Strata) - Use scientific names of plants

. . . . . . . . . . . . . . . .

Sampling Point: Woop 023f-w

SOIL	Sampling Point: wjop023f-w
Profile Description: (Describe to the depth needed to document the indicator or confirm the	e absence of indicators.)
Depth <u>Matrix</u> <u>Redox Features</u>	Texture Remarks
$\frac{10001000}{10001} \frac{10000}{10000} \frac{100}{1000} \frac{1000}{10000} \frac$	MILVAL SANA
10-20 10/242 100	51
ļ	
	······································
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Histic Epipedon (A2)	2 cm Muck (A10) (LRR S)
Hydrogen Sulfide (A4)	Piedmont Floodplain Soils (F19) (LRR P. S. T)
Stratified Layers (A5)	Anomalous Bright Loamy Soils (F20)
Grganic Bodies (A6) (LRR P, T, U)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U)	La Red Parent Material (TF2)
Muck Presence (A8) (LRR U)	Cherry Shallow Dark Sufface (1F12)
Depleted Below Dark Surface (A11)	
Thick Dark Surface (A12)	<sup>3</sup> Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	unless disturbed or problematic.
Sandy Redox (S5)	A)
Stripped Matrix (S6)	149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)	······································
Restrictive Layer (if observed):	/
Type:	thudein Sail Decount? You have No
Remarks:	
· ·	х

-----



Wetland data point wjop023f\_w facing northwest.

WETLAND DETERMINATION DATA	FORM – Atlantic and	d Gulf Coastal Pl	ain Region
Project/Site: ACP	City/County: John	ston	Sampling Date: 10/28/14
Applicant/Owner: Dominion		State:	Sampling Point: wjop 023_u
Investigator(s): EST LL Poper, RTurnbull	Sectión, Township, Range	e: none	•••
Landform (hillslope, terrace, etc.): drainage	Local relief (concave, con		ave slope (%): 5-4%
Subregion (IRR or MIRA): LRLP Lat: 35.	30496	-78,4393	4 Datum: WKS84
Soli Man Linit Nama: Bibb Scady 102m 0-2	I shopen	NIM classifi	ication: NA
Are elimetia / hydrologic conditions on the site typical for this time of y		/If no, evolain in I	Pemarke )
Are Vieweteter	edi: Tes No	(into, explain in i	remains.)
Are Vegetation, Soil, or Hydrology significantly	rablemetic?		presentry res No
Are vegetation, Soil, or hydrology haturany pr	opiematic: (ii need	ded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point loc	cations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes V			
Hydric Soil Present? Yes No	Is the Sampled A	irea	
Wetland Hydrology Present? Yes No	- Within a Wetland	r res	NO <u>\</u>
Remarks:			
· · ·			
L			
HYDROLOGY		<u>.</u>	
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	<u>)</u>		Caretated Careana Surface (PP)
Surface Water (A1)     Aquatic Faulta (B)     Aquatic Faulta (B)     Mart Deposits (B)	/13) 15\/LRR II\		Patterns (B10)
Saturation (A3)	+ Odor (C1)		Lines (B16)
Water Marks (B1)	pheres along Living Roots	(C3) 🔲 Dry-Seaso	n Water Table (C2)
Sediment Deposits (B2)	uced Iron (C4)	📃 Crayfish B	urrows (C8)
Drift Deposits (B3)	uction in Tilled Soils (C6)	Saturation	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	ce (C7)	Geomorph	hic Position (D2)
Iron Deposits (B5)	Remarks)		quitara (D3) rol Tost (D5)
Water-Stained Leaves (B9)			n moss (D8) (LRR T. U)
Field Observations:			
Surface Water Present? Yes No Depth (inch-	es): NA		,
Water Table Present? Yes No <u></u> Depth (inch	es): <b>&gt;20</b>		
Saturation Present? Yes 🗹 No 🔄 Depth (inch	les): <u>16</u> We	tland Hydrology Pre	sent? Yes No
(includes capillary fringe)	intos, previous inspections'	) if available	
Describe Accorded Data (stream gobge, mericening ven, donar pri		, « aranabioi	
Remarks:			

L

		<b>D</b> <i>w</i> <sup>2</sup> <i>w</i> <sup>4</sup>		
The Charter (Distained 30130 ft)	Absolute	Dominant Encoice?	Indicator	Dominance Test worksheet:
Iree Stratum (Plot size:	<u>% Cover</u>	<u>species</u>		Number of Dominant Species
1. Liviodendron tulipitera	19	<u> </u>	FILL	That Are OBL, FACW, or FAC: (A)
2. Ilex Day a	15	<u> </u>	HIC	Trial March and Charles and
2		. <u> </u>		Total Number of Dominant
٥		<u> </u>		Species Across All Strata:(B)
4			[	Percent of Dominant Species
5.			İ	That Are OBL FACW or FAC: 83 (A/B)
ŝ				
0	•···-		·	Prevalence index worksheet:
7		<u></u>	·	
8				Total % Cover of: Multiply by:
	30	= Total Co	ver	OBL species x 1 =
16	\	- 10(2100	1.	FACW species x 2 =
50% of total cover:	20% o	f total cover	r:	
Sapling/Shrub Stratum (Plot size: 30 X 30 Ph)				FAC species x 3 =
1 TLON ODULA	1.5	Y	FAC	FACU species x 4 =
I			· • • • • • •	UPL species x 5 =
2			·	
3.				Column Fotals: (A) (B)
7	·			Prevalence Index = B/A =
5	·			Hydrophytic Vegetation Indicators:
6				Reprid Test for Hydrophytic Venetation
7				
1		·	<u> </u>	M 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	15	= Total Co	over	Broblematic Hydrophytic Vegetation <sup>1</sup> (Evaluin)
EOW of intel covers 7	5 200/ /	-		<u>L</u> Froblematic Hydrophytic Vegetation (Explain)
	<u> </u>	or total cove	st:	
Herb Stratum (Plot size: <u>JOX 30 H</u> )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1 dethra alnitilia	10	Y	FACW	be present, unless disturbed or problematic.
a labording of the avenue for	10	- <del>- Y</del> -	0.81	Definitions of Four Venetation Otentar
2. INDIANATAL ALCOINTON	<u></u>	- —/		Definitions of Four vegetation Strata:
3		<u> </u>		Tree - Mondy plants, excluding vines 3 in (7.6 cm) or
4.				more in diameter at breast beight (DBH) regardless of
~				height.
5				
6			<u> </u>	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				neight.
12				
	20	= Total C	over	· · · · · · · · · · · · · · · · · · ·
	1)		Y	
50% of total cover:	20%	of total cov	er:	
Woody Vine Stratum (Plot size: 30 X 30 PT)				
1 Vitre votundifolia	10	- Y	FAC	
IL TOTAL TRANSMENT				
2				. ]
3.				
4·				•
5				Hydrophytic
	10	= Total (	Cover	Vegetation
<u> </u>	\		2-	Present? Yes No
50% of total cover:	20%	of total cov	ver:	·
Remarks: (If observed, list morphological adaptations be	elow).			

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

.

and the second 
Sampling Point: wjop023-u

.

SOIL				Sampling Point: WJOPU23.
Profile Desc	ription: (Describe	to the depth	needed to document the indicator or c	confirm the absence of indicators.)
Depth	Matrix	~~	Redox Features	Technic Demode
		· <u> </u>		LOC lexiure Remarks
	IUK-12	100		TUI: Uncoated grains
3-10	IOIK42	100		<u> </u>
<u> </u>				
· · · ·				
$\frac{1}{1}$ Type: C=C	oncentration D=Der	letion RM=R	educed Matrix MS=Masked Sand Grains	s <sup>2</sup> Location: PL=Pore Lining M=Matrix
Hydric Soil	Indicators: (Applic	cable to all LI	RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Below Surface (S8) (LRR	R S, T, U) _ 1 cm Muck (A9) (LRR O)
Histic Ep	pipedon (A2)		Thin Dark Surface (S9) (LRR S, T, I	U) 2 cm Muck (A10) (LRR S)
Black Hi	istic (A3)		Loamy Mucky Mineral (F1) (LRR O)	) Reduced Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sullide (A4)		Loamy Gleyed Matrix (F2)	Anomalous Bright Loomy Soils (F19) (LRR P, S, T)
	Bodies (A6) (LRR I	P. T. U)	Redox Dark Surface (F6)	(MLRA 153B)
🗍 5 cm Mu	ucky Mineral (A7) (L	RR P, T, U)	Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Pr	resence (A8) (LRR	U)	Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
	uck (A9) (LRR P, T)	(444)	Mari (F10) (LRR U)	Uther (Explain in Remarks)
Depieter	ark Surface (A12)	ce (ATT)	Iron-Manganese Masses (F12) (LR	SR O. P. T) <sup>3</sup> Indicators of hydrophytic vegetation and
Coast P	Prairie Redox (A16)	(MLRA 150A)	Umbric Surface (F13) (LRR P, T, U	J) wetland hydrology must be present,
Sandy N	Mucky Mineral (S1)	(LRR O, S)	Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy C	Gleyed Matrix (S4)		Reduced Vertic (F18) (MLRA 150A	A, 150B)
Sanoy P	Redox (S5) d Matrix (S6)		Anomalous Bright Loamy Soils (F19) (M	MLKA 149A) 20) (MLRA 149A, 153C, 153D)
Dark St	urface (S7) (LRR P,	S, T, U)		
Restrictive	Layer (if observed	):	· · · · · · · · · · · · · · · · · · ·	
Type:		1.00		
Depth (in	nches):	<b>.</b> .		Hydric Soil Present? Yes No
Remarks:				
	•			

022

.



Upland data point wjop023\_u facing southeast.

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

Project/Site: <u>ACP</u>	_ City/County: Johnston Sampling Date: 4/28/15
Applicant/Owner: Dominion	State: NC, Sampling Point: wjop 024f-w
Investigator(s): ESI (Roper, Turnbull)	Section, Township, Range: NONE
Landform (hillslope, terrace, etc.): Or (NIN & GL)	Local relief (concave, convex, none): (DDD(A)/C, Slope (%): 2-5/
Subregion (LRR or MLRA): LRR P Lat: 35	30256 Long: -78.45273 Datum W/6884
Soil Man Linit Name: BONDEALN SANd	D-31. SLODRS MAN alassification PED
Are alimatic / bydralogic ganditions on the site buried for this time of	
Are climatic in hydrologic conditions on the site typical for this time of y	year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	ig sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Vegetation	- Is the Sampled Area
Hydric Soil Present? Yes No	Is the sampled Area
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	x) Surface Soil Cracks (B6)
Surface Water (A1)	313) Description of the second s
High Water Table (A2)	15) (LRR U)
U Saturation (A3) U Hydrogen Sulfide	≥ Odor (C1)
Sodiment Depending (P2)	pheres along Living Roots (C3) Dry-Season Water Table (C2)
	Luced from (C4) L Crayfish Burrows (C8)
Algal Mat or Crust (B4)	ce (C7)
Iron Deposits (B5)	n Remarks)
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 (inche	es): <u>NT</u>
Water Table Present? Yes <u>Ves</u> No Depth (inche	es): 10
Saturation Present? Yes V No Depth (inchi (includes capillary fringe)	es): <u>St. ){ The (e)</u> Wetland Hydrology Present? Yes V No
Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspections), if available:
Remarks:	

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

Sampling Point: wjop 024f-w

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30H x 30H)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Licidandron tulipitera	15	<u> </u>	THCU	That Are OBL, FACW, or FAC: (A)
2. Acer rubrum	10	<u> </u>	1-HC	Total Number of Dominant
3				Species Across All Strata: 7 (B)
4				······································
5.		<u> </u>		Percent of Dominant Species
6				That Are OBL, FACW, of FAC:() / / (A/B)
7		<u> </u>	}	Prevalence Index worksheet:
P			·	Total % Cover of: Multiply by:
٥	25			OBL species x 1 =
12	<u></u>	= Total Cov	er 🗖	FACW species x 2 =
50% of total cover	<b>5</b> _ 20% of	total cover:	<u> </u>	
Sapling/Shrub Stratum (Plot size: 30++XSO++)				
1. Linustrum sinense	25	<u> </u>	FACM	FACU species X4 =
2		·		UPL species x 5 =
3				Column Totals: (A) (B)
4.				Descelance Index D/A
5.	-		<b></b>	
6	· •			Hydrophytic vegetation Indicators:
7	· <u> </u>		·	Rapid Test for Hydrophytic Vegetation
0	·		<u> </u>	2 - Dominance Test is >50%
8	·	<u> </u>		3 - Prevalence Index is ≤3.0 <sup>1</sup>
	<u> </u>	= Total Cov	/er	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover:	20% of	f total cover	:	
Herb Stratum (Plot size: 304+ x304+ )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Woodwardia areolata	<u>   15   </u>	<u> </u>	<u>FACW</u>	be present, unless disturbed or problematic.
2. Ligistrum sinense	20	· Y	FACU	Definitions of Four Vegetation Strata:
3. Athyrium aspleniaides	15	Ý	FAC	
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5		·	<u> </u>	height.
o	• • •• ••			
				Sapling/Shrub – Woody plants, excluding vines, less
7	••		· <u> </u>	than 3 in. DBH and greater than 3.28 $\pi$ (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.				, °
	50	= Total Co	Ver	
50% of total cover: 2.9	20%	f total cove		
Weadu Vine Stratum (Distainer 30 ft x 26 ft )	2070 (		· <u> </u>	
(Note Statuti (For size. John ADT)		N	C.A.C	
1. VITIS FOIDIONITOLIA	1-3			
2	<b></b>	. <u></u>		
3				
4				
5				Hydrophytic
	15	= Total Co	over	Vegetation
50% of total cover: 7.	5 20%	of total cove	3	Present? Yes V No
Bemarke: (if channed list mershelegies) adaptetions to	2070			
	10W).			

#### SOIL

# Sampling Point: Wipp024f-W

	o document the indicator or confirm t	ne absence of indicators.)
Depth <u>Matrix</u>	Redox Features	-
(inches) Color (moist) % Color (mo	<u> - Type' Loc</u>	Texture Remarks
15-10 1012 -11 100		<u>LS</u>
<u>120 101/23/1 100</u>		5
		· · · · · · · · · · · · · · · · · · ·
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Ma	atrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix,
Hydric Soil Indicators: (Applicable to all LRRs, unles	s otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	alue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Histic Epipedon (A2)	Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3)	y Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	y Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Creanic Bodies (A6) (LBB D T L)	ereo Marrix (F3) X Dork Surface (F6)	Anomalous Bright Loamy Soils (F20)
5 cm Mucky Mineral (A7) (LRR P, 1, 0)	x Dark Surface (FO) ated Dark Surface (F7)	(IMLKA 153B) Red Parent Material (TE2)
Muck Presence (A8) (LRR U)	x Depressions (F8)	Very Shallow Dark Surface (TE12)
1 cm Muck (A9) (LRR P, T)	(F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	eted Ochric (F11) (MLRA 151)	
Thick Dark Surface (A12)	Manganese Masses (F12) (LRR O, P, T	) <sup>3</sup> Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) 🛄 Umbr	ic Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	iced Vertic (F18) (MLRA 150A, 150B)	
Stripped Matrix (S6)	nont Floodplain Solis (F19) (MLRA 149. Solous Bright Learny Solis (F20) (MLRA	
Dark Surface (S7) (LRR P. S. T. U)	laious bhyni Loarny Solis (F20) (MLRA	149A, 153C, 153D)
Restrictive Layer (if observed):		
Type:		/
Depth (inches):		Hydric Soil Present? Yes No
	<u></u>	
Remarks:		



Wetland data point wjop024f\_w facing northwest.

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

Project/Site: ACP	_ City/County: Johne	ston	Sampling Date: 4/28/15
Applicant/Owner: Dominion		State: NC	Sampling Point: W100 024-U
Investigator(s); ESI (Roper, Turnbull)	Section, Township, Range	e: none.	
Landform (hillslope terrace etc.): OC(ALV) A(L)	Local relief (concave, con		(A) 12. Slong (94): 7-5%
Subracian (I BB or MI PA): $L = 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, $	5 30754	- 78 46	281 Deter \A// / 94
Subregion (LRR of MLRA).	$\frac{3}{2}$	$\frac{19}{N} = \frac{101}{N}$	
Soil Map Unit Name:	24/016 115-6	O NWI classif	ication: NH
Are climatic / hydrologic conditions on the site typical for this time of	i year? Yes 🔽 No 🔄	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "No	ormal Circumstances"	present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If need	led, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showi	ng sampling point loc	ations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No	ー is the Sampled A く is the Sampled A	rea D	
Wetland Hydrology Present? Yes No 🗾	within a wetland	? Yes	No <u>\</u>
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	<u>ly)</u>	L Surface Sc	il Cracks (B6)
Surface Water (A1)	(B13)	└─ Sparsely V	egetated Concave Surface (B8)
☐ Filgh Water Table (A2)	B15) (LRR U)	Drainage F	Vatterns (B10)
Water Marks (B1)	spheres along Living Roots ((		Lines (BTD)
Sediment Deposits (B2)	duced fron (C4)	Cravfish Bi	urrows (C8)
Drift Deposits (B3)	duction in Tilled Soils (C6)	Saturation	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	ace (C7)	Geomorph	ic Position (D2)
Iron Deposits (B5)	in Remarks)	Shallow Ad	uitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutr	al Test (D5)
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)
Field Observations:	NA		
Surrace Water Present? Yes No Depth (inc	$\frac{1}{2} \frac{1}{2} \frac{1}$		
Voter Table Present? Yes No Depth (inc	$\frac{1}{2} \frac{1}{2} \frac{1}$		
(includes capillary fringe)		and Hydrology Pres	
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections),	if available:	
Remarks			

.

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

Sampling Point: wjop 024-u

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 301 X 801)	<u>% Cover</u>	<u>Species?</u> V	<u>Status</u>	Number of Dominant Species
1. HOER (UBRIDIN)	- 48-		CAC	That Are OBL, FACW, or FAC: (A)
2. Liniodendron TUTIDITERA			<u>FRU</u>	Total Number of Dominant
3	·			Species Across All Strata: (B)
4				Percent of Dominant Species
5	·	<u> </u>		That Are OBL, FACW, or FAC:/ / / / (A/B)
6	·			Prevalence Index worksheet:
(				Total % Cover of: Multiply by:
8				OBL species x 1 =
	. 80	= Total Cov	ver	EACW species x2 =
50% of total cover: 10	20% of	total cover	:_ <b>_</b> @	FAC species $x_3 =$
Sapling/Shrub Stratum (Plot size:)		N	<b>5</b> 0 m.	FACU species x 4 =
1. LIQUATEURA SINENSE	600		<b>LHUN</b>	UPL species x 5 =
2	·			Column Totals: (A) (B)
3				
4	·	<u></u>		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 <sup>1</sup>
	_20	= Total Co	ver	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>VO</u>	20% o	f total cover	г. <u>Ч</u>	
Herb Stratum (Plot size: <u>5077 x 30 77</u> )			<b></b>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Liquistrum sinense	<u>   10    </u>	<u> </u>	PACU	be present, unless disturbed or problematic.
2. Woodwardia areolata	0	<u> </u>	<u>PHCN</u>	Definitions of Four Vegetation Strata:
3		·		Tree – Woody plants, excluding vines, 3 in, (7.6 cm) or
4			- <u> </u>	more in diameter at breast height (DBH), regardless of
5	• <del></del>	· •		height.
6				Sapling/Shrub - Woody plants, excluding vines, less
7			·	than 3 in. DBH and greater than 3.28 ft (1 m) tail.
8	<u> </u>		- <u> </u>	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			. <u> </u>	height.
12				
	20	= Total Co	ver	
50% of total cover: 10	<b>)</b> 20% o	f total cove	r: <u> </u>	
Woody Vine Stratum (Plot size: 30 Hrx 30 Hr	-			
1. Lonicera japonica	<u> </u>	<u> </u>	FAC	
2. Smilax rotundifolia	5	ý.	FAC	•
3		•		
4				
5	_			Hydrophytic
	10	= Total Co	over	Vegetation
50% of total cover:	> 20% (	of total cove	r 2	Present? Yes V No
Remarks: (If observed list morphological adaptations be				
1				

#### SOIL

Sampling Point: Wjop024-U

Profile Description: (Describe to the depth needed to document the indicator or confirm	n the absence o	of indicators.)
Depth Matrix Redox Features		
(inches) Color (moist) % Color (moist) % Type <sup>4</sup> Loc <sup>2</sup>		Remarks
0-20 1041241 100	<u>_</u> S	
	·	
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
	······································	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators 1	for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T,	<b>∪)</b> 1 cm M <sup>·</sup>	uck (A9) (LRR O)
Histic Epipedon (A2)		uck (A10) (LRR S)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)		ed Vertic (F18) (outside MLRA 150A,B)
Coarry Gleyed Matrix (F2)     Depleted Matrix (F2)		Int Floodplain Soils (F19) (LRR P, S, T)
Organic Bodies (A6) (LRR P. T. U)	Anona (MI R	A 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Pa	Irent Material (TF2)
Muck Presence (A8) (LRR U)	U Very St	nallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	D Other (I	Explain in Remarks)
Depleted Below Dark Surface (A11)		
Thick Dark Surface (A12)	', T) <sup>a</sup> Indica	ators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Unbric Surface (F13) (LRR P, T, U)	• weth	and hydrology must be present,
Sandy Mucky Milleral (ST) (LRR O, S) I Delta Ochine (FT7) (MLRA 151)	unie a	ess disturbed or problematic.
Sandy Redox (S5)	'/ 49A)	
Stripped Matrix (S6)	RA 149A, 153C,	153D)
Dark Surface (S7) (LRR P, S, T, U)		
Restrictive Layer (if observed):		
Туре:	1	/
Depth (inches):	Hydric Soil	Present? Yes 🗸 No
Remarks:		
,		



Upland data point wjop024\_u facing southeast.

D.o

-

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

Project/Site: ACP	city/County: Johnston Sampling Date: 5/21/15
Applicant/Owner: Dominion	State: NC Sampling Point: WJP P029_W
Investigator(s): ESI (Roper, Turnbull)	Section, Township, Range: none
Landform (hillslope, terrace, etc.): $\frac{drainage}{}$ Subregion (LRR or MLRA): $\underline{LRPP}$ Lat: $\underline{35.3}$	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>2-5/</u> , 30172 Long: <u>-78.44997</u> Datum: <u>W65 B4</u>
Soil Map Unit Name: Lynch borg Sarray 10	NWI classification: <u>FFO</u>
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstances" present? Yes Ves No
Are Vegetation, Soil, or Hydrology naturally pre-	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes     No       Hydric Soil Present?     Yes     No       Wetland Hydrology Present?     Yes     No	Is the Sampled Area within a Wetland? Yes <u>No</u>
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)	13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1	5) (LRR U) Drainage Patterns (B10)
A Saturation (A3) Hydrogen Sumde	Udor (C1) <u>II</u> Moss Trim Lines (B1b)
Sediment Deposits (B2)	uced Iron (C4)
Drift Deposits (B3)	Inction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	e (C7)
Iron Deposits (B5)	Remarks) Shallow Aquitard (D3)
Li Jaundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Mater-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	NH NH
Water Table Present? Yes Kin Depth (inche	
Saturation Present? Yes No Depth (inche	as): SUTFALE Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial pro	previous inspections), if available:
Remarks:	

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

Sampling Point: <u>WJ DPOZ9f.w</u>

2-14 3-14	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: SOTT X JUTT)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Ilex opala	. <u> </u>	<u></u>	FAC	That Are OBL, FACW, or FAC: (A)
2. QUERCUS NIGRA	15	<u> </u>	<u>1-AC</u>	Total Number of Dominant
3. Liquidambed styraciflua	15	<u> </u>	FAC	Species Across All Strata:
4.				(2)
5				Percent of Dominant Species
о				That Are OBL, FACW, or FAC: (A/B)
			<u> </u>	Prevalence index worksheet:
· · · · · · · · · · · · · · · · · · ·	•			Total % Cover of Multiniv by
8	25	<u> </u>		
17	<u></u>	= Total Cov	/er	
50% of total cover: <u>171</u>	<u> </u>	total cover	:/	
Sapling/Shrub Stratum (Plot size: 30+1x30+1)	_			FAC species x 3 =
1. Ilex opaca	10	<u> </u>	FAC	FACU species x 4 =
2		'		UPL species x 5 =
3				Column Totals: (A) (B)
A				
۲۰. <u>ــــــــــــــــــــــــــــــــــــ</u>				Prevalence Index = B/A =
0,				Hydrophytic Vegetation Indicators:
lo			·	L 1 - Rapid Test for Hydrophytic Vegetation
7			<u>-</u>	y 2 - Dominance Test is >50%
8			<del></del>	3 - Prevalence Index is ≤3.0 <sup>1</sup>
	10	= Total Co	ver	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: 5	20% of	total cover	: 2	
Herb Stratum (Plot size: 30f+x30f+)				
1 clethra alnifolia	1D	У	FACIN	Indicators of hydric soil and wetland hydrology must
· Anindunaria algoritea		- <del>(</del>	Enril	De present, unless distanced of problematic.
	10		THUN	Definitions of Four Vegetation Strata:
3		<u></u>	·	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
10			·	
10			•	Woody vine - All woody vines greater than 3.28 ft in
[ <sup>11</sup>		·		height.
12		· <del></del>		
	20	= Total Co	ver ,,	
50% of total cover: 10	<u> </u>	f total cove	r: <u> </u>	
Woody Vine Stratum (Plot size: 3077x3077)				
1. Smilax rotundifolia	15	У	FAC.	
2				
2				
3,				
4	<u> </u>			
5				Hydrophytic
	15	= Total Co	over	Vegetation
50% of total cover: 7.	<u>5</u> 20% d	of total cove	er:3	Present? Yes <u>No</u>
Remarks: (If observed, list morphological adaptations be	elow).			
1				

.

SOIL

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the in	dicator or confirm	the absence	of indicators.)
Depth	Matrix		Red	ox Features			
	Color (moist)	<u>_%</u>	Color (moist)	%	Type' Loc'	<u>    Texture     </u>	Remarks
0-4	IUYK M	100 -		<u> </u>		<u>SL</u>	muly
<u>4-20</u>	104R.4.	100			······································		organize content
	·	·					····
					·		· · · · · · · · · · · · · · · · · · ·
·		<u></u>				·	
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM=Re	educed Matrix, N	IS=Masked	Sand Grains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless othe	erwise note	d.)	Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dolyvalue B	elow Surfac	e (S8) (LRR S, T, U)	) 🛄 1 cm i	Muck (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark S	urface (S9)	(LRR S, T, U)	2 cm I	Muck (A10) (LRR S)
Black H	istic (A3)		Loamy Muc	ky Mineral (I	<sup>=</sup> 1) (LRR O)	Reduc	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix (F	2)		iont Floodplain Soils (F19) (LRR P, S, T)
	u Layers (A5)	τ 10	Depleted M	atrix (F3) Surface (F)	2)	Anom ليار	alous Bright Loamy Soils (F20)
	: DOUIES (A6) (LKR P) ucky Minoral (A7) // 1	, I, U) 200 T IN		SUΠACE (Ft	)) (E7)		KA 153B) Incont Matorial (TEO)
Muck P	resence (AR) (LP	\r\F, i, U) \\		ain Ouliace	(F7) )		rarent Material (152)
	uck (A9) (LRR P T)	7	Marl (F10)	LBB II)	,		(Explain in Remarks)
	d Below Dark Surfac	e (A11)		chric (F11) (	MLRA 151)	Juler Let	(Evbiain in roundins)
Thick D	ark Surface (A12)	- ( )	Iron-Manga	nese Masse	s (F12) (LRR O. P.	T) <sup>3</sup> Indi	cators of hydrophytic vegetation and
Coast F	rairie Redox (A16) (I	/ILRA 150A)	Umbric Sur	face (F13) (I	-RR P, T, U)	we	tland bydrology must be present.
Sandy !	Mucky Mineral (S1) (I	.RR 0, S)	Delta Ochri	c (F17) (ML)	RA 151)	un	less disturbed or problematic.
🔲 Sandy (	Gleyed Matrix (S4)		Reduced V	ertic (F18) (I	ULRA 150A, 150B)		
Sandy I	Redox (S5)		Piedmont F	loodplain So	oils (F19) (MLRA 14	9A)	
Stripper	d Matrix (S6)		Anomalous	Bright Loan	ny Soils (F20) (MLR.	A 149A, 1530	C, 153D)
Dark Su	urface (S7) (LRR P, S	s, T, U)					
Restrictive	Layer (if observed):	:					
Type:			<u> </u>			ł	
Depth (ir	nches):					Hydric So	il Present? Yes <u>/</u> No
Remarks:							
i i							
1							



Wetland data point wjop029f\_w facing west.



Wetland data point wjop029f\_w facing north.

Photo Sheet 1 of 2

WETLAND DETERMINATION DATA	FORM – Atlantic and Gulf Coastal Plain Region
Project/Site: ACP	City/County: Johnston Sampling Date: 5/21/15
Applicant/Owner; Dominion	State: NC Sampling Point: Wjop029.u
Investigator(s); ESI (Roper, Turnbull)	Section, Township, Range: NONE
Landform (hillslone, terrace, etc.): ACANA40	Local relief (concave, convex, none); CON/(AVE, Slone (%); Z-5/
Subregion (I RR or MI RA): LEFE P Lat: 36	0.30172 Long -78, 44992 Datum W5584
Soil Map Unit Name Lynchburg Sandy 100	-m NW/ classification: NA
Are climatic / hydrologic conditions on the site typical for this time of a	wear? Yes No (If no explain in Demarke )
Are Veretation Soil or Hydrology significant	hy disturbed?
Are Vegetation Soil or Hydrology paturally n	volisioned? Ale Normal Circumstances present? Tes No
SUMMARY OF FINDINGS – Attach site map showin	ig sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes No         Remarks:       Yes No	- Is the Sampled Area - within a Wetland? Yes No
Berm separating ditch av	nd wetland
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	y) Surface Soil Cracks (B6)
Surface Water (A1)	313) Sparsely Vegetated Concave Surface (B8)
Ari Deposits (B) Mari Deposits (B)	-15) (LRR U) Drainage Patterns (B10)
Water Marks (B1)	pheres along Living Roots (C3)
Sediment Deposits (B2)	Juced Iron (C4)
Drift Deposits (B3)	uction in Tilled Soils (C6)
Algal Mat or Crust (B4)	Lee (C7) Geomorphic Position (D2)
Linundation Visible on Aerial Imageny (87)	Remarks)     I Shallow Aquitard (D3)     EAC Neutral Text (D5)
Water-Stained Leaves (B9)	
Field Observations:	
Surface Water Present? Yes No Depth (inch	ies): <u>NA</u>
Water Table Present? Yes No Depth (inch	ies): <u>&gt;ZO</u>
Saturation Present? Yes No V Depth (inch	nes): <u>&gt;20</u> Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial ph	iotos, previous inspections), if available:
Remarks:	

	names of pr	anto.		
ree Stratum (Plot size: 30ft v 30ft	Absolute % Cover	Dominant Species2	Status	Dominance Test worksheet:
Liguidambar styraciflua	<u></u>	<u> </u>	FAC	Number of Dominant Species (A)
				Total Number of Dominant Species Across All Strata:6(B)
				Percent of Dominant Species
				Provolongo Index workshoet:
		. <u> </u>		Total % Cover of Multiply by
				OPL encelor
	<u> </u>	= Total Cov	/er	$\sum_{x \in A} C(x) = \sum_{x \in A} C(x)$
50% of total cover:	20% of	total cover	:	FACW species X2 =
apling/Shrub Stratum (Plot size: <u>30+1X30++</u> )		<u>.</u>	-0-	FAC species X 3 =
Ilex opaca		<u> </u>	<u>FHC</u>	FACU species x 4 =
·	<u> </u>			UPL species x 5 =
·		. <u> </u>		Column Totals: (A) (B)
				Prevalence index = B/A =
				Hydrophytic Vegetation Indicators:
·				Rapid Test for Hydrophytic Vegetation
•				
		<del></del>		$3 - Prevalence Index is \leq 3.0^{1}$
	<u>    10  </u>	= Total Cov	ver	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover:	<u>5</u> 20% of	f total cover	:_2	
Asplenium (Plot size: <u>30+1×30+1</u> )	2	У	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Arundinaria gigantea	5	Ý	FACW	Definitions of Four Vegetation Strata:
·				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
).	····-			Souther/Charles Mission Jones and Mission Jones
·			·	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
• \bullet			·	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
0				Woody vine - All woody vines greater than 3.28 ft in
2.			•	neight.
	7	= Total Co	ver	
50% of total cover:	3.5 20% 0	f total cove	<u>r. 14</u>	1
Noody Vine Stratum (Plot size: 30ff x 30ff)				
1. Smilax rotundifolia	15	У	FAC	
<u></u>				
3				
۰ ۱				
*				
)				Hydrophytic
	7 6 13	= Total Co	over	Vegetation Propert2
50% of total cover:	7.5 20%	of total cove	er: <u> </u>	resentr ies v No
Remarks: (if observed, list morphological adaptations	s below).			
	,			

SOIL

.

Profile Desc	ription: (Describe	to the depth i	needed to docu	ment the i	ndicator	or confirm t	the absence of inc	dicators.)	
Depth	<u>Matrix</u>		Rede	ox Features	<u>s</u>	<u>t = 2</u>	<b>T</b>	<b>.</b> .	
	$\frac{\text{Color (moist)}}{7.5 \sqrt{41}}$	<u></u>	Color (moist)	%	<u>lype'</u>	<u>   LOC</u> .	exture	Remarks	
	2.31.12				<u> </u>	·			
		·							
l		. <u> </u>					<u> </u>		
						·····			
	<u> </u>	·			· <u> </u>	·	<u></u>		<u></u>
17000 0-0		lotion BM-D	duced Methics M		1 Sand O-		<sup>2</sup> l occiter: Di	Doro Lining M. M.	
Hydric Soil	Indicators: (Applic	able to all LR	Rs. unless othe	io-wasket	ed.)	all 15.	Indicators for P	role Lining, M=Matri Problematic Hydric 1	x. Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue B	elow Surfa	ce (S8) (L	.RR S. T. U)		(A9) (LRR O)	
Histic E	pipedon (A2)		Thin Dark S	urface (S9)	) (LRR S,	T, U)	2 cm Muck	(A10) (LRR S)	
Black H	istic (A3)		Loamy Muc	ky Mineral	(F1) (LRF	۲O)	Reduced Ve	ertic (F18) (outside l	WLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gley	red Matrix (	(F2)		Piedmont F.	loodplain Soils (F19)	(LRR P, S, T)
Organic	u Layers (A5) Bodies (A6) /I PP P	. т. ()	Reday Dark	atrix (F3) Surface /5	-6)			Bright Loamy Soils ( 53B)	F20)
	ucky Mineral (A7) (LF	, , , , , RR P, Ť, U)	Depleted Da	ark Surface	, ≩(F7)		Red Parent	Material (TF2)	
Muck P	resence (A8) (LRR L	Ŋ	Redox Depr	ressions (F	8)		Very Shallo	w Dark Surface (TF1	i2)
	uck (A9) (LRR P, T)		Marl (F10) (	(LRR U)			Uther (Expl	ain in Remarks)	
	d Below Dark Surfac	æ (A11)		chric (F11)	(MLRA 1	51) "		. af herden der der	daltan ar d
	ark Sunace (A12) rairie Redox (A16) (I	MLRA 150A)	Umbric Sud	nese Mass face (F13)	(LRR P. 1	(ERR U, P, 1 [. U)	i) INCISION	s of nyaropnytic vege hydrology must be p	resent
Sandy I	Aucky Mineral (S1) (	LRR O, S)	Delta Ochri	c (F17) (MI	LRA 151)	., _,	unless d	listurbed or problema	atic.
Sandy (	Gleyed Matrix (S4)	•	Reduced Ve	ertic (F18)	(MLRA 1	50A, 150B)		•	
Sandy I	Redox (S5)		Piedmont F	loodplain S	Soils (F19)	) (MLRA 14	9A)		
	o matrix (S6) Inface (S7) (LPP P -	STUN	Anomalous	Bright Loa	imy Soils	(F20) (MLR/	A 149A, 153C, 153	(D)	
Restrictive	Layer (if observed)	:					Υ		
Type:			_				ļ		
Depth (ir	iches):						Hydric Soil Pres	sent? Yes	No _/
Remarks:									
1									
1									
ļ									
1									



Upland data point wjop029\_u facing south.



Upland data point wjop029\_u facing east.

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

Project/Site: <u>ACP</u>	city/county: Johnston Sampling Date: 4127115
Applicant/Owner: Dominion	State: N( - Sampling Point: WIDDU7.bf ()
Investigator(s): EST I RODER. Markhum	Section Townshin Range: NONP
Landform (billsione terrace etc.): de M2 SSION	Least relief (concerns approximately $L$ DIOC A) $L$ DIOC ( $L$ ) $L$ DIOC ( $L$ DIOC ( $L$ ) $L$ DIOC ( $L$ ) $L$ DIOC ( $L$ DIOC ( $L$ ) $L$ DIOC ( $L$ DIOC ( $L$ DIOC ( $L$ ) $L$ DIOC ( $L$ DI
Subrasian (IRB as MIDA): / R.D. P. Lat. 35	$\frac{1}{2} \frac{1}{2} \frac{1}$
Subregion (LRR or MLRA): <u>LIFF</u> Lat: <u>551</u>	$\frac{30176}{1000}  \text{Long:}  \frac{-10.46302}{10002}  \text{Datum:}  \frac{10000}{10000}  \frac{10000}{100000}  \frac{10000}{1000000}  \frac{10000}{10000000}  \frac{10000}{10000000}  \frac{10000}{1000000000}  \frac{10000}{100000000}  \frac{10000}{10000000000}  \frac{10000}{10000000000000}  \frac{10000}{1000000000000000000000000000000$
Soil Map Unit Name: DONVIEAU SANC, 0-01	<u>1310, PCS</u> NWI classification; <u>PPU</u>
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes <u>V</u> No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes V No
Are Vegetation, Soil, or Hydrology naturally pro	blematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes     No       Hydric Soil Present?     Yes     Yo       Wetland Hydrology Present?     Yes     No	Is the Sampled Area within a Wetland? Yes No
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	3) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	i) (LRR U) Drainage Patterns (B10)
L Saturation (A3)	Ddor (C1) Moss Trim Lines (B16)
Sodiment Depending (P2)	eres along Living Roots (C3) L Dry-Season Water Table (C2)
	tion in Tilled Soils (C6)
Algal Mat or Crust (B4)	(C7) Geomorphic Position (D2)
Iron Deposits (B5)	Remarks)
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	i): <u>520</u>
Saturation Present? Yes <u>Ves</u> No Depth (inches	s):O Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if available:
Demerke	,,,,,
old non-maintained ditches p	resent; now shallow (21 ft deep).
partially filled-in.	
	'

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

Sampling Point: 100026 fo

20/1-20/1-	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>JUTTX JUTT</u> )	<u>% Cover</u>	<u>_Species?</u>	Status	Number of Dominant Species
1. <u>FLER (UDIUM</u>		<u></u>	<u>FHC</u>	That Are OBL, FACW, or FAC: (A)
2. PINUS tueda	1.5	<u> </u>	<u>FAC</u>	Total Number of Dominant 7
3				Species Across All Strata:
4			_	
5.				Percent of Dominant Species
6	······	•		Inat Are OBL, FACW, or FAC:(AVB)
7	<u> </u>			Prevalence Index worksheet:
·			<u> </u>	Total % Cover of: Multiply by:
8	00	<u> </u>		
	45	= Total Cov	er	
50% of total cover: 12	<u>5</u> 20% of	total cover:	_5	FACVV species x 2 =
Sapling/Shrub Stratum (Plot size: 30 ++ x 30 ++ )				FAC species x 3 =
1. Ilex opaca	10	Y	FAC	FACU species x 4 =
2 Ager rubrum	1D	Ň	FAC	UPL species x 5 =
3			<u></u>	Column Totals: (A) (B)
J	·	<del></del>		
4	·	<u> </u>		Prevalence Index = B/A =
5	·			Hydrophytic Vegetation Indicators:
6		<u> </u>		Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8.				
	20	= Total Cov		
			. <u>/</u> 1	Problematic Hydrophytic Vegetation' (Explain)
	20% 0	total cover		
Herb Stratum (Plot size: <u>SVTTX SV 1</u> )		N	~^^	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Lonicera japonica		<u> </u>	HHC	be present, unless disturbed or problematic.
2		-		Definitions of Four Vegetation Strata:
3				
۵				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				height
	·			, in the second s
6	•	<u></u>		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
				neight.
12		·	·	
2	10	= Total Co	ver	· · · · · · · · · · · · · · · · · · ·
50% pf total cover:	<u>20% c</u>	f total cove	r: <u> </u>	
Woody Vine Stratum (Plot size: 30++ x30++)				
1 Smilax standitalia	20	V	EAN	
2 los marca in 2001/10/100	10		CAR	
- Vila Xtialicia	- 13	·	<u></u>	
3. VITO YDIONOITOIIA	10		<u>rm</u>	-
4				
5				Hydrophytic
	45	= Total Co	ver	Vegetation
50% of total cover: 22	20%	f total cove	<u> </u>	Present? Yes V No
Demodrae (If also and If also is a local state of the local state of t	20700		··	· <u>1</u>
Remarks: (ii observed, list morphological adaptations be	iow).			
1				
				· ·

#### SOIL

# Sampling Point: Wipops 26 f.

Profile Description: (Describe to the depth nee	eded to document the indicator or confirm the	ne absence of indicators.)
Depth <u>Matrix</u> (inches) Color (moist) %	Redox Features	Toylura
0-10 INV221 100	<u>1992 11996 70YPEOC</u>	
10-11 10XK 31, 100		
10-10 10 10 11 100		
16-20 101K 3/2 100		LS
		·····
<sup>1</sup> Type: C=Concentration D=Depletion BM=Bedu	and Matrix MS-Mankad Sand Orein-	
Hydric Soil Indicators: (Applicable to all LRRs.	. unless otherwise noted.)	Location: PL=Pore Lining, M=Matrix.
Histosol (A1)	Polyvalue Below Surface (S8) (LRB S. T. 1)	1 cm Muck (A9) (I RR O)
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)	$\square$ 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)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)	L Anomalous Bright Loamy Soils (F20)
Ciganic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B)
Muck Presence (A8) (LRR U)	Redox Depressions (F8)	Very Shallow Dark Surface (TE12)
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)	
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, P, T)	<sup>3</sup> Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)	Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mocky Milleral (ST) (LRR 0, S)	Beduced Vertic (F18) (MLRA 151)	unless disturbed or problematic.
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 149)	A)
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (MLRA	149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)		
Restrictive Layer (if observed):		
lype:		/
Depth (inches):		Hydric Soil Present? Yes <u>V</u> No
Remarks:		
1		

-



Wetland data point wjoo026f facing southwest.

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

Project/Site: ACP	City/County: Johnston Sampling Date: 4/27/15
Applicant/Owner: Dominioh	State: NC Sampling Point: w:00 0.26-4
Investigator(s): ESI [RODER Markham]	Section, Township, Range: NDNC
Landform (hillslope, terrace, etc.): Depressional	Local relief (concave, convex, none): Concove, Slope (%): 0-2'1
Subregion (LRR or MLRA): LRR P Lat: 35	30177 LONG: -78,46346 Datum 6584
Soil Map Unit Name: Bonneau Sund . 0-3	1, 6/0 Des NW classification: NH
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No. (If no. evolain in Remarke )
Are Vegetation Soil or Hydrology significantly	v disturbed? Are "Normal Circumstances" present? You No
Are Vegetation Soil or Hydrology naturally or	oblematic? (If needed, explain any answers in Demarks )
SUMMARY OF FINDINGS – Attach site map showing	a sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Wefland Hydrology Present? Yes No	within a Wetland? Yes <u>No</u>
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	L Surface Soil Cracks (B6)
L High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)	Odor (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizosph	heres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	ced Iron (C4)
Drift Deposits (B3)	ction in Tilled Soils (C6)
Algal Mat or Crust (B4)	e (C7) Geomorphic Position (D2)
In Information Line (Explain in F	Remarks) I Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Sphagoum moss (D8) (LRR T. U)
Field Observations:	
Surface Water Present? Yes No Depth (inches	s): <u>NA</u>
Water Table Present? Yes No Depth (inches	s): <u>JD</u>
Saturation Present? Yes No Depth (inches	s): <u>&gt; 2.D</u> Wetland Hydrology Present? Yes <u>No </u>
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspections), if available:
Remarks:	
old non-maintained ditches p	resent in adjacent withland; now shallow
(< ) the accupit, but the first the	
· ·	

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

a h n-fi	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30,44,3014</u> )	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Pinus turda	15	<u> </u>	<u>rac</u>	That Are OBL, FACW, or FAC: (A)
2. Itex opaça	20	<u> </u>	- HAC	Total Number of Deminant
3. Quercos falcata	10	<u>N</u>	FACU	Species Across All Strata: 5 (B)
4. Ac.er rubrum	10	N	PHC	
5.	<u> </u>			Percent of Dominant Species
6				(A/B)
7				Prevalence Index worksheet:
0				Total % Cover of: Multiply by:
0	56		<u> </u>	OBL species x 1 =
27	<u> </u>	= Total Co	ver ti	FACW species x 2 =
50% of total cover: <u>L-1</u>	15 20% of	i total cover	:	
Sapling/Shrub Stratum (Plot size: <u>SUTT SUTT</u> )	1	NI.		
1. Magnolia Virginiana	10		<u>FHCM</u>	
2				
3				Column Totals: (A) (B)
4				Prevalence Index = B/A -
5				
6.				
7			·	Rapid Lest for Hydrophytic Vegetation
o			<u> </u>	2 - Dominance Test is >50%
0	10			3 - Prevalence Index is ≤3.0 <sup>1</sup>
5			ver 🤿	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover:	20% o	f total cover		
Herb Stratum (Plot size: <u>SUTT XSUTI</u> )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. none				be present, unless disturbed or problematic.
2	·	· · · · · · · · · · · · · · · · · · ·		Definitions of Four Vegetation Strata:
3				Tree - Woody plants, excluding vines, 3 in (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6.				Sanling/Shrub – Woody plants, evoluting vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8	•	•		
0		·	·	Herb – All herbaceous (non-woody) plants, regardless
a				or size, and woody plants less than 5.20 it tail.
		·	·	Woody vine - All woody vines greater than 3.28 ft in
11. <u></u>			•	height.
12			·	
		= Total Co	ver	· · · · · · · · · · · · · · · · · · ·
50% of total cover:	20% c	of total cove	r:	1
Woody Vine Stratum (Plot size: 30+7 X30+7)		v	. <b>.</b> .	
1.Smilax rotunditolia	<u> 25</u>	<u> </u>	<u>FAC</u>	
2. Lonicera japonica	25	<u> </u>	<u>_FAC</u>	, -
3				
4.	-			
5	- <u> </u>	· .	<u>-</u>	
		= Total Cr		Hydrophytic Vegetation
	000/	Total CO	Jvel	Present? Yes No
50% OT TOTAL COVER:	20% (	DI LOLAL COV€	#·	
Remarks: (If observed, list morphological adaptations be	ow).			
				•

. .

Sampling Point: wjoo 026-u

#### SOIL

1

# Sampling Point: Wj00 026-4

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of i	indicators.)	
Depth (inches)	Matrix	0/	Redo	x Feature	<u>s</u> 1	1.0.2	<b>T</b>		
17-1A	15 MR 21.	100		%	<u> </u>	<u>CC</u>		Remarks	
	10 10 41-	100					<u> </u>		
	1016 75			•		·····	<u> </u>		
10-16	101K 313				·	<u> </u>	<u></u>		
16-20	104K3/3	100					<u> </u>		
	<u> </u>	·					·		
	·····								
- <u></u>						<u> </u>			
<sup>1</sup> Type: C=Co	oncentration, D=Dep	letion, RM=F	Reduced Matrix, M	S=Maskec	Sand Gra	ains.	<sup>2</sup> Location: PL	=Pore Lining, M=Mat	rix.
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless othe	rwise not	ed.)		Indicators for	Problematic Hydric	: Soils³:
Histosol	(A1)		Polyvalue Be	elow Surfa	ce (S8) (L	RR S, T, U		k (A9) (LRR O)	
Black Hi	stic (A3)			unace (S9) sv Mineral	) (LRR 8, (F1) (LRR	1, U) : O)		k (A10) (LRR S) Vertic (E18) (outside	MI PA 150A P)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (	(F2)	,	Piedmont	Floodplain Soils (F19	(LRR P, S, T)
Stratified	l Layers (A5)		Depleted Ma	ıtrix (F3)			Anomalou	is Bright Loamy Soils	(F20)
	Bodies (A6) (LRR P,	, T, U)	Redox Dark	Surface (F	-6)			153B)	
	esence (A8) (LRR U	(RP, 1, 0) )	Bedox Depre	rk Sunace essions (F	8) 8)		Very Shall	nt Material (TF2) Iow Dark Surface (TF	10)
1 cm ML	ick (A9) (LRR P, T)	,	Mari (F10) (I	_RR U)	~)		Other (Ex	plain in Remarks)	12)
Depleted	Below Dark Surface	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		· · · · · · · · · · · · · · · · · · ·	
Thick Da	ark Surface (A12)		Iron-Mangar	iese Mass	es (F12) (	LRR O, P,	T) <sup>3</sup> Indicato	rs of hydrophytic veg	etation and
Sandy M	lucky Mineral (S1) (L	ILKA 150A) .RR O. SI		(F13) (MI	(LRK P, 1 -RA 151)	, 0)	wettan	d hydrology must be disturbed or problem	present,
Sandy G	Bleyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)	4711055	distances of problem	allo.
Sandy R	ledox (S5)		Piedmont Flo	oodplain S	ioils (F19)	(MLRA 14	9A)		
Stripped	Matrix (S6)	- <b>T</b> IN	Anomalous I	Bright Loa	my Soils (	F20) (MLR.	A 149A, 153C, 15	53D)	
Restrictive I	Layer (if observed):	, 1, 0)					<u> </u>		
Туре:									
Depth (in	ches):						Hydric Soil Pro	esent? Yes	No
Remarks:			·				<b>.</b>		
	,								
								,	

2

.



Upland data point wjoo026 facing north.
## WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: ACP	City/County:	<u>)n</u> s	ampling Date: 10 28 114
Applicant/Owner: Pominipy		State: <u>NL</u> s	ampling Point: wjop 025f_W
Investigator(s): ESI (LRoper, RTurnbull)	Section, Township, Range: Y	none	
Landform (hillslope terrace etc.):	Local relief (concave, convex,	none): COnca	Ve_ Slope (%): 041.
Subrogion (I BB or MI BA): LELP Lat: 3	5,30783 Long -	78.4843	Datum: W6584
Sublegion (ENV of MENA)	h-7:1, 50000	NI\\All classificat	ion: PFO
Soli Map Onit Name.		Privile classificat	
Are climatic / hydrologic conditions on the site typical for this time		(ii no, explain in Rei	Nanta Vaa
Are Vegetation, Soil, or Hydrology signific	Intry disturbed? Are information	r Circumstances pre	in Romarke )
Are vegetation, Soli, or Hydrology natural	ving sampling point location	ons, transects.	important features. etc.
Hydrophytic Vegetation Present? Yes No			/
Hydric Soil Present? Yes <u>Ves</u> No		Yes 🗸	No
Wetland Hydrology Present? Yes V No	<u> </u>		
Remarks:			
1			
			<u></u>
		Secondary Indicat	ors (minimum of two required)
Primony Indicators (minimum of one is required) check all that a	aniv)	Surface Soil (	Cracks (B6)
Surface Water (A1)	a (B13)	Sparsely Veg	etated Concave Surface (B8)
Mari Deposit	(B15) (LRR U)	Drainage Pat	tems (B10)
Saturation (A3)	fide Odor (C1)	Moss Trim Li	nes (B16)
Water Marks (B1) Oxidized Rhi	cospheres along Living Roots (C3)	Dry-Season \	Water Table (C2)
Sediment Deposits (B2)	Reduced Iron (C4)	Crayfish Burr	ows (C8)
Drift Deposits (B3)	teduction in Tilled Soils (C6)	Saturation Vi	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Inface (C7)	Geomorphic	Position (U2)
Iron Deposits (B5)	n in Remarks)	EAC Noutral	(810 (D3) Test (D5)
Ibundation Visible on Aerial Imagery (B7)			noss (D8) (LRR T. U)
Field Observations:			
Surface Water Present? Yes No Denth (	nches):		
Water Table Present? Yes No Depth (	nches): >20		1
Saturation Present? Yes V No Depth	nches): Wetland	d Hydrology Prese	nt? Yes 🗸 No
(includes capillary fringe)		wallable:	
Describe Recorded Data (stream gauge, monitoring well, aena	r priotos, previous inspections), il a	Ivanaule.	
Demortra			
Remarks.			

··· ····

2-2+20	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 50 X30)	<u>% Cover</u>	<u>Species?</u>	<u>Status</u>	Number of Dominant Species	
1. PINUS TARda	· <u> </u>	<u> </u>	THE	That Are OBL, FACW, or FAC: (A	)
2. Ligoidambar Styracitlua	10	<u> </u>	KHC	Total Number of Dominant	
3. Litiodendron Julipitera	10	<u></u>	FACIL	Species Across All Strata:O (B	)
4				Demonst of Deminent Creation	
5				That Are OBLEACW or FAC: 000 (A	/B)
6.					,
7.				Prevalence Index worksheet:	_
8				Total_% Cover of:Multiply by:	
0	7.5	= Total Cov		OBL species x 1 =	
FOW of hotel annual 17	5 2014 of	totol aquer		FACW species x 2 =	
	20% 0	Iolai covei	·	FAC species x 3 =	
Sapling/Shrub Stratum (Plot size:)	10	N	EARW	FACU species x 4 =	
1. Magnolla VIVAINIANA		- <u>/</u>	FICM	UPI species x 5 =	
2. Ligustrum Sinense		<u> </u>	ENC	Column Totals: (A)	(B)
3. Tlex opa/ca	10	<u> </u>	PHL		
4				Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	
6				L- Rapid Test for Hydrophylic Vepetation	1
7			·	2 - Dominance Test is >50%	
8.				$\square 3 = \text{Brevalence Index is } < 0^{1}$	
	35	= Total Co	ver	Deskiemetis Under studie Viewetetien 1 (Combin)	
50% of total cover: 17	5 20%	f total cove	. 7	Problematic Hydrophytic Vegetation (Explain)	
Harb Stratum (Plateiza) 30130			··		
Herb Sitatum (Plot size: U ROL)		V	car	Indicators of hydric soil and wetland hydrology mu	st
1. LICX ODOLON	-+2	·	ChAL	be present, unless disturbed of problematic.	
2. CLEATING AMITOLIA	10	·	<u>r htum</u>	Definitions of Four Vegetation Strata:	
3				Tree - Woody plants, excluding vines, 3 in. (7.6 cn	n) or
4				more in diameter at breast height (DBH), regardles	sof
5		- <u> </u>	•	height.	
6				Sapling/Shrub - Woody plants, excluding vines, lo	ess
7	_			than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
8				Herb – All berbaceous (non-woody) plants, regard	less
9.				of size, and woody plants less than 3.28 ft tall.	
10					
11				<ul> <li>Woody vine – All woody vines greater than 3.28 theight</li> </ul>	tin
12				, neight.	
12	20			-	
		_ = Totar C			
50% of total cover:	20%	of total cov	er:	•	
Woody Vine Stratum (Plot size: 3() X.20)	10	N	ma A		
1. VINS rotunditoita	_ 10			-	
2. Smilax rotunditolia	0		<u>rhc</u>	-	
3				_	
4		_			
5.				- Hydrophytic	
	20	= Total C	Cover	Vegetation	
50% of total covor:	U 20%	of total cov	er لې	Present? Yes V No	
	- 2070			<u>-   </u>	
Remarks. (ii observed, list morphological adaptations b	ciuw).				

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

......

٠.

Sampling Point: wjop025fw

		-						Samplin	g Point:	<u> </u>
ofile Desc	ription: (Describe	to the depth r	eeded to docu	ment the in	dicator	or confirm	the absence of	indicators.)	,	
epth Inches)	Matrix	<u> </u>	Red	ox Features %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Re	marks	
$\gamma - 4$	INK 24	100					Sand _			
-10	TOYP 4	<u>90 10</u>	70 51	$\overline{10}$	1	M	Sand			······
- w	-10 tb 11	<u> </u>			_ <b></b>					
······					<b>.</b>	·	<b>_</b>	··· <b>·</b>		
<u> </u>		· — — —								
	·									
									<u> </u>	
_ ype: C≓ <u>C</u>	oncentration, D=Dep	pletion, RM=Re	educed Matrix, N	/S=Masked	Sand Gr	ains.	<sup>2</sup> Location: F	L=Pore Lining,	M=Matrix.	
ydric Soil	Indicators: (Applic	able to all LR	Rs, unless oth	erwise note	ed.)		Indicators fo	or Problematic	Hydric So	ils':
Histosol	I (A1)		Polyvalue E	Below Surface	e (S8) (L	.RR S, T, U	) ∐ 1 cm Mu	ick (A9) (LRR C	)) 6)	
	pipedon (A2) istic (A3)			sunace (59) sky Mineral (	(LKK 5, F1) (LRF	1,0)		d Vertic (F18) (c	o) outside ML	RA 150A.E
Hydroge	en Sulfide (A4)		Loamy Gle	yed Matrix (	F2)	,	Piedmor	nt Floodplain Sc	ils (F19) (L	RR P, S, T
Stratifie	d Layers (A5)		Depleted N	latrix (F3)			Anomale	ous Bright Loam	ny Soils (F2	20)
Organic	: Bodies (A6) (LRR F	P, T, U)	Redox Dar	k Surface (F	6)			A 153B)		
5 cm M	ucky Mineral (A7) (L	.RR P, T, U)	Depleted D	ark Surface	(F7)			rent Material (The	-2) 200 (TE12)	
	resence (A8) (LRR U	5)	Mart (F10)	ressions (F∂ /I BR II)	5)		Other (F	allow Dark Suri Explain in Rema	ace (1+12) (ks)	
Deplete	d Below Dark Surfac	ce (A11)	Depleted C	Chric (F11)	(MLRA 1	51)		-Apidin in Conid	11.07	
Thick D	ark Surface (A12)	()	Iron-Manga	anese Mass	es (F12)	(LRR O, P,	T) <sup>3</sup> Indica	itors of hydroph	ytic vegeta	tion and
Coast F	Prairie Redox (A16) (	(MLRA 150A)	Umbric Su	rface (F13)	LRR P,	Γ <b>, U</b> }	wetla	and hydrology n	nust be pre	sent,
Sandy	Mucky Mineral (S1)	(LRR 0, S)	Delta Ochr	ic (F17) (Ml	.RA 151)		unle	ss disturbed or	problemati	c.
Sandy	Gleyed Matrix (S4)			/ertic (F18)   Elecateleie S	(MLRA 1 collo /E10	50A, 150B) MILIDA 14	04)			
Sanoy Strinne	Redox (S5) d Matrix (S6)			s Bright Loa	mv Soils	(F20) (MLR	A 149A, 153C.	153D)		
Dark S	urface (S7) (LRR P,	S, T, U)		o engrit cou		(,, (,,,		,		
Restrictive	Layer (if observed	):			-					
Туре:	·									
Depth (i	nches):						Hydric Soil	Present? Ye	s	No
Remarks:	<b>.</b>									
	,									
	,									
			· · ·							

Environmental Field Surveys Wetland Photo Page



Wetland data point wjop025f\_w facing north.

C.2	
WETLAND DETERMINATION DATA	FORM – Atlantic and Gulf Coastal Plain Region
Project/Site: ACP	City/County: Johnston Sampling Date: 10/28/14_
Applicant/Owner: Dominion	State: NC Sampling Point: Wjop 025-U
Investigator(s): ESTILFODEr, KTurnbull)	Section, Township, Range: NDNC
Landform (hillslope, terrace, etc.): drainaal	Local relief (concave, convex, none): CONCAVE Slope (%): U-31.
Subregion (LRR or MLRA): Let: 35	5130281 Long -78.48435 Datum WUS84
Soil Map Unit Name: Rains sandy John,	10-21, Slopes NWI classification: NA
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 significan	tly 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	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	- Is the Sampled Area
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that app	IV) Surface Soil Cracks (B6)
Surface Water (A1)	(B13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	B15) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfic	soberes along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	educed Iron (C4)
Drift Deposits (B3)	duction in Tilled Soils (C6)
Algal Mat or Crust (B4)	iace (C7)
Iron Deposits (B5)	in Remarks)
Inundation Visible on Aerial Imagery (B7)	Sphagpurg moss (D8) (LRR T 11)
Li, Water-Stained Leaves (B9)	
Surface Water Present? Yes No Depth (inc	ches): <u>NA</u>
Water Table Present? Yes No Depth (inc	shes): <u>&gt;20</u>
Saturation Present? Yes 🖌 No Depth (inc	ches):5 m   Wetland Hydrology Present? Yes No ⊻
(includes capillary tringe) Describe Recorded Data (stream gauge, monitoring well, aerial p	photos, previous inspections), if available:
Remarks:	
	``

.....

	Absolute Domi	nant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30x30ff.	<u>% Cover</u> Spec	ies? Status	Number of Dominant Species
1. Ligenidambar sturaciflua	1.5 2	FAC	That Are OBL, FACW, or FAC: (A)
2 Pres subsum	TOTY	FAC	
2. Hickord and the fill offers	15-1	CP(1)	Total Number of Dominant
3. LIVIDGENDENT TOIL PITERIAL			Species Across All Strata:
4	·		Percent of Dominant Species
5			That Are OBL, FACW, or FAC: (A/B)
6.			
7			Prevalence Index worksheet:
· · · · · · · · · · · · · · · · · · ·			Total % Cover of: Multiply by:
٥. <u></u>			OBL species x 1 =
97	_ <u></u> = lota		FACW species x 2 =
50% of total cover:	20% of total of	over:	
Sapling/Shrub Stratum (Plot size: 30 X30 FL)		<b>~</b> 4444	x 3
1. Callicaroa americana	16 Y	I-FIC W	FACU species x 4 =
2 1 illightrian sinense		FAC	UPL species x 5 =
2. <u>DIMONITARY JUNCTICE</u>	- <u></u> Ý	143	Column Totals: (A) (B)
3. LIER WULL	<u>, 12 / </u>		
4			Prevalence Index = B/A =
5			Hydrophytic Vegetation Indicators:
6			1 -Rapid Test for Hydrophytic Venetation
7			N2 Deminance Test is >50%
·			
0	47 -		3 - Prevalence Index is ≤3.0
7	$\sim$ = lot	al Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover:	20% of total	cover: <u>5</u>	
Herb Stratum (Plot size: 30 X 36 ft)			<sup>1</sup> Indicators of bydric soil and wetland bydrology must
11 jaustrum Sinense	10 1	r fac	<ul> <li>be present, unless disturbed or problematic.</li> </ul>
			Definitions of Four Vegetation Strata:
2			Deminions 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			Sanling/Shrub - Woody plants, excluding vines, less
7			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
[ <sup>(</sup>		····	-
8		· · · · · · · · · · · · · · · · · · ·	<ul> <li>Herb – Ali herbaceous (non-woody) plants, regardless</li> </ul>
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			
1 fen	10		-
50% of total cover:	20% of tota	l cover:	<u> </u>
Woody Vine Stratum (Plot size: 30×30Ff)			
1. Vitiz rotunditolia	10	Y FAC	
2 Smilar cotunditation	$\overline{10}$	Y FAC	
2		<u> </u>	=
3	·		-
4			-
5			– Hvdrophytic
	20 = T	otal Cover	Vegetation
E004 of total courses	D 20% of tot	Lover: 4	Present? Yes 🗸 No
50% of total cover:			-
Remarks: (If observed, list morphological adaptations I	below).		
· ·			

. ......

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

.....

Sampling Point: wjop 025\_u

. . . . . .

-----

Matrix       Redox Features       Treature       Remats         2_0       0/12       1       0/0	Profile Desc	ription: (Describe	to the depth n	eeded to docum	nent the indic	cator or confirm	n the absence o	indicators	s.)	
Color (motion)       S       Lot (2       Texture       Remarks         CO       LOT (2       LOT       S       S       S         Concentration       Lor       S       S       S       S         get       C-Concentration       Relation       S       S       S         get       C-Concentration       Relation       Relation       Relation       Relation         get       S       Texture       S       S       S       S       S         get       S       Texture       S	) anth	Motriv		Redo	Features				•	
- Loy	inches)	Color (moist)	%	Color (moist)	% T	vpe <sup>1</sup> Loc <sup>2</sup>	Texture		Remarks	
20       10/12/14/12       1000	1-1	104021	100				<u> </u>			
-20       10/14/-14/2       100         gpc:       C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix         gpc:       C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix         fits 5001 (A1)       Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic M(40) (LRR 6)         Black Hate (C4)       Portyoute Below Surface (S9) (LRR 5, T, U)       Indicators for Problematic M(40) (LRR 6)         Stratified Layers (A6)       Depleted Matrix (F2)       Depleted Matrix (F2)         Depleted Dark Surface (F3)       Hark 150, 16(F2)       Red Parent Material (F2)         Organic Bodies (A6) (LRR P, T, U)       Depleted Oark Surface (F3)       Prodecod F(F2)         Depleted Dark Surface (F3)       Hark 150, 16(F1)       No         Coreat Prainie Redox (A16) (MLRA 150, 16(F1))       Hark 150, 16(F1)       No         Sardy Sitey duratix (S4)       Depleted Oark Surface (F3) (LRR P, T, U)       Hark 150, 16(F1)       No         Sardy Citey duratix (S4)       Hark 150, 16(F1)       Hark 150, 16(F1)       No       No         Sardy Citey duratix (S4)       Harkards (F1) (LRR P, T, U)       Harkards (F1) (LRR P, T, U)       Indicators of hydrophydic wegetation and wetand hydrology must be present, unless disturbed or problematic.	<u> </u>		<u> </u>			<u>.                                   </u>				
yge:       C-Concentration.       D-Depletion. RM-Reduced Matrix.       MS-Masked Sand Grains.       Location:       PL-Dore Lining, M-Matrix.         dric Soll Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solls*:       Indicators for Problematic Hydric Solls*:         Histoc Dipote (A2)       Indicators:       Polynauce Bedw Surface (S2) (LRR S, T, U)       Construct (P1) (LRR P, S)         Strainfield Layers (A5)       Depleted Matrix (F2)       Performatic Hodpian Solls (F30)         Organic Eoddes (A6) (LRR P, T, U)       Depleted Matrix (F2)       Performatic Hodpian Solls (F70)         Strainfield Layers (A5)       Depleted Cotrix (F1)       Depleted Cotrix (F2)       Matrix (F2)         Depleted Cotrix (F1)       Depleted Cotrix (F1)       Performatic Hodpian Solls (F70)       Matrix Surface (F2)         Matrix (F2)       Depleted Cotrix (F1)       Performatic Hydric Surface (F1)       Performatic Hydric Surface (F1)         Depleted Edde Cotrix (F1)       Depleted Cotrix (F1)       Performatic Hydric Surface (F1)       Performatic Hydric Surface (F1)         Sandy Mucky Mineral (A1) (LRR 0, S)       Back Hydric Surface (F1) (MLRA 151)       Performatic Hydric Surface (F1)       Performatic Hydric Surface (F1)         Sandy Glew Matrix (S6)       Performatic Hydric Surface (F1) (MLRA 151)       Performatic Hydric Surface (F1)       Performatic Hydric Surface (F1) <td><u>o-W</u></td> <td>10412 12</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	<u>o-W</u>	10412 12	100							
gree:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.               function:       PL=Pore Lining, M=Matrix.          fits fits dot (1)              Poyvalue Below States (83) (LRR 5, T, U)               in mideators for Problematic Mydits Gelis*:          fits fits dot (1)              Poyvalue Below States (83) (LRR 5, T, U)               Construct (A2)               Loarny Gleyed Matrix (F2)               Construct (A2)               Construct (A2)               Loarny Gleyed Matrix (F2)               Pedmont Floodplans State (F19) (URR 8)               Construct (A2)             Redox Depresence (F3)             (MR A 1550)               Popleted Dark States (F2)             (MR A 1551)               Popleted Dark States (F2)             (MR A 1553)               Popleted Dark States (F2)             (MR A 1551)               Depleted Oark States (F12)             (MR A 1551)               Depleted Oark States (F12)             (MR A 1551)               Depleted Oark States (F12)             (MR A 157)               Const Varians (S1)             (MR A 150)               Depleted Oark States (F12)             (MR A 150, MR A 150, M										
yrge: C=Concentration, D=Depietion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         indicators: (Applicable to all LRRe, unless otherwise noted.)       Indicators: for Problematic Hydric Solis*:         instruct (A)       Polyvalue Below Surface (S0 (LRR S, T, U)       Construct (AR R, C)         Bisk Histic (A)       Loarny Micely Mineral (F) (LRR P, O)       Construct (AR C)         Organic Bodies (A)       Loarny Micely Mineral (F) (LRR P, O)       Perform Marking (Brain (AR A)         Organic Bodies (A)       Loarny Micely Mineral (F) (LRR P, O)       Perform Marking (F20)         Organic Bodies (A)       Depieted Dark Surface (F6)       Perform Marking (F20)         Organic Bodies (A)       Depieted Dark Surface (F7)       Perform Marking (F20)         Organic Bodies (A)       Depieted Oark Surface (F3)       Perform Marking (F72)         Depieted Dark Surface (A1)       Depieted Oark Surface (F3)       Perform Marking (F72)         Depieted Dark Surface (A1)       Depieted Oark (A14 (A14 (A14 (A14 (A14 (A14 (A14 (A14						······ · ·				
ype: C=Concentration, D=Depietion, RM=Reduced Matrix, MS=Masted Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         dric 501 Indicators: (Applicable to all LRPs, unless otherwise noted.)       Image: Concentration (A)       Image: Concentration (A)         Histic Epipedion (A2)       Image: Concentration (A)       Image: Concentration (A)       Image: Concentration (A)         Histic Epipedion (A2)       Image: Concentration (A)       Image: Concentration (A)       Image: Concentration (A)         Histic Epipedion (A2)       Image: Concentration (A)       Image: Concentration (A)       Image: Concentration (A)         Disk Histic (A3)       Image: Concentration (A)       Image: Concentration (A)       Image: Concentration (A)         Straffield Layers (A5)       Image: Concentration (A)       Image: Concentration (A)       Image: Concentration (A)         Concentration (A)       Image: Concentration (A)       Image: Concentration (A)       Image: Concentration (A)         Straffield Layers (A5)       Image: Concentration (A)       Image: Concentration (A)       Image: Concentration (A)         Const Nuck (A6) (LRR P, T, U)       Depieted Bohm (A)       Image: Concentration (A)       Image: Concentration (A)         Stand Concentration (A)       Image: Concentration (A)       Image: Concentration (A)       Image: Concentration (A)         Depieted Bohm (A)       Image: Concentration (A)       Image: Concent										
rps:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         Indicators:       (Applicable to all LRRe, unless otherwise noted.)       Indicators:       Indicators:         Indicators:       (Applicable)       Polyvalue Below Surface (SB) (LRR S, T, U)       I cm Muck (Ab) (LRR O)         Black Histic (A)       Loamy Micely Mineral (F) (LRR C)       Polyvalue Below Surface (SB) (LRR P, T)       Perform Micely Mineral (F) (LRR C)         Protect (AB) (LRR P, T, U)       Depleted Matrix (F2)       Perform Micely Mineral (FD) (LRR V)       Perform Micely Mineral (F2) (LRR P, S)         Organic Bodies (AB) (LRR P, T, U)       Depleted Depresions (F6)       Perform Micel (F1)       Perform Micel (F1)         Depleted Dark Surface (A1)       Depleted Cortic (F1) (MLRA 151)       Perform Micel (F2)       Other (Explain in Remarks)         Depleted Dark Surface (A1)       Depleted Cortic (F1) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hyd										
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masted Sand Grains.       *Location:       PL=Pore Lining, M=Matrix.         Ifsitosol (A1)       Implementation of the state (S9) (LRR S, T, U)       Implementation of the state (S9) (LRR S, T, U)       Implementation of the state (S9) (LRR S, T, U)       Implementation of the state (S9) (LRR S, T, U)         Black Histic (A3)       Implementation of the state (S9) (LRR S, T, U)       Implementation of the state (S9) (LRR S, T, U)       Implementation of the state (S9) (LRR S, T, U)         Stratified Layers (A5)       Depleted Matrix (S3)       Depleted Matrix (S3)       Period Matrix (S3)         Stratified Layers (A5)       Depleted Datrix (S1)       Depleted State (F12)       Matrix (F12)         Organic Boolise (A6) (LRR P, T, U)       Depleted Oatrix (S1)       Depleted State (F12)       Other (Explain in Remarks)         Depleted State (S1)       Depleted State (F12)       Implement States (F12) (LRR O, D)       Implementates States (F12) (LRR O, D)       Implementation States (			· ·		·		· ·			
ype:       C-Concentration, D-Depletion, RM-Reduced Matrix, MS-Masked Sand Grains. <sup>1</sup> Location: PL=Pore Links, M-Matrix.         Histoc Epideators: (Applicable to all LRRs, unless otherwise noted.)       Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histoc Epideators: (Applicable to all LRRs, unless otherwise noted.)       Depleted Watrix (F2)       Indicators: for Problematic Hydris Solis <sup>1</sup> :         Statified Layers (AS)       Depleted Matrix (F2)       Indicators: for Muck YAIO (LRR S)         Statified Layers (AS)       Depleted Matrix (F2)       Indicators: for Problematic Note (F1) (MLR A 1590)         Corn Muck YAIO (LRR P, T, U)       Depleted Matrix (F2)       Indicators: for Problematic Note (F1) (MLR A 1591)         Corn Muck YAIO (LRR P, T, U)       Depleted Matrix (F2)       Indicators: for Problematic Note (F1)         Corn Muck YAIO (LRR P, T, U)       Depleted Dai/Subrace (F1)       Indicators: for Problematic Note (F1)         Corn Muck YAIO (LRR P, T, U)       Depleted Dai/Subrace (F1)       Indicators: of hydrophylic vegetation and vetand hydrology must be present, unless distributed Verific (F1) (MLR A 150)         Corn Wuck YAIN: (AS)       Redox Clerice (F1) (MLRA 150, LSO)       Indicators of hydrophylic vegetation and vetand hydrology must be present, unless distributed Verific (F1) (MLR A 150, LSO)         Sandy Mucky Mineral (S1) (LRR O, S)       Redox Cleric (F1) (MLRA 150, LSO)       Indicators of hydrophyli					· <u></u>					
ppe:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Pistocs (M1)       Histocs (M1)       Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydre Solis*:         Histocs (M2)       Displetion (R2)       Displetion (R2)       Common Muck (M3) (LRR 0)         Back Histic (A3)       Loamy Sleyed Matrix (F2)       Pedmont Floodplain Solis (F19) (LRR P, S, T, U)         Displetide Matrix (F3)       Depleted Adatrix (F2)       Pedmont Floodplain Solis (F19) (LRR P, S, T, U)         Displetide Matrix (F3)       Depleted Conce (F11) (MLRA 151)       Pedmont Floodplain Solis (F19) (LRR P, S, T, U)         Displetide Conce (F3)       Matrix (F3)       Pedmont Floodplain Solis (F19) (MLRA 151)       Pedmont Floodplain Solis (F19) (MLRA 151)         Thick Dark Surface (A12)       Matrix (F3)       Matrix (F12) (MR R, T, U)       Pedmont Floodplain Solis (F19) (MLRA 150)         Sandy Alcey Matrix (S4)       Batch Histic (MR R, T, U)       Depletide Conce (F11) (MLRA 150)       Pedmont Floodplain In Remarke)         Sandy Alcey Matrix (S6)       Pedemont Floodplain Solis (F19) (MLRA 150)       Pedmont Floodplain Solis (F19) (MLRA 149A)         Stripped Matrix (S6)       Pedmont Floodplain Solis (F19) (MLRA 149A)       Anomalous Bright Loamy Solis (F20) (MLRA 149A)         Stripped Matrix (S6)       Pedmont Floodplain Solis (F19) (MLRA 149A										
dric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solls?         Histos Cippedon (A2)       Toin Muck (A10) (LRR 0)         Black Histic (A)       Loamy Mucky Mineral (F1) (LRR 0)         Black Histic (A)       Loamy Mucky Mineral (F1) (LRR 0)         Orgenic Bodies (A6)       Loamy Mucky Mineral (F1) (LRR 0)         Coart Muck (A10) (LRR 7, 1)       Depleted Matrix (F2)         Depleted Matrix (F2)       Depleted Dark Surface (F6)         Toin Muck (A0) (LRR 7, 1)       Depleted Dark Surface (F7)         Muck Presence (A8) (LRR 7, 1)       Depleted Dark Surface (F7)         Tam Kuck (A0) (LRR 7, 1)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A11)       The Anaganese Masses (F12) (LRR 0, P, T, U)         Depleted Dark Surface (A11)       Depleted Cohric (F1) (MLRA 150)         Sandy Mucky Mineral (S1) (LRR 0, S)       Depleted Cohric (F1) (MLRA 150)         Sandy Soley (RAR 7, T)       Depleted Cohric (F1) (MLRA 150)         Sandy Mucky Mineral (S1) (LRR 0, S)       Depleted Cohric (F1) (MLRA 150)         Sandy Mucky Mineral (S1) (LRR 0, S)       Depleted Cohric (F1) (MLRA 150)         Sandy Mucky Mineral (S1) (LRR 0, S)       Preduced Vertic (F3) (MLR A 150A, 150B)         Sandy Mucky Mineral (S1) (LRR 0, S)       Preduced Vertic (F3) (MLR A 150A, 150B)         Settidev Lapse	Evne: C=C	oncentration D=Der	letion RM=Re	duced Matrix MS	S=Masked Sa	nd Grains.	<sup>2</sup> Location: F	L≓Pore Lir	ing. M=Matrix	
Histosol (Abs)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Damy Mucky Mineral (F1) (LRR S, T, U)       2 cm Muck (A0) (LRR A)         Black Histic (A3)       Damy Mucky Mineral (F1) (LRR S, T, U)       Peduade Veric (F19) (LRR P, F1)         Stratified Layers (A5)       Depleted Matrix (F2)       Anomalous Bright Loamy Solis (F20) (MLR A 159A)         Mucky Mineral (A7) (LRR P, T, U)       Depleted Matrix (F2)       Mode Material (F1) (MLR A 151)         Nuck Presence (A8) (LRR P, T)       Depleted Dark Surface (F7)       Red Parent Malerial (TF2)         Depleted Matrix (F3)       Depleted Dark Surface (F1)       Matri (F10) (LRR U)       Depleted Dark Surface (F12) (LRR P, T, U)         Depleted Dark Surface (A12)       Depleted Oark Surface (F12) (LRR P, T, U)       Matri (F10) (LRR U)       Media Mydology musb be present.         Sandy Redux (S6)       Depleted Oark Surface (F12) (LRR P, T, U)       More (F12) (MLR A 150A, 150B)       Pledmort F10 odelian Solis (F10) (MLR A 149A)         Stringed Matrix (S6)       Dark Surface (S7) (LRR P, S, T, U)       Pledmort F10 odelian Solis (F20) (MLR A 149A, 153C, 153D)       Pledmort F10 odelian Solis (F10) (MLR A 149A, 153C, 153D)         Dark Surface (S7)       Pledmort F10 odelian Solis (F20) (MLR A 149A, 153C, 153D)       Pledmort F10 odelian Solis (F10) (MLR A 149A, 153C, 153D)         Dark Surface (S7)       Pledmort F10 odelian Solis (F10) (MLR A 1	lydric Soil	Indicators: (Applic	able to all LR	Rs. unless other	wise noted.)		Indicators f	or Problem	atic Hydric S	oils <sup>3</sup> :
Inside Epipedon (A2)       Polyvale Below Suriace (S0 (LRK P, 1, U)       1 Toll model (A1)         Black Histic (A3)       Learny Mucky Mineral (F1) (LRR O)       Reduced Vertic (F16) (cutside MLRA 1504)         Vydrogen Sulfillos (A4)       Learny Mucky Mineral (A7) (LRR P, 1, U)       Depleted Matrix (F2)       Image: Construction of the construction of t	T 112-1			Debaselus Be	leu Surfaca (					
Histic Epipedon (A2)       Initi Lark Sufface (SP) (LRR 5, 1; 0)       2 cm Muck (N) (LRR 5)         Hydrogen Suffac (A4)       Loamy Mucky Mineral (F1) (LRR 7, 1; 0)       Reduced Veric (F16) (LRR 7, 1; 0)         Statified Layer (A5)       Depieted Matrix (F2)       Anomalous Bright Loamy Solis (F20)         Organic Bodies (A6) (LRR P, 1, U)       Redox CharGarce (F1)       Redox CharGarce (F12)         Nuck Presence (A6) (LRR P, 1)       Depieted Dark Sufface (F1)       Redox CharGarce (F12)         Organic Bodies (A6) (LRR P, 7, U)       Depieted Dark Sufface (F10) (LRR 0, F11)       Very Shallow Dark Sufface (T12)         Depieted Dark Sufface (A12)       Coster Preint Redox (A16) (MLRA 150)       Tom-Manganese Masses (F12) (LRR 0, F1, U)       Very Shallow Dark Sufface (T12)         Sandy Mucky Mineral (S1) (LRR 0, S)       Deliad Dark Sufface (F13) (LRR 7, F1, U)       wetland hydrology musb te present, unless disturbed or problematic.         Sandy Gleyed Matrix (S3)       Deliad Oark Grif (F1) (MLRA 151)       Index (A9) (ARR 7, S, T, U)         Setrict Layer (If observed):       Type:	Histoso	I (A1)	-	Polyvalue Be	elow Surface (	(56) (LKK 5, 1,		ICK (A9) (LI		
Islack Histic (A3)	Histic E	pipedon (A2)	-		Inace (59) (L	KR 5, 1, U)		ICK (A1U) (I	RR 5)	
Hydrogen Sulfide (A4)          Learny Gleyed Matrix (F2)         Depleted Matrix (F2)         Depleted Matrix (F2)         Comanicous Bright Learny Solis (F20)         (MLRA 1538)         Depleted Dark Surface (F7)         Muck Presence (A8) (LRR P, T, U)         Depleted Dark Surface (F7)         Muck Presence (A9) (LRR P, T)         Depleted Dark Surface (F7)         Matrix (F10) (LRR A 1510)         Depleted Matrix (F11) (LRA 151)         Trick Dark Surface (A11)         Depleted Dark Surface (F13) (LRA 151)         Trick Dark Surface (A12)         Coast Prairie Redox (A16) (MLRA 150A)         Depleted Veric (F13) (MLRA 151)         Depleted Veric (F17) (MLRA 150, 1000         Wetland hydrology must be present,         unless disturbed or problematic.         Sandy Redox (S5)         Depleted Veric (F19) (MLRA 150, 1506)         Derdomore Throodplain Solis (F20) (MLRA 149A)         Anomalous Bright Learny Solis	Black H	listic (A3)	-	Loamy Muck	y Mineral (F1	) (LRR 0)			8) (outside M	LKA 150A,
Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Leamy Solis (F20)         Organic Bodies (A6) (LRR P, T, U)       Depleted Dark Surface (F7)       Image: Control (F12)         Muck Presence (A6) (LRR V)       Redox Dark Surface (F7)       Image: Control (F12)         Depleted Delw Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Depleted Delw Dark Surface (A11)       Depleted Ochric (F13) (LRR V)       Image: Control (F12) (MLRA 151)         Depleted Below Dark Surface (A15)       Image: Control (F12) (MLRA 151)       Image: Control (F12) (MLRA 151)         Tack Dark Surface (A15)       Image: Control (F13) (LRR V, F, T, U)       Image: Control (F12) (MLRA 153)         Sandy Clayer Matrix (C8)       Deleted Ochric (F13) (LRR A 150, 150B)       Image: Control (F12) (MLRA 145A)         Sandy Clayer Matrix (C8)       Deleted Ochric (F13) (MLRA 145A, 145A, 145A, 153C, 153D)       Deresent?         Sandy Redox (S5)       Pledmont Floodplain Solis (F20) (MLRA 145A, 153C, 153D)       Deresent?? Yes No	Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)			nt ⊢ioodplai	in Solis (F19) (	LKK P, S,
Organic Bodies (A6) (LRR P, T, U)          Hed Parent Materia (7) (LRR P, T, U)         Hopletd Dark Surface (77)         Hed Parent Materia (1772)         Houck (A9) (LRR V)         Had (F10) (LRR 0)         Hod (F10) (LRR 0, P, T)         Hod (F10) (LRR 0, P, T, U)         Hod (F10) (LRR 0, F17) (MLRA 150, 150B)         Sandy Redox (S5)         Hod (F10) (LRR 0, S1, Low (Vertic (F17) (MLRA 150, 150B)         Sandy Redox (S5)         Hod (F10) (LRR 0, S1, Low (Vertic (F10) (MLRA 150A, 150B)         Sindy Redox (S5)         Hod (F10) (LRR 0, S1, Low (Vertic (F10) (MLRA 149A)         Sitipped Matrix (S4)         Sandy Redox (S5)         Hod (F10) (Law (Vertic (F10) (MLRA 149A)         Sitipped Matrix (S4)         Hod (F10) (Law (Vertic (F10) (MLRA 149A)         Sitipped Matrix (S4)         Hod (F10) (MLRA 149A)         Hod (F	Stratifie	ed Layers (A5)		Depleted Ma	trix (F3)		🛄 Anomal	ous Bright l	-oamy Soils (F	20)
5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Head X Depressions (F8)         1 cm Muck (A9) (LRR P, T)       Redox Depressions (F8)       Other (Explain in Remarks)         Depleted Delow Dark Surface (A11)       Depleted Ochic (F11) (MLRA 151)       Other (Explain in Remarks)         Depleted Delow Dark Surface (A12)       Domines Masses (F12) (LRR 0, P, T)       Indicators of hydrophytic vegetation and wetland hydrology must be present, wetland hydrology must be	_ Organio	c Bodies (A6) (LRR F	P, T, U) .	Redox Dark	Surface (F6)			A 153B)		
Muck (Presence (A8) (LRR U)       Indicators of hydrophytic vegetation and waft (F10) (LRR U)       Uhark (A9) (LRR V, F, T)       Uhark (A10)       Depleted Ochric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Kucky Mineral (S1) (LRR O, S)       Detate Ochric (F17) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Rdvs (S8)       Deta Ochric (F17) (MLRA 150A, 150B)       Pledmont Frodoptian S0is (F19) (MLRA 149A)         Stripped Matrix (S4)       Reduced Veric (F18) (MLRA 149A)       Anomalous Bright Loamy Sois (F20) (MLRA 149A)         Stripped Matrix (S6)       Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No_         estrictive Layer (if observed):       Type:       Hydric Soil Present? Yes No_         emarks:       Hydric Soil Present? Yes No_       No_	5 cm M	ucky Mineral (A7) (L	RR P, T, U)	Depleted Da	rk Surface (F	7)	H Red Pa	rent Materia	al (TF2)	
1 cm Muck (A9) (LRR P, T) <ul> <li>Mart (F10) (LRR U)</li> <li>Depleted Below Dark Surface (A11)</li> <li>Depleted Cohrtic (F11) (MLRA 151)</li> <li>Inon-Manganese Masses (F12) (LRR O, P, T)</li> <li>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</li> <li>Sandy Mucky (Mineral (S1) (LRR O, S)</li> <li>Delta Ochrid (F11) (MLRA 153)</li> <li>Umbris Surface (F13) (LRR A, 55)</li> <li>Delta Ochrid (F17) (MLRA 154)</li> <li>Undicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</li> <li>Sandy Mucky (S6)</li> <li>Beduced Vertic (F13) (MLRA 150, 1508)</li> <li>Piedmont Floodplain Solis (F19) (MLRA 149A)</li> <li>Saftriped Matrix (S6)</li> <li>Derix Surface (S7) (URR P, S, T, U)</li> <li>estrictive Layer (if observed):</li> <li>Type:</li> <li>Depth (inches):</li> <li>Hydric Soil Present? Yes No</li> <li>emarks:</li> <li>Mydric Soil Present? Yes No</li> <li>emarks:</li> <li>Piedmont Floodplain Solis (F19) (MLRA 1404, 1507, 1501)</li> <li>Piedmont Floodplain Solis (F19) (MLRA 1404, 1502, 1502)</li> <li>Piedmont Floodplain Solis (F20) (MLRA 149A)</li> <li>emarks:</li> <li>Piedmont Floodplain Solis (F19)</li> <li>Piedmont Floodplain Solis (F20) (MLRA 149A)</li> <li>Piedmont Floodplain Solis (F10)</li> <li>Piedmont Floodplain Solis (F10)<!--</td--><td> Muck P</td><td>resence (A8) (LRR I</td><td>J) .</td><td>Redox Depre</td><td>essions (F8)</td><td></td><td>H Very St</td><td>allow Dark</td><td>Surface (TF12</td><td>2)</td></li></ul>	Muck P	resence (A8) (LRR I	J) .	Redox Depre	essions (F8)		H Very St	allow Dark	Surface (TF12	2)
Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A12)       iron-Manganese Masses (F12) (LRR 0, P, T)       Indicators of hydrophytic vegetation and         Cocast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (MLRA 151)       unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR 0, S)       Deta Ochric (F17) (MLRA 151)       unless disturbed or problematic.         Sandy Redox (S5)       Deta Ochric (F17) (MLRA 150A)       unless disturbed or problematic.         Sandy Redox (S5)       Pledmont Floodplain Solis (F19) (MLRA 149A)       anomalous Bright Loamy Solis (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       estrictive Layer (if observed):       ype:         ype:	1 cm M	uck (A9) (LRR P, T)		📙 Mari (F10) (L	_RR U)		L Other (I	Explain in R	emarks)	
Thick Dark Surface (A12)       inducators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky (Mareal (S1) (LRR O, S)       betta Ochric (F17) (MLRA 151)       unless disturbed or problematic.         Sandy Mucky (Mareal (S1) (S1)       betta Ochric (F17) (MLRA 151)       unless disturbed or problematic.         Sandy Mucky (Mareal (S1) (LRR O, S)       betta Ochric (F17) (MLRA 151)       unless disturbed or problematic.         Sandy Mucky Matrix (S4)       Beduced Vertic (F18) (MLRA 150A, 150B)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Sandy Mucka (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         estrictive Layer (if Observed):       Type:	Deplete	ed Below Dark Surfa	ce (A11)	Depleted Oc	hric (F11) (M	LRA 151)				
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 0, S)       Delta Ochric (F17) (MLRA 150A, 150B)       enters disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Solis (F19) (MLRA 149A)       anornalous Bright Learny Solis (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       enters disturbed or problematic.       enters disturbed or problematic.         strictive Layer (If observed):       Type:	Thick D	ark Surface (A12)		🔲 Iron-Mangar	nese Masses	(F12) (LRR O, I	P, T) <sup>3</sup> Indica	tors of hyd	rophytic veget	ation and
Sandy Mucky Minerai (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       unless disturbed or problematic.         Sandy Gleyed Matrix (S4)       Belta Ochric (F18) (MLRA 150A, 150B)       Pledmont Floodplain Solis (F19) (MLRA 149A)         Stripped Matrix (S6)       Delta Solis (F19) (MLRA 149A, 153C, 153D)       Dark Sufface (S7) (URR P, S, T, U)         Extrictive Layer (If observed):       Type:	Coast I	Prairie Redox (A16)	(MLRA 150A)	🔲 Umbric Surfa	ace (F13) <b>(LR</b>	R P, T, U)	weti	and hydrolo	igy must be pr	esent,
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Defemont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Detrictive Layer (if observed): Type:	Sandy	Mucky Mineral (S1)	(LRR O. S)	Delta Ochric	(F17) (MLR/	A 151)	unle	ss disturbe	d or problemat	ic.
Sandy Redox (S5)       Piedmont Floodplain Solis (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Solis (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       estrictive Layer (if observed):         Type:	Sandy	Gleved Matrix (S4)		Reduced Ve	rtic (F18) (ML	RA 150A, 150	B)		•	
Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       estrictive Layer (In observed):         Type:		Redox (S5)		Piedmont FI	oodolain Soil	s (F19) (MLRA	149A)			
Dark Surface (S7) (LRR P, S, T, U)         estrictive Layer (if observed):         Type:         Depth (inches):         emarks:	Strinne	d Matrix (S6)		Anomalous	Bright Loamv	Soils (F20) (MI	RA 149A. 153C.	153D)		
Weak outside (of / fokerved):         Type:         Depth (inches):         emarks:		urface (\$7) (I PP P	ст II)		engin Louing		,,	,		
Type:	Postrictiv	Laver (if observed	<u>, , , , , , , , , , , , , , , , , , , </u>				1			
Type:	Restrictive	s Layer (ii observed	<i></i>							
Depth (inches):		•								
emarks:	Туре: _	• •		_						
	Type: _ Depth (i	nches):					Hydric Soil	Present?	Yes	No
	Type: Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):		<u> </u>			Hydric Soil	Present?	Yes	No
	Type: Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	nches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):		 			Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No
	Type: _ Depth (i Remarks:	inches):					Hydric Soil	Present?	Yes	No

Environmental Field Surveys Wetland Photo Page



Upland data point wjop025\_u facing south.

Project/Site: ACP	City/County: _ Johns	ton same	ling Date: 4/28/15
Applicant/Owner: Dominion		State: NC Samo	Ing Point W100027f-W
Investigator(s): EST. (RODER TURNhull)	Section Township Range:	none camp	ing i vinc <u>- d</u>
	Local relief (annum, rearing).	the second side	01 111 2-41
Landorm (minisope, terrace, etc.): <u>OT CAV (C.g.)</u>	Local relier (concave, conve		<u> </u>
Subregion (LRR or MLRA): $\underline{L} \vdash \vdash \vdash \vdash$ Lat: $\underline{35}$	Long:	-18,44201	Datum: <u>W6-384</u>
Soil Map Unit Name: Bibb Sundy loam, treppe	ntly flooded	NWI classification:	PFO
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No	(If no, explain in Remark	s.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Norn	nal Circumstances" present	? Yes No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed	l, explain any answers in R	emarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point local	tions, transects, imp	ortant features, etc.
		/	
Hydrophylic Vegetation Present? Yes <u>V</u> No	Is the Sampled Area	a /	
Metered Hydrology Present?	within a Wetland?	Yes 🔽 🛛	No
Remarke:			
			、
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (r	ninimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Crack	s (B6)
State Water (A1)	(3)		d Conceve Surface (B8)
High Water Table (A2)	5) (LRR U)	Drainage Patterns	(B10)
Saturation (A3)	Odor (C1)	Moss Trim Lines (F	316)
Water Marks (B1)	neres along Living Roots (C3	) Dry-Season Water	Table (C2)
Sediment Deposits (B2)	ced Iron (C4)	Cravfish Burrows (	C8)
Drift Deposits (B3)	ction in Tilled Soils (C6)	Saturation Visible	oo) Aerial Imagery (C9)
Algal Mat or Crust (B4)	e (C7)		nn (D2)
Iron Deposits (B5)	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 (inche	s): <u>NH</u>		>
Water Table Present? Yes No Depth (inche	s): <u>12</u>		
Saturation Present? Yes Ves No Depth (inche	s): <u>lo</u> Wetlan	d Hydrology Present?	Yes 🔽 No
(includes capillary fringe)	ton provinus inspections) if	ovoilobles	
Describe Recorded Data (siteant gauge, monitoring weil, aenar pro	tos, previous inspections), it		
Remarks:			
			ļ
	,		·
			ļ

ì ١

.

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

Sampling Point: wjoo 027f-w

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>3047x5017</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. LIQUETY OWN SINCE		·!		That Are OBL, FACW, or FAC: (A)
2	·		·	Total Number of Dominant
3	·		· <u> </u>	Species Across All Strata: (B)
4	·			Percent of Dominant Species
5	·	·	·	That Are OBL, FACW, or FAC: <u>100</u> (A/B)
0		·		Prevalence index worksheet:
· · · · · · · · · · · · · · · · · · ·	<u></u>	·		Total % Cover of: Multiply by:
8	10		; ——	OBL species x1=
tow state and the	200		ver سا	FACW species x 2 =
Somiling (Shruh Stratum (Dist size) 30ft × 30ft	<u> </u>	of total cove	r:	FAC species x 3 =
Sapinground Stratum (Piot size: 0011 x001.)	30	N	CAC.	FACU species x 4 =
1. <u>Elgobitom sinense</u>				UPL species x 5 =
2		•	·	Column Totals: (A) (B)
3		• • • • • • • • • • • • • • • • • • • •	·	
4	•			Prevalence Index = B/A =
5	• •			Hydrophytic Vegetation Indicators:
o			• ••••	1 - Rapid Test for Hydrophytic Vegetation
· · · · · · · · · · · · · · · · · · ·				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% (1111)		_ = Total Co	bver L	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	20% 0	of total cove	er: <u>v</u>	
Nitic cotruct folic	10	<b>۲</b>	ERC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. VIIIS TOIONALTOILA			Enc	be present, unless disturbed or problematic.
2. LIQUSTIUM SWENSE		/		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 m. DBH and greater than 3.28 ft (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9,				of size, and woody plants less than 3.28 ft tail.
10				Woody vine - All woody vines greater than 3.28 ft in
10				neight.
12				
FOR state and	<u>د</u> ت ۵	_ = Total C	over	
50% of total cover:	<u>0                                    </u>	of total cov	er: <u>-/</u>	
(Votooy Vine Stratum (Plot size: 0011 X3017)	15	V	640	
a Spailar cottonditalea			- FUIL	
2. DITTINA TOTOMOTOTIA			<u>rnc</u>	
,				
4			<u>-</u>	
0				- Hydrophytic
		_ = lotal C	over	Present? Yes No
	20%	of total cov	rer: <u> </u>	-
Remarks: (IT observed, list morphological adaptations be	now).			
1				
3				

•