Depth		Matrix			Redox Feat				
(inches)	Color (		0/0	Color (moist	%	Type 1	Loc2	Texture	Remarks
0-4	10YR	3/2				2.5		Silt Loam	
4-16	10YR	4/2	98	10YR 6/	2 20	D	M	Silt Loam	- August
								10 1 WW	© 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
ype: C=Conc	entration. D		n. RM <b>=R</b> educ	ced Matrix, CS=Cov	vered or Coate	ed Sand Gra	, ins ²Loca	tion: PL=Pore Lining, M=I	Matrix
lydric Soil In	dicators:							Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (A Histic Epipe Black Histic Hydrogen S Stratified Li Organic Bo 5 cm Muck Muck Prese 1 cm Muck Depleted B Thick Dark Coast Prairi Sandy Muci Sandy Gley Sandy Redc Stripped Ma Dark Surfac	edon (A2) c (A3) Sulfide (A4) ayers (A5) dies (A6) (L y Mineral (A ence (A8) (L (A9) (LRR I elow Dark S Surface (A1 el Redox (A k Mineral (S ed Matrix (S ox (S5) atrix (S6)	7) (LRR P, RR U) P, T) Jurface (A: 2) 16) (MLRA 1) (LRR O	, T, U) 11) 150A) , S)	Thin Dark Loamy Mu Loamy Gle Depleted N Redox Dar Depleted I Redox Depleted I I ron-Mang Umbric Su Delta Ochr Reduced V Piedmont I	k Surface (F6 Dark Surface ( pressions (F8) (LRR U) Dchric (F11) (I anese Masses rface (F13) (L ic (F17) (MLR ertic (F18) (M Floodplain Soi	(LRR S, T, U F1) (LRR O) 2) ) F7) MLRA 151) 6 (F12) (LRF RR P, T, U) 4 151) MLRA 150A, Is (F19) (MI	(O, P, T) 150B) RA 149A)	Piedmont Floodp Anomaious Bright Red Parent Mater Very Shallow Dar Other (Explain in	(LRR S) F18) (outside MLRA 150A,B) lain Soils (F19) (LRR P, S, T) It Loamy Soils (F20) (MLRA 153B) rial (TF2) k Surface (TF12)
strictive Lay	er (if obse	erved):							
Type: Depth (inche	es):	· · · · · ·		. 144 1.				Hydric Soil Present?	Yes   No

Trojectjoner Trott Section 17200 read freeding Semicedon	ity/County: Waveland - Hancock Sampling Date: 24-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 36
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7s R 16 W
Landform (hillslope, terrace, etc.): Terrace Le	ocal relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat.: 3	0° 24' 5.679" N <b>Long.:</b> 89° 36' 45.177" W <b>Datum:</b> NAD83
Soil Map Unit Name: HIB, Harleston fine sandy loam, 2 to 5 percent slop	
Are climatic/hydrologic conditions on the site typical for this time of year?	
Are Vegetation . , Soil . , or Hydrology . significantly	disturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🔲 naturally pro	blematic? (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 ○	Is the Sampled Area
Hydric Soil Present? Yes ● No ○	Ven (i) No (i)
Wetland Hydrology Present? Yes  No	within a Wetland?
Remarks: Plot is 15 feet (+/-) northeast of Up - 36 slight transition into lower a	area.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Mar! Deposits (B15)	(LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Od	or (C1) Moss Trim Lines (B16)
☐ Water Marks (B1) ✓ Oxidized Rhizosphere	es 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	on in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in Rer	narks) Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	☐ Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No   Depth (inches):	
Water Table Present? Yes ○ No ⑤ Depth (inches):	Wetland Hydrology Present? Yes  No O
Saturation Present?  (includes capillary fringe)  Yes No   Depth (inches):	Wetland Hydrology Present? Yes <sup>●</sup> No <sup>○</sup>
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
besome recorded bath (seeding gauge, monitoring well, dental process,	previous mopession, in available.
Remarks:	
	İ

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

			ominant pecies? .		Sampling Point: Wet - 36
	Absolute			Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 m	% Cove	۲	Cover	Status	Number of Dominant Species
Pinus elliottii	10	<b>Y</b>	40.0%	FACW	That are OBL, FACW, or FAC: 7 (A)
Nyssa biflora	10	V	40.0%	OBL	Tatal Number of Demission
Magnolia virginiana	5_	<b>V</b>	20.0%	FACW	Total Number of Dominant Species Across All Strata: 7 (B)
	•		0.0%		,
1 M . 4	_		0.0%		Percent of dominant Species
	_		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B
			0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 12.5 20% of Total Cover: 5		= T/	otal Cove		OBL species 28 x 1 = 28
2.1 W 2 M2		,	ocai corc		FACW species 57 x 2 = 114
Sapling or Sapling/Shrub Stratum (Plot size: 30 m Pinus elliottii		<b>V</b>	3E 30/	EACH	
	10	_	35.7%	FACW	
Nyssa biflora	15	V	53.6%	OBL	FACU species $0 \times 4 = 0$
Magnolia virginiana			7.1%	FACW	UPL species $0 \times 5 = 0$
Cyrilla racemiflora	1	$\sqcup$	3.6%	FACW	Column Totals: 85 (A) 142 (B)
	0	닏	0.0%		Prevalence Index = B/A = 1.671
	0		0.0%		
	0		0.0%	. 6.	Hydrophytic Vegetation Indicators:
· <u>·</u>	0		0.0%	mm 1.1	✓ 1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 14 20% of Total Cover: 5.6		= Te	otal Cove	r	✓ 2 - Dominance Test is > 50%
101 2					,
hrub Stratum (Plot size: 30 m )	5.5				✓ 3 - Prevalence Index is ≤3.0 ¹
Ilex coriacea		<b>✓</b>		FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Magnolla virginiana	10	<b>V</b>	37.0%	FACW	
Cyrilla racemiflora	2		7.4%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.
			0.0%	G %	<u> </u>
	0		0.0%		Definition of Vegetation Strata:
	0		0.0%	M. 14	Tree - Woody plants, excluding woody vines,
50% of Total Cover: 13.5 20% of Total Cover: 5.4	27	= To	otal Cove	г	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
lerb Stratum (Plot size: 30 m )					, , , , , , , , , , , , , , , , , , , ,
1 Sarracenia alabamensis	2		66.7%	OBL	Sapling - Woody plants, excluding woody vines,
Lycopodiella alopecuroides	1	$\overline{\Box}$	33.3%	OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
,				OBL	man 3 in. (7.6 cm) DBn.
		H	0.0%		Sapling/Shrub - Woody plants, excluding vines, less
	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
·	0	$\sqcup$	0.0%		g (,
5,	0	$\sqsubseteq$	0.0%		Shrub - Woody plants, excluding woody vines,
7	0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
			0.0%		
)			0.0%	,	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
),	0		0.0%		plants, except woody vines, less than approximately
	0		0.0%		3 ft (1 m) in height.
	0		0.0%		<del>-</del>
50% of Total Cover: 1.5 20% of Total Cover: 0.6		 = T^	tal Cover		Woody vine - All woody vines, regardless of height.
	3	- 10	rai votel		-
Yoody Vine Stratum (Plot size: 30 m		_		-	
Smllax laurifolia	2	$\sqcup$	100.0%	FACW	
	. 0		0.0%		
	0		0.0%		
	0		0.0%	7	
			0.00/		Hydrophytic
	0		0.0%		
	0		otal Cover		Vegetation Present?  Yes  No  No

Color (molst)	Color (moist)   %   Color (moist)   %   Tyne   Loc2   Texture   Remarks		•	Matrix	•		lox Features		absence of Indicators.)
3	10YR   3/2   100   Silt Loam	Depth (inches)	Color (		9/0		% Type 1	Loc2	Texture Remarks
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix  Hydric Soil Indicators: Indicators: Indicators (S8) (LRR S, T, U)	E-Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains  2-Location: PL=Pore Lining. M=Matrix  Soil Indicators:					Optor (moist?	11111		7.7
Trype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Costed Sand Grains 2Location: PL=Pore Lining, M=Matrix    Hydric Soil Indicators:	C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix  Soll Indicators:  Indicators for Problematic Hydric Soils 3:  tosol (A1)	3-16	10YR		95	10YR 6/6	5 C	М	Silt Loam
Indicators:    Histosol (A1)	Soll Indicators: tosol (A1)				. ;				•
Indicators:    Histosol (A1)	Soll Indicators: tosol (A1)			OUT . WO					
Indicators:    Histosol (A1)	Soll Indicators: tosol (A1)		_	-				_	•
Hydric Soll Indicators:    Histosol (A1)	Soll Indicators: tosol (A1)								
Hydric Soil Indicators:  Histosol (A1)  Polyvalue Below Surface (S8) (LRR S, T, U)  Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR S, T, U)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR O)  Stratified Layers (A5)  Organic Bodies (A6) (LRR P, T, U)  Depleted Matrix (F3)  Muck Presence (A8) (LRR P, T, U)  Depleted Dark Surface (F6)  To Muck (A9) (LRR P, T, U)  Depleted Dark Surface (F7)  Muck Presence (A8) (LRR P, T)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR 0, S)  Sandy Gleyed Matrix (S4)  Striped Matrix (S6)  Delta Ochric (F13) (MLRA 150A, 150B)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Destrictive Layer (if observed):  Type:  Indicators for Problematic Hydric Soils <sup>3</sup> :  Indicators for Problematic Hydric Soils Present <sup>3</sup> :  Indicators for Problematic Hydr	Soll Indicators: tosol (A1)	Type: C=Con	centration. D	=Depletio	n. RM=Reduc	ted Matrix, CS=Covered	d or Coated Sand Gra	ins <sup>2</sup> Loca	 ation: PL=Pore Lining. M=Matrix
Histic Epipedon (A2)    Thin Dark Surface (S9) (LRR S, T, U)   2 cm Muck (A10) (LRR S)     Black Histic (A3)   Loamy Mucky Mineral (F1) (LRR O)   Reduced Vertic (F18) (outside MLRA 150A,B     Hydrogen Sulfide (A4)   Loamy Gleyed Matrix (F2)   Piedmont Floodplain Soils (F19) (LRR P, S, T     Stratified Layers (A5)   Depleted Matrix (F3)   Anomalous Bright Loamy Soils (F20) (MLRA     Organic Bodies (A6) (LRR P, T, U)   Redox Dark Surface (F6)   Red Parent Material (TT2)     S cm Mucky Mineral (A7) (LRR P, T, U)   Depleted Dark Surface (F7)   Very Shallow Dark Surface (TF12)     Muck Presence (A8) (LRR U)   Redox Depressions (F8)   Other (Explain in Remarks)     1 cm Muck (A9) (LRR P, T)   Depleted Ochric (F11) (MLRA 151)     Thick Dark Surface (A11)   Depleted Ochric (F11) (MLRA 151)     Thick Dark Surface (A12)   Umbric Surface (F13) (LRR P, T, U)     Sandy Muck Mineral (S1) (LRR O, S)   Delta Ochric (F17) (MLRA 150A)     Sandy Gleyed Matrix (S4)   Reduced Vertic (F18) (MLRA 150A, 150B)     Sardy Redox (S5)   Piedmont Floodplain Soils (F19) (MLRA 149A)     Stripped Matrix (S6)   Dark Surface (S7) (LRR P, S, T, U)     Destrictive Layer (if observed):  Type:   Hydric Scil Present?   Ver (P) No (P) No (P)     Destrictive Layer (if observed):   Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)     Dark Surface (S7) (LRR P, S, T, U)   Destrictive Layer (if observed):   Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)     Dark Surface (S7) (LRR P, S, T, U)   Destrictive Layer (if observed):   Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)	Thin Dark Surface (S9) (LRR S, T, U)  ck Histic (A3)  Loamy Mucky Mineral (F1) (LRR O)  Indicators (A5)  Indicators (A5)  Indicators of hydrophytic vegetation and wetdand hydrology must be present, unless disturbed or problematic.  Indicators (F2)  Indicators of hydrophytic vegetation?  Indicators (F3)  Indicators of hydrophytic vegetation and wetdand hydrology must be present, unless disturbed or problematic.  Indicators (F3)  Indicators of hydrophytic vegetation?  Indicators (F3)  Indicators of hydrophytic vegetation?  Indicators (F3)  Indicators of hydrophytic vegetation and wetdand hydrology must be present, unless disturbed or problematic.  Indicators (F3)  Indicators (F4)   lydric Soll I	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :	
Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Organic Bodies (A6) (LRR P, T, U)  Depleted Matrix (F3)  Muck Presence (A8) (LRR U)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MRA 150A)  Sandy Muck Mineral (S1) (LRR O)  Reduced Vertic (F18) (outside MLRA 150A)B  Reduced Vertic (F18) (outside MLRA 150A, B  Reduced Vertic (F11) (MLRA 151)  Redox Dark Surface (F10) (MLRA 150A, ISOB)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Redox (S5)  Delta Ochric (F17) (MLRA 150A, ISOB)  Reduced Vertic (F18) (MLRA 150A, ISOB)  Piedmont Floodplain Soils (F19) (MLRA 149A, IS3C, 153D)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Hydric Sail Present?  Ver (8) No (1)  Hydric Sail Present?  No (1)  Reduced Vertic (F18) (MLRA 150A, ISOA, ISOB)  Reduced Vertic (F18) (MLRA 149A, ISOA,	Thin Dark Surface (S9) (LRR S, T, U)  ck Histic (A3)  Loamy Mucky Mineral (F1) (LRR O)  Reduced Vertic (F18) (outside MLRA 150A,B)  riogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  Manomalous Bright Loamy Soils (F19) (LRR P, S, T)  m Mucky Mineral (A7) (LRR P, T, U)  m Muck (A10) (LRR P, T, U)  Depleted Matrix (F3)  Redox Dark Surface (F6)  m Mucky Mineral (A7) (LRR P, T, U)  Depleted Dark Surface (F7)  Marl (F10) (LRR U)  Depleted Dark Surface (A12)  Iron-Manganese Masses (F12) (LRR O, P, T)  st Prairie Redox (A16) (MLRA 150A)  dy Muck Mineral (S1) (LRR O, S)  dy Gleyed Matrix (S4)  My Redox (S5)  Delta Ochric (F17) (MLRA 150A)  dy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Depteted Dark Surface (A12)  Iron-Manganese Masses (F12) (LRR O, P, T)  St Prairie Redox (A16) (MLRA 150A)  My Muck Mineral (S1) (LRR O, S)  Delta Ochric (F18) (MLRA 150A, 150B)  My Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  My Gleyed Matrix (S6)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  My Gleyed Matrix (S6)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Histosol (	A1)			Polyvalue Belov	w Surface (S8) (LRR	S, T, U)	
Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR O)  Reduced Vertic (F18) (outside MLRA 150A,B Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  Organic Bodies (A6) (LRR P, T, U)  Redox Dark Surface (F6)  Red Parent Material (TF2)  S cm Mucky Mineral (A7) (LRR P, T, U)  Muck Presence (A8) (LRR U)  Depleted Dark Surface (F7)  Muck (A9) (LRR P, T)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Redox (S5)  Deflat Ochric (F17) (MLRA 150A, 150B)  Piedmont Floodplain Soils (F20) (MLRA 149A)  Torn-Manganese Masses (F12) (LRR O, P, T)  Depleted Below Dark Surface (A12)  Umbric Surface (F13) (LRR P, T, U)  Delta Ochric (F17) (MLRA 151)  Reduced Vertic (F18) (MLRA 150A, 150B)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Redox (S5)  Delta Ochric (F17) (MLRA 150A, 150B)  Sandy Redox (S5)  Dark Surface (S7) (LRR P, S, T, U)  Piedmont Floodplain Soils (F20) (MLRA 149A)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Pestrictive Layer (if observed):  Type:	Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) drogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) attified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F8) Other (Explain in Remarks)  Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Ck Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) St Prairie Redox (A16) (MLRA 150A) Delta Ochric (F17) (MLRA 151) Delta Ochric (F17) (MLRA 151) Delta Ochric (F17) (MLRA 150B) Weredox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Umbric Surface (S7) (LRR P, S, T, U)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Hydric Soil Present? Yes No	] Histic Epij	pedon (A2)			☐ Thin Dark Surfa	ace (S9) (LRR S, T, U	ı)	
Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  Organic Bodies (A6) (LRR P, T, U)  Redox Dark Surface (F6)  Mucky Mineral (A7) (LRR P, T, U)  Depleted Dark Surface (F7)  Muck Presence (A8) (LRR U)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Redox Depressions (F8)  Depleted Dark Surface (F12)  Marl (F10) (LRR U)  Depleted Ochric (F11) (MLRA 151)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Redox (S5)  Piedmont Floodplain Soils (F20) (MLRA 149A)  Depleted Ochric (F17) (MLRA 150B)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Setrictive Layer (if observed):  Type:	Inogen Sulfide (A4) Interest (A5) Interest (A15) Interes	Black Hist	tic (A3)			_		-	
Stratified Layers (A5)  Organic Bodies (A6) (LRR P, T, U)  Redox Dark Surface (F6)  Mucky Mineral (A7) (LRR P, T, U)  Depleted Dark Surface (F7)  Muck Presence (A8) (LRR U)  Depleted Dark Surface (F7)  Muck (A9) (LRR P, T)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F20) (MLRA 149A)  Stripped Matrix (S6)  Depleted Matrix (F3)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Strictive Layer (if observed):  Type:  Depleted Matrix (F3)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Ck Presence (A8) (LRR U) Mard (F10) (LRR U) Depleted Derive (F11) (MLRA 151) Ck Dark Surface (A11) Ck Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Set Prairie Redox (A16) (MLRA 150A) My Muck Mineral (S1) (LRR O, S) My Muck Mineral (S1) (LRR O, S) My Muck Mineral (S1) (LRR O, S) My Redox (S5) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A) My Redox (S5) Delta Ochric (F17) (MLRA 150A) My Redox (S5) Delta Ochric (F17) (MLRA 150A) My Redox (S5) Delta Ochric (F18) (MLRA 150A, 150B) My Redox (S5) Delta Ochric (F18) (MLRA 149A) Unless disturbed or problematic.  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  My Muck Mineral (S1) (LRR P, S, T, U)  My Muck Mineral (S1) (LRR P,	Hydrogen	Sulfide (A4)						
Organic Bodies (A6) (LRR P, T, U)  S cm Mucky Mineral (A7) (LRR P, T, U)  Muck Presence (A8) (LRR U)  Depleted Dark Surface (F7)  Muck Presence (A8) (LRR U)  Depleted Dark Surface (F8)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Dark Surface (S7) (LRR P, S, T, U)  Persence (A8) (LRR P, T)  Redox Dark Surface (F1)  Redox Dark Surface (F7)  Redox Depressions (F8)  Other (Explain in Remarks)  Other (Expl	anic Bodies (A6) (LRR P, T, U)  Redox Dark Surface (F6)  Medox Dark Surface (F7)  Depleted Dark Surface (F7)  Redox Depressions (F8)  Marl (F10) (LRR P, T)  Redox Depressions (F8)  Marl (F10) (LRR U)  Depleted Below Dark Surface (A11)  Ck Dark Surface (A12)  Iron-Manganese Masses (F12) (LRR O, P, T)  Set Prairie Redox (A16) (MLRA 150A)  dy Muck Mineral (S1) (LRR O, S)  dy Gleyed Matrix (S4)  Reduced Vertic (F18) (MLRA 150A, 150B)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Redox CS7) (LRR P, S, T, U)  Redox Dark Surface (F6)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Very Shallow Dark Surfa					_			
S cm Mucky Mineral (A7) (LRR P, T, U)	m Mucky Mineral (A7) (LRR P, T, U)  ck Presence (A8) (LRR U)  m Muck (A9) (LRR P, T)  m Mard (F10) (LRR U)  Depleted Ochric (F11) (MLRA 151)  ck Dark Surface (A12)  ist Prairie Redox (A16) (MLRA 150A)  dy Muck Mineral (S1) (LRR O, S)  dy Gleyed Matrix (S4)  dy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  poed Matrix (S6)  k Surface (S7) (LRR P, S, T, U)  Tive Layer (if observed):  Hydric Soil Present?  Yes  No  Other (Explain in Remarks)  Other (	_		RR P. T. L	J)	_ `			
Muck Presence (A8) (LRR U)  Redox Depressions (F8)  Other (Explain in Remarks)  Other (Explain in Remarks)  I cm Muck (A9) (LRR P, T)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Prescrictive Layer (if observed):  Type:  Wety Stainow Salk Stainow (F12)  Other (Explain in Remarks)	ck Presence (AB) (LRR U)  m Muck (A9) (LRR P, T)  loteted Below Dark Surface (A11)  ck Dark Surface (A12)  loteted Below Dark Surface (A11)  loteted Below Dark Surface (F11) (MLRA 151)  loteted Below Dark Surface (A12)  loteted Below Dark Surface (A11)  loteted Below Dark Surface (Explain in Remarks)  loteted Below Dark Surface (F12) (IRR P, T, U)  divided Below Dark Surface (F12) (IRR P, T, U)  loteted Below Dark Surface (F12) (IRR P, T, U)  loteted Below Dark Surface (F12) (IRR P, T, U)  loteted Below Dark	_			-				
1 cm Muck (A9) (LRR P, T)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (if observed):  Type:    Marl (F10) (LRR U)   Depleted Ochric (F11) (MLRA 151)   Depleted Ochric (F11) (MLRA 151)   Umbric Surface (F13) (LRR P, T, U)   Depleted Ochric (F17) (MLRA 151)   Umbric Surface (F17) (MLRA 151)   Reduced Vertic (F18) (MLRA 150A, 150B)   Wetland hydrology must be present, unless disturbed or problematic.    Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)   Derk Surface (S7) (LRR P, S, T, U)	m Muck (A9) (LRR P, T)    Marl (F10) (LRR U)   Depleted Delow Dark Surface (A11)   Ck Dark Surface (A12)   Iron-Manganese Masses (F12) (LRR O, P, T)   sts Prairie Redox (A16) (MLRA 150A)   dy Muck Mineral (S1) (LRR O, S)   Delta Ochric (F17) (MLRA 151)   dy Gleyed Matrix (S4)   Reduced Vertic (F18) (MLRA 150A) 150B)   Piedmont Floodplain Soils (F19) (MLRA 149A) 153C, 153D)   Mark Surface (S7) (LRR P, S, T, U)    Why it we Layer (if observed):   Hydric Soil Present? Yes No		, ,		, -,	· ·	• •		<u> </u>
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (if observed):  Type:  Hydric Soil Present?  Ver. (P11) (MLRA 151)  Iron-Manganese Masses (F12) (LRR O, P, T)  Umbric Surface (F13) (LRR P, T, U)  Delta Ochric (F17) (MLRA 151)  Reduced Vertic (F18) (MLRA 150A, 150B)  Wetland hydrology must be present, unless disturbed or problematic.  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Park Surface (S7) (LRR P, S, T, U)	Depleted Below Dark Surface (A11)  Ck Dark Surface (A12)  Ck Dark Su	=	. , ,	•					☐ Other (Explain in Remarks)
Thick Dark Surface (A12)  Iron-Manganese Masses (F12) (LRR O, P, T)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Delta Ochric (F17) (MLRA 151)  Sandy Gleyed Matrix (S4)  Reduced Vertic (F18) (MLRA 150A, 150B)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (if observed):  Type:  Hydric Soil Present?  Ver. (P)  No. (P)  Iron-Manganese Masses (F12) (LRR O, P, T)  Umbric Surface (F13) (LRR O, P, T)  Umbric Surface (F13) (LRR P, T, U)  3Indicators of hydrophytic vegetation a wetland hydrology must be present, unless disturbed or problematic.  In Manganese Masses (F12) (LRR P, T, U)  Stripped Matrix (S4)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Strictive Layer (if observed):  Type:	Iron-Manganese Masses (F12) (LRR O, P, T)	-			11)	= ' ' '	•		
Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (if observed):  Type:  When the control of the contro	Umbric Surface (F13) (LRR P, T, U)  dy Muck Mineral (S1) (LRR O, S)  dy Gleyed Matrix (S4)  dy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  pped Matrix (S6)  k Surface (S7) (LRR P, S, T, U)  Delta Ochric (F17) (MLRA 151)  Reduced Vertic (F18) (MLRA 150A, 150B)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Tive Layer (if observed):  Hydric Soil Present? Yes  No	- '		•	)				
Sandy Muck Mineral (S1) (LRR O, S)  Delta Ochric (F17) (MLRA 151)  Reduced Vertic (F18) (MLRA 150A, 150B)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (if observed):  Type:  Hydric Soil Present?  Ver. (P) Month 151  Type:  Hydric Soil Present?  Ver. (P) Month 151  Type:  Hydric Soil Present?  Ver. (P) Month 151  Sindicators of hydrophytic vegetation of wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Ver. (P) Month 151  Sandy Redox (S7) (LRR P, S, T, U)	dy Muck Mineral (S1) (LRR O, S)  dy Gleyed Matrix (S4)  dy Reduced Vertic (F18) (MLRA 150A, 150B)  Reduced Vertic (F18) (MLRA 150A, 150B)  Piedmont Floodplain Soils (F19) (MLRA 149A)  pped Matrix (S6)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  rive Layer (if observed):  Hydric Soil Present? Yes  No		•	-	1 1 E D A \	_			
Sandy Gleyed Matrix (S4)  Reduced Vertic (F18) (MLRA 150A, 150B)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Participated Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Proceeding the description of the present	dy Gleyed Matrix (S4)  dy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  pped Matrix (S6)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  cive Layer (if observed):  Hydric Soil Present? Yes No	_	-		-				
Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  **Strictive Layer (if observed):  Type:  Hydric Soil Present?  Wetland hydrology must be present, unless disturbed or problematic.  Wetland hydrology must be present, unless disturbed or problematic.  In the disturbed of problematic.  Wetland hydrology must be present, unless disturbed or problematic.    Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)    Stripped Matrix (S6)   Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)    Stripped Matrix (S6)   Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)    Stripped Matrix (S6)   Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)    Stripped Matrix (S6)   Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)    Stripped Matrix (S6)   Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	wetland hydrology must be present, unless disturbed or problematic.  Piedmont Floodplain Soils (F19) (MLRA 149A) unless disturbed or problematic.  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Tive Layer (if observed):  Hydric Soil Present? Yes  No	_			, 5)	_			<sup>3</sup> Indicators of hydronhytic venetation and
Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Pestrictive Layer (if observed):  Type:  Hydric Soil Brasent?  Vos. Piedmont Floodplain Soils (F19) (MLRA 149A)  unless disturbed or problematic.  Unless disturbed or problematic.  Hydric Soil Brasent?  Vos. Piedmont Floodplain Soils (F19) (MLRA 149A)  unless disturbed or problematic.	dy Redox (S5)	_		S4)		-		-	wetland hydrology must be present,
Dark Surface (S7) (LRR P, S, T, U)  estrictive Layer (if observed):  Type:  Hydric Soil Prosent? Vog ® No	k Surface (S7) (LRR P, S, T, U)  tive Layer (if observed): :: th (inches):  Hydric Soil Present? Yes • No •	_ '				☐ Piedmont Flood	dp <mark>lain S</mark> oils (F19) (Ml	.RA 149A)	
estrictive Layer (if observed):  Type:  Hudric Soil Procent? Voc ® No O	tive Layer (if observed): :: :: :: ::::::::::::::::::::::::::					Anomalous Brig	ght Loamy Soils (F20	) (MLRA 14	9A, 153C, 153D)
Type:	Hydric Soil Present? Yes No C	_ Dark Surfa	ace (\$7) (LRF	₹ P, S, T, I	J)				
Hudric Soil Present? Voc (9) No (1)	h (Inches): Hydric Soil Present? Yes No C	estrictive L	ayer (if obs	erved):					
Depth (inches):	it (italies).	Туре:					-		rendris Call Processor May (A) No.
	cs:	Depth (incl	hes):						Hydric Soil Present? Yes V No V
temarks:		.emarks:							

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 24-C	Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 37	
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7s R 16 W	
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): none Slope: 0.0 % /	/ 0.0°
	30° 24′ 1.648" N Long.: 89° 36′ 55.679" W Datum: NA	4D83
Soll Map Unit Name: Su, Smithton fine sandy loam, frequently flooded	emining the state of the state	
Are climatic/hydrologic conditions on the site typical for this time of year		
		0
	problematic? (If needed, explain any answers in Remarks.)	
	impling point locations, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes No O	Is the Sampled Area	
Hydric Soil Present? Yes  No	within a Wetland? Yes  No	
Wetland Hydrology Present? Yes   ● No ○	within a wettand:	
Remarks: Low drainage area - part of the overall main NE-SW trending drainage	ge way conveying surface water through the central to southern part of AO	I.
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)	=
Surface Water (A1) Aquatic Fauna (B1	L3) Sparsely Vegetated Concave Surface (B8)	
High Water Table (A2)  Marl Deposits (B15)		
Saturation (A3)		l
	neres along Living Roots (C3)	
Sediment Deposits (B2)  Presence of Reduc	= ******	
	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)  Thin Muck Surface		
☐ Iron Deposits (B5) ☐ Other (Explain in F☐ Inundation Visible on Aerial Imagery (B7)	Remarks) Shallow Aquitard (D3)  FAC-Neutral Test (D5)	
✓ Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)	
Field Observations:	Springs and moss (Do) (ERC 1, 0)	
Surface Water Present? Yes No Depth (inches):		
Cabusatian December 2	Wetland Hydrology Present? Yes  No	
(includes capillary fringe) 1es No C Deput (inches):		
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:	
Remarks:		
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VEGETATION (Five/Four Strata) - Use scientific names of plants.

Dominant
Species?

(District 20 cm	Absolute			Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cover		over	Status	Number of Dominant Species
1. Pinus elilottii			34.5%	FACW	That are OBL, FACW, or FAC: 8 (A)
2. Nyssa biffora		<b>-</b>	51.7%	OBL	Total Number of Dominant
3 Taxodium ascendens	3	Н.	10.3%	OBL	Species Across Ali Strata: 8. (B)
4. Magnolia virginiana	1	Η-	3.4%	FACW	Percent of dominant Species
5		<u> </u>	0.0%	. (11	That Are OBL, FACW, or FAC: 100.0% (A/B)
6.	0		0.0%	-	
7.		닏	0.0%		Prevalence Index worksheet:
8.	0	Ш.	0.0%	4 444	Total % Cover of: Multiply by:
50% of Total Cover: 14.5 20% of Total Cover: 5.8	29 =	= Tot	al Cove	г	OBL species 39 x 1 = 39
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species $66 \times 2 = 132$
1 Pinus elliottii	. 3		14.3%	FACW	FAC species $0 \times 3 = 0$
2. Nyssa biflora	10	✓	47.6%	OBL	FACU species $0 \times 4 = 0$
3. Magnolla virginiana	7	<b>✓</b>	33.3%	FACW	UPL species $0 \times 5 = 0$
4. Taxodium ascendens	1		4.8%	OBL	Column Totals: 105 (A) 171 (B)
5.	0		0.0%		
6.	0		0.0%		Prevalence Index = B/A = 1.629
7	0	$\Box$	0.0%		Hydrophytic Vegetation Indicators:
8.	0		0.0%		
W		Tet	al Cove		✓ 1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 10.5 20% of Total Cover: 4.2	21 =	= 100	ai cove		✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m		_			✓ 3 - Prevalence Index is ≤3.0 ¹
1. Ilex corlacea			60.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Cyrilla racemiflora	10	✓ _	30.3%	FACW	
3. Magnolla virginiana	3 _		9.1%	FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4.	0		0.0%		be present, unless disturbed of problematic.
5	0		0.0%		Definition of Vegetation Strata:
6.	0		0.0%		Tree - Woody plants, excluding woody vines,
50% of Total Cover: 16.5 20% of Total Cover: 6.6	33 =	= Tota	al Cove		approximately 20 ft (6 m) or more in height and 3 in.
(Diet size: 20 m					(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 30 m	_			223	Sapling - Woody plants, excluding woody vines,
1. Woodwardia areolata			25.0%	OBL	approximately 20 ft (6 m) or more in height and less
2. Arundinaria tecta		_=	50.0%	FACW	than 3 in. (7.6 cm) DBH.
3. Sarracenia alabamensis	2	Ц-	10.0%	OBL	B. E. (Block Month about a controller views land
4. Carex lurida	1	Ц.,	5.0%	OBL	Sapling/Shrub - Woody plants, excluding vines, less than 3 in, DBH and greater than 3.28 ft (1m) tall.
5. Dichanthelium scabriusculum	2	Щ_	10.0%	OBL	That of the special of the special state of the spe
6.	0 _	Щ	0.0%	· · ·	Shrub - Woody plants, excluding woody vines,
7	. 0	L.	0.0%	-	approximately 3 to 20 ft (1 to 6 m) in height.
8	0[		0.0%	n e la	
9.	_ 0_ [		0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
10	0 [		0.0%		plants, except woody vines, less than approximately
11	0		0.0%		3 ft (1 m) in height.
12.	0		0.0%		
50% of Total Cover: 10 20% of Total Cover: 4		: Tota	al Cover		Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 m				· ·	
1 Smilax laurifolia	<u>2</u> . [		100.0%	FACW	
2.		-	0.0%		
3			0.0%		
4			0.0%		Medanahadia
5	<u></u>		0.0%		Hydrophytic Vegetation
50% of Total Cover: 1 20% of Total Cover: 0.4	2 =	Tota	al Cover		Present? Yes  No
	, v v				
Remarks: (If observed, list morphological adaptations below).					
*Indicator suffix = National status or professional decision assigned because Re	eolonai status n	ot defi	ined by FV	vs.	

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Deptited Bellow Derivative   Section   Secti	rofile Descr	iption: (Des	scribe to	the depth	needed to d	locument	the Indic	cator or co	onfirm the	absence of Indicators.)	
9-5 10/9R 2/1 100	Depth		Matrix			Re	dox Feat				
ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains    **Location: PL=Pore Lining. M=Matrix ydric Soil Indicators:   Histosoi (A1)					Color (moist)		0/0	Type 1	Loc2		Remarks
ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix  ydric Soil Indicators:    Histosoi (A1)	0-5	10YR	2/1	100			NV 3 %			Sandy Clay Loam	
Histosol (A1)	5-20	10YR	3/1	97	10YR	7/1	. 3	D	. M	Silty Clay Loam	м.
Indicators for Problematic Hydric Soils 3:    Histosol (A1)		I DE FIVE								-	
Histosol (A1)			 =Depletio	n. RM= <b>Red</b> u	ced Matrix, C	S=Covere	ed or Coate	 ed Sand Gra	ains <sup>2</sup> Loca		
Histic Epipedon (A2)  Black Histic (A3)  Coamy Mucky Mineral (F1) (LRR O)  Depleted Matrix (F2)  Depleted Matrix (F3)  Depleted Matrix (F3)  Depleted Dark Surface (F7)  Mucky Mineral (A7) (LRR P, T, U)  Depleted Dark Surface (F7)  Depleted Ochric (F13) (MLRA 151)  Tron-Manganese Masses (F12) (LRR O, P, T)  Depleted Ochric (F13) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Depleted Ochric (F13) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Depleted Ochric (F13) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Delta Ochric (F17) (MLRA 150A)  Depleted Ochric (F18) (MLRA 150A)  Sandy Redox (S5)  Delta Ochric (F17) (MLRA 150A)  Depleted Ochric (F18) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Delta Ochric (F18) (MLRA 150A, 150B)  Type:  Depth (inches):  Hydric Soil Present? Yes No	Histosol (A	A1)			Poly	value Belo	ow Surface	(S8) (LRR	S, T, U)		
Black Histic (A3)	Histic Epip	edon (A2)									
Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Stratified Layers (A5)  Depleted Matrix (F3)  Anomalous Bright Loamy Soils (F20) (MLRA 1538)  Organic Bodies (A6) (LRR P, T, U)  Redox Dark Surface (F6)  Red Parent Material (TF2)  Strom Mucky Mineral (A7) (LRR P, T, U)  Depleted Dark Surface (F7)  Wery Shallow Dark Surface (TF12)  Muck Presence (A8) (LRR U)  Redox Depressions (F8)  Other (Explain in Remarks)  Thick Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 150A)  Stripped Matrix (S6)  Delta Cortic (F17) (MLRA 150A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No	Black Histi	c (A3)			Loa	my Mucky	Mineral (F	1) (LRR 0)	)	_ ` '	• •
Stratified Layers (A5)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Red Parent Material (TF2)  S cm Mucky Mineral (A7) (LRR P, T, U)  Depleted Dark Surface (F7)  Wery Shallow Dark Surface (TF12)  Muck Presence (A8) (LRR U)  Redox Depressions (F8)  Other (Explain in Remarks)  1 cm Muck (A9) (LRR P, T)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No	Hydrogen	Sulfide (A4)			Loa	my Gleyed	Matrix (F	2)			
S cm Mucky Mineral (A7) (LRR P, T, U)    Depleted Dark Surface (F7)	Stratified I	ayers (A5)			☐ Dep	leted Matr	tx (F3)				
5 cm Mucky Mineral (A7) (LRR P, T, U)	☐ Organic Bodies (A6) (LRR P, T, U) ☐ Redox Dark Surfa					urface (F6)	)				
1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U)  strictive Layer (if observed): Type: Depth (inches):  Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Iron-Manganese Masses (F12) (LRR P, T, U) Umbric Surface (F13) (LRR P, T, U)  Delta Ochric (F17) (MLRA 151) Iron-Manganese Masses (F12) (LRR P, T, U)  Umbric Surface (F13) (LRR P, T, U)  January Soils (F10) (MLRA 150A)  January Soils (F10) (MLRA 149A) Unless disturbed or problematic.  Strictive Layer (if observed):  Type: Depth (inches):  Hydric Soil Present? Yes No	5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F					F7)					
Depleted Below Dark Surface (A11)  Depleted Ochric (F11) (MLRA 151)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (If observed):  Type:  Depth (inches):  Depleted Ochric (F11) (MLRA 151)  Iron-Manganese Masses (F12) (LRR O, P, T)  Umbric Surface (F13) (LRR P, T, U)  Delta Ochric (F17) (MLRA 151)  Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present? Yes No	Muck Presence (A8) (LRR U) Redox Depressions (F8)						Other (Explain in	Remarks)			
Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Delta Ochric (F17) (MLRA 151)  Sandy Gleyed Matrix (S4)  Reduced Vertic (F18) (MLRA 150A, 150B)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes  No	1 cm Muck (A9) (LRR P, T)				RR U)						
Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Delta Ochric (F17) (MLRA 151)  Sandy Gleyed Matrix (S4)  Reduced Vertic (F18) (MLRA 150A, 150B)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No				11)	Dep	leted Ochr	ric (F11) (ľ	MLRA 151)			
Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Reduced Vertic (F17) (MLRA 151)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (If observed):  Type:  Depth (inches):  Deta Ochric (F17) (MLRA 151)  Reduced Vertic (F18) (MLRA 150A, 150B)  Wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present? Yes No	Thick Dark	Surface (A1	2)		Iron	-Mangane	se Masses	(F12) (LRI	R O, P, T)		
Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (If observed):  Type:  Depth (inches):  Type:  Depth (inches):	Coast Prai	rie Redox (A1	l6) (MLRA	150A)	Uml	oric Surfac	e (F13) (L	RR P, T, U)	)		
Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Strictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present?  Wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Yes  No	Sandy Muc	k Mineral (S:	1) (LRR O	, S)	☐ Delt	a Ochric (I	F17) (MLR	A 151)		<b>1.</b>	. F. L
Sandy Redox (S5)	Sandy Gle	dy Gleyed Matrix (S4) Reduced Vertic (F18				c (F18) (M	ILRA 150A,	150B)			
Dark Surface (S7) (LRR P, S, T, U)  **strictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present? Yes  No	Sandy Red	ox (S5)			Pied	mont Floo	dplain Soil	ls (F19) (M	LRA 149A)		
strictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No	Stripped M	latrix (S6)			Ano	majous Bri	ight Loamy	Soils (F20	) (MLRA 149	9A, 153C, 153D)	
Type:	Dark Surfa	ce (S7) (LRR	P, S, T, l	J)							
Type:	etrictiva I a	ver (if obse	ervael\:							<u> </u>	
Depth (inches): Hydric Soil Present? Yes No C		yer (ii obac	aveu).								
		es):								Hydric Soil Present?	Yes 💿 No 🔾
enarks:											
	marks										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hand	cock Sampling Date: 24-Oct-16
Applicant/Owner: NASA	State: MS	Sampling Point: Wet - 38
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range:	<b>5</b> 32 <b>T</b> 7 <b>S R</b> 16 W
Landform (hillslope, terrace, etc.): Floodplain	ocal relief (concave, convex,	none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat.:	30° 23' 54.543" N Lor	ng.: 89° 37' 1.688" W Datum: NAD83
Soil Map Unit Name: Su, Smithton fine sandy loam, frequently flooded	70 23 3 H3 H3 H	NWI classification: PFO 1/4 C
	yes  No	
Are climatic/hydrologic conditions on the site typical for this time of year	-	(If no, explain in Remarks.)
		al Circumstances" present? Yes • No •
Are Vegetation , Soil , or Hydrology  naturally pr	•	, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing san	ipling point locations,	transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No  No	Is the Sampled Area	
Hydric Soil Present? Yes ● No ○		Yes   No
Wetland Hydrology Present? Yes ● No ○	within a Wetland?	
Remarks:		
Low drainage area approximately 200 feet West of Up - 38.		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13	)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15)	(LRR U)	☑ Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide O	• •	✓ Moss Trim Lines (B16)
	res along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)  Presence of Reduce		Crayfish Burrows (C8)
	ion in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (84)  Thin Muck Surface (	•	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in Re	·marks)	☐ Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
	<u> </u>	Springfruit friess (D6) (LRK 1, 0)
Field Observations:  Surface Water Present? Yes No   Depth (inches):		
Contract Protect Protection		
	Wetland Hy	drology Present? Yes   No
Saturation Present? (includes capillary fringe)  Yes No Depth (inches):	. 12	
Describe Recorded Data (stream gauge, monitoring well, aerial photos	, previous inspections), if avi	ailable:
Remarks:	-	
İ		

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

Dominant
Species?

(Diot size) 20 m		Rel.Stra		Dominance Test worksheet:
Free Stratum (Plot size: 30 m )	% Cove			Number of Dominant Species
Pinus elliottii	10			That are OBL, FACW, or FAC: 8 (A)
Nyssa biflora	10			Total Number of Dominant
Taxodium ascendens	5	17.2		Species Across All Strata: 8 (B)
Magnolia virginiana		10.3		Percent of dominant Species
Acer rubrum		3.4		That Are OBL, FACW, or FAC: 100.0% (A/B)
Tay		0.0		
	0	0.0		Prevalence Index worksheet:
	0	0.0		Total % Cover of: Multiply by:
50% of Total Cover: 14.5 20% of Total Cover: 5.8	29	= Total Co	over	OBL species $41 \times 1 = 41$
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	)	_		FACW species <u>79</u> x 2 = 158
Pinus elliottii	10	<b>✓</b> 35.7	% FACW	FAC species 16 x 3 = 48
Magnolia virginiana		17.9	% FACW	FACU species $0 \times 4 = 0$
Taxodium ascendens	8	28.6	% OBL	UPL species $0 \times 5 = 0$
Acer rubrum	5	17.9	% FAC	Column Totals: 136 (A) 247 (B)
	0	0.0	%	
	0	0.0	%	Prevalence Index = B/A = 1.816
	0	0.0	%	Hydrophytic Vegetation Indicators:
•	0	0.0	%	1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 14 20% of Total Cover: 5.6	28	= Total Co	очег	2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m )				✓ 3 - Prevalence Index is ≤3.0 ¹
	30	<b>✓</b> 62.5	% FACW	<b>!</b>
*			The second second	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Morella cerifera	10			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Magnolia virginiana		10.4	4 /	be present, unless disturbed or problematic.
Taxodium ascendens		6.3	************	Definition of Manufaction Strate.
the second of the second of the second				Definition of Vegetation Strata:
	0	0.09	*	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 24 20% of Total Cover: 9.6	48	= Total Co	over	(7.6 cm) or larger in diameter at breast height (DBH).
lerb Stratum (Plot size: 30 m )				
1 Arundinaria tecta	10	✓ 35.7	% FACW	Sapling - Woody plants, excluding woody vines,
2 Sarracenia alabamensis	-	10.7	% OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3. Dichantheilum scabriusculum		7.19	% OBL	
4. Hypericum cistifolium	3	10.7		Sapling/Shrub - Woody plants, excluding vines, less
5. Lycopodiella alopecuroides	10	35.7		than 3 in. DBH and greater than 3.28 ft (1m) tall.
5.	0	0.09	***	
7		0.09		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
3.		0.09		approximately o to 20 it (1 to 0 iii) ii i ioigita
9		0.09		Herb - All herbaceous (non-woody) plants, including
)		0.09		herbaceous vines, regardless of size, and woody
J	0	0,09		plants, except woody vines, less than approximately 3 ft (1 m) in height.
			**************************************	Ott (Tilly in Height:
2	0_	0.09		Woody vine - All woody vines, regardless of height.
50% of Total Cover: 14 20% of Total Cover: 5.6	28	= Total Co	ver	The same state of the same state of the same
Yoody Vine Stratum (Plot size: 30 m				
Smilax laurifolia	3	100.0	% FACW	
	0	0.09	/6	
		0.09	/o	
h de acces.	17.6.1	0.09	6	
	0	0.09	/o	Hydrophytic
		= Total Co	NAME OF THE PERSON OF THE PERS	Vegetation   Present? Yes
60% of Total Cover: 1.5 20% of Total Cover: 0.6	3 =		IVEF .	

COTI				
	~	~	_	

Sampling Point: Wet - 38 Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of indicators,) Matrix **Redox Features** Depth (inches) Color (moist) 0/0 Color (moist) Loc2 Texture % Type 0-4 10YR 3/2 100 Silt Loam 4-16 10YR 97 10YR Silt Loam <sup>1</sup>Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup>Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils3: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) ☐ Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Red Parent Material (TF2) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) ☐ Very Shallow Dark Surface (TF12) Muck Presence (A8) (LRR U) Redox Depressions (F8) Other (Explain in Remarks) ☐ 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) ☐ Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) <sup>3</sup>Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) wetland hydrology must be present, ✓ Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) unless disturbed or problematic. Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: No O **Hydric Soil Present?** Yes 💿 Depth (inches): Remarks: depleted matrix with redox features present in soil profile.

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 24-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 39
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 32 T 7 S R 16 W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °
	30° 23' 47.542" N Long.: 89° 37' 8.862" W Datum: NAD83
Soil Map Unit Name: Su, Smithton fine sandy loam, frequently flooded	NWI classification: PFO 1/4 C
Are climatic/hydrologic conditions on the site typical for this time of year	ar? Yes 🖲 No 🔾 (If no, explain in Remarks.)
Are Vegetation . , Soil . , or Hydrology . significant	tly disturbed? Are "Normal Circumstances" present? Yes   No
	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sar	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	Is the Sampled Area
Hydric Soil Present? Yes  No	Van ( Na (
Wetland Hydrology Present? Yes  No	within a Wetland?
to flow through area. Water in turn backs up to abnormally high levi	nd) has split wetland and drainage culverts are sufficiently designed to allow water vies to the north of Keller Road. Area is 30-40 ft North of Keller Road.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13	3) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15	=
Saturation (A3) Hydrogen Sulfide C	_ , ,
	eres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	
	ction in Tilled Soils (C6)
Algal Mat or Crust (B4)  Thin Muck Surface	
☐ Iron Deposits (B5) ☐ Other (Explain in R☐ Inundation Visible on Aerial Imagery (B7)	· · · · · · · · · · · · · · · · · · ·
✓ Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
	☐ Sphagnum moss (D8) (LRR T, U)
Field Observations:  Surface Water Present?  Yes No Depth (inches):	l
Sopar (markey)	Wetland Hydrology Present? Yes  No
(includes capillary fringe) Yes No Depth (inches):	9
Describe Recorded Data (stream gauge, monitoring well, aerial photos	s, previous inspections), if available:
Remarks:	

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

Dominant

			ominant pecies? .		Sampling Point: Wet - 39
		e R	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove	_	Cover	Status	Number of Dominant Species
Pinus elliottii Nyssa biflora	10	<b>~</b>	27.0%	FACW	That are OBL, FACW, or FAC: 6 (A)
Nyssa biflora	20	<b>V</b>	54.1%	OBL	Total Number of Dominant
Magnolla virginiana	5		13.5%	FACW	Species Across All Strata: 6 (B)
Acer rubrum	2		5.4%	FAC	
	. 0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
	0		0.0%		That Are Obl., FACW, or FAC. 100079.
1.47.47	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 18.5 20% of Total Cover: 7.4	37	= To	otal Cove	r	OBL species $26 \times 1 = 26$
apling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species 70 x 2 = 140
Cyrilla racemifiora	40	V	50.0%	FACW	FAC species 5 x 3 = 15
Pinus elliottii	2	$\overline{\Box}$	10.0%	FACW	FACU species $0 \times 4 = 0$
Numan hilliogn			25.0%	OBL	
Anna mahaman	_		15.0%	FAC	4-1
City Control C	Υ . • ·	$\overline{\Box}$	0.0%	.inc	Column Totals: 101 (A) 181 (B)
		Н	·	14.0	Prevalence Index = B/A = 1.792
2000		H	0.0%		Hydrophytic Vegetation Indicators:
	0	님	0.0%		
		Ш	0.0%		✓ 1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 10 20% of Total Cover: 4	20	= To	otal Cove	' i	✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex glabra	20	<b>V</b>	90.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Cyrilla racemiflora			9.1%	FACW	
	to mar a rever		0.0%	., 17.5711, 22	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
	-		0.0%	- 1.4	be present, unless disturbed or problematic.
		H		_	Definition of Vegetation Strata:
M. Lius Bound Navy		H	0.0%	-	_
	0		0.0%		Tree - Woody plants, excluding woody vines,
60% of Total Cover: 11 20% of Total Cover: 4.4	. 0	 = To		-	_
0% of Total Cover: 11 20% of Total Cover: 4.4	0	= To	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
0% of Total Cover: 11 20% of Total Cover: 4.4  erb Stratum (Plot size: 30 m )	22		0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines,
o% of Total Cover: 11 20% of Total Cover: 4.4  crb Stratum (Plot size: 30 m )  Arundinaria tecta	22		0.0% otal Cover		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
o% of Total Cover: 11 20% of Total Cover: 4.4  orb Stratum (Plot size: 30 m )  Arundinaria tecta  Scirpus expansus	20 1		0.0% otal Cover 95.2%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1		0.0% otal Cover 95.2% 4.8%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0		0.0% <b>stal Cover</b> 95.2%  4.8%  0.0%  0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0 0		0.0% otal Cover 95.2% 4.8% 0.0% 0.0% 0.0%	FACW OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0 0 0		0.0% ptal Cover 95.2% 4.8% 0.0% 0.0% 0.0%	FACW OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines,
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0 0		0.0% ptal Cover  95.2% 4.8% 0.0% 0.0% 0.0% 0.0%	FACW OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0 0 0 0		0.0% ytal Cover 95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0 0 0 0 0		0.0% ptal Cover 95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0 0 0 0 0 0		0.0%  ytal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%	FACW OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
0% of Total Cover: 11 20% of Total Cover: 4.4 erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0 0 0 0 0 0		0.0%  ptal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%	FACW OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
erb Stratum (Plot size: 30 m ) Arundinaria tecta Scirpus expansus	20 1 0 0 0 0 0 0		0.0%  ytal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
60% of Total Cover: 11 20% of Total Cover: 4.4  erb Stratum (Plot size: 30 m )  Arundinaria tecta  Scirpus expansus	20 1 0 0 0 0 0 0		0.0%  ptal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
0% of Total Cover: 11 20% of Total Cover: 4.4  erb Stratum (Plot size: 30 m )  Arundinaria tecta Scirpus expansus  0% of Total Cover: 10.5 20% of Total Cover: 4.2	20 1 0 0 0 0 0 0		0.0%  ytal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
0% of Total Cover: 11 20% of Total Cover: 4.4  erb Stratum (Plot size: 30 m )  Arundinaria tecta Scirpus expansus  0% of Total Cover: 10.5 20% of Total Cover: 4.2  coody Vine Stratum (Plot size: 30 m )	20 1 0 0 0 0 0 0		0.0%  ytal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
0% of Total Cover: 11 20% of Total Cover: 4.4  erb Stratum (Plot size: 30 m )  Arundinaria tecta Scirpus expansus  0% of Total Cover: 10.5 20% of Total Cover: 4.2  boody Vine Stratum (Plot size: 30 m )  Smilax laurifolia	20 1 0 0 0 0 0 0 0 0 0 0		0.0%  ytal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  tolocolumnts  0.0%  0.0%  100.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
0% of Total Cover: 11 20% of Total Cover: 4.4  erb Stratum (Plot size: 30 m )  Arundinaria tecta Scirpus expansus  0% of Total Cover: 10.5 20% of Total Cover: 4.2  coody Vine Stratum (Plot size: 30 m )  Smilax laurifolia	20 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0%  ytal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  1.0%  0.0%  1.0%  1.0%  1.0%  1.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
0% of Total Cover: 11 20% of Total Cover: 4.4  erb Stratum (Plot size: 30 m )  Arundinaria tecta Scirpus expansus  0% of Total Cover: 10.5 20% of Total Cover: 4.2  pody Vine Stratum (Plot size: 30 m )  Smilax laurifolia	20 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0%  ytal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
erb Stratum (Plot size: 30 m )  Arundinaria tecta Scirpus expansus  0% of Total Cover: 10.5 20% of Total Cover: 4.2  coody Vine Stratum (Plot size: 30 m )  Smilax laurifolia	20 1 0 0 0 0 0 0 0 0 0 0 0 21		0.0% ptal Cover  95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Solve of Total Cover: 11 20% of Total Cover: 4.4  lerb Stratum (Plot size: 30 m )  Arundinaria tecta  Scirpus expansus  3. 4. 5. 6. 6. 7. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>∀</b> □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	0.0%  ptal Cover  95.2%  4.8%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%  0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine - All woody vines, regardless of height.

Depth (inches)	iption: (De		the depth	needed to docur			onfirm the	absence of indicators.)	
(Inches)		Matrix		*****	Redox Fea				
0-8	Color (	'moist) 3/1	100	Color (mois	() %	Type 1	Loc2	, Texture Sandy Clay Loam	Remarks
8-18				1010				7	
9-10	10YR	5/3	95	10YR 6	/1 5	D	M	Sandy Clay Loam	
<sup>1</sup> Type: C=Cond <b>Hydric Soll I</b>	-	=Depletio	n. RM= <b>R</b> edu	iced Matrix, CS=Co	vered or Coa	ted Sand Gr	ains <sup>2</sup> Locat	tion: PL≂Pore Lining. M=M	
Histosol (A				Dobaziluo	Below Surface	~ (CO) (I DD	CTIN	<u> </u>	ematic Hydric Soils <sup>3</sup> :
_ `	edon (A2)				Surface (S9)			1 cm Muck (A9) (I	•
Black Histi					icky Mineral (			2 cm Muck (A10)	
_	Sulfide (A4)				eved Matrix (I	, , ,			18) (outside MLRA 150A,B)
	Layers (A5)			′	eyeu Matrix (i Matrix (F3)	-2)			in Soils (F19) (LRR P, S, T)
	odies (A6) (L	RR P. T. I	Ŋ		rk Surface (Fi	<b>2</b> )			Loamy Soils (F20) (MLRA 153B)
	ky Mineral (A		,		Dark Surface (F	•		Red Parent Materi	
	ence (A8) (L	- 1	, ., -,		pressions (F8	` '		☐ Very Shallow Dark	, ,
	k (A9) (LRR F			Marl (F10		,		U Other (Explain in F	Remarks)
_	Below Dark S		11)		) (LRR 0) Ochric (F11) (	MIDA 1E1)			
	Surface (A1	•	,			•	0 D T		
	rie Redox (A:	•	1504)	_	janese Masse				
	ck Mineral (S				rface (F13) (I				
			, 3)		ric (F17) (MLI			<sup>3</sup> Indicators o	f hydrophytic vegetation and
	yed Matrix (S	14)			/ertic (F18) (I	•	•	wetland h	ydrology must be present,
Sandy Red					Floodplain So		•		disturbed or problematic.
Stripped M			.,		s Bright Loam	y Soils (F20	) (MLRA 149	9A, 153C, 153D)	
Dark Surta	ce (S7) (LRR	.P, S, 1, U	رد)						
Restrictive La	yer (if obse	rved):							
Type:									
Depth (inch	es):							Hydric Soil Present?	Yes   No
Remarks:									