

Lars Larson, RPG 2 Schooner Lane Ocean Springs, MS 39564 Phone: (228) 219-2992 Email: larslarson28@gmail.com

December 9, 2016

Ms. Wendy Robinson; Environmental Specialist Syncom Space Services, LLC NASA - John C. Stennis Space Center Building 1100, Room 201 F Stennis Space Center, Mississippi 39529

Re: Wetland Delineation Report Area of Investigation - (+/-) 1,160-Acre Tract of Land Northern Portion of Stennis Space Center Property Hancock County, Mississippi LE, LLC Project No. 2016-119

Dear Ms. Robinson:

Larson Environmental, LLC (LE, LLC) has completed a wetland delineation of the above referenced (+/-) 1,160 acre Area of Investigation (AOI) located within the northern portion of the NASA - Stennis Space Center property in Hancock County, Mississippi, per the scope of work outlined in Task Order No. - S 525 and the Subcontract Agreement No. S3 - 0006271 between LE,LLC and Sycom Space Services (S3) dated September 30, 2016. LE, LLC performed this wetland delineation at S3's request in order to assess the amount of acreage within the subject AOI that the United States Army Corps of Engineers (USACE) would potentially consider to be jurisdictional wetlands. The attached report and supporting documentation presents the findings of our field assessment and wetland delineation activities conducted between October 6, 2016 and October 31, 2016.

Should you have any questions concerning this information, please contact me at (228) 219-2992.

Sincerely,

Lars Larson, R.P.G. Managing Principal/Professional Geologist

# WETLAND DELINEATION REPORT (+/-) 1,160-ACRE TRACT NORTHERN PORTION OF NASA PROPERTY

SYNCOM SPACE SERVICES, LLC NASA - JOHN C. STENNIS SPACE CENTER BUILDING 1100 STENNIS SPACE CENTER, MISSISSIPPI

> SUBCONTRACT NO. S-3 - 0006271 TASK ORDER NO. 525

> > **PREPARED FOR:**

MS. WENDY ROBINSON SYNCOM SPACE SERVICES, LLC BUILDING 1100, ROOM 201-F STENNIS SPACE CENTER, MISSISSIPPI 39529

**PREPARED BY:** 



2 SCHOONER LANE OCEAN SPRINGS, MISSISSIPPI 39564 (228) 219-2992

DATE: DECEMBER 9, 2016

**Certification:** 

# Wetland Delineation Report

Syncom Space Services, LLC

(+/-) 1,160-Acre Wetland Delineation Northern Portion of NASA Property John C. Stennis Space Center, Mississippi

> Subcontract No. S-3 - 0006271 Task Order No. 525

> > **Prepared for:**

Ms. Wendy Robinson Syncom Space Center, LLC Stennis Space Center, Mississippi 39529

Larson Environmental, LLC hereby certifies the aforementioned report constitutes an accurate presentation of the investigation, research, and findings developed during the completion of this Wetland Delineation prepared for, and submitted to, the client as their approved Consultant of Record.

Signed:

Kondy Ellis

Randy J. Ellis - Managing Principal Ecological Asset Management, LLC

Lars Larson, R.P.G. Managing Principal - Professional Geologist

(Seal) Registration No. 0448 State of Mississippi December 9, 2016

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# **1.0 INTRODUCTION**

Larson Environmental, LLC (LE, LLC) completed a wetland delineation of the 1,160-acre (more or less) area of investigation (AOI) located within the northern portion of the NASA - John C. Stennis Space Center (SSC) property located in Hancock County, Mississippi, per the Subcontract No. S3-0006271 and Task Order No. 525 executed on September 30, 2016. LE, LLC performed this wetland delineation in order to assess the amount of acreage within the subject AOI the United States Army Corps of Engineers (USACE) - Vicksburg, MS District would potentially consider being jurisdictional wetlands. Jurisdictional wetlands have been defined as areas that are inundated or saturated at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. This definition and further clarification of wetland characteristics can be found in 40 CFR 230.3.

The primary criteria that are required for determining the existence of a wetland are wetlands hydrology, hydrophytic vegetation and hydric soils. Wetlands hydrology consists of surface inundation, subsurface soil saturation within the upper 12-inches of the soil profile and/or observations of geochemical changes or alterations within the soil (i.e. oxidized root channels on living root systems) due to extended periods of water saturation. Other surface observations indicative of wetlands hydrology include evidence of surface water drainage or ponding that produce physical and mechanical changes to vegetation or the ground surface (i.e. drainage patterns, water stained leaves, drift deposits, moss trim lines, etc.) that support contact with water over an extended period of time within a given area. Hydrophytic vegetation is defined as the total amount of macrophytic plant life that is able to grow in water or on a substrate that is at least periodically deficient of oxygen as a result of excessive water content. A hydric soil has been determined to be one that is saturated, flooded or upon which ponding for a sufficient duration of time during a "growing season" develops anaerobic conditions that favor the growth of hydrophytic vegetation. Hydric soils are typically characterized by low chroma (i.e. darker color) soils and/or redoximorphic (Redox) features or evidence of other geochemical processes that occur due to the exchange iron and other metals along with the addition and removal of oxygen within the soil matrix caused by fluctuations in the shallow water table.



LE, LLC has performed the requested wetland delineation in accordance with appropriate USACE delineation methods and procedures as outlined in the US Army Corps of Engineers – Wetlands Delineation Manual – January 1987, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region - 2010. The following report presents the findings of our investigation. This delineation does not grant permission to any landowner to impact any wetland habitat. The USACE - Vicksburg District has jurisdiction over wetland habitats within this subject AOI as authorized in Section 404 of the Clean Water Act (CWA).



# 2.0 SITE DESCRIPTION

The AOI for this project is a tract of land inclusive of approximately 1,160 contiguous acres of land situated within the NASA - SSC property located in the Southwestern portion of Hancock County, Mississippi. The overall area is inclusive of land within Sections 20, 21, 28, 29, 31, 32, 33 and 37 of Township 7 South, Range 16 West. The AOI includes mostly undeveloped tracts of upland pine flatwoods, mixtures of palustrine forested and palustrine scrub shrub habitats, as well as bottom land hardwoods and riparian buffer areas that adjoin perennial and ephemeral streams. Various other manmade features exist within the AOI including abandoned rail spur and transportation corridors within the northern to northwestern part of the AOI, an inactive landfill within the northeastern part of the AOI, and logging roads that traverse the central and southern portions of the AOI from east to west.

# 2.1 Area of Investigation - Project Location

The specific AOI within which this wetland delineation was conducted is located in the northern portion of the NASA - Stennis Space Center property. The AOI is bounded on the north by properties owned by the Soterra, LLC entity, to the east by Flat Top Road and Andrew Jackson Road, to the south by Moses Cook Road, and to the west by Highway 607 - Trent Lott Road. Highway 607 represents the main north to south corridor through the NASA-SSC facility. Figure 1 – Area of Investigation Map – is a 100 K United States Geological Survey (USGS) Topographic Map that illustrates the AOI and boundaries within the NASA-SSC property and within Hancock County, Mississippi.

#### 2.2 Physiography

The primary physiographic provinces within the AOI that were observed during these field surveys included pine flatwoods, a mixture of palustrine forested and palustrine scrub shrub habitats, and bottom land hardwood habitats within the main streams and drainage ways. Appendix A - Photographic Record of Survey Plot Locations - illustrates the various soil and vegetative community transitions between and within these physiographic regions of the subject AOI.



**Bottom Land Hardwoods** – these habitats were exclusively observed within the riparian buffer zone along Turtleskin Creek and some of the ephemeral streams and drainage ways that feed Turtleskin Creek, as well as the other bottom land drainage feature within the central and southern portion of the AOI. These areas are dominated by a tree and sapling canopy primarily of swamp tupelo's, sweet bay magnolia's, pond cypress and slash pines, and an understory of swamp cyrilla, wax myrtles, and various species of ferns and other obligate and facultative wet herbaceous species. Topographic slopes of 0% to 1% appeared to exist within the actual drainage ways with an increase to approximately 2% to 3% along the riparian buffer to upland peripheral boundaries. Fairly significant periods of fluvial flow through Turtleskin Creek were observed by evidence of large accumulated drift deposits within the northern portions of AOI, and secondary channel cuts and small natural levy features that appear to have been created during heavy flow events.

**Palustrine Forested and Palustrine Scrub Shrub Areas** – the majority of the AOI is comprised of this mixture of palustrine forested (Planted Pine) and scrub shrub habitat. These areas form along the transitional zones with the bottom land hardwoods and extend outward toward the broader flat areas that make up the Pine Flatwoods and other upland ridge areas. These areas are characterized by a mixture of tree and sapling dominated over story that consists of planted slash pine, with slightly smaller percentages of loblolly pine, sweet bay magnolia, tupelo, sweet gum and oak species with a fairly well established understory of gallberrry. These forested and scrub shrub habitats appear to transition into broader planted pine flat areas dominated by a heavier shrub layer.

**Pine Flatwoods** – these areas were observed primarily within the northeastern portion of the AOI, but also within the central portion of the AOI. This zone is similar to the palustrine forested/scrub shrub areas except that the planted slash pine dominated tree and sapling stratum within the flatwoods appears to increase slightly with a corresponding decrease in the amount of other hardwood tree species. A heavy gallberry shrub understory is still prevalent. The transition between these two habitats is rather broad, and the topography in the flatwoods areas is virtually negligible. Historical silvicultural practices in these areas appears to reveal evidence of manmade surface water drainage features from some of these areas. Additionally, the alterations to the natural canopy from those practices could have contributed to a decline in the amount or rate with which evapotranspiration takes place that would normally result from a larger tree root base and water up take, as well as the resultant decline in rain



penetration from the effects of over story shielding. Other man made alterations in these areas from silvicultural practices include the construction of surface water berms and other drainage barriers along the property boundary that appear to have held water in some areas longer that what potentially "normal" hydro-periods would allow. The construction of a landfill within the northeastern portion of the AOI, and logging roads within the central and southern portions of the AOI also appear to have restricted and altered the natural surface water flow in these areas.



#### **3.0 WETLAND DELINEATION METHODOLOGY**

The wetland delineation of the subject property is based on research materials that include the Soil Survey of Hancock County, Mississippi – 1975 published by the United States Department of Agriculture, Soil Conservation Service (Soil Survey), the Web Soil Survey Published by the Natural Resource Conservation Service (NRCS), the United States Geological Survey (USGS) topographic maps of Nicholson, Mississippi and Louisiana - 1998 and Dead Tiger Creek, Mississippi - 1996, the National Wetlands Inventory Map published by the United States Fish and Wildlife Service (USFWS), Light Detection and Ranging (LiDAR) Remote Sensing map information available from NOAA CSC and the Mississippi Department of Environmental Quality, infrared aerial imagery available from the National Agricultural Imagery Program (NAIP) and the Mississippi Automated Resources Information System (Maris), historical aerial photography from the NRCS office in Kiln, MS, the Mississippi Gulf Coast Regional Planning Commission and other on-line sources, as well as field site assessments of the subject property conducted between October 6 and 31, 2016. A complete list of available references used during this assessment is included in Section 6.0.

LE, LLC utilized two field assessment methodologies to delineate the wetland-upland boundaries within the subject AOI. The first survey method included the use of a systematic grid/transect system supplemented with the use of LiDAR elevation model and derived contours and aerial photography within the broader pine flatwood and terraced areas located in the northeastern and central portion of the property. In areas of greater topographic relief such the transitional zones along the bottom land hardwood areas and the upland boundaries, a more directed visual confirmation approach was used that included the use of soil survey and topographic map information to ground truth the contacts between the wetland and upland boundaries.

In the areas of greater topographic relief, historical aerial photography, topographic maps and LiDAR elevation data were used to assist in preliminarily identifying the "potential" contacts (i.e. transitional boundaries) between wetland and upland areas. These zones included the contacts between the riparian buffer zones along Turtleskin Creek and the ephemeral drainage ways with those of the distinctly sloped areas that transition up toward the broader upland flats. LiDAR data, aerial photographs and topographic maps were utilized to mark/estimate variations in tree canopy between



growing and non-growing seasons, as well as subtle changes in topography. These lines were then assessed and verified by surveying them in the field and noting corresponding changes in plant communities, hydrology and in particular, changes in soil characteristics. At points where all three of the field indicators revealed that wetland conditions exist (i.e. hydropytic vegetation, hydrology and hydric soils), field personnel surveyed these locations with sub meter precision accuracy. The instrumentation used to conduct the surveys included a Trimble R-1 Navigation Satellite System (GNSS) global positioning satellite (GPS) receiver using a satellite based augmentation system (SBAS) with real time corrections and paired with a Samsung Galaxy tablet operated by Trimble Terra Flex software. The surveyed points were labeled with a unique identifier representing the numerical sequence of each individual surveyed point. Each field survey point along these lines represents a location where a transition from wetland conditions to more upland conditions exists. Field data sheets were completed in areas along this line where more notable changes in overall plant communities, surface or subsurface hydrology, and/or soil characteristics were encountered. Surveyed areas typically, but not always, included a wetland plot and a corresponding upland plot to provide confirmation of soil and hydrology changes within these areas for establishing wetland boundaries. In some instances, survey plots were investigated to determine habitat, soil and hydrological characteristics for that "area".

Within the pine flatwoods of the northeastern and central portions of the AOI, a more systematic grid/transect system was used. Given the overall lack of topographic relief in these areas, transitions between upland and wetland habitats was much broader and aerially more subjective. Survey personnel first established East to West baselines along the property boundary and fence line in the northeastern part of the AOI, and along the east to west trending logging roads within the central and southern portions of the AOI. Generally north-south trending transect lines were then created along the east-west baseline at approximately 500 foot to 1000 foot intervals, and/or at intervals that intercepted zones where mapped changes from hydric to non-hydric soil conditions were documented so that actual field observations of these changes could be recorded. Field survey personnel then proceeded to walk each transect line making observations of hydrology, changes in plant communities, and digging periodic soil test pits to observe variations in soil conditions. Figure 2 - NRCS Soils Map - illustrates the varied hydric and non-hydric soil types within the overall AOI. Appendix A - Photographic Record of Survey Plot Locations - provides a photographic review of a representative number of



surveyed sites within each physiographic region during this wetland delineation project including views of subsurface soil conditions, vegetative plant communities and landform images.

Field surveys to determine the potential presence of jurisdictional wetlands within the AOI were conducted between October 6, 2016 and October 31, 2016. As previously noted, LE, LLC field personnel developed field sample plot "pairs" that represented transitions from wetland to upland conditions within relatively short distances. At each of these sample plots, field personnel recorded observations of surface and subsurface hydrology and soil conditions, as well as vegetation variations. Appendix B - Wetland Delineation Data Forms; Atlantic and Gulf Coastal Plains Region - document the field observations made at each surveyed sample plot.

The soil conditions at each sample plot were made by removing soil material from approximately onefoot to two-feet below surface grade using hand augers and hand shovel (sharpshooter) type digging instruments. Observations of overall soil color, value and chroma were noted, as well as other geochemical alterations such as iron concentrations and matrix depletions caused by prolonged exposure to water, etc.

Observations of vegetation communities included noting changes in the percent of dominant species coverage within a given area and/or the aerial extent of coverage of those species. Estimations of those amounts were recorded on the field data sheets. The subgroups for the dominant species were divided into several different strata that included tree coverage (i.e. individual species or a percent of overall canopy coverage), sapling, shrubs, as well as the herbaceous plant species layer and woody vines.

Hydrology, typically the most subjective of the three wetland criteria, was evaluated based on the application of several different factors. These included observations of subsurface soil properties (i.e. soil saturation or oxidized root channels, etc.), geographical and topographical observations (i.e. geomorphic position or drainage patterns), physical signs of inundation such as moss trim lines, watermarks, drift lines, water stained leaves, buttressed trees, etc., as well as the prevalence and/or dominance of obligate and facultative wet vegetative species.



#### 4.0 SITE DESCRIPTION

The AOI for this project is a tract of land inclusive of approximately 1,160 contiguous acres of land situated within the NASA - SSC property located in the Southwestern portion of Hancock County, Mississippi. The overall area is inclusive of land within Sections 20, 21, 28, 29, 31, 32, 33 and 37 of Township 7 South, Range 16 West. The AOI includes mostly undeveloped tracts of upland pine flatwoods, mixtures of palustrine forested and palustrine scrub shrub habitats, as well as bottom land hardwoods and riparian buffer areas that adjoin perennial and ephemeral streams. Various other manmade features exist within the AOI including abandoned rail spur and transportation corridors within the northern to northwestern part of the AOI, an inactive landfill within the northeastern part of the AOI, and logging roads that traverse the central and southern portions of the AOI from east to west.

#### 4.1 Hydrology

The main features within the AOI that control water movement are Turteskin Creek and the ephemeral streams and drainage features that feed into the creek, as well as topographic fluctuations that feed depressional areas within the elevated pine flat woods and palustrine forested areas. The majority of the areas where the more pronounced hydrology was observed was within the bottom land hardwoods areas and the drainage features within the AOI. In these physiographic zones, soil saturation within the upper 12-inches of the soil test pit was observed at times, as well as the presence of oxidized root channels. Observations of primary hydrology indicators appeared to be more sporadic during this assessment in relation to secondary hydrology indicators. The secondary hydrology indicators that were most prevalent were drainage patterns, geomorphic position, moss trim lines and water marks, crawfish burrows, drift deposits and water stained leaves. Even within the lower bottom land areas, soil saturation was rarely observed within the upper 12-inches of the soil test pits. Hydrology indicators were also observed within limited areas of the upland flats of the northeastern and central portions of the AOI; however, these areas appeared to be within soils that were identified by the Soil Survey as hydric and/or were located within subtle and restricted topographically lower areas and manmade drains that tied into more pronounced surface water conveyance features on side slopes that fed Turtleskin Creek and other ephemeral features.



An analysis of the Flood Elevation Maps produced by the Federal Emergency Management Agency (FEMA) - 2009 was also conducted. Figure 3 - FEMA Flood Hazard Zone Map of the AOI - illustrates the areas of the AOI that FEMA considers to be within zones subject to periodic inundation. As Figure 3 reveals, FEMA considers the riparian zones that border Turtleskin Creek to be the primary zones within the AOI where flooding would most likely occur. These areas have been mapped as Zone A, indicating that FEMA has not established a "Base Flood Elevation" for these areas. The contour that the FEMA Flood Map follows is estimated to be approximately 60 feet MSL. This information appears to generally support and coincide with what field wetland surveys identified as areas of the AOI that would most likely experience inundation events.

Based on the USACE wetlands manual, hydrological evaluations are necessitated by flooding or soil saturation for "at least five percent of the growing season". In the Soil Survey of Hancock County, Mississippi - 1981, a historical table of daily minimum temperatures documented during the growing season is presented. The information included within this table is somewhat dated in that it represents recorded temperature data between 1951 and 1973. However, this data does provide some statistically valid information regarding the number of days within a typical Gulf Coast growing season with established temperature regimes. Utilizing the data from the 28<sup>°</sup> F or higher temperature frequency during a five to 10 year cycle, the estimated number of days within the growing season is calculated to be 319. Accordingly, five percent (5%) of this number would be equivalent to approximately 16 consecutive days that inundation or soil saturation would need to be present. Applying the "8 years in 10" data, the resulting number of days with temperatures higher than 28° F is 287, yielding approximately 14.5 consecutive days that inundation or soil would need to exist. Further, applying the "2 years in 10" data, the net number of days with temperatures higher than 28<sup>0</sup> F is 364 would equal 18 consecutive days that flooding or soil saturation conditions would need to be present. Based on these data, it can be assumed that flooding or soil saturation conditions within this AOI would require a two to three week consecutive time period for wetlands hydrology to be present.

# 4.2 Vegetation

The vegetation observed during this wetland delineation appears to be representative of the vegetative strata common throughout the Mississippi Gulf Coastal Plain region. Most of the AOI is topographically



flat with perennial streams and ephemeral drainage ways that exist within the lower contoured elevations. The majority of the area is covered by slash pines and to a lesser extent by loblolly pines, with deciduous and hardwood/broad leafed trees mixed in the upland flats and dominating the lower riparian and fluvial areas. Historical silvicultural practices such as clear cutting and timber mining following hurricane events was evident within the northeastern and eastern portions of the AOI.

The most interesting observation about the vegetation within the AOI is that given the fairly large area (i.e. +/- 1,160 acres), there did not appear to be much diversity in vegetative species within the tree, sapling and shrub stratum. Herbaceous species appeared to vary considerably between upland flats and bottom land areas as one would expect, with woody vines species also being fairly consistent through the AOI. Appendix A - Photographic Record of Survey Plot Locations - provides a photographic log of representative areas of the AOI and the vegetative changes that were encountered. Appendix B - Wetland Delineation Data Forms - document the dominant plant species within each vegetative stratum. The following vegetation list includes the most dominant species that were encountered within each of the stratum during this wetland delineation.

#### Trees

<ul> <li>Slash Pine and Loblolly Pine</li> <li>Sweet Bay Magnolia</li> <li>Black Gum and Swamp Tupelo</li> <li>Sweet Gum</li> <li>Water Oaks and Live Oaks</li> <li>Pond Cypress</li> <li>Southern Magnolia</li> </ul>	Pinus ellioti and Pinus taeda Magnolia virginiana Nyssa sylvatica and biflora Liquidambar styraciflua Quercus nigra and virginiana Taxodium ascendens Magnolia grandiflora	FACW and FAC FACW FAC and OBL FAC FAC and FACU OBL FAC
<ul> <li>Slash Pine and Loblolly Pine</li> <li>Sweet Bay Magnolia</li> </ul>	Pinus ellioti and Pinus taeda Magnolia virginiana	FACW and FAC FACW

- Black Gum and Swamp Tupelo
- Sweet Gum
- Water Oak

Pinus ellioti and Pinus taeda Magnolia virginiana Nyssa sylvatica and biflora Liquidambar styraciflua Quercus nigra FACW and FAC FACW FAC and OBL FAC FAC



# Shrub Layer

•	Large Gallberry	llex coriacea	FACW
•	Gallberry	llex glabra	FACW
•	Yaupon Holly	llex vomitoria	FAC
•	American Holly	llex Opaca	FAC
•	Elliot's Huckleberry	Vaccinium elliotti	FAC

#### Herbs

•	Switch Cane	Arundinaria tecta	FACW
•	Fox Tail Club Moss	Lycopodiella alopecuroides	OBL
•	Japanese Climbing Fern	Lygodium japonicum	FAC
•	Climbing Hempvine	Mikani ascandens	FACW
•	Yellow Pitcher Plant	Sarracenia alabamensis	OBL
•	Netted Chain Fern	Woodwardia areolata	OBL
•	Sawtooth Blackberry	Rubus argustus	FAC

# Woody Vines

•	Roundleaf Greenbrier	Smilax rotundafolia	FAC
•	Laurel Greenbriar	Smilax laurifolia	FACW
•	Saw Greenbriar	Smilax bona-nox	FAC
•	Muscandine	Vitis rotundafolia	FAC
•	Poison Ivy	Taxcondendron radicans	FAC



## 4.3 Soils

The NRCS Soil Survey lists 16 different soil series/units that exist within the subject AOI. The following chart lists the mapped soil unit symbol and name, the corresponding Hydric Soil Rating, the approximate acreage within the AOI and the percentage that each soil series represents within the AOI.

/lap unit symbol	Map unit name	Rating	Acres in AOI	% of AOI
AR	Arkabutla-Rosebloom assoc., frequently flooded	95	0.9	0.1%
At	Atmore silt loam, 0 to 2 percent slopes	85	278.6	23.4%
EsA	Escambia loam, 0 to 2 percent slopes	6	117.7	9.9%
EsB	Escambia loam, 2 to 5 percent slopes	6	37.4	3.1%
EuB	Eustis loamy fine sand, 2 to 5 percent	0	82.2	6.9%
Gu	Guyton silt loam, 0 to 1 percent slopes, rarely flooded	94	9.0	0.8%
HIA	Harleston fine sandy loam, 0 to 2 percent slopes	11	8.6	0.7%
HIB	Harleston fine sandy loam, 2 to 5 percent slopes	11	248.5	20.8%
Pe	Plummer loamy sand	91	1.5	0.1%
РоА	Poarch fine sandy loam, 0 to 2 percent slopes	5	16.7	1.4%
РоВ	Poarch fine sandy loam, 2 to 5 percent slopes	0	106.4	8.9%
РоС	Poarch fine sandy loam, 5 to 8 percent slopes	4	0.4	0.0%
SaC	Saucier fine sandy loam, 5 to 8 percent slopes	2	49.2	4.1%
ScB	Saucier-Susquehanna complex, 2 to 5 percent slopes	5	21.1	1.8%
ScD	Saucier-Susquehanna complex, 5 to 12 percent slopes	3	6.5	0.5%
Su	Smithton fine sandy loam, frequently flooded	97	208.3	17.5%
als for Area of Interest			1,193.0	100.0%



As the preceding table illustrates, there are 16 mapped soil types/series within the AOI. However, seven of these soil units out of the total 16 make up approximately 1,193 acres, or roughly 91% of the total acreage within the AOI. The 1,193 acre total presented in the table is an "estimate" based on the preparation of an approximate AOI polygon made with the NRCS Web Soil Survey mapping tool. The actual amount of total acreage is +/- 1,160 acres. The seven primary soil mapped units include the Atmore (At) Silt Loam, the Escambia (EsA) loam, Eustis (EuB) fine sandy loam, the Harleston (HIB) fine sandy Loam (2 to 5% slopes), the Poarch (PoB) fine sandy laom (2 to 5% slopes), the Saucier fine sandy loam and the Smithton (Su) fine sandy loam. Survey personnel observed that most of the mapped soil units presented by the NRCS were generally consistent with observations made in the field.

The corresponding hydric soil rating that is listed is an indication of the percentage of the mapped soil unit that meets the criteria for hydric soils. The mapped units are often composed of one or more soil types, each of which is rated as a hydric soil or not hydric. The mapped units that are made up primarily of a hydric soil may also have small areas of minor non hydric components possibly within slightly more elevated areas within that landform. Conversely, more elevated areas within that same landform that are made up primarily of non hydric soils may also have small areas of minor hydric inclusions within lower portions of that landform. Accordingly, each mapped soil unit is rated based on its respective components and the percentage of each component within the mapped unit. Given these criteria, the two mapped hydric soil units with the greatest percentage of area coverage within the overall AOI are the Atmore silt loam (23.4%) and the Smithton fine sandy loam (17.5%). The descriptions the seven main soil types that make up the bulk of the overall acreage are described below.

**Atmore Silt Loam(At)** - the Atmore soil unit comprises approximately 279 acres (+/- 23.4%) of the total AOI. It is found mostly within the Pine Flatwoods within the northeastern and northern areas of the AOI, and within the lower relief palustrine forested and scrub shrub habitats within the central and southern areas of the AOI. The Atmore has a hydric soil rating of 85 and is described as a poorly drained soil found on upland flats and slopes ranging from 0 to 2%. It is also characterized as a silt loam with generally low chromas of less than 2 within the upper 16 inches on the Munsell Soil Color Chart.



**Escambia Loam (EsA)** - the Escambia Loam soils (0 to 2% slopes) comprises approximately 118 acres (+/-10%) of the total AOI. The Escambia B unit (2% to 5% slopes) is also found within the AOI, but makes up only 3% of the total area. The Escambia A units is a somewhat poorly drained soil found on the upland flats of the northeastern and northern areas of the AOI in close proximity to Atmore soils, as well as within transitional areas in the central, southern and southeastern portions of the AOI. The Escambia unit has a hydric rating of 6.

**Eustis Loamy Fine Sand (EuB)** - the Eustis loamy fine sand unit (2 to 5% slopes) comprises approximately 82 acres (+/- 7 %) of the total AOI. The Eustis B unit is described as a somewhat excessively drained soil found typically along upland slopes, and has a hydric rating of 0. Within the AOI, the Eustis is found mostly along upland slopes on the sides of the riparian buffer zones above Turtleskin Creek in the central and northern portions of the AOI, and in isolated areas in the southern portion of the AOI. The Escambia soils typically have dark (low chroma) characteristics in the upper 4 to 5 inches of the sampled soil column, and transition to brighter chroma colors (4 to 6) below this.

**Harleston Fine Sandy Loam (HIB)** - the Harleston Fine Sandy Loam (B Unit - 2 to 5 % slopes) makes up approximately 249 acres (+/- 21 %) of the total AOI. The Harleston B Unit is described as a moderately well drained soil found along ridge tops and upland slopes. The Harleston is also known to have "hydric" soil inclusions within it in certain areas and has a hydric rating of 11. In this AOI, the Harleston is found mostly within upland flatwoods and palustrine scurb shrub area in the eastern portion of the AOI, in upland ridges and side slopes above Turtleskin Creek in the north, and along isolated upland flats and ridges in the western and southern portions of the AOI. The Harleston soils have generally dark (<2) soil chroma within the upper 4-5 inches of the soil column and then lighten appreciably to chromas of 4 to 6 between 6-inches and 20-inches below surface grade.

**Poarch Fine Sandy Loam (PoB)** - the Poarch Fine Sandy Loam (2 to 5% slopes) makes up approximately 106 acres (+/- 9 %) of the total AOI. There also small areas of the Poarch A unit (0 to 2% slopes), but it makes up only 1.5% of the total area. The Poarch B soil is a well drained soil found in uplands, and within this AOI was encountered typically along upland slopes outside of the Turtelskin Creek riparian



zone in the northern and northeastern portions of the AOI, and above the bottom land drainage ways in the southern portion of the AOI. The Poarch unit is a classic upland soil characterized by a dark surface organic layer in the upper 5-inches of the soil column, that transitions quickly to a bright yellowish brown sandy loam with chromas of generally greater than 5 or 6 below the 6-inch interval of the soil column. The Poarch B hydric soil rating is 0.

**Saucier Fine Sandy Loam (SaC)** - the Saucier fine sandy loam (5 to 8% slopes) makes up approximately 49 acres (+/- 4 %) of the total AOI. The Saucier fine sandy loam is described as a moderately well drained upland soil with a hydric rating of 2. It is found almost exclusively on upland slopes and within pine flat wood areas of the northwestern and western areas of the AOI. The Saucier unit is generally mapped in close proximity to other upland soils like the Poarch and Harleston with a dark the upper soil layer of 5 to 6 inches (soil chroma of 2) and lower intervals with a soil chroma that lightens from 3 to 6.

**Smithton Fine Sandy Loam (Su)** - the Smithton fine sandy loam unit makes up approximately 208 acres (+/- 18 %) of the total AOI. The Smithton fine sandy loam is characterized as poorly drained soil within wet flats, drainage ways and along riparian stream terraces. The Smithton is a classic hydric soil within Hancock County, Mississippi with a hydric rating of 97. Within the subject AOI, it is found principally within the lower bottom land drainage and riparian areas of Turtleskin Creek and along some of the ephemeral drainage areas that feed into Turtleskin Creek. It is also found in concert with much of the bottom land drainage area within the southern and southeastern portion of the AOI. Smithton soils are typically dark grayish brown with chromas of 2 or less within the upper two to three feet of the soil column.



# 5.0 CONCLUSIONS

Based on the information presented in this report, LE, LLC believes that out of the total +/- 1,160 acre AOI, approximately 283 acres represent jurisdictional wetlands. This wetland acreage is equivalent to approximately 24% of the total AOI. Figure 4 - Wetland Delineation Map of the Overall AOI - illustrates the portions of the subject AOI where jurisdictional wetlands were identified during this assessment. Figure 5 - Wetland Delineation Sheet Index Map - displays the various "enhanced view" subsections of the property that provide a more detailed view of each portion of the overall AOI. Figure 6 A - Wetland Delineation Map; Sheet Index 1 - is an aerial photograph that illustrates wetland/upland boundaries and field survey plots within the respective portion of the AOI. Figure 6 B - Wetland Delineation Map; Sheet Index 1 - is a topographic map that illustrates wetland/upland boundaries and field survey plots within the respective for A. The subsequent figures (Figures 7 A and 7 B through Figures 11 A and 11 B) represent the aerial photographs and topographic maps illustrating the wetland/upland boundaries within the corresponding subsections of the AOI.

The interpretation the wetland/upland boundary with this AOI is based on visual observations that were made during the field assessment activities conducted between October 6, 2016 and October 31, 2016, and based on information derived from historical aerial photography, NRCS soil maps, the Hancock County, Mississippi Soil Survey, USGS topographic maps, LiDAR and Infrared map data, and other historical information sources. It should be noted that weather conditions, such as variations in seasonal rainfall amounts, can also influence the interpretation of a wetland delineation by effectively altering the hydro period within the areas of a site that have minimal relief. LE,LLC field personnel found the climatological conditions to be normal, and consistent for this time of the year.



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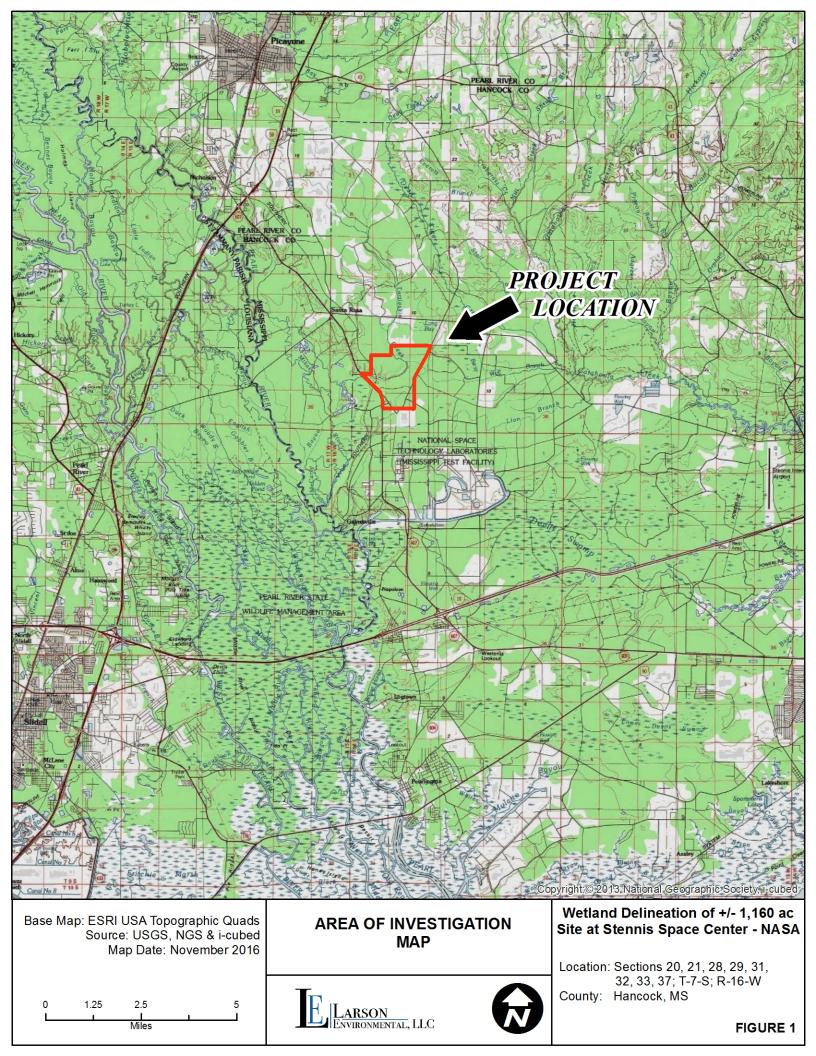
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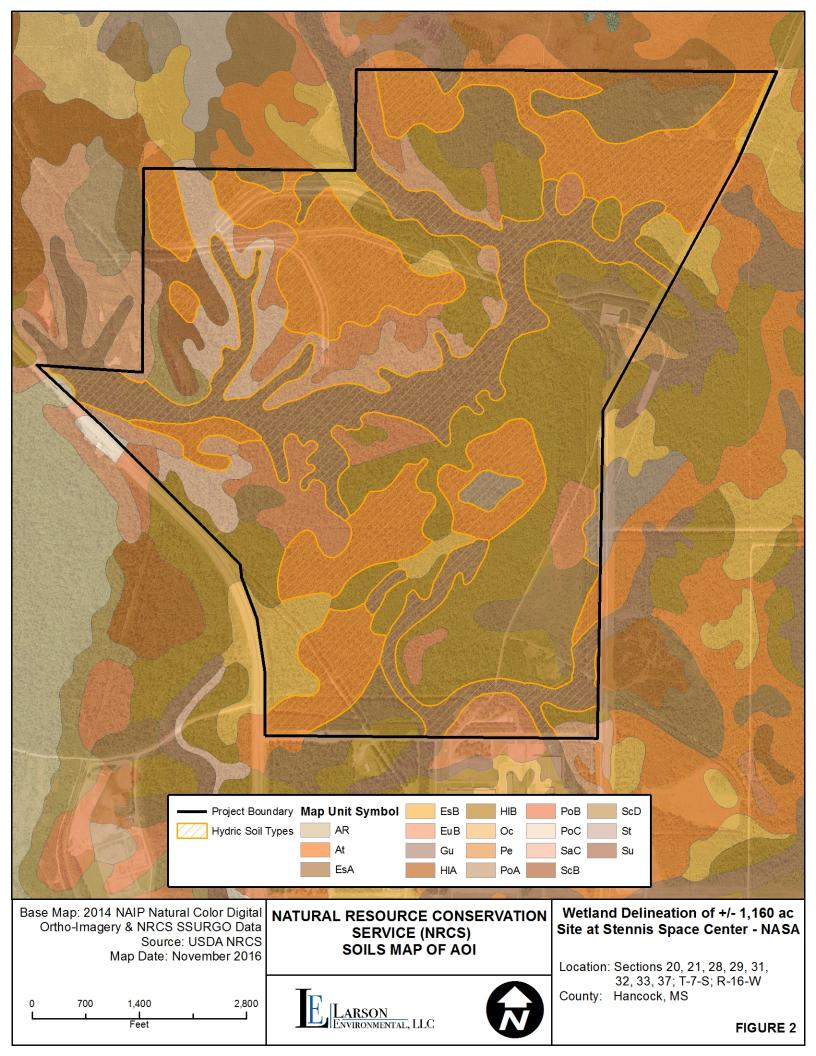


LIST OF FIGURES

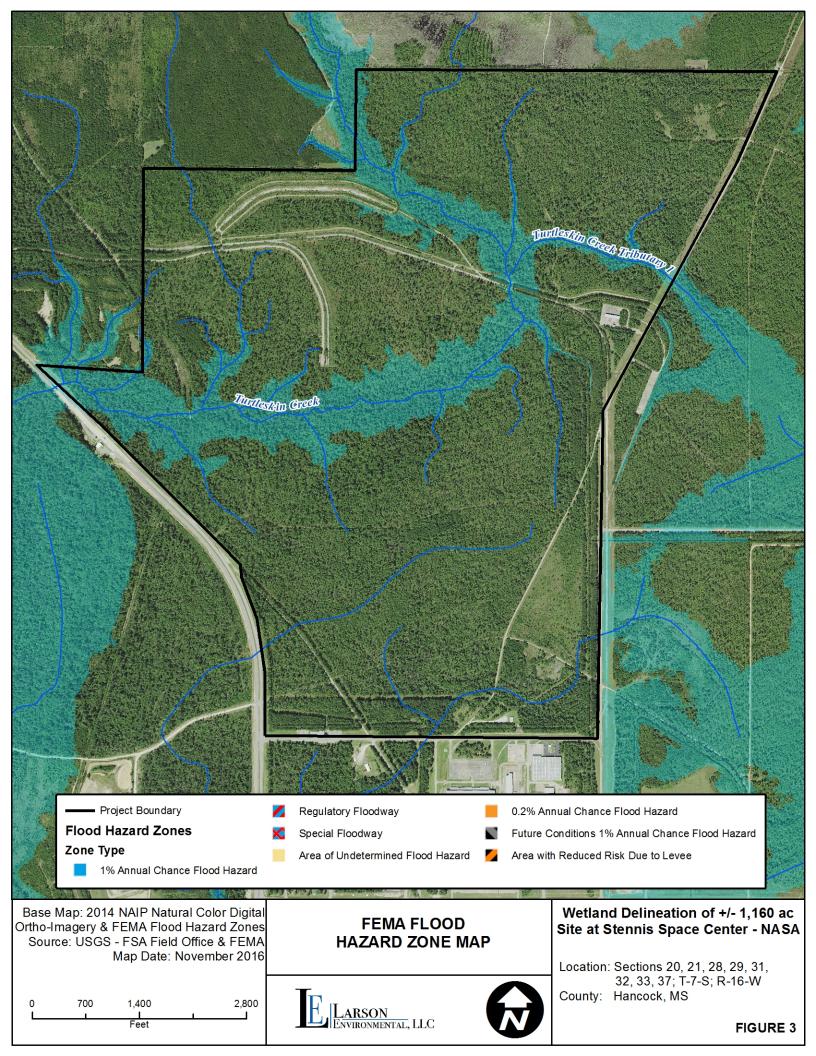
Area of Investigation Map USGS 100 K Topographic Map



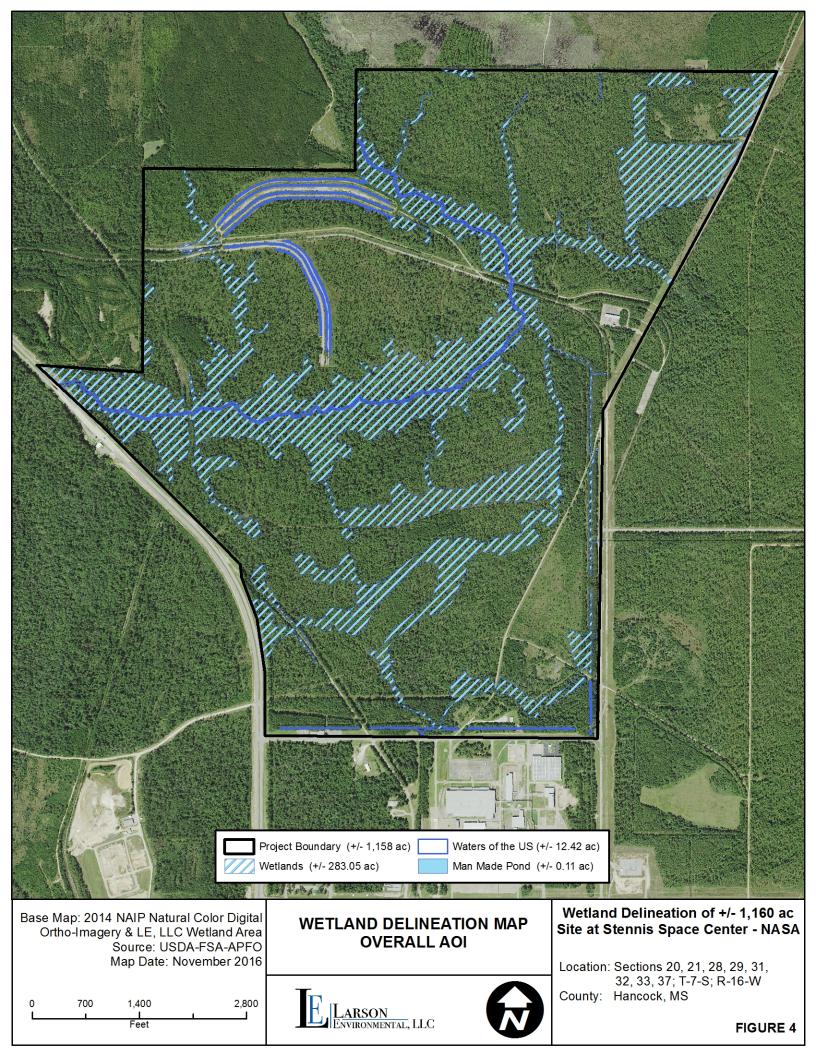
Natural Resource Conservation Service Soils Map of AOI



FEMA Flood Hazard Zone Map of AOI



Wetland Delineation Map - Overall AOI; November 2016



Wetland Delineation Map Sheet Index Maps

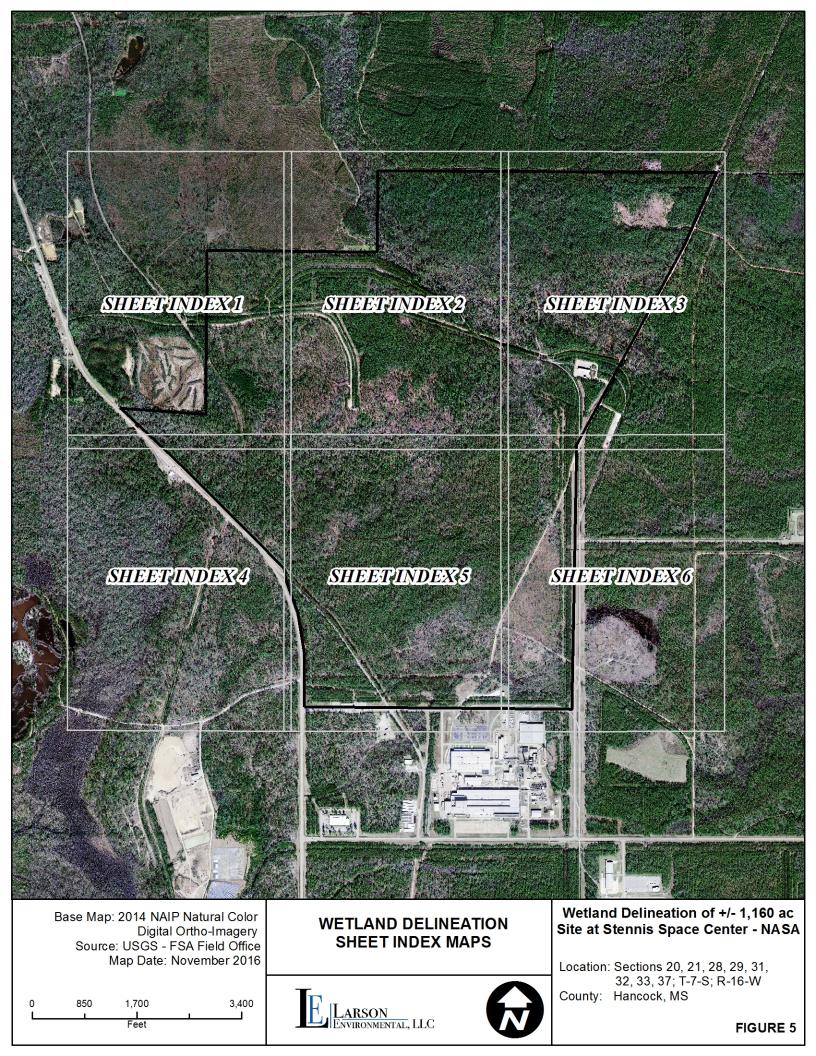


Figure 6 A

Wetland Delineation Map - Aerial Photograph Sheet Index Map 1

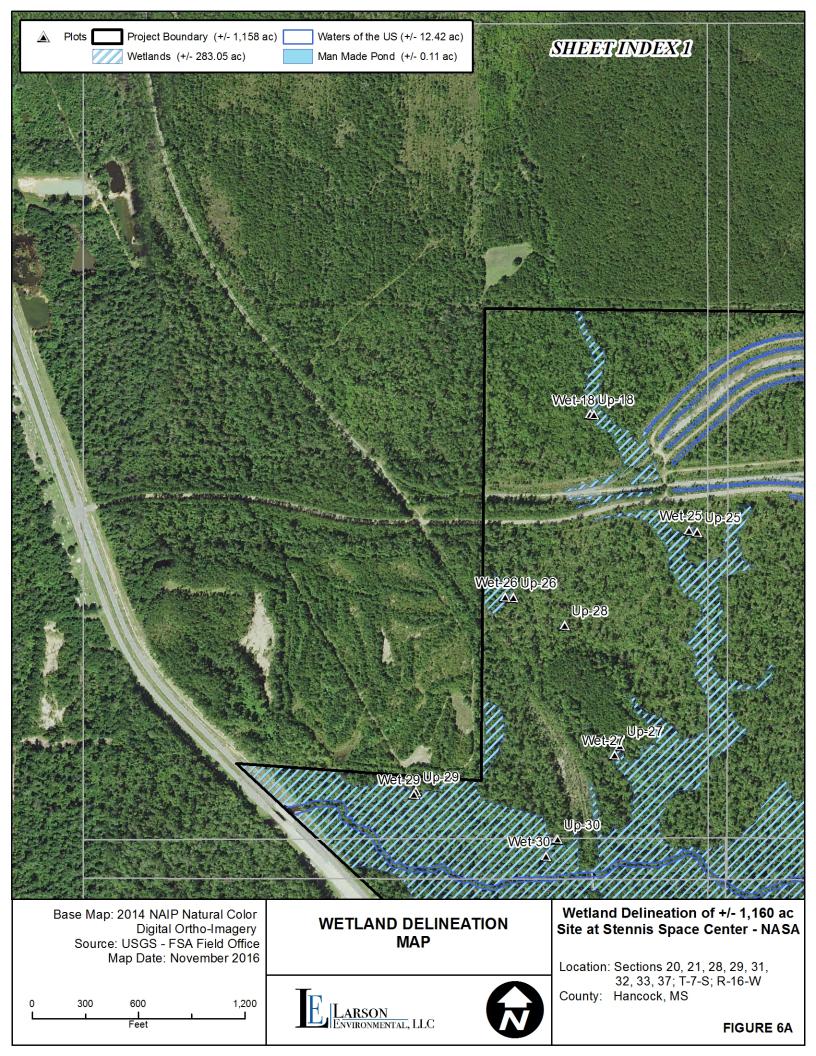


Figure 6 B

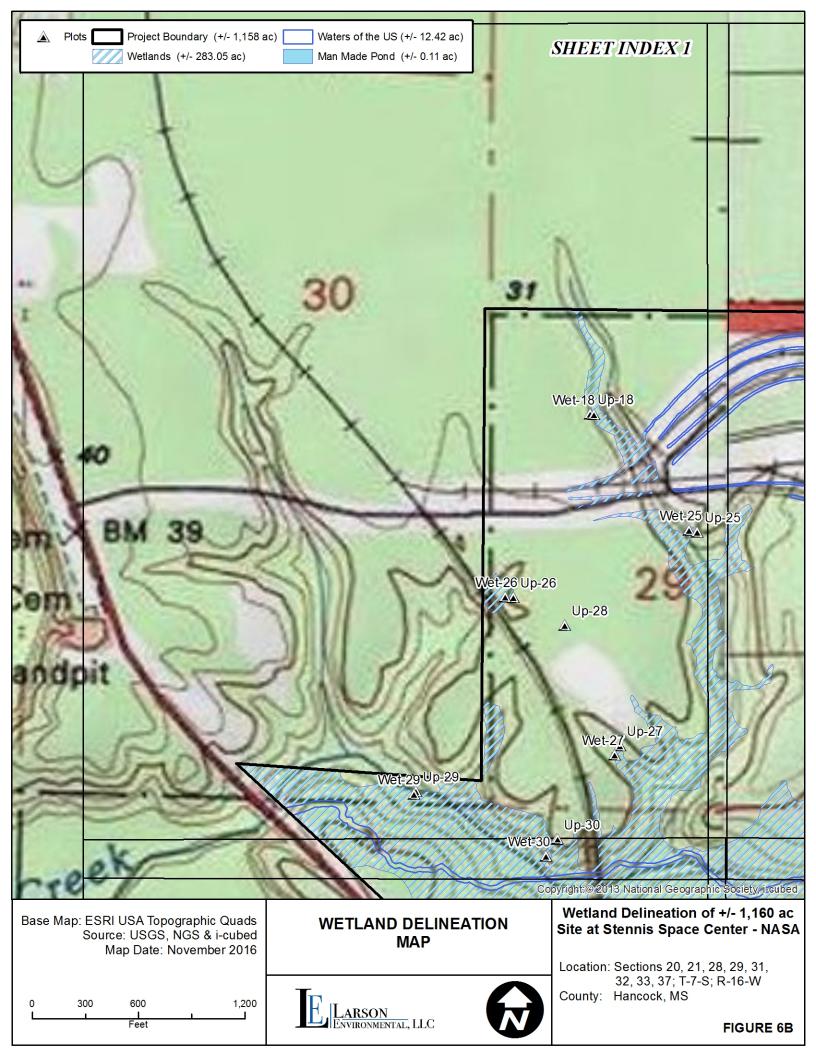


Figure 7 A

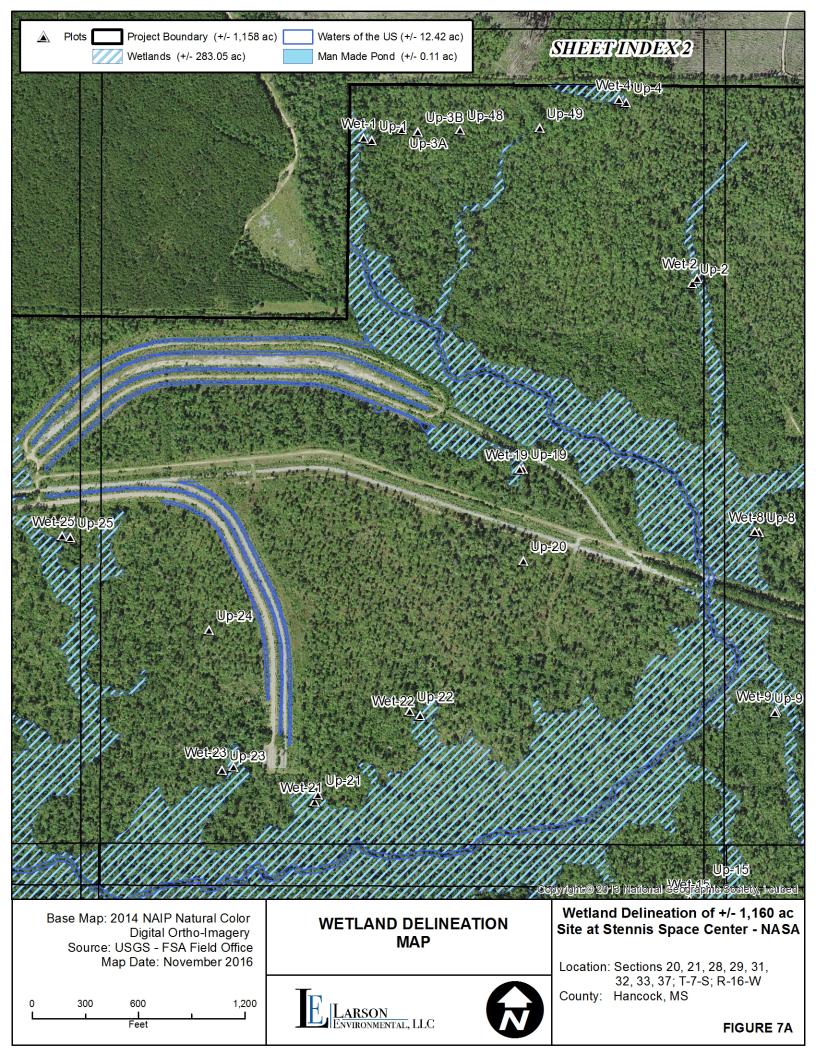


Figure 7 B

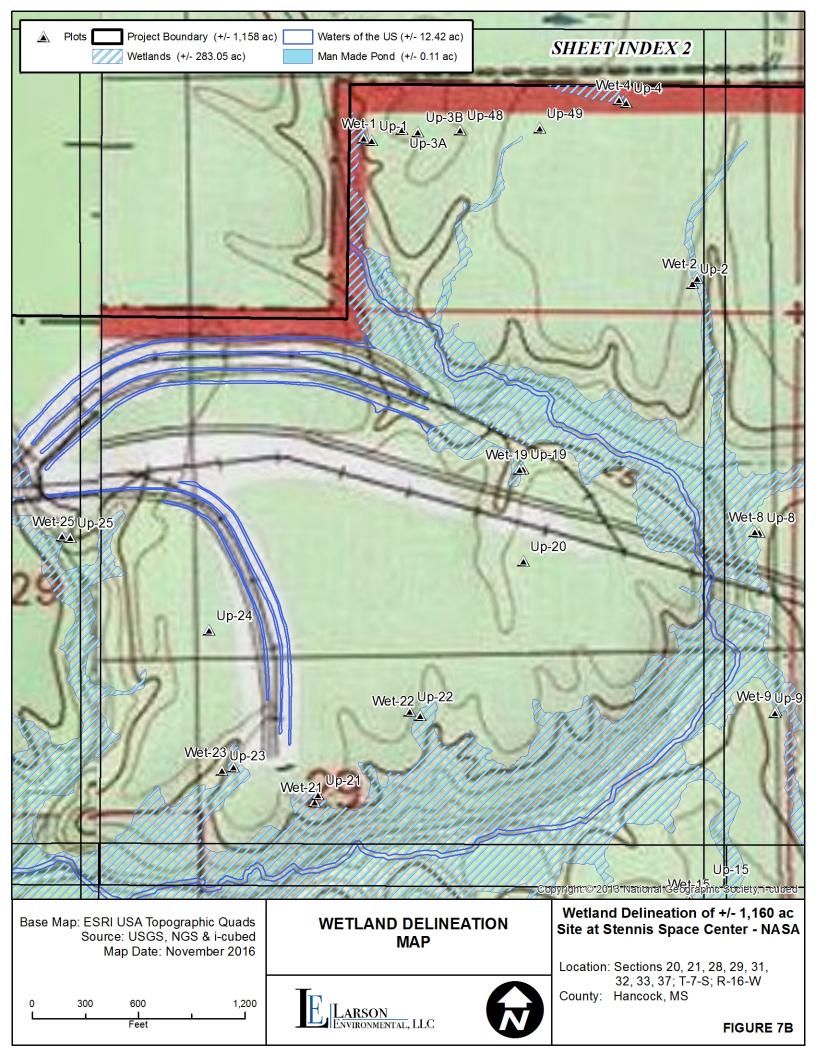


Figure 8 A

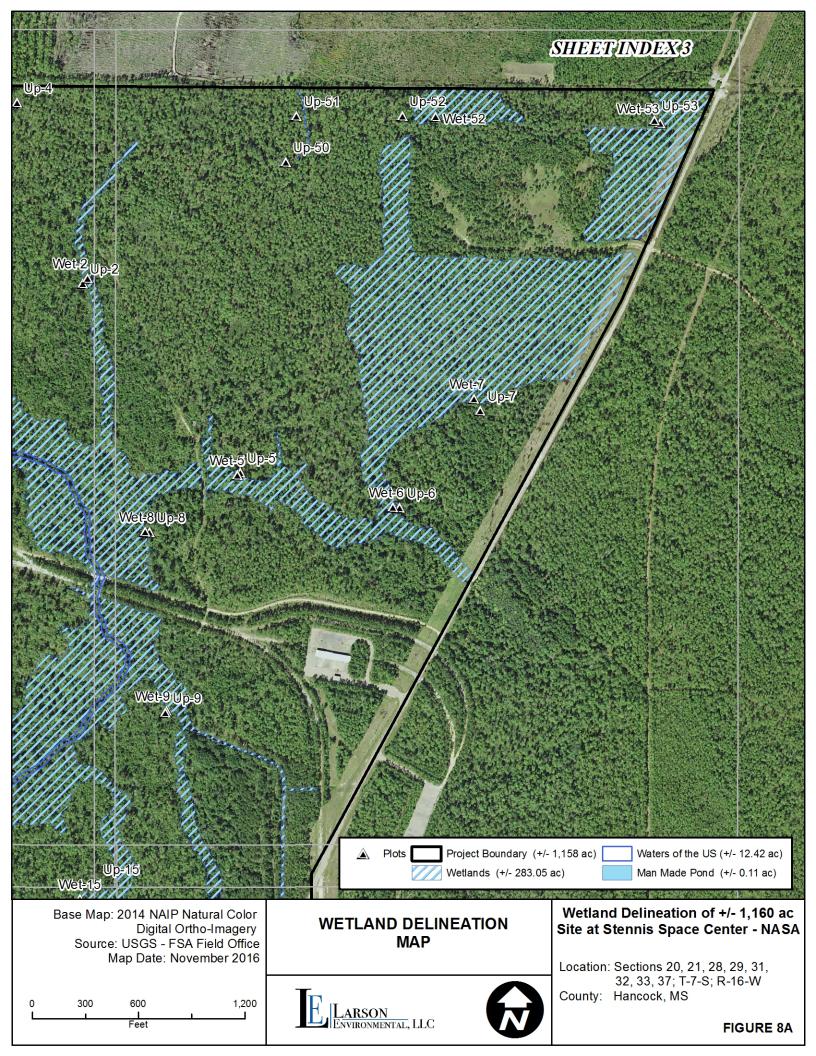


Figure 8 B

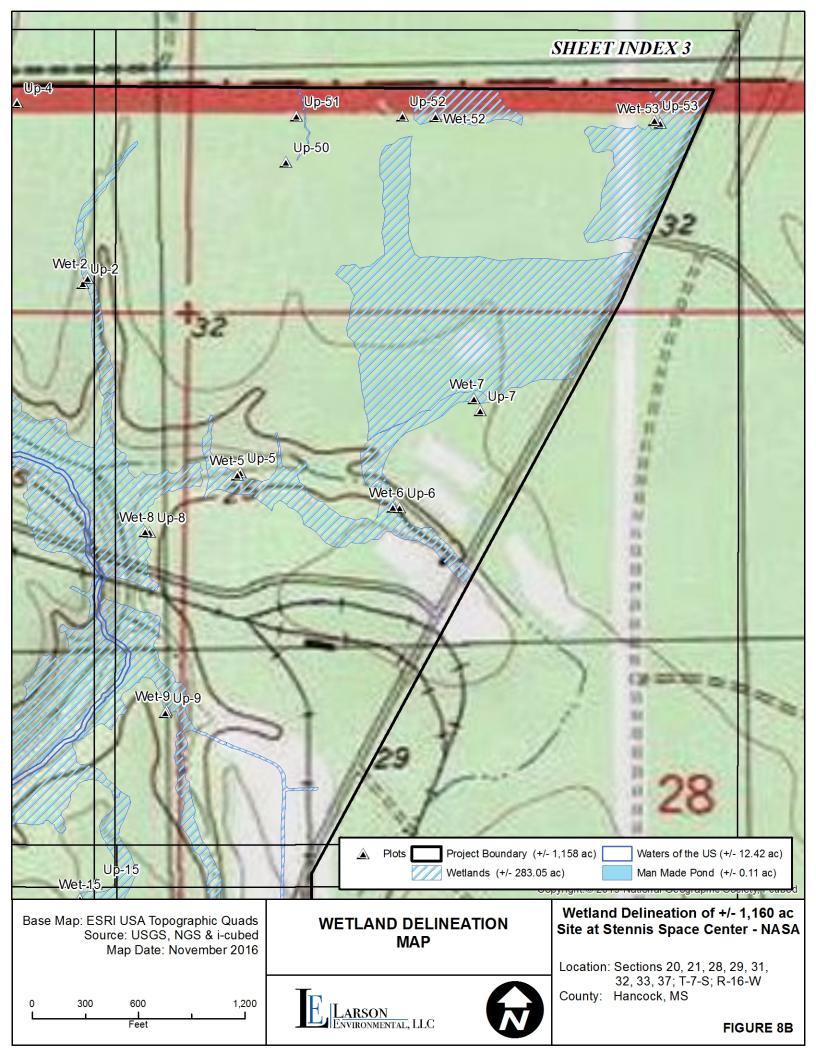


Figure 9 A

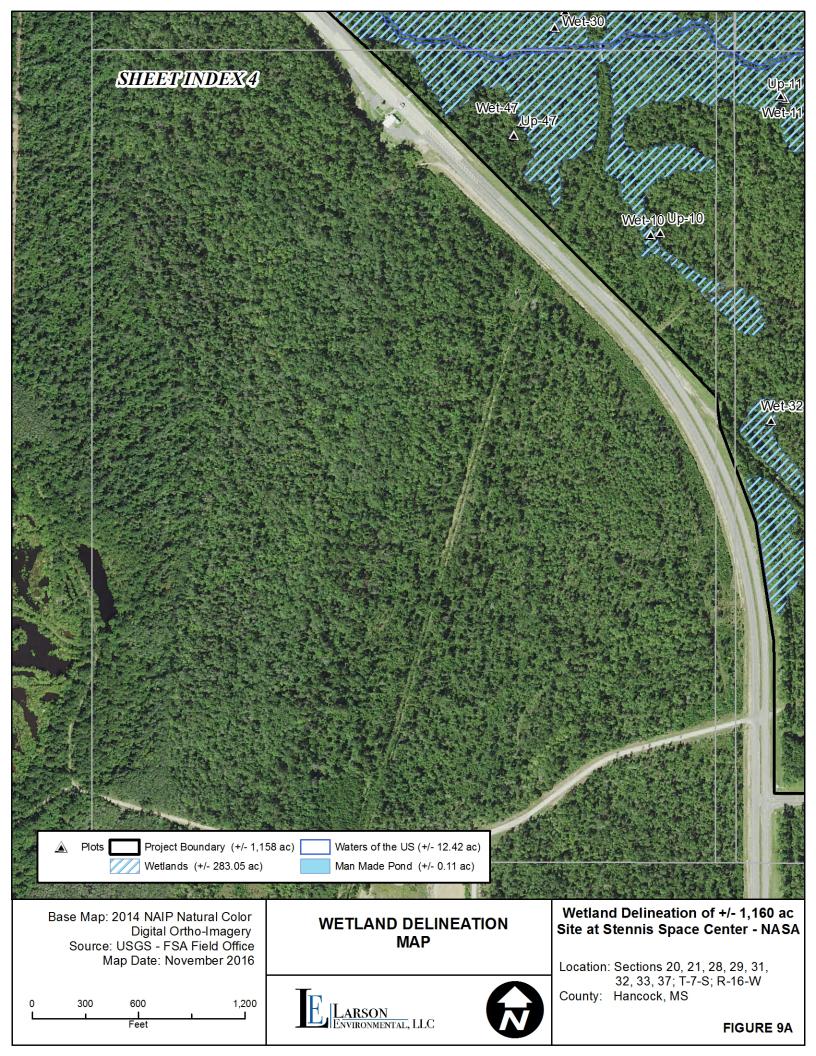


Figure 9 B

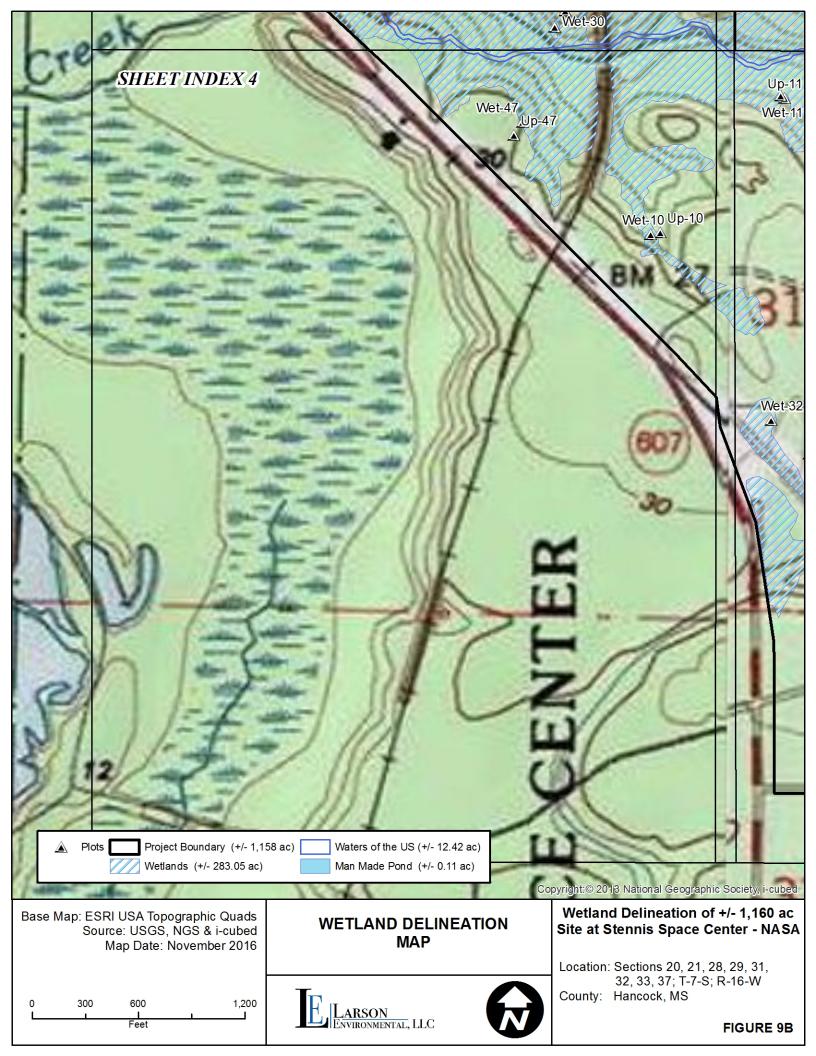


Figure 10 A

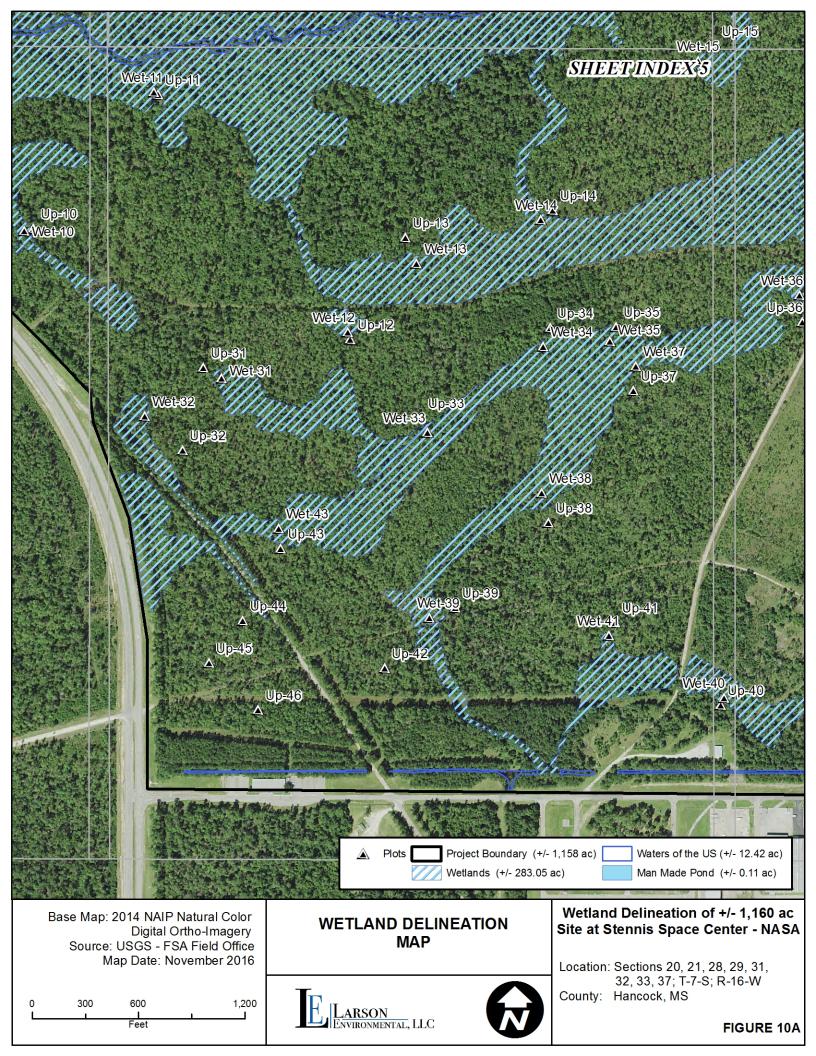


Figure 10 B

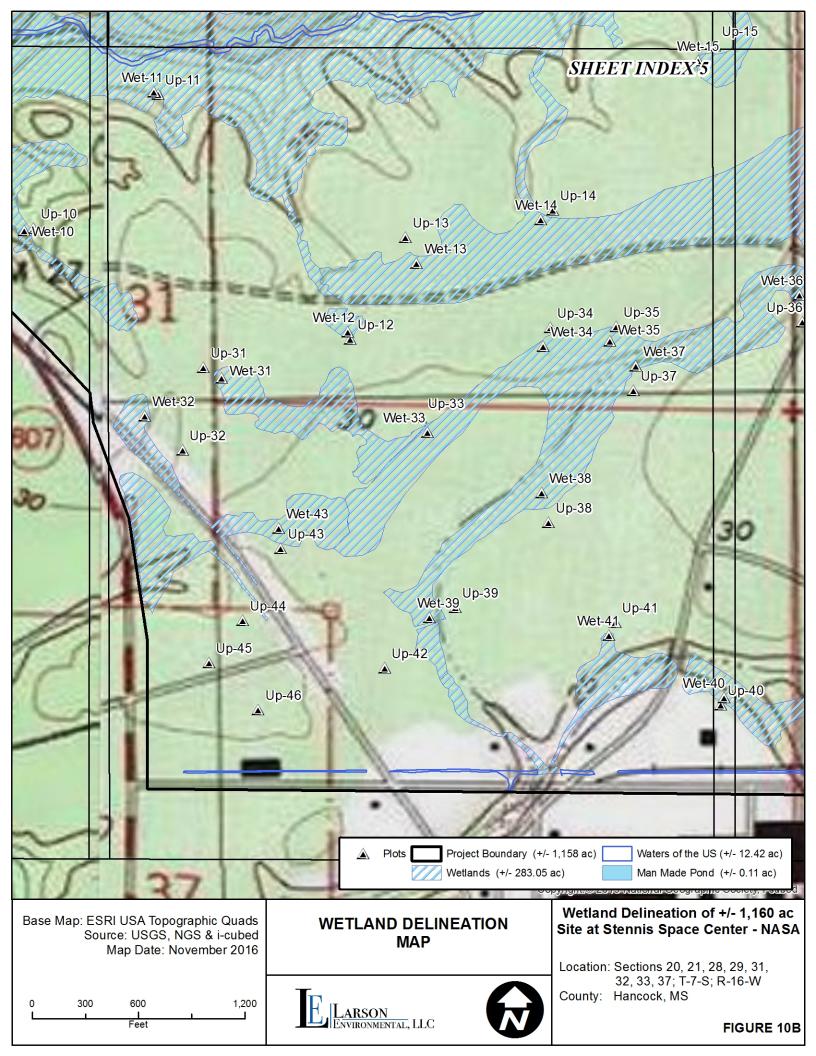


Figure 11 A

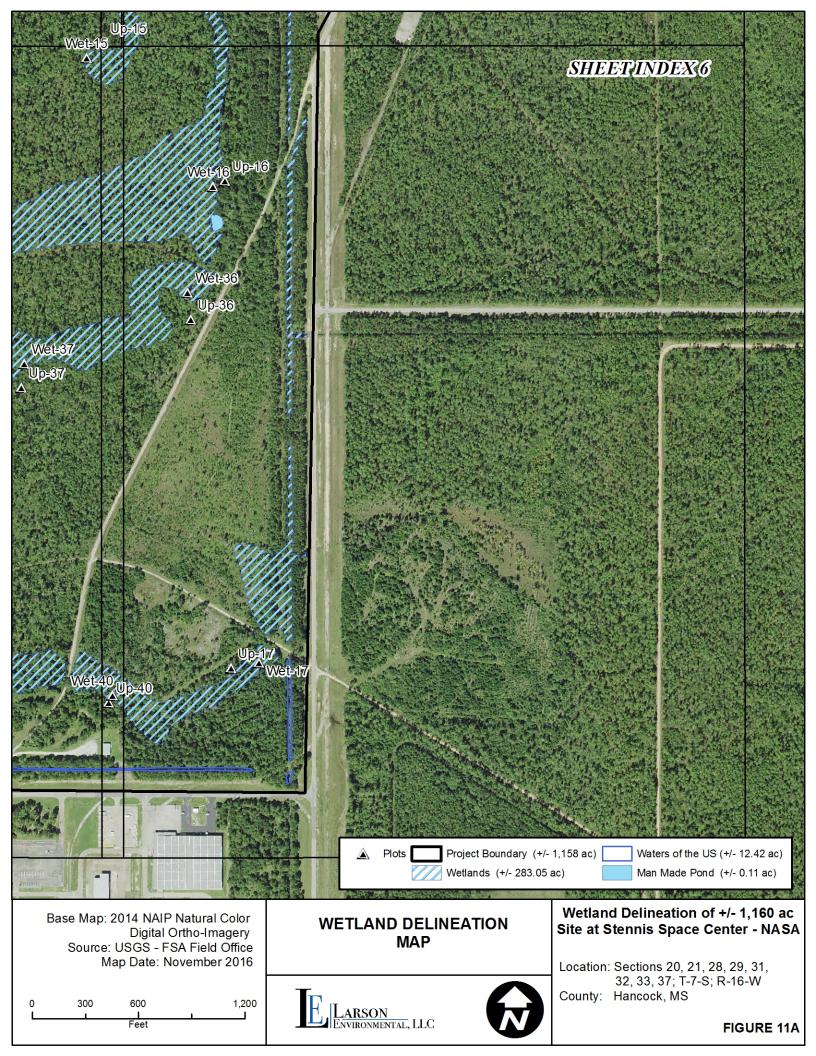
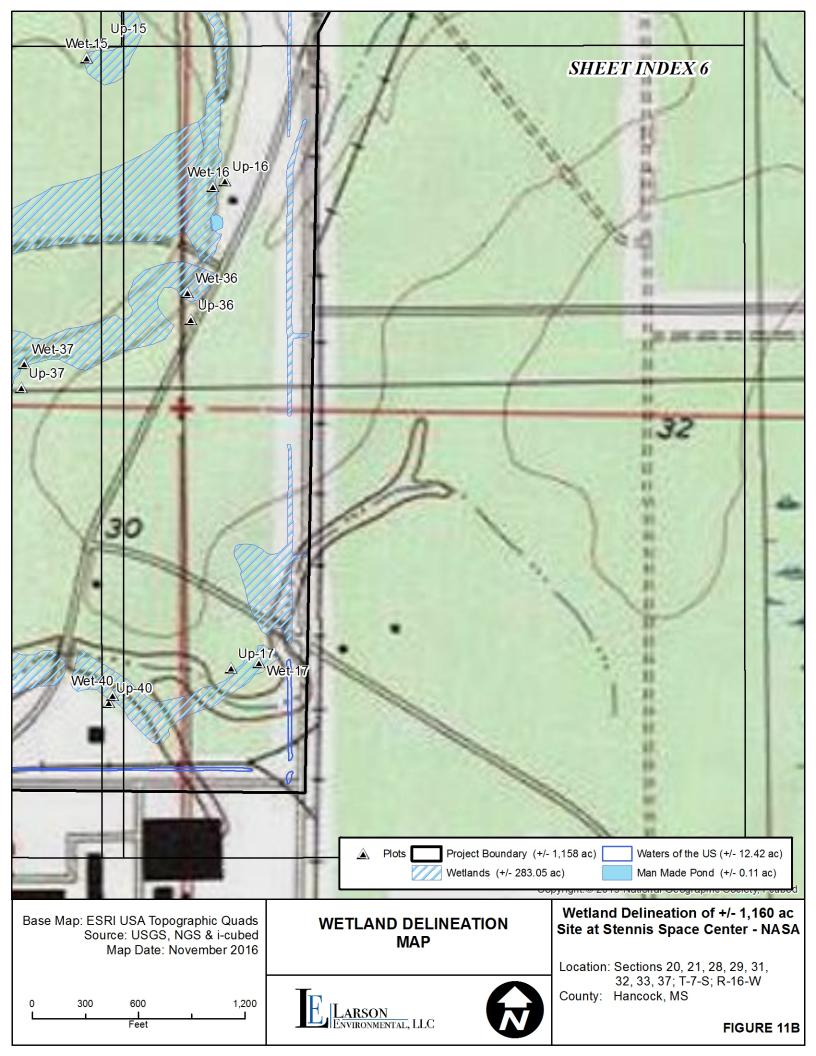


Figure 11 B



APPENDICES

Appendix A

Photographic Record of Survey Plot Locations



Plot Up - 1 - Northeast AOI; soil core from 6 to 12 inches.



Plot Up-1 - Side slope area with heavy gallberry understory.

ELARSON Environmental, LLC		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/07/16	Project No.: 2016-1	19		
	Project:	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:		Site Photog	graphic Log			1 - 2		



Plot Wet - 1 - Northeast AOI; soil core from 6 to 12 inches.



Plot Wet 1 - Lower drainage area within bottom flood plain down slope of Up-1.

ENVIRONMENTAL, LLC		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup> LL	Scale: NTS	Date: 10/07/16	Project No.: 2016-1	19		
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS						MS		
	Title:		Site Photog	graphic Log			3 - 4		



Plot Up - 6 - East-Northeast AOI; soil core from 5 to 11 inches.



Plot Up - 6 - Slightly sloped area with moderately heavy gallbery understory within NE AOI.

E LARSON Environmental, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/10/16	Project No.: 2016-1	19	
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:		Site Photo	graphic Log			5 - 6	



Plot Wet - 6 - View of low chroma, slightly depleted soil matrix in Northeast AOI.



Plot Wet - 6 - Low drainage bottom land area just downslope of plot Up - 6.

E LARSON Environmental, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/10/16	Project No.: 2016-1	19	
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:		Site Photog	raphic Log			7 - 8	



Plot Up - 9 - View of slightly higher chroma soil in upland within Eastern AOI.



Plot Up - 9 - Landform view of pine tree and gallberry understory at plot Up - 9.

E LARSON Environmental, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/11/16	Project No.: 2016-1	19	
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS						MS	
	Title:		Site Photog	raphic Log			9 - 10	



Plot Wet - 9 - View of soil sample with depleted matrix in upland within Eastern AOI.



Plot Wet - 9 - Landform view of gallberry, ferns, switch cane and other herbaceous species along wetland and upland boundary at plot Up - 9.

ENVIRONMENTAL, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	Checked by <sup>.</sup>	Scale: NTS	Date: 10/11/16	Project No.: 2016-1	19		
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:	Site Photog	graphic Log			11-12		



Plot Up - 11 - View of soil transitioning to brighter chroma in upland within Western AOI.



Plot Up - 11 - Landform view of gallberry and yaupon understory along slight side slope

above bottom land drainage area near Turtleskin Creek.

E LARSON Environmental, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by:	Scale: NTS	Date: 10/12/16	Project No.: 2016-1	19	
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS						MS	
	Title:		Site Photog	raphic Log			13-14	



Plot Wet - 11 - Depleted matrix and sandy redox (hydric indicators) in wetland plot.



Plot Wet - 11 - View of tupelo trees, sweet bay magnolia's and titi within the riparian bufferbottom land drainage area on the south side of Turtleskin Creek; west central AOI.

ENVIRONMENTAL, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/12/16	Project No.: 2016-1	19	
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, M							
	Title:		Site Photog	graphic Log			15-16	



Plot Up - 14 - Soil profile at Up-14 showing low to medium soil chroma 2 and 3.



Plot Up - 14 - Heavy pine layer on ground at this upland plot (very little herbaceous layer) with thick understory of gallberry.

ENVIRONMENTAL, LLC		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/14/16	Project No.: 2016-1	19		
	Project:	+/- 1,160 Acre	Wetland Delineation	- NASA; Stennis Spa	ce Center, Hanc	ock County, I	MS		
	Title:		Site Pl	notographic Log			17-18		



Plot Wet - 14 - Soil profile illustrating increase in Redox concentrations with depletions.



Plot Wet - 14 - Slash pine overstory with gallberry and wax myrtle understory.

E LARSON Environmental, LLC		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by	LL	Scale: NTS	Date: 10/14/16	Project No.: 2016-1	19	
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	Title:			Site Phote	ographic Log			19-20	

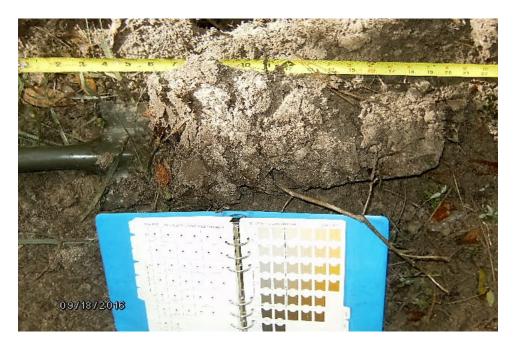


Plot Up - 15 Soil profile demonstrating generally lighter chroma (3 to 4).



Plot Up - 15 - Scrub-shrub habitat on upland terrace on south side of Turtleskin Creek.

Environmental, LLC		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/14/16	Project No.: 2016-1	19		
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, N								
	Title:		Site Phot	ographic Log			21-22		



Plot Wet - 15 Soil profile illustrating mostly matrix depletions and low chroma conditions.



Plot Wet - 15 - Landform view of wetland within slight depressional area near Up-15.

Environmental, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/14/16	Project No.: 2016-1	19	
	Project:	+/- 1,160 Acre	Wetland Delineation - N	ASA; Stennis Spac	e Center, Hanco	ock County, I	MS	
	Title:		Site Photo	ographic Log			23-24	



Plot Up -16 Soil profile illustrating high soil chroma and no hydric indicators in Upland

plot near historical settlement site within eastern portion of AOI.



Plot Up - 16 - Landform view of upland area and gradual sideslope downward toward wet area.

TE LARSON		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/14/16	Project No.: 2016-1	19		
Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS								
	Title:		Site Photo	ographic Log			25-26		



Plot Wet -16 Saturated soil with low chroma color and wet mucky hydric soil indicators.



Plot Wet - 16 - Landform view of area showing surface inundation, buttressed trees and various types of hydrophytic plant species.

E LARSON Environmental, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	Drawn by: Checked by: LL Checked by: Date: Project No. 201						
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:	Site Phot	ographic Log			27-28		



Plot Up - 19 Soil profile on raised side slope above bottom land drainage area.



Plot Up - 19 - Landform view of sideslope area with thick understory of gallberry and yaupon holly shrubs.

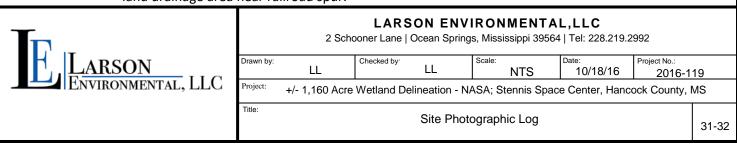
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	Drawn by:	Drawn by:         Checked by:         Scale:         Date:         Project No.:           LL         LL         NTS         10/18/16         2016-119						
Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:	Site Photo	ographic Log			29-30		



Plot Wet - 19 Soil profile illustrating low chroma sandy loam in bottom drainage area near the railroad spur and Turtleskin Creek in the Northwestern part of the AOI.



Plot Wet - 19- View of Virginia Chain Ferns and other hydrophytes within bottom land drainage area near railroad spur.





Plot Up - 23 Soil profile illustrating generally bright soil chroma with no hydric indicators.



Plot Up - 23 Landform view from upland ridge in Northwestern portion of AOI.

E LARSON Environmental, LLC		2 Scho			RONMENTA s, Mississippi 39564	•	992	
	Drawn by:	LL	Checked by <sup>.</sup>	LL	Scale: NTS	Date: 10/19/16	Project No.: 2016-1	19
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:			Site Phot	ographic Log			33-34



Plot Wet -23 Low chroma soil with depleted matrix within low drainage area.



Plot Wet - 23 Landform view of lower elevation drainage area downslope of Up - 23.

E LARSON Environmental, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	Drawn by: Checked by: LL Checked by: LL Scale: Date: Project No.: 2016-119						
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							MS
	Title:			Site Phot	ographic Log			35-36



Plot Up - 27 View of soil profile on Upland ridge within western part of AOI.



Plot Up - 27 View of Japanese Climbing Fern, Wax Myrtle and heavy pine cover within Upland ridge plot area.

<b>E</b> Larson		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992								
	Drawn by:	rrawn by: LL Checked by: LL LL Scale: NTS Date: 10/19/16 Project No.: 2016-119								
Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS									
	Title:			Site Phot	ographic Log			37-38		



Plot Wet - 27 Soil profile showing slightly lower soil chroma and slight evidence of matrix depletions within lower drainage area down gradient of Up - 27.



Plot Wet - 27 Landform view of plot showing geomorphic position and buttressed trees.

<b>F</b> LARSON	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	Drawn by: Checked by: Scale: Date: Project No.: LL LL NTS 10/19/16 2016-11						
Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
,,,,,,,,	Title:	Site Pho	tographic Log			39-40		



Plot Up - 33 Soil profile light chroma and no hydric soil indicators.



Plot Up - 33 Landform view illustrating pine dominated overstory and gallberry understory.

ENVIRONMENTAL, LLC		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992								
	Drawn by:	Drawn by:         Checked by:         Scale:         Date:         Project No.:           LL         NTS         10/21/16         2016-119								
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS									
	Title:		Site Phot	ographic Log			41-42			



Plot Wet - 33 Low chroma soils with evidence of Redox concentrations.



Plot Wet - 33 Landform view of plot illustrating buttressed trees, moss trim lines and geomorphic position.

TE LABSON		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	Drawn by:         Checked by <sup>-</sup> Scale:         Date:         Project No.:           LL         LL         NTS         10/21/16         2016-119							
Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, M								
	Title:		Site Phot	ographic Log			43-44		



Plot Up - 37 Bright soil chroma within upland plot in eastern portion of AOI.



Plot Up - 37 View illustrating pine and heavy gallberry understory above bottom land drainage area.

		2 Scho			IRONMENTA gs, Mississippi 39564		992	
	Drawn by:	Drawn by:         Checked by:         Scale:         Date:         Project No.:           LL         NTS         10/24/16         2016-119						
LARSON Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, M							
	Title:			Site Phote	ographic Log			45-46



Plot Wet - 37 Soil profile showing moist sandy loam with very low chroma.



Plot Wet - 37 Landform view of area showing buttressed tupelos, drainage patterns, and dominant hydrophytic vegetation.

ENVIRONMENTAL, LLC	LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	Checked by <sup>.</sup>	Scale: NTS	Date: 10/24/16	Project No.: 2016-1	19		
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:	Title: Site Photographic Log						



Plot Up - 39 Soil profile showing bright soil chroma with no hydric indicators.



Plot Up - 39 Landform view illustrating pine and gallberry dominated habitat within the southern portion of the AOI.

E LARSON Environmental, LLC		LARSON ENVIRONMENTAL,LLC 2 Schooner Lane   Ocean Springs, Mississippi 39564   Tel: 228.219.2992							
	Drawn by:	Drawn by: Checked by LL Scale: Date: Project No.: LL LL NTS 10/24/16 2016-119							
	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS								
	Title:		Site Phot	ographic Log			49-50		



Plot Wet - 39 Soil profile illustrating wet, low chroma soil within bottom land drainage area near Keller Road.



Plot Wet - 39 Landform view illustrating buttressed trees, water marks, water stained leaves and drainage patterns.

T		2 Sch	LARSON E		IRONMENTA s, Mississippi 39564	•	992	
H LARSON	Drawn by:	LL	Checked by <sup>.</sup>		Scale: NTS	Date: 10/24/16	Project No.: 2016-1	19
Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County,							
	Title: Site Photographic Log							



Plot Up - 40 Soil profile showing slightly brighter soil chroma (3-4) on sideslope of bottom land drainage way in southeastern portion of AOI near Flat Top Road.



Plot Up - 40 Landform view sideslope dominated by water oak saplings and shrubs as well as Yaupon Holly.

T <sub>D</sub>		2 Scho			RONMENTA s, Mississippi 39564		992		
LARSON	Drawn by:	LL	Checked by <sup>.</sup>	L	Scale: NTS	Date: 10/25/16	Project No.: 2016-1	19	
Environmental, LLC	Project:	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock Cou							
	Title:	Title: Site Photographic Log							



Plot Wet - 40 Lower chroma soils showing evidence of depleted matrix within bottom land drainage area near the Upland plot.



Plot Wet - 40 Landform view of the bottom drainage area showing evidence of drainage patterns, moss trim lines, buttressed trees and geomorphic position.

T		2 Scho			IRONMENTA gs, Mississippi 3956	•	2992	
LARSON	Drawn by:	LL	Checked by	LL	Scale: NTS	Date: 10/25/16	Project No.: 2016-1	19
Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock County, MS							
	Title:			Site Phot	ographic Log			55-56



Plot Up - 52 Soil profile illustrating higher chroma, loamy silt/sand within Upland area near the northeast corner of the AOI.



Plot Up - 52 Landform view of this plot showing pine dominated overstory and galleberry dominated shrub understory.

T		2 Sch	LARSON ENV ooner Lane   Ocean Spring			992		
LARSON	Drawn by:	LL	Checked by <sup>.</sup>	Scale: NTS	Date: 10/26/16	Project No.: 2016-1	19	
Environmental, LLC	Project:	ock County, I	MS					
	Title:	Title: Site Photographic Log						



Plot Wet - 52 Soil profile illustrating slightly lower chroma soil material with small signs of Redox concentrations.



Plot Wet - 52 Landform view of this plot showing an increase in hydrophytes in the herbaceous strata (i.e. pitcher plants, button tops, panic grass and club moss).

Τ		2 Sch	LARSON		RONMENTA s, Mississippi 39564	•	992	
Larson	Drawn by:	LL	Checked by <sup>.</sup>		Scale: NTS	Date: 10/26/16	Project No.: 2016-1	19
Environmental, LLC	Project: +/- 1,160 Acre Wetland Delineation - NASA; Stennis Space Center, Hancock Coun							
	Title:		Site	e Photo	ographic Log			59-60

Appendix B

Wetland Delineation Data Forms

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

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	County: Waveland - Hancock Sampling Date: 07-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 1
nvestigator(s): Lars Larson, Randy Ellis Sect	cion, Township, Range: S 20 T 7 s R 16 W
andform (hillslope, terrace, etc.): Hillside Local	relief (concave, convex, none): convex Slope: 20.0 % / *
ubregion (LRR or MLRA): LRR T Lat.: 30° 25	5' 0.964" N Long.: 89° 37" 12.584" W Datum: NAD83
oil Map Unit Name: EuB, Escambia loamy fine sand, 2 to 5 percent slopes	NWI classification: N/A
are climatic/hydrologic conditions on the site typical for this time of year?	Yes No O (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly dista	urbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation, Soil, or Hydrology naturally problem	
SUMMARY OF FINDINGS - Attach site map showing samplin	(
Hydrophytic Vegetation Present? Yes  No	To the Sound Area
Hydric Soil Present? Yes O No 🖲	Is the Sampled Area
Wetland Hydrology Present? Yes O No ()	within a Wetland?
Remarks: Small incline above riparian drainage area in the NE portion of the AOI nea HYDROLOGY	Ir the fenceline.
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3) Hydrogen Sulfide Odor (C	1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres alo	ong Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	r (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	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	
Inundation Visible on Aeriai Imagery (B7)	✓ FAC-Neutral Test (D5)
U Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes O No O Depth (inches):	
Water Table Present? Yes O No 💿 Depth (inches):	Wetland Hydrology Present? Yes O No 🖲
Saturation Present? Yes O No O Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	rious inspections), if available:

	S	pecies?		
Absolute % Cover	Re		Indicator Status	
		73.2%	FACW	Number of Dominant Species That are OBL, FACW, or FAC:7(A)
	-	· · · · ·	-	
and the second s				Total Number of Dominant
				Species Across All Strata:(B)
	Ξ.			Percent of dominant Species
	П			That Are OBL, FACW, or FAC:100.0% (A/B)
				Prevalence Index worksheet:
	П.			Total % Cover of: Multiply by:
	- TO			$0BL \text{ species } 0 \times 1 = 0$
	- 10	car cove.		FACW species $101 \times 2 = 202$
45		50.00/		
a. """				FAC species $50 \times 3 = 150$
	₽.			FACU spectes $1 \times 4 = 4$
•			FACW	UPL species 0 x 5 = 0
_	H		<u> </u>	Column Totals: 152 (A) 356 (B)
	븜			Prevalence Index = $B/A = 2.342$
	븜			Hydrophytic Vegetation Indicators:
	Η.			Hydrophyde vegetation multators.
	ш.	0.0%		1 - Rapid Test for Hydrophytic Vegetation
30 =	= To	tal Cove		2 - Dominance Test is > 50%
				✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
50		76.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5		7.7%	FACW	
10	$\Box$	15.4%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
0		0.0%		be present, unless disturbed or problematic.
0		0.0%		Definition of Vegetation Strata:
0		0.0%		Tree - Woody plants, excluding woody vines,
65 =	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1		9.1%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
		90.9%	FACW	than 3 in. (7.6 cm) DBH.
0		0.0%		
0		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		0.0%		Shrub - Woody plants, excluding woody vines,
0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
0		0.0%		
0		0.0%		Herb - All herbaceous (non-woody) plants, including
0		0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
0		0.0%		3 ft (1 m) in height.
0	Π^	0.0%		
11 =	: Tol			Woody vine - All woody vines, regardless of height.
5		100 0%	FAC	
-				
		· · · · · · · · · · · · · · · · · · ·	(12)	
	2-	0.0%		Hydrophytic
0				
	% Cover           30           10           1           0	Absolute       Ref         30 $\checkmark$ 30 $\checkmark$ 30 $\checkmark$ 10 $\checkmark$ 0       0         0       0         0       0         0       0         0       0         0       0         0       0         15 $\checkmark$ 10 $\checkmark$ 15 $\checkmark$ 10 $\checkmark$ 0       0         0       0 </td <td>Absolute % Cover       Rel.Strat. Cover         30       ✓       73.2%         10       ✓       24.4%         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       0.0%       0         15       ✓       50.0%         10       ✓       33.3%         5       16.7%       0         0       0.0%       0         0       0.0%       0         0       0.0%       0         10       ✓       76.9%         5       ✓       76.9%         5       ✓       77.7%         10       15.4%       0         0       0.0%       0         0       0.0%       0         1       9.1%       90.9%         0       0.0%       0         0       0.0%       0         0       0.0%       0         1       &lt;</td> <td>Absolute % Cover         Rel.Strat. Cover         Indicator Status           30         <math>\checkmark</math>         73.2%         FACW           10         <math>\checkmark</math>         24.4%         FAC           1         2.4%         FACU           0         0.0%         FACU           0         0.0%         FAC           0         0.0%         0           0         0.0%         0           0         0.0%         0           0         0.0%         0           0         0.0%         FAC           10         <math>\checkmark</math>         33.3%         FAC           10         <math>\checkmark</math>         33.3%         FAC           10         0.0%         0         0.0%           0         0.0%         0         0.0%           0         0.0%         0         0.0%           0         0.0%         FACW         0           0         0.0%         FACW           10         15.4%         FAC           10         15.4%         FACW           10         0.0%         FACW           10         0.0%         FACW           0         0.0</td>	Absolute % Cover       Rel.Strat. Cover         30       ✓       73.2%         10       ✓       24.4%         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       0.0%       0         15       ✓       50.0%         10       ✓       33.3%         5       16.7%       0         0       0.0%       0         0       0.0%       0         0       0.0%       0         10       ✓       76.9%         5       ✓       76.9%         5       ✓       77.7%         10       15.4%       0         0       0.0%       0         0       0.0%       0         1       9.1%       90.9%         0       0.0%       0         0       0.0%       0         0       0.0%       0         1       <	Absolute % Cover         Rel.Strat. Cover         Indicator Status           30 $\checkmark$ 73.2%         FACW           10 $\checkmark$ 24.4%         FAC           1         2.4%         FACU           0         0.0%         FACU           0         0.0%         FAC           0         0.0%         0           0         0.0%         0           0         0.0%         0           0         0.0%         0           0         0.0%         FAC           10 $\checkmark$ 33.3%         FAC           10 $\checkmark$ 33.3%         FAC           10         0.0%         0         0.0%           0         0.0%         0         0.0%           0         0.0%         0         0.0%           0         0.0%         FACW         0           0         0.0%         FACW           10         15.4%         FAC           10         15.4%         FACW           10         0.0%         FACW           10         0.0%         FACW           0         0.0

Heavy pine litter covers much of the herbaceus layter.

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

# SOIL

Sampling Point:	Up - 1
-----------------	--------

	iption: (De	scribe to Matrix	the depth	needed to document the indicator or co Redox Features	firm the	absence of indicato	rs.)
Depth (inches)	Color (	moist)	0/0	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/2	100			Loamy Sand	Fine grained
4-12	10YR	5/4	100		_	Sandy Loam	Fine Grained
						e en la companya de l	Fine grained sands
12-20	10YR	5/6	100			Sandy Loam	,
		=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grai	ns <sup>2</sup> Loca		
lydric Soil II						Indicators for P	Problematic Hydric Soils <sup>3</sup> :
」 Histosol (A				Polyvalue Below Surface (S8) (LRR S		📙 1 cm Muck (/	
-	pedon (AZ)			Thin Dark Surface (S9) (LRR S, T, U)	I		A10) (LRR S)
] Black Histi				Loamy Mucky Mineral (F1) (LRR O)			tic (F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)		Piedmont Flo	odplain Soils (F19) (LRR P, S, T)
-	Layers (A5)		N.	Depleted Matrix (F3)			right Loamy Soils (F20) (MLRA 153B)
-	odies (A6) (L		-	Redox Dark Surface (F6)			Naterial (TF2)
-	ky Mineral (A		, ſ, U)	Depleted Dark Surface (F7)		Very Shallow	Dark Surface (TF12)
_	ence (A8) (L			Redox Depressions (F8)		🗌 Other (Explai	in in Remarks)
-	k (A9) (LRR F			Marl (F10) (LRR U)			
Depleted E	Below Dark S	iurface (A:	[1]	Depleted Ochric (F11) (MLRA 151)			
Thick Dark	Surface (A1)	.2)		🗌 Iron-Manganese Masses (F12) (LRR	O, P, T)		
Coast Prair	rie Redox (A	16) (MLRA	(150A)	Umbric Surface (F13) (LRR P, T, U)			
Sandy Muc	ck Mineral (S	1) (LRR O	, S)	Delta Ochric (F17) (MLRA 151)		1.	
Sandy Gley	yed Matrix (S	54)		🔲 Reduced Vertic (F18) (MLRA 150A, 1	50B)	"Indica	tors of hydrophytic vegetation and and hydrology must be present,
Sandy Red	iox (S5)			Piedmont Floodplain Soils (F19) (MLF	RA 149A)		nless disturbed or problematic.
Stripped M	latrix (S6)			Anomalous Bright Loamy Soils (F20)	(MLRA 14	9A, 153C, 153D)	-
Dark Surfa	ice (S7) (LRR	е Р, S, T, I	J)				
strictive La	yer (if obse	erved):					
Туре:							
Depth (inch	es):					Hydric Soil Prese	nt? Yes 🔿 No 🖲
emarks:							
il has dry cr	rumbly, loar	my textu	re. No sat	uration.			

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

Hydric Soil Present?       Yes       No       within a Wetland?       Yes       No       Image: Mark Stress Stre	III Map Unit Name:       HIB, Harleston fine sandy loam, 2 to 5 percent slopes         re climatic/hydrologic conditions on the site typical for this time of year?         Are Vegetation       , Soil       , or Hydrology       significantly distu         Are Vegetation       , Soil       , or Hydrology       naturally problem         SUMMARY OF FINDINGS - Attach site map showing sampline         Hydrophytic Vegetation Present?       Yes       No	atic? (If needed, explain any answers in Remarks.)
Remarks:         Sideslope area within approximately 50 N-NE of Wet-2. <b>HYDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Surface Soil Cracks (B6)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LRR U)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres along Living Roots (C3)         Drift Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (C6)         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Remarks)         Inundation Visible on Aerial Imagery (B7)       FAC-Neutral Test (D5)		Yee O No O
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 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 Aerial Imagery (B7)       FAC-Neutral Test (D5)	Sideslope area within approximately 50 N-NE of Wet-2.	
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 Aerial Imagery (B7)       FAC-Neutral Test (D5)	Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LRR U	Junctic Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Junctic Surface (B8)
□ Iron Deposits (B5)       □ Other (Explain in Remarks)       □ Shallow Aquitard (D3)         □ Inundation Visible on Aerial Imagery (B7)       ☑ FAC-Neutral Test (D5)	Water Marks (B1)       Oxidized Rhizospheres alor         Sediment Deposits (B2)       Presence of Reduced Iron         Drift Deposits (B3)       Recent Iron Reduction in T	ing Living Roots (C3)     Dry Season Water Table (C2)       (C4)     Crayfish Burrows (C8)
	Iron Deposits (B5) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Field Observations:         Surface Water Present?       Yes       No       Depth (inches):       Water Table Present?       Yes       No       Depth (inches):       Wetland Hydrology Present?       Yes       No       No       No       No       No       Pepth (inches):       Wetland Hydrology Present?       Yes       No       No       No       Pepth (inches):       Wetland Hydrology Present?       Yes       No       No       Pepth (inches):       Pepth (inche	Surface Water Present?     Yes     No     Depth (inches):       Water Table Present?     Yes     No     Depth (inches):       Saturation Present?     Yes     No     Depth (inches):	Wetland Hydrology Present? Yes O No 💿
(includes capillary fringe) Ites of No of Depart (includes). Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ	

		pecies?		Sampling Point: Up- 2
			Indicator Status	
15	$\checkmark$	75.0%	FACW	Number of Dominant Species           That are OBL, FACW, or FAC:         5         (A)
5		25.0%	FAC	
0	$\Box$	0.0%		Total Number of Dominant Species Across All Strata: 5 (B)
0		0.0%		Species Across All Strata:5(B)
	<b>—</b>			Percent of dominant Species
			7-1	That Are OBL, FACW, or FAC:100.0% (A/B
	Π			Prevalence Index worksheet:
, , ,				
				Total % Cover of: Multiply by:
, <u>20</u>	= I0	tai Covei		OBL species <u>1</u> x 1 = <u>1</u>
				FACW species $107 \times 2 = 214$
30	_	71,4%	FACW	FAC species $22 \times 3 = 66$
10	⊻.	23.8%	FAC	FACU species $0 \times 4 = 0$
2	$\Box_{.}$	4.8%	FACW	UPL species 0 x 5 = 0
0	$\Box_{i}$	0.0%		Column Totals: 130 (A) 281 (B)
0		0.0%		
0		0.0%		Prevalence Index = B/A = 2.162
0		0.0%		Hydrophytic Vegetation Indicators:
0		0.0%	-	1 - Danid Tost for Undershutic Verstation
42	= To	tal Cover		1 - Rapid Test for Hydrophytic Vegetation
				✓ 2 - Dominance Test is > 50%
				$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
50		76.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10		15.4%	FACW	
5	$\square_{i}$	7.7%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.
0		0.0%		be present, unless disturbed or problematic.
0		0.0%		Definition of Vegetation Strata:
0		0.0%		Tree - Woody plants, excluding woody vines,
65	= Ta	tal Cover		approximately 20 ft (6 m) or more in height and 3 in.
				(7.6 cm) or larger in diameter at breast height (DBH).
- 1		100.001	0.01	Sapling - Woody plants, excluding woody vines,
1	$\Box$		OBL	approximately 20 ft (6 m) or more in height and less
-				
0		0.0%		than 3 in. (7.6 cm) DBH.
0		0.0%		
				Sapling/Shrub - Woody plants, excluding vines, less
0		0.0%		
0 0 0		0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less
0		0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
0 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	· · · · · · · · · · · · · · · · · · ·	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
0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
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%		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 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%		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 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 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%		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 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%	FAC	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 0 0 0 0 0 0 0 0 0 0 0 1	_	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.
	_	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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 0 0 0 0 0 0 0 0 0 0 0 1 = 2 0	_	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.
	_	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.
	% Cover           15           5           0           10           5           0           0           0           0           0           0           0           0           0	% Cover         15       ✓         5       ✓         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         20       = TC         30       ✓         10       ✓         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         50       ✓         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0 </td <td>15       ▼ 75.0%         5       ▼ 25.0%         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       0.0%         20       = Total Cover         30       ▼ 71.4%         10       ♥ 23.8%         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%         10       15.4%         5       7.7%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%</td> <td>% Cover         Cover         Status           15         <math>\checkmark</math>         75.0%         FACW           5         <math>\checkmark</math>         25.0%         FAC           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%           0         0.0%         0         0.0%           0         0.0%         0         0.0%           20         = Total Cover         10         <math>\checkmark</math>           30         <math>\checkmark</math>         71.4%         FACW           10         <math>\checkmark</math>         23.8%         FAC           2         4.8%         FACW         0           0         0.0%         0         0.0%           0         0.0%         0         0.0%           0         0.0%         0         0.0%           10         15.4%         FACW           5         7.7%         FAC           0         0.0%         0         0.0%           0         0.0%</td>	15       ▼ 75.0%         5       ▼ 25.0%         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       0.0%         20       = Total Cover         30       ▼ 71.4%         10       ♥ 23.8%         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%         10       15.4%         5       7.7%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%	% Cover         Cover         Status           15 $\checkmark$ 75.0%         FACW           5 $\checkmark$ 25.0%         FAC           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%           0         0.0%         0         0.0%           0         0.0%         0         0.0%           20         = Total Cover         10 $\checkmark$ 30 $\checkmark$ 71.4%         FACW           10 $\checkmark$ 23.8%         FAC           2         4.8%         FACW         0           0         0.0%         0         0.0%           0         0.0%         0         0.0%           0         0.0%         0         0.0%           10         15.4%         FACW           5         7.7%         FAC           0         0.0%         0         0.0%           0         0.0%

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

#### SOIL

Sampling Point: Up- 2

Profile Descr	ription: (De	scribe to	the depth	needed to document	the indicator or c	onfirm the	absence of indicators	.)
Depth		Matrix		Red	dox Features			
(inches)	Color (		٥/٥	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR	3/2	100				Sandy Loam	And the second
6-24	10YR	5/6	100				Sandy Loam	
		=Depletio	n. RM=Redu	iced Matrix, CS=Covere	d or Coated Sand G	ains <sup>2</sup> Loca	tion: PL⇔Pore Lining. M	l=Matrix
Hydric Soil I				_			Indicators for Pr	oblematic Hydric Solls <sup>3</sup> :
Histosol (A	A1)			·	ow Surface (S8) (LRF		🗌 1 cm Muck (A9	9) (LRR O)
	pedon (A2)			Thin Dark Sur	face (S9) (LRR S, T,	U)	🗌 2 cm Muck (At	10) (LRR S)
Black Histi	ic (A3)			🗌 Loamy Mucky	Mineral (F1) (LRR O	)	Reduced Vertic	c (F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)			🗌 Loamy Gleyed	Matrix (F2)		_	dplain Soils (F19) (LRR P, S, T)
Stratified l	Layers (A5)			Depleted Matr	ix (F3)		🗌 Anomalous Bri	ght Loamy Soils (F20) (MLRA 153B)
📋 Organic Bo	odies (A6) (L	.RR P, T, l	J)	🗌 Redox Dark Si	urface (F6)		Red Parent Ma	
5 cm Mucl	ky Mineral (A	7) (LRR P	, T, U)	Depleted Dark	Surface (F7)			Dark Surface (TF12)
Muck Pres	sence (A8) (L	RR U)		Redox Depres	sions (F8)		Other (Explain	
1 cm Mucl	k (A9) (LRR I	P, T)		Marl (F10) (LR	RU)			in remanay
Depleted B	Below Dark S	Surface (A	11)	Depleted Ochr	ric (F11) (MLRA 151)			
Thick Dark	k Surface (A1	.2)			se Masses (F12) (LR			
Coast Prai	rie Redox (A	16) (MLRA	A 150A)		e (F13) (LRR P, T, U			
Sandy Mue	ck Mineral (S	1) (LRR C	), S)		F17) (MLRA 151)	,		
	yed Matrix (S				c (F18) (MLRA 150A	150B)	<sup>3</sup> Indicato	ors of hydrophytic vegetation and
Sandy Red		,			dplain Soils (F19) (M	-		d hydrology must be present, ess disturbed or problematic.
Stripped M				_	ight Loamy Soils (F2)			
	ace (S7) (LRF	R Ρ, S, T, I	U)		gire county Sons (12)	) (nei 01 1 1	57, 1550, 1550)	
Restrictive La	ayer (if obse	erved):				-		
Туре:					-			
Depth (inch	nes):						Hydric Soll Present	? Yes 🔿 No 🖲 🚬 🔤
Remarks:								
No hydric indi	cators obse	erved.						
,								

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

Project/Site: NASA - Stennis; 1,100 Acre Wetland D	elineation City/Co	waveland - Hand		Sampling Date:	10-Oct-16
pplicant/Owner: NASA		State: MS		g Point: Up - 3A	
nvestigator(s): Lars Larson, Randy Ellis		on, Township, Range: 3	· · · · · · ·	17 <u>5</u> R1	
andform (hillslope, terrace, etc.): Terrace	Local n	elief (concave, convex,	none): none	Slope:	0.0 % / 0.0°
ubregion (LRR or MLRA): LRR T	Lat.: 30° 25	1.581" N Loi	ng.: 89° 37' 10	0.657" W Daf	tum: NAD83
oil Map Unit Name: At, Atmore silt loam, 0 to 2	2 percent slopes		NWI da	ssification: N/A	
re climatic/hydrologic conditions on the site ty		Yes 💿 No 🔿		n in Remarks.)	
Are Vegetation , Soli , soli , or Hydro		rbed? Are "Norm:	al Circumstance		No 🔿
Are Vegetation, Soil, or Hydro				a higgenti	
SUMMARY OF FINDINGS - Attach site				swers in Remarks.) nportant features	s, etc.
Hydrophytic Vegetation Present? Yes •	No O	-			
Hydric Soil Present? Yes O	No 🖲	Is the Sampled Area		2	
Wetland Hydrology Present? Yes O	No 🔘	within a Wetland?	Yes 🔿 No 🤅	9	
Remarks:	NU				
Upland terrace approximately 50-60- feet frm	wet transitional area 200 to 3	00 south of fenceline i	n NE part of AO	I	
Wetland Hydrology Indicators:			Secondary Ind	licators (minimum of 2 re	auired)
Primary Indicators (minimum of one required	: check all that apply)			il Cracks (B6)	(un cu)
Surface Water (A1)	Aquatic Fauna (B13)		_	egetated Concave Surfac	ce (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U	J)	Drainage Patterns (B10)     Moss Trim Lines (B16)		
Saturation (A3)	Hydrogen Sulfide Odor (C1	)			
Water Marks (B1)	Oxidized Rhizospheres alon	ig Living Roots (C3)	Dry Seasor	n Water Table (C2)	
Sediment Deposits (B2)	Presence of Reduced Iron (	(C4)	🔲 Crayfish Bi	urrows (C8)	
Drift Deposits (B3)	Recent Iron Reduction in T	illed Soils (C6)	Saturation	Visible on Aerial Imagery	y (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Geomorphi	ic Position (D2)	
Iron Deposits (B5)	Other (Explain in Remarks)		Shallow Aq	quitard (D3)	
Inundation Visible on Aerial Imagery (B7)			FAC-Neutra	al Test (D5)	
Water-Stained Leaves (B9)			Sphagnum	moss (D8) (LRR T, U)	
Field Observations:					
Surface Water Present? Yes O No O	Depth (inches):				
Water Table Present? Yes O No 🖲	Depth (inches):			? Yes 🔿 No 🤅	
Saturation Present? (includes capillary fringe) Yes O No •	Depth (inches):	Wetland Hyd	drology Present	? Yes 🔾 NO 🕅	
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, previ	ous inspections), if ava	ailable:		
Remarks:	8				
No observed evidence of hydrology indicators.					

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

		Dominant Species?			Sampling Point: Up - 3A		
	Absolute	e Re	strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cove	_	Cover	Status	Number of Dominant Species		
Pinus elliottii	25		78.1%	FACW	That are OBL, FACW, or FAC:4 (A)		
Nyssa sylvatica			0.0%		Total Number of Dominant		
Nyssa sylvatica	5		15.6%	FAC	Species Across All Strata: 4 (B)		
Magnolia grandiflora	2	Ц.	6.3%	FAC			
A-12 W	11.000		0.0%	a ( una sa - as	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)		
	0		0.0%	· • · · · · · · · · · ·	That Are ODE, TACW, OF AC.		
a	. 0	$\Box$	0.0%		Prevalence Index worksheet:		
	0	$\Box$	0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 16 20% of Total Cover: 6.4	32	= To	tal Cove		OBL species 0 x 1 = 0		
apling or Sapling/Shrub Stratum (Plot size:	}				FACW species 115 x 2 =230		
Pinus elliottii	20	$\checkmark$	76.9%	FACW	FAC species $17 \times 3 = 51$		
Manage Hard States	-	П	12.8%	FACW	FACU species $2 \times 4 = 8$		
Nyssa sylvatica			5.1%	FAC			
			2.6%	FAC			
Quercus falcata	1		2.6%	TACO	Column Totals: <u>134</u> (A) <u>289</u> (B)		
	1				Prevalence Index = B/A =		
			0.0%		Hydrophytic Vegetation Indicators:		
		H	0.0%				
<ul> <li>A state of the sta</li></ul>	0	Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 19.5 20% of Total Cover: 7.8	39	= Tơ	tal Cove		✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size:)					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex coriacea	50	✓	84.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex vomitoria	5		8.5%	FAC			
Ilex opaca			5.1%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
			1.7%	FACU	be present, unless disturbed or problematic.		
			0.0%	1100	Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
			0.070				
ON of Total Courses 20 5 2000 - 57-1-1 Courses 11 C	50		hal Carrie		approximately 20 ft (6 m) or more in height and 3 in.		
	59	= Tol	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
· · · · · · · · · · · · · · · · · · ·	59	= Tol	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: )		= Tol	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,		
rb Stratum (Plot size:) , Ilex coriacea		_			(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size:)	5	_	100.0%		(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		
Plot size: )	5	_	100.0% 0.0%		(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		
Plot size: )	5 0 0	_	100.0% 0.0% 0.0%		(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.		
Plot size: )	5 0 0 0	_	100.0% 0.0% 0.0%		<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>		
erb Stratum (Plot size:)	5 0 0 0	_	100.0% 0.0% 0.0% 0.0%		<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>		
Plot size: )	5 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0%		<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>		
Plot size: )	5 0 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>		
erb Stratum (Plot size:)	5 0 0 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0		<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>		
Plot size: ) Ilex confacea	5 0 0 0 0 0 0 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0		<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>		
erb Stratum (Plot size:)	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0		<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>		
erb Stratum (Plot size: ) , Ilex corlacea	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum       (Plot size:)	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>		
arb Stratum       (Plot size:)         Ilex contacea	5 0 0 0 0 0 0 0 0 0 0 0 5		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum (Plot size:) [lex coniacea ] ] [lex coniacea ] ] [lex coniacea ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ]	5 0 0 0 0 0 0 0 0 0 0 0 5		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum (Plot size:) , Ilex corlacea	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 5		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum (Plot size:) , Ilex coriacea	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 5		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum (Plot size:) Nex conlacea	5 0 0 0 0 0 0 0 0 0 0 0 0 0 5 5		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
erb Stratum (Plot size:) , Ilex coriacea	5 0 0 0 0 0 0 0 0 0 0 0 0 0 5 5		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

# SOIL

	iption: (De		he depth	needed to document the indicator or confirm the	e absence of Indicators.)
Depth		Matrix		Redox Features	
(inches) 0-3	10YR	moist) 4/2	0/0	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
· - •					
3-10	10YR	5/3			
10-20	10YR	6/4	_		
	<u>}</u>				
	-				
Type: C=Conr	centration. D	=Depletion	RM=Red	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	cation: PI =Pore   ining, M=Matrix
Hydric Soil I		Deplotion			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 Epip	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histi	• •			Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
_	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)			Depleted Matrix (F3)	
	odies (A6) (L	RR P, T. U)		Redox Dark Surface (F6)	Anomalous Bright Loamy Soils (F20) (MLRA 1538     Ded Decent Metarial (TF2)
	ky Mineral (A			Depleted Dark Surface (F7)	Red Parent Material (TF2)
	ence (A8) (L			Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
	k (A9) (LRR I			Marl (F10) (LRR U)	Other (Explain in Remarks)
	Below Dark S		D	Depleted Ochric (F11) (MLRA 151)	
	c Surface (Al	-	-7	Iron-Manganese Masses (F12) (LRR O, P, T)	
_	rie Redox (A	-	150A)	Umbric Surface (F13) (LRR P, T, U)	
	ck Mineral (S		•	Delta Ochric (F17) (MLRA 151)	
	yed Matrix (S		.,	Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Rec		21)		Piedmont Floodplain Soils (F19) (MLRA 130A, 130B)	wetland hydrology must be present, unless disturbed or problematic,
Stripped M				Anomalous Bright Loamy Soils (F20) (MLRA 14	
	ice (S7) (LRF	R P, S, T, U)	)		T <b>3R, 133C, 133D</b> )
lestrictive La	ıyer (if obs	erved):			
Туре:					
Depth (inch	es):				Hydric Soil Present? Yes 🔿 No 🕥
Remarks:					
	-brown moi	Itling obse	nved in 6	-20 inch intervals.	
igni orange	DIOWITINO	cang obse			

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

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 10-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 3B
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 20 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T	Lat: 30° 25' 1.450" N Long.: 89° 37' 9.611" W Datum: NAD83
Soll Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	
Are climatic/hydrologic conditions on the site typical for this time         Are Vegetation       , Soil       , or Hydrology       sig         Are Vegetation       , Soil       , or Hydrology       nat	
Hydrophytic Vegetation Present? Yes  No O	
Hydric Soil Present? Yes  No	Is the Sampled Area
Wetland Hydrology Present? Yes O No O	within a Wetland? Yes $\bigcirc$ No $\bigcirc$
Remarks:	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that	M*
	auna (B13) Sansely Vegetated Concave Surface (B8)
	sits (B15) (LRR U)
Saturation (A3)	Sulfide Odor (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized I	Rhizospheres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	of Reduced Iron (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	n Reduction in Tilled Soiis (C6)
	Surface (C7) Geomorphic Position (D2)
	plain in 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 (i	aches):
	Wetland Hydrology Present? Yes 🔾 No 🔍
(includes capillary fringe) Yes V No V Depth (I	nches): 11
Describe Recorded Data (stream gauge, monitoring well, aeria	I photos, previous inspections), if available:
Remarks:	

. (

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

			ominant		Sampling Point: Up - 3B
	Absolute		pecies? _ el.Strat.	Indicator	Dominance Test worksheet:
Free Stratum (Plot size:)	% Cove		Cover	Status	Number of Dominant Species
Pinus elliottii	25		71.4%	FACW	That are OBL, FACW, or FAC: 9 (A)
Magnolia virginiana	10	$\checkmark$	28.6%	FACW	
	0	П	0.0%		Total Number of Dominant Species Across All Strata: 9 (B)
			0.0%		Species Across All Strata: 9 (B)
			0.0%		Percent of dominant Species
(a	0	H	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
		H			
1		H	0.0%	P	Prevalence Index worksheet:
	0	$\Box$	0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 17.5 20% of Total Cover: 7	35	= To	tal Cove		OBL species 7 x 1 = 7
apling or Sapling/Shrub Stratum (Plot size:	)				FACW species79 x 2 =158
Pinus elliottii	5	✓	50.0%	FACW	FAC species 2 x 3 = 6
Magnolia virginiana	3		30.0%	FACW	FACU species $0 \times 4 = 0$
Nyssa sylvatica	2		20.0%	FAC	UPL species $0 \times 5 = 0$
			0.0%		(a)
	0		0.0%		Column Totals: <u>88</u> (A) <u>171</u> (B)
					Prevalence Index = B/A =1.943_
			0.0%		Hydrophytic Vegetation Indicators:
	0	H	0.0%	• *	nyurophytic vegetation multators.
	0	$\Box$	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 5 20% of Total Cover: 2	10	= To	tal Cove		✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size:					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	25		71.4%	FACW	
A CONTRACTOR OF					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Cyrilla racemiflora			28.6%	FACW	1 we directions of building with and we bland building would
	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	0	Ш,	0.0%		
	0	$\Box$	0.0%		Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 17.5 20% of Total Cover: 7	35	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
	55				
erb Stratum (Plot size: )		_			
rb Stratum (Plot size:)	5		71.4%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
rb Stratum (Plot size: ) Lycopodiella alopecuroides Woodwardia areolata		_	71.4% 28.6%	OBL OBL	Sapling - Woody plants, excluding woody vines,
rb Stratum (Plot size: ) Lycopodiella alopecuroides Woodwardia areolata	5		•		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
rb Stratum (Plot size:) Lycopodiella alopecuroides Woodwardia areolata	5		28.6%		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
rb Stratum (Plot size: ) Lycopodiella alopecuroides Woodwardia areolata	5 2 0		28.6% 0.0%		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
erb Stratum (Plot size:) . Lycopodiella alopecuroides . Woodwardia areolata	5. 2 . 0. 0		28.6% 0.0% 0.0% 0.0%		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.
erb Stratum (Plot size: ) Lycopodiella alopecuroides Woodwardia areolata	5 2 0 0 0		28.6% 0.0% 0.0%		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,
erb Stratum (Plot size:) . Lycopodiella alopecuroides . Woodwardia areolata .	5 2 0 0 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0%		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.
Pro Stratum (Plot size:) Lycopodiella alopecuroides Woodwardia areolata	5 2 0 0 0 0 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
erb Stratum (Plot size:) . Lycopodiella alopecuroides . Woodwardia areolata .	5 2 0 0 0 0 0 0 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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,
erb Stratum (Plot size:) . Lycopodiella alopecuroides . Woodwardia areolata	5 0 0 0 0 0 0 0 0 0 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
erb Stratum (Plot size:) . Lycopodiella alopecuroides . Woodwardia areolata .	5 2 0 0 0 0 0 0 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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:) . Lycopodiella alopecuroides . Woodwardia areolata	5 0 0 0 0 0 0 0 0 0 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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:) . Lycopodiella alopecuroides . Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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
erb Stratum (Plot size:) . Lycopodiella alopecuroides . Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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:)         Lycopodiella alopecuroides         Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 7		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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:) . Lycopodiella alopecuroides . Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 7		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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:)         Lycopodiella alopecuroides         Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 7		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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:) . Lycopodiella alopecuroides . Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 7		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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:) . Lycopodiella alopecuroides . Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7 1 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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:) . Lycopodiella alopecuroides . Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7 1 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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.
erb Stratum (Plot size:) . Lycopodiella alopecuroides . Woodwardia areolata	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7 1 0 0 0 0		28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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.

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

# SOIL

Sampling	Point:	Up -	- 3B
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ription: (De	scribe to	the <b>dep</b> th r	eeded to d	locument	the indic	ator or co	nfirm the	absence of indicator	s.)
	Matrix			Re				-	
		%	Color (	moist)	%	Type	Loc <sup>2</sup>	Texture	Remarks
10YR	3/1	100		w				Sandy Loam	NUMBER OF STREET
10YR	3/2	99	10YR	7/3	1	D	M	Sandy Loam	Very fine grained
Indicators: A1)	≂Depletion	n. RM <b>≖R</b> edu	Poly	/value Belo	ow Surface	(S8) (LRR	S, T, U)	Indicators for P	roblematic Hydric Soils <sup>3</sup> : A9) (LRR O)
			_				•		
a Sulfide (A4) Layers (A5) kodies (A6) (L cky Mineral (A sence (A8) (L k (A9) (LRR I Below Dark S k Surface (A3) irie Redox (A irie Redox (A irie Redox (A irie Redox (A k Surface (A3) irie Redox (A syed Matrix (S dox (S5) Matrix (S6) ace (S7) (LRF	7) (LRR P, RR U) P, T) iurface (A1 2) 16) (MLRA 1) (LRR O i4) k P, S, T, L	, T, U) 11) ( 150A) , S)	Loa Dep Red Dep Red Mar Dep I ror Uml Delt Red Pied	my Gleyec Jeted Mati Jox Dark S Jeted Dark Jox Depres I (F10) (LF Jeted Ochi D-Mangane bric Surfac ca Ochric (I Juced Verti Imont Floo	I Matrix (F. ix (F3) urface (F6) s Surface ( sisions (F8) R U) ric (F11) (I se Masses e (F13) (L F17) (MLR c (F18) (M	2) F7) (F12) (LRF RR P, T, U) A 151) LRA 150A, s (F19) (MI	со, р, т) 150в) "Ra 149a)	Piedmont Flo Anomalous Bi Red Parent M Very Shallow Other (Explain <sup>3</sup> Indicat wetta un	tic (F18) (outside MLRA 150A,B) odplain Soils (F19) (LRR P, S, T) right Loamy Soils (F20) (MLRA 153B) iaterial (TF2) Dark Surface (TF12) n in Remarks) tors of hydrophytic vegetation and ind hydrology must be present, iless disturbed or problematic.
ayer (if obs	erved):						i		
					-			Hydric Soil Presen	nt? Yes 🖲 No 🔿
	Color ( 10YR 10YR 10YR 10YR 10YR 10YR 10YR 10YR	Matrix         Color (moist)         10YR       3/1         10YR       3/2         Internation       D=Depletion         Interactors:       A1         pedon (A2)       tic (A3)         is Sulfide (A4)       Layers (A5)         Rodies (A6) (LRR P, T, I       Sence (A8) (LRR U)         tk Surface (A12)       irie Redox (A16) (MLRA O         tick Mineral (S1) (LRR O       Seyed Matrix (S4)         dox (S5)       Matrix (S6)         ace (S7) (LRR P, S, T, U       Seyer (if observed):	Matrix           Color (moist)         %           10YR         3/1         100           10YR         3/2         99           10YR         5         99           10YR         1         1           10YR         1	Matrix         Color (moist)         %         Color (           10YR         3/1         100         10YR         3/2         99         10YR           10YR         3/2         99         10YR         10	Matrix         Ref           Color (moist)         %         Color (moist)           10YR         3/1         100           10YR         3/2         99         10YR           10YR         3/2         99         10YR           10YR         3/2         99         10YR         7/3           10YR         3/2         99         10YR         7/3           Interval         10YR         7/3         10YR         7/3           Interval         10YR         7/3         10YR         7/3           Interval         Interval         Interval         10YR         10YR         10YR           Interval         Interval         Interval         Interval         10YR         10YR	Matrix       Redox Feature         Color (moist)       %         10YR       3/1       100         10YR       3/2       99       10YR       7/3       1         10YR       Thin Dark Surface       1       1       1       1       1         10YR       A41       Loamy Mucky Mineral (F1	Matrix       Redox Features         Color (moist)       %       Type 1         10YR       3/1       100         10YR       3/2       99       10YR       7/3       1       D         10YR       10       Polyvalue Below Surface (S9) (LRR R       10       10       10       10       10       10       10       10       10       10       10       10<	Matrix       Redox Features         Color (moist)       %       Type <sup>1</sup> Loc <sup>2</sup> 10YR       3/1       100       10YR       7/3       1       D       M         10YR       3/2       99       10YR       7/3       1       D       M         10	Color (molst)       %       Color (molst)       %       Type 1       Loc2       Texture         10YR       3/1       100       Sandy Loam       Sandy Loam         10YR       3/2       99       10YR       7/3       1       D       M       Sandy Loam         10YR       3/2       99       10YR       7/3       1       D       M       Sandy Loam         10YR       3/2       99       10YR       7/3       1       D       M       Sandy Loam         10YR       3/2       99       10YR       7/3       1       D       M       Sandy Loam         10YR       3/2       99       10YR       7/3       1       D       M       Sandy Loam         10YR       3/2       99       10YR       7/3       1       D       M       Sandy Loam         10YR       3/2       99       10YR       7/3       1       D       M       Sandy Loam         10YR       3/2       99       10YR       10       Reduced Vertice (S8) (LRR S, T, U)       1 cn Muck (V       Reduced Vertice (F1)       Reduced Verti

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

roject/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiior	City/County: V	Naveland - Hancock Sampling Date: 10-Oct-16
pplicant/Owner: NASA	S	tate: MS Sampling Point: Up - 4
vestigator(s): Lars Larson, Randy Ellis	Section, Town	ship, Range: S 20 T 7 5 R 16 W
andform (hillslope, terrace, etc.):	Local relief (con	cave, convex, none): Slope: 0.0 % / 0.0
Ibregion (LRR or MLRA): LRR T		N Long.: 89° 36' 56.200" W Datum: NAD83
il Map Unit Name: Atmore		NWI classification: N/A
	No. Vec	
re climatic/hydrologic conditions on the site typical for		
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" present? Yes 🔍 No 🔾
Are Vegetation 🔄 , Soil 🔄 , or Hydrology	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔿	To the F	ampled Area
Hydric Soil Present? Yes O No 🖲	)	
Wetland Hydrology Present? Yes O No O	switthin a	a Wetland? Tes C ND C
Remarks:	I	
Transitional area approximately 150-200 feet south of 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)	quatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	1arl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	lydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
	xidized Rhizospheres along Living R	oots (C3) Dry Season Water Table (C2)
	resence of Reduced Iron (C4)	Crayfish Burrows (C8)
	lecent Iron Reduction in Tilled Soils (	
	hin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	ther (Explain in Remarks)	Shallow Aquitard (D3)
		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes O No 💿	Dapth (inchae)	
	Depth (inches):	
	Depth (inches):	Wetland Hydrology Present? Yes O No 🖲
Saturation Present? Yes O No	Depth (inches):	Weight Hydrology Hedenic Hab - Hab -
Describe Recorded Data (stream gauge, monitoring we	ell, aerial photos, previous inspe	ections), if available:
Remarks:		
ciliaits.		

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

			ominant		Sampling Point: Up - 4
		e R	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove	_	Cover	Status	Number of Dominant Species
Pinus elliottii Quercus falcata	10		76,9%	FACW	That are OBL, FACW, or FAC:4 (A)
	2		15,4%	FACU	Total Number of Dominant
Quercus virginiana			7.7%	FACU	Species Across All Strata:4(B)
in the second	0		0.0%		
	0		0.0%	_	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
			0.0%		
	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by
0% of Total Cover: 6.5 20% of Total Cover: 2.6	13	= T(	otal Cove	r	OBL species 5 x 1 = 5
apling or Sapling/Shrub Stratum (Plot size: 30 m	.)				FACW species 86 x 2 = 172
Pinus elliottii	25	V	78.1%	FACW	FAC species $0 \times 3 = 0$
Pinus palustris	5		15.6%	FACU	FACU species $10 \times 4 = 40$
Quercus virginiana	2		6.3%	FACU	UPL species $0 \times 5 = 0$
	0		0.0%		Column Totals: 101 (A) 217 (B)
	0		0.0%		
	0		0.0%		Prevalence Index = B/A = 2.149
		$\overline{\Box}$	0,0%		Hydrophytic Vegetation Indicators:
B	0		0.0%		
0% of Total Cover: 16 20% of Total Cover: 6.4			otal Cover		1 - Rapid Test for Hydrophytic Vegetation
	32	= 10	ocal Cover		2 - Dominance Test is > 50%
rub Stratum (Plot size: <u>30 m</u> )		_			✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea	50	<b>V</b>	100.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	0		0.0%		
	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	0		0.0%		be present, unless disturbed of problematica
- X1	0		0.0%		Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 25 20% of Total Cover: 10	50	= То	otal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )					(7.5 only of larger in demoter at breast height (bbri).
	5	✓	100.0%	<b>OPI</b>	Sapling - Woody plants, excluding woody vines,
			0.0%	UDL	approximately 20 ft (6 m) or more in height and less
	0				
	0				than 3 in. (7.6 cm) DBH.
	0		0.0%		
	0		0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0 0 0		0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less
	0 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	······································	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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
	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 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%		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
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
% of Total Cover:			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
% of Total Cover: <u>2.5</u> 20% of T <b>ota</b> l Cover: <u>1</u> <b>vody Vine Stratum</b> (Plot size: <u>30 m</u> ) Smilax laurifolia			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
)% of Total Cover: 2.5 20% of Total Cover: 1 2000 Vine Stratum (Plot size: 30 m ) Smilax laurifolia			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS,

# SOIL

Sampling	Point:	Up -	4
			-

	th needed to document the indicator or confirm Redox Features	the absence of indicators.)
Depth Matrix (inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loo	2 Texture Remarks
0-4 10YR 3/3 100		
4-16 10YR 5/6 100		
	educed Matrix, CS=Covered or Coated Sand Grains <sup>2</sup>	Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators:	_	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)	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	Γ)
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)	2
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 149	
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (MLRA	
Dark Surface (S7) (LRR P, S, T, U)	_ , , , ,	
Restrictive Layer (if observed):	·	
Туре:		
Depth (inches):		Hydric Soil Present? Yes 🔿 No 🖲
Remarks:		

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

Applicant/Owner:       NASA         Investigator(s):       Lars Larson, Randy Ellis         Landform (hillslope, terrace, etc.):       Hillside         Subregion (LRR or MLRA):       LRR T         Soil Map Unit Name:       PoB, Poarch fine sandy loam, 2 to 5% slopes         Are climatic/hydrologic conditions on the site typical for this time of yea         Are Vegetation       , Soil       , or Hydrology         Are Vegetation       , Soil       , or Hydrology       naturally p         SUMMARY OF FINDINGS - Attach site map showing same	City/County:       Waveland - Hancock       Sampling Date:       11-Oct-16         State:       MS       Sampling Point:       Up - 5         Section, Township, Range:       S 28       T 7 s       R 16 W         Local relief (concave, convex, none):       none       Slope:       2.0 % / 1.1         30° 24' 42.587" N       Long.:       89° 36' 41.655" W       Datum:       NAD83         NWI classification:         NWI classification:       N/A         ear?       Yes I No         (If no, explain in Remarks.)         ntly disturbed?       Are "Normal Circumstances" present?       Yes No         problematic?       (If needed, explain any answers in Remarks.)         ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes        No          Hydric Soil Present?       Yes        No          Wetland Hydrology Present?       Yes        No          Remarks:       HYDROLOGY       HYDROLOGY	Is the Sampled Area within a Wetland? Yes O No O
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B1:         High Water Table (A2)       Marl Deposits (B15)         Saturation (A3)       Hydrogen Sulfide C         Water Marks (B1)       Oxidized Rhizosphe         Sediment Deposits (B2)       Presence of Reduct	13)       Sparsely Vegetated Concave Surface (B8)         15) (LRR U)       Drainage Patterns (B10)         10 dor (C1)       Moss Trim Lines (B16)         heres along Living Roots (C3)       Dry Season Water Table (C2)         10 dor (C4)       Crayfish Burrows (C8)         10 uction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         10 Geomorphic Position (D2)       Crayfish Burrows (D2)
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):         Cincludes capillary fringe)       Yes       No       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photo	Wetland Hydrology Present? Yes O No 💿
Remarks:	

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

Absolute % Cover 5 5 0 0 0 0 0 0 0 30 ) 30		Species?           el.Strat.           Cover           66.7%           16.7%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%	Indicator Status FACW FAC FAC FAC FACW	Dominance Test worksheet:         Number of Dominant Species         That are OBL, FACW, or FAC:       3         Total Number of Dominant         Species Across All Strata:       3         Percent of dominant Species         That Are OBL, FACW, or FAC:       100.0%         (A/B)
% Cover           20           5           0           0           0           0           0           0           0           0           0           0           0           0           0           0           30		Cover 66.7% 16.7% 0.0% 0.0% 0.0%	Status FACW FAC FAC	Number of Dominant Species         That are OBL, FACW, or FAC:       3       (A)         Total Number of Dominant         Species Across All Strata:       3       (B)         Percent of dominant Species
5 5 0 0 0 0 0 30 )		16.7% 16.7% 0.0% 0.0% 0.0%	FAC FAC	That are OBL, FACW, or FAC:     3     (A)       Total Number of Dominant     3     (B)       Species Across All Strata:     3     (B)       Percent of dominant Species     3     (C)
5 0 0 0 0 0 30 )		16.7% 0.0% 0.0% 0.0%	FAC	Species Across All Strata: <u>3</u> (B) Percent of dominant Species
0 0 0 0 30 }		0.0% 0.0% 0.0%		Species Across All Strata: <u>3</u> (B) Percent of dominant Species
0 0 0 0 30 }		0.0% 0.0% 0.0%	FACW	Percent of dominant Species
0 0 0 30 )		0.0% 0.0%		
0 0 30 )		0.0%		That Are OBL FACW, or FAC: 100.0% (A/B)
0 0 30 )	- Te	,		
0 30 )	- To	0.0%		Prevalence Index worksheet:
30	= To			Total % Cover of: Multiply by:
.)		otal Cove		OBL species $0 \times 1 = 0$
				FACW species 105 x 2 = 210
	<b>V</b>	69.8%	FACW	
•		·· · · ·	and the second second	-
				FACU species $0$ x 4 = $0$
-		* *	FACW	UPL species $0 \times 5 = 0$
				Column Totals: 135 (A) 300 (B)
				Prevalence Index = B/A = 2.222
	Ц			
		0.0%		Hydrophytic Vegetation Indicators:
	$\Box$	0.0%		1 - Rapid Test for Hydrophytic Vegetation
43	= то	otal Cove		✓ 2 - Dominance Test is > 50%
			-	✓ 3 - Prevalence Index is $\leq 3.0^{1}$
50		83 3%	FACIN	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		,		Problematic Hydrophytic vegetation - (Explain)
-	H		IAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	Н			be present, unless disturbed or problematic.
*				Definition of Vegetation Strata:
	H			-
-	Ш,			Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
60 :	= 10	stal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
0		0.0%		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		0.0%		
0		0.0%	_	
0		0.0%		
0	П	0.0%		
0				
0	П			Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
				approximately o to 20 h (1 to 0 h) in height.
	m.			Herb - All herbaceous (non-woody) plants, including
	H			herbaceous vines, regardless of size, and woody
				plants, except woody vines, less than approximately 3 ft (1 m) in height.
	<u> </u>			
	Ц.			Woody vine - All woody vines, regardless of height.
0 =	= То	tal Cover		woody vine - An woody vines, regardless of height.
2		100.0%	FAC	
0		0.0%	-	
0		0.0%		
0		0.0%		
	$\overline{\Box}$			Hydrophytic
	_			Vegetation Present? Yes  No
	8           5           0		8       18.6%         5       11.6%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         43       = Total Cover         50       ▲ 83.3%         10       16.7%         0       0.0%	8       18.6%       FAC         5       11.6%       FACW         0       0.0%       0         0       0.0% <td< td=""></td<>

Heavy pine litter ... very little herbaceous layer.

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Cloic (moist)         %         Color (moist)         %         Type:         Loc2         Texture         Remarks           0-6         10YR         3/3         100         some mott1ing         some mott1ing           6-16         10YR         5/4         100         some mott1ing         some mott1ing	Profile Descr Depth	iption: (De	scribe to Matrix	the <b>dep</b> th i	needed to document the indicator or confirm the Redox Features	absence of indicators	-)
0-6       10VR       3/3       100         6-16       10VR       5/4       100       some mottling         6-16       10VR       5/4       100       some mottling         9       5/4       100       some mottling       some mottling         9       6-16       10VR       5/4       100       some mottling         9       9       100       some mottling       some mottling         9       9       100       motoclastics       motoclastics       motoclastics         1       100       100       motoclastics       motoclastics       motoclastics       motoclastics         1       100       100       100       motoclastics       motocl		Color	moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
B-16       LUTK       5/4       100         pre: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         pref: Soil Indicators:       Indicators for Problematic Hydric Soils*3:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       In Muck (A9) (LRR O)         Histosol (A1)       Polyvalue Below Surface (S9) (LRR S, T, U)       Reduced Vertic (F18) (Outside MLRA 150A,B)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A,B)         Hydrogen Suffde (A4)       Loamy Gueed Matrix (F2)       Peledmont Floodplain Soils (F19) (MLRA 150A,B)         Organic Bodies (A6) (LRR P, T, U)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153B)         Sorn Mucky Mineral (V3) (LRR P, T, U)       Redox Depressions (F8)       Cother (Explain in Remarks)         Sorn Mucky Mineral (V3) (LRR P, T)       Redox Depressions (F8)       Cother (Explain in Remarks)         Lorence (A8) (LRR V, T)       Depleted Otric (F11) (MLRA 151)       Tink Cark Surface (A11)       Depleted Otric (F12) (MLRA 151)         Depleted Below Dark Surface (A12)       Inon-Manganese Masses (F12) (LRR O, P, T)       Cother (Explain in Remarks)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Depleta Ochric (F13) (MLRA	0-6	10YR	3/3	100			
rpe: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining, M=Matrix         rdric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvatue Below Surface (S9) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histo Soil (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       Peldmont Floodplain Soils (F19) (LRR A150A,B)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Peldmont Floodplain Soils (F19) (LRR A150A,B)         Granic Bodies (A6) (LRR P, T, U)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153B, CPC) (MLRA 151B, CPC) (MLRA 151D, Thick Dark Surface (A8) (LRR V)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T, U)       Depleted Ochric (F11) (MLRA 151)       Thin-Marganese Masses (F12) (LRR O, P, T)       Other (Explain in Remarks)         2 sardy Muck Mineral (S1) (LRR O, S)       Dela Ochric (F11) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 149A)       Image: Sisurbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)       Anomalous Bright Loamy Soi	6-16	10YR	5/4	100			some mottling
dric Soil Indicators:       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)       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)         Strattified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153B)         Grganic Bodies (A6) (LRR P, T, U)       Depleted Dark Surface (F6)       Red Parent Material (TF2)         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)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ochric (F12) (LRR O, P, T)       Cother (Explain in Remarks)         3 andy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       3 <sup>1</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Muck Mineral (S2) (LRR O, S)       Piedmont Floodplain Soils (F20) (MLRA 149A)       3 <sup>1</sup> Indicators of hydrophytic v		C					
Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       I cm Muck (A9) (LRR O)         Histos (A2)       Thin Dark Surface (S9) (LRR S, T, U)       I cm Muck (A9) (LRR O)         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)       Depleted Dark Surface (F6)       Red Parent Material (TF2)         5 cm Mucky Mineral (A7) (LR P, T, U)       Depleted Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR P, T)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A12)       I ron-Manganese Masses (F12) (LRR O, P, T)       Other (Explain in Remarks)         Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         bark surface (S7) (LRR P, S, T, U)       Hydric			=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc		
Histic Eripedon (A2)       Thin Dark Surface (S9) (LR S, T, U)       1 thin luck (A9) (LR KO)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LR O)       2 cm Muck (A10) (LRR S)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (LR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Pledmont 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 P, T)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR 0, P, T)       3Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Strippet Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Jandicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         St	-					_	-
Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR 0)       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 (TE2)         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)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unlose of hydrophytic vegetation and wetiand hydrology must be present, unlose of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Meric Soil Present? Yes No (*) <t< td=""><td></td><td>•</td><td></td><td></td><td></td><td></td><td></td></t<>		•					
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)         S cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F6)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         1 tron-Manganese Masses (F12) (LRR O, P, T)       Iron-Manganese Masses (F12) (LRR O, P, T)       Gaset Praine Redox (A16) (MLRA 150A)         Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F13) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         strictive Layer (if observed):       Type:       Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)       No (P)    <	_ · ·						
Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F3) (LRR Y, 5, 7)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Mari (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       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) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         strictive Layer (if observed):       Type:         Type:       Hydric Soil Present?       Yes       No (*)	-						
Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         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 150A)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Type:	- ·					Piedmont Floo	dplain Soils (F19) (LRR P, S, T)
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)       Marl (F10) (LRR U)       Depleted Dark Surface (F7)       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)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       Delta Ochric (F17) (MLRA 151)         Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A)       Sectoric (F17) (MLRA 150A)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Type:	-					Anomalous Bri	ght Loamy Soils (F20) (MLRA 153B)
Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Mari (F10) (LRR U)       Depleted Debleted Debleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       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 (F13) (LRR A 150A)       Umbric Surface (F13) (LRR 150A)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         strictive Layer (if observed):       Type:	-					🗌 Red Parent Ma	terial (TF2)
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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No (•)	-			, T, U)	Depleted Dark Surface (F7)	🗌 Very Shallow D	ark Surface (TF12)
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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         Strictive Layer (if observed):       Type:         Type:       Hydric Soil Present?         Yes       No (*)					Redox Depressions (F8)	🗌 Other (Explain	in Remarks)
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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         Strictive Layer (if observed):       Type:         Type:       Hydric Soil Present?         Yes       No (*)	1 cm Muc	k (A9) (LRR I	P, T)		Mari (F10) (LRR U)		-
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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Strictive Layer (if observed):       Type:         Type:       Hydric Soil Present?         Yes       No (*)	Depleted E	Below Dark S	Surface (A1	1)	Depleted Ochric (F11) (MLRA 151)		
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)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No	Thick Dark	Surface (Al	12)		Iron-Manganese Masses (F12) (LRR O, P, T)		
Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         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)         strictive Layer (if observed):       Type:       Hydric Soil Present? Yes No	Coast Prai	rie Redox (A	16) (MLRA	150A)	Umbric Surface (F13) (LRR P, T, U)		
Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         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)       unless disturbed or problematic.         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No        No	Sandy Muo	ck Mineral (S	1) (LRR O	, S)	Delta Ochric (F17) (MLRA 151)	-	
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)         estrictive Layer (if observed):       Type:       Hydric Soil Present? Yes No        No	Sandy Gley	yed Matrix (S	54)			<sup>o</sup> Indicato	rs of hydrophytic vegetation and
Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)         estrictive Layer (if observed):         Type:         Depth (inches):         Potential	Sandy Red	lox (S5)					
Dark Surface (S7) (LRR P, S, T, U)  estrictive Layer (if observed):  Type: Depth (inches): Yes O No	_						
Type:	Dark Surfa	ice (S7) (LRF	ξ Ρ, S, T, U	I)	(	,,	
Depth (inches): Yes No ()	strictive La	iyer (if obsi	erved);				
Depth (inches): Yes No ()			_				
						Hydric Soil Present	? Yes 🔿 No 🖲
emarks: strong hydric indictors. Some dark orange mottling in lower interval of soil column.	emarks:						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County:	Waveland - Hancock	Sampling D	Date: 11-Oct-16
pplicant/Owner: NASA		itate: MS	Sampling Point: Up - 6	5
nvestigator(s): Lars Larson, Randy Ellis	Section, Towr	ship, Range: 5 28	<b>T</b> 7 s	<b>R</b> 16 W
andform (hillslope, terrace, etc.): Hillside	Local relief (cor	icave, convex, none)	: convex Slope	: 3.0 % / 1.7°
ubregion (LRR or MLRA): LRR T	Lat: 30° 24' 40.701		· •	Datum: NAD83
DOWN DOWN DOWN DOWN		R Long. (		
oil Map Unit Name: EsB, Escambia loam, 2 to 5 percent s		0.0	NWI classification: N	/A
re climatic/hydrologic conditions on the site typical for thi	s time of year? Yes		o, explain in Remarks.)	
Are Vegetation 🗌 , Soil 🔲 , or Hydrology 🗌	significantly disturbed?	Are "Normal Circi	umstances" present?	Yes 🖲 No 🔿
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🗌	naturally problematic?	(If needed, expla	in any answers in Remar	rks.)
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point	locations, trans	ects, important fea	itures, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Ts the	Sampled Area		
Hydric Soil Present? Yes 🔿 No 🖲		Vor	O No 🖲	
Wetland Hydrology Present? Yes O No 🖲	within	a Wetland?		
Remarks:				
Sideslope approximately 300 feet west of East Site Road	(A. Jackson) and 200-300 1	feet south of TS Cree	ж.	
HYDROLOGY				
Wetland Hydrology Indicators:		Sec	ondary Indicators (minimum	of 2 required)
Primary Indicators (minimum of one required; check all		<u> </u>	Surface Soil Cracks (B6)	
	atic Fauna (B13)		Sparsely Vegetated Concave	e Surface (B8)
	Deposits (B15) (LRR U)		Drainage Patterns (B10)	
	ogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
	ized Rhizospheres along Living R		Dry Season Water Table (C2	2)
	ence of Reduced Iron (C4)		Crayfish Burrows (C8)	
	nt Iron Reduction in Tilled Soils		Saturation Visible on Aerial 1	Imagery (C9)
	Muck Surface (C7)	_	Geomorphic Position (D2)	
	r (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)			FAC-Neutral Test (D5)	<b>.</b>
Water-Stained Leaves (B9)		:	Sphagnum moss (D8) (LRR )	T, U)
Field Observations: Surface Water Present? Yes O No O Dei				
	pth (inches):			
Water Table Present? Yes O No O De	pth (inches):		v Present? Yes 🔿	No 💿
Saturation Present? Yes O No O Dep (includes capillary fringe)	pth (inches):	Wetland Hydrology	Present? Tes $\bigcirc$	NU S
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous insp	ections), if available:		
	and hundred hundred with			
<b>A</b>				
Remarks:				

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

			ominant species?		Sampling Point: Up - 6
	Absolute	e R	el.Strat.	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species
Pinus elilotti	, 15	V	53.6%	FACW	That are OBL, FACW, or FAC: 8 (A)
Quercus nigra	10	$\checkmark$	35.7%	FAC	Total Mumber of Demission
Nyssa sylvatica	2		7.1%	FAC	Total Number of Dominant Species Across All Strata: 8 (B)
Quercus texana	1		3.6%	FACW	
	0		0.0%		Percent of dominant Species That Are OBL_EACW, or EAC: 100.0% (A/B)
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
	0		0.0%		Prevalence Index worksheet:
	0	$\Box$	0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 14 20% of Total Cover: 5.6	28	= Te	otal Cove	•	OBL species 0 x 1 = 0
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species 52 x 2 = 104
Pinus elliotti			48.4%	FACW	FAC species 38 x 3 = 114
			32.3%	FAC	FACU species $0 \times 4 = 0$
Quercus nigra Nyssa sylvatica	5		16.1%	FAC	
liex opaca			3.2%	FAC	
	0		0.0%		Column Totals: <u>90</u> (A) <u>218</u> (B)
		H	0.0%		Prevalence Index = B/A = 2.422
	_		0.0%		Hydrophytic Vegetation Indicators:
			b		
<b>N</b> <sup>1</sup> <b>2</b> <sup>1</sup>			0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 15.5 20% of Total Cover: 6.2	31	= To	otal Cove		✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea	15	✓	71.4%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex vomitoria			23.8%	FAC	
Persea borbonia			4.8%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
1	0	$\square$	0.0%		be present, unless disturbed or problematic.
	C		0.0%		Definition of Vegetation Strata:
	0				
	0	E,		18.198	-
0% of Total Cover: 10.5 20% of Total Cover: 4.2	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
		Ц = То			Tree - Woody plants, excluding woody vines,
		 = То	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).
rb Stratum (Plot size: 30 m )	21	— то • То	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). Sapling - Woody plants, excluding woody vines,
rb Stratum (Plot size: 30 m ) Arundinaria tecta	21	_	0.0% Stal 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).
rb Stratum (Plot size: 30 m ) Arundinaria tecta	21		0.0% stal 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
rb Stratum (Plot size: 30 m ) Arundinaria tecta	21 5 0 0		0.0% Stal Cover 100.0% 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). 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
rb Stratum <sup>(Plot</sup> size: <u>30 m</u> ) Arundinaria tecta	21 5 0		0.0% otal Cover 100.0% 0.0% 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
orb Stratum (Plot size: 30 m) Arundinaria tecta	21 5 0 0 0 0		0.0% stal Cover 100.0% 0.0% 0.0% 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). 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.
erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta	21 5 0 0 0 0		0.0% <b>stal Cover</b> 100.0% 0.0% 0.0% 0.0% 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). 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,
Plot size: <u>30 m</u> ) Arundinaria tecta	21 5 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 0.0% 0.0% 0.0% 0.0% 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). 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.
erb Stratum (Plot size: 30 m ) Arundinaria tecta	21 5 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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,
erb Stratum (Plot size: <u>30 m</u> ) Arundinarla tecta	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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
erb Stratum (Plot size: 30 m) . Arundinaria tecta	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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 ) Arundinarla tecta	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 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	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 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
erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 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.
with Stratum       (Plot size: 30 m)         Arundinaria tecta         Wo of Total Cover:       2.5         20% of Total Cover:       1         pody Vine Stratum       (Plot size: 30 m)	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 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.
wrb Stratum       (Plot size: 30 m)         Arundinaria tecta         % of Total Cover:       2.5         20% of Total Cover:       1         body Vine Stratum       (Plot size: 30 m)         Vitis rotundifolia       1	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 5		0.0% <b>xtal Cover</b> 100.0% 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.
wrb Stratum       (Plot size: 30 m)         Arundinaria tecta         % of Total Cover:       2.5         20% of Total Cover:       1         body Vine Stratum       (Plot size: 30 m)         Vitis rotundifolia       1	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>xtal Cover</b> 100.0% 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% 0.0%	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.
prb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta % of Total Cover: <u>2.5</u> 20% of Total Cover: <u>1</u> pody Vine Stratum (Plot size: <u>30 m</u> ) Vitis rotundifolia	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 5 5 0 0		0.0% <b>xtal Cover</b> 100.0% 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	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 5 5 0		0.0% <b>xtal Cover</b> 100.0% 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% 0.0%	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.
erb Stratum (Plot size: 30 m) . Arundinaria tecta	21 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 5 0		0.0% <b>xtal Cover</b> 100.0% 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.

SOIL	

Sampling Point: Up - 6

Profile Descr Depth	iption: (De	scribe to Matrix	the depth	needed to document the Indicator or confirm t Redox Features	the absence of indicators.)
(inches)	Color (	moist)	%	Color (moist) % Type <sup>1</sup> Loc	c <sup>2</sup> Texture Remarks
0-6	10YR	3/2			
6-22	10YR	5/6	100	· · · · · · · · · · · · · · · · · · ·	Sandy Loam
0 - 19					
		=Depletior	n. RM=Redu	uced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> L	
Hydric Soil I Histosol (A					Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosof (#	•			Polyvalue Below Surface (SB) (LRR S, T, U)	
Black Histi				Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
				Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4) .ayers (A5)			Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
			、	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L			Redox Dark Surface (F6)	Red Parent Material (TF2)
	ky Mineral (A		1, 0)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
	ence (A8) (L	•		Redox Depressions (F8)	Other (Explain in Remarks)
_	(A9) (LRR I			Mari (F10) (LRR U)	
_	Below Dark S		1)	Depleted Ochric (F11) (MLRA 151)	
	Surface (A1			Iron-Manganese Masses (F12) (LRR O, P, T	$\mathcal{D}$
	rie Redox (A			Umbric Surface (F13) (LRR P, T, U)	
· ·	k Mineral (S		S)	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators of hydrophytic vegetation and
	ed Matrix (S	54)		Reduced Vertic (F18) (MLRA 150A, 150B)	wetland hydrology must be present,
Sandy Red				Piedmont Floodplain Soils (F19) (MLRA 149	
Stripped M				🗌 Anomalous Bright Loamy Soils (F20) (MLRA	(149A, 153C, 153D)
Dark Surfa	ce (S7) (LRF	R Р, Ѕ, Т, Ц	)		
Restrictive La	yer (if obse	erved):			
Type:					
Depth (inch	es):				Hydric Soil Present? Yes 🔿 No 🕥
Remarks:					
Soil becomes l	bright vella	wish brow	wn below	5 inches.	
Son Decomes i	angine yeno	wish broi	UL DCION		

Applicant/Owner:         NASA           Investigator(s):         Lars Larson, Randy Ellis         Section	NWI classification: N/A Yes  No (If no, explain in Remarks.) urbed? Are "Normal Circumstances" present? Yes  No (If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present?       Yes ●       No ○         Hydric Soil Present?       Yes ●       No ○         Wetland Hydrology Present?       Yes ○       No ●         Remarks:	Is the Sampled Area within a Wetland? Yes O No O
HYDROLOGY	
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LRR         Saturation (A3)       Hydrogen Sulfide Odor (C2)         Water Marks (B1)       Oxidized Rhizospheres aloo         Sediment Deposits (B2)       Presence of Reduced Iron         Drift Deposits (B3)       Recent Iron Reduction in T         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Remarks)         Mutation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)	1)       Moss Trim Lines (B16)         ng Living Roots (C3)       Dry Season Water Table (C2)         (C4)       Crayfish: Burrows (C8)         Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Geomorphic Position (D2)
Field Observations:       Surface Water Present?       Yes       No       Depth (inches):	Wetland Hydrology Present? Yes V NO 🖲
Remarks:	

VEGETATION (Fi	ive/Four	Strata) -	<ul> <li>Use scientific names of [</li> </ul>	plants.
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			ominant pecies? .		Sampling Point: Up - 7
Tree Stratum (Plot size: 30 m )		e R	el.Strat. Cover	Indicator	Dominance Test worksheet:
Pinus elliotti	% Cove	_		Status	Number of Dominant Species
	30		85.7%	FACW	That are OBL, FACW, or FAC: 6 (A)
Quercus nigra	5		14.3%	FAC	Total Number of Dominant
	-		0.0%		Species Across All Strata:6(B)
			0.0%	····	Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
		H	0.0%	-	
	,		0.0%		Prevalence Index worksheet:
		Ц,	0.0%		Total % Cover of Multiply by:
0% of Total Cover: 17.5 20% of Total Cover: 7	35	= To	otal Cove	r	OBL species $0 \times 1 = 0$
apling or Sapling/Shrub Stratum (Plot size: 30 m	)	_			FACW species <u>55</u> x 2 = <u>110</u>
Pinus elilotti		⊻.	62.5%	FACW	FAC species 70 x 3 = 210
Acer rubrum	10	⊻,	25.0%	FAC	FACU species $2 - x 4 = -8$
Quercus nigra	5		12.5%	FAC	UPL species $0 \times 5 = 0$
	0	$\Box$	0.0%		Column Totals: 127 (A) 328 (B)
		$\Box$	0.0%		
A REAL AND A	0	$\Box$	0.0%		Prevalence Index = B/A = 2.583
1. W. 1. M. 1. M.	0		0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover:20 20% of Total Cover:8	40	= То	tal Cove		$\checkmark$ 2 - Dominance Test is > 50%
rub Stratum_ (Plot size: 30 m)					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Morella cerifera	30		66.7%	FAC	_
Acer rubrum	10		22.2%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex vomitoria	5		11.1%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
	-	H		FAC	be present, unless disturbed or problematic.
			0.0%	·	Definition of Vegetation Strata:
			0.0%		-
	0	Ц.	0.0%	1-7	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 22.5 20% of Total Cover: 9	45	= TO	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )					Sapling - Woody plants, excluding woody vines,
Eupatorium capiliifolium	2		100.0%	FACU	approximately 20 ft (6 m) or more in height and less
					approximately 20 it (0 m) of more in neight and reso
			0,0%		than 3 in. (7.6 cm) DBH.
					than 3 in. (7.6 cm) DBH.
	0		0.0%		than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less
	0		0.0% 0.0%		than 3 in. (7.6 cm) DBH.
	0 0 0		0.0% 0.0% 0.0%		than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less
	0 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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.
			0.0% 0.0% 0.0% 0.0% 0.0%		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
	0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
	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%		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
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
)% of Total Cover: <u>1</u> 20% of Total Cover: <u>0.4</u> Doody Vine Stratum (Plot size: <u>30 m</u> )	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
% of Total Cover:       1       20% of Total Cover:       0.4         poody Vine Stratum       (Plot size:       30 m       )         Vitis rotundifiolia       Vitis rotundifiolia       )	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 5		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
)% of Total Cover: <u>1</u> 20% of Total Cover: <u>0.4</u> <b>Doody Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Vitis rotundifolia</b>			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
% of Total Cover:       1       20% of Total Cover:       0.4         poody Vine Stratum       (Plot size:       30 m       )         Vitis rotundifolia       )	0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 5 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: <u>1</u> 20% of Total Cover: <u>0.4</u> <b>body Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Vitis rotundifolia</b>	0 0 0 0 0 0 0 0 0 0 0 0 0 2 5 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: <u>0.4</u> 0% of Total Cover: <u>0.4</u> 00% of Total Cover: <u>0.4</u> 00% of Total Cover: <u>0.4</u> 0% of Total Cove	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 5 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.

Sampling	Point:	Up - 7
		. VD - 1

Depth		Matrix			Re	dox Featu				
(inches) 0-5	Color (		•⁄p 100	Color (		%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
5-20	10YR	4/4	95	10YR	6/6	5	c	М	Loamy Sand	Mottling in lower norizon
						<b>、</b> ,				
		=Depletio	n. RM <b>≕R</b> edu	ced Matrix, C	S=Cover	ed or Coate	d Sand Gra	, iins <sup>2</sup> Loca	tion: PL=Pore Lining.	M=Matrix
ydric Soll I									Indicators for I	Problematic Hydric Soils <sup>3</sup> :
Black Hist         Hydrogen         Stratified         Organic B         5 cm Mucl         Muck Press         1 cm Mucl         Depleted         Thick Darl         Coast Prai         Sandy Mucl         Sandy Rec         Stripped M	vedon (A2) ic (A3) Sulfide (A4) Layers (A5) odies (A6) (L ky Mineral (A vence (A8) (L k (A9) (LRR F Selow Dark S c Surface (A1 rie Redox (A: ck Mineral (S yed Matrix (S lox (S5)	7) (LRR P, RR U) P, T) urface (AJ 2) 16) (MLRA 1) (LRR O, 34)	, T, U) 11) 150 <b>A)</b> , S)	Thir Loai Loai Dèp Red Dep Red Dep Red Dep Red Dep Red Nari Dep Deb Red Pied	n Dark Sun my Mucky my Gleyed leted Mat ox Dark S leted Dari ox Depres l (F10) (LI leted Och -Mangane oric Surfac a Ochric ( uced Vert mont Floc	urface (F6) < Surface (I ssions (F8) RR U) ric (F11) (N se Masses te (F13) (LI F17) (MLR) ic (F18) (M odplain Soil	LRR S, T, L (1) (LRR O) (1) (LRR O) (1) (LRR O) (1) (LRR 151) (F12) (LRF (R P, T, U) (F12) (LRF (R P, T, U) (F12) (LRF (S (F19) (MI	1) 2 O, P, T) 150B) .RA 149A)	Reduced Ver     Piedmont Fla     Anomalous E     Red Parent I     Very Shallow     Other (Expla <sup>3</sup> Indica     wet	A9) (LRR O) A10) (LRR S) rtic (F18) (outside MLRA 150A,B) bodplain Soils (F19) (LRR P, S, T) Bright Loamy Soils (F20) (MLRA 153B) Material (TF2) a Dark Surface (TF12) in in Remarks) ators of hydrophytic vegetation and and hydrology must be present, nless disturbed or problematic.
strictive La	ıyer (if obse	rved):								
Туре:						-				
Depth (inch	es):								Hydric Soil Prese	nt? Yes 🖲 No 🔿
ere appears the total ma	to be some	e silty da	y below 16	inches, S	ome dar	k orange l	brown mc	ottles and s	some rusty orange	redox features in approximately 5%

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County:	Waveland - Hancock Sampling Date: 11-Oct-16
pplicant/Owner: NASA	S	State: MS Sampling Point: Up - 8
vestigator(s): Lars Larson, Randy Ellis	Section, Town	nship, Range: 5 29 T 7 s R 16 W
andform (hillslope, terrace, etc.): Hillside	Local relief (cor	ncave, convex, none): convex Slope: 3.0 % / 1.
Ibregion (LRR or MLRA): LRR T	Lat.: 30° 24' 39.235	" N Long.: 89° 36' 47.454" W Datum: NAD83
Status fur with the		· · · · · · · · · · · · · · · · · · ·
il Map Unit Name: EsB, Escambia Ioam, 2 to 5 percent sk		NWI classification: N/A
re climatic/hydrologic conditions on the site typical for this	i 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 answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map sho	owing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔿	To the (	Sampled Area
Hydric Soil Present? Yes O No 💿		
Wetland Hydrology Present? Yes O No 🖲	within	a Wetland? Tes C ND C
Remarks:		
Sideslope within 30 to 40 feet of drainage way approxima	ately 200 feet from Turtlesk	sin Creek Bridge.
HYDROLOGY	· · · · · · · · · · · · · · · · · · ·	
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all t		Surface Soil Cracks (B6)
	tic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
	Deposits (B15) (LRR U)	Drainage Patterns (B10)
	ogen Sulfide Odor (C1)	Moss Trim Lines (B16)
	zed Rhizospheres along Living R	
	ence of Reduced Iron (C4)	Crayfish Burrows (C8)
	nt Iron Reduction in Tilled Soils	
	Muck Surface (C7)	Geomorphic Position (D2)
	r (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes O No 💿 Dep	oth (inches):	
Water Table Present? Yes O No O Dep	oth (inches):	
Saturation Present? Yes O No O Dep	th (inches):	Wetland Hydrology Present? Yes 🔿 No 🖲
Describe Recorded Data (stream gauge, monitoring well, a		ections), if available:
	noner brietes) bratiede rieb	
Remarks:		

			ominant pecies? .		Sampling Point: Up - 8		
ree Stratum (Plot size: <u>30 m</u> )	Absolute % Cover	e Re		Indicator Status			
Pinus elliottii	10		55.6%	FACW	Number of Dominant Species           That are OBL, FACW, or FAC:         7         (A)		
Nyssa sylvatica	5		27.8%	FAC			
Quercus nigra	3		16.7%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)		
n an			0.0%	The street	Species Across All Strata:(B)		
2 <b>1</b> 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	•		0.0%		Percent of dominant Species		
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B		
	0		0.0%	1	Prevalence Index worksheet;		
	0		0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 9 20% of Total Cover: 3.6	18	= Тс	tal Cove	r	OBL species 0 x 1 = 0		
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species 44 x Z = 88		
Nyssa sylvatica		$\checkmark$	55.6%	FAC	FAC species $28 \times 3 = 84$		
Pinus elliottii	5		27.8%	FACW	FACU species $0 \times 4 = 0$		
Quercus texana		<u> </u>	5.6%	FACW	UPL spectes $0 \times 5 = 0$		
Quercus nigra	2	$\overline{\Box}$	11.1%	FAC			
	0		0.0%		Column Totals: 72 (A) 172 (B)		
	0		0.0%		Prevalence Index = B/A = 2.389		
			0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%				
0% of Total Cover: 9 20% of Total Cover: 3.6		- To	tal Cove		1 - Rapid Test for Hydrophytic Vegetation		
	10	- 10			✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex coriacea	20		71.4%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex vomitoria			17.9%	FAC			
Cyrilla racemifiora		Ц.	10.7%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.		
	0	<u> </u>	0.0%				
11.0	0	Ц,	0.0%	e · · · · · ·	Definition of Vegetation Strata:		
	0	Ц,	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
io% of Total Cover:         14         20% of Total Cover:         5.6           erb Stratum         (Plot size:         30_m         )	28	= То	tal Cove	r	(7.6 cm) or larger in diameter at breast height (DBH).		
. Ilex coriacea	5	$\checkmark$	71.4%	FACW	Sapling - Woody plants, excluding woody vines,		
2 Maralla confere			28.6%	FAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
	- 2		0.0%				
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
4 5			0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
			0.0%				
for an and the second sec	0		0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
******			0.0%		The summer of the state of the		
			0.0%		Herb - All herbaceous (non-woody) plants, including		
•			0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately		
· · · · · · · · · · · · · · · · · · ·	0	$\overline{\Box}$	0.0%		3 ft (1 m) in height.		
	0		0.0%				
0% of Total Cover: 3.5 20% of Total Cover: 1.4		- Te	tal Cover		Woody vine - All woody vines, regardless of height.		
		. 10					
oody Vine Stratum (Plot size: 30 m )			100.0%	FAC			
oody Vine Stratum (Plot size: 30 m )	1		0.00/				
oody Vine Stratum (Plot size: 30 m )		Π.	0.0%				
Oody Vine Stratum (Plot size: 30 m ) Vitis rotundifolia	0		0.0%				
Voody Vine Stratum (Plot size: 30 m ) Vitis rotundifolia	0						
Voody Vine Stratum (Plot size: 30 m ) Vitis rotundifolia	0		0.0%		Hydrophytic Vegetation Present? Yes • No •		

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

<b>rs:</b> 2)	Redox Features         Color (moist)       %       Type 1       Loc2         uced Matrix, CS=Covered or Coated Sand Grains       2Lo         Polyvalue Below Surface (S8) (LRR S, T, U)	ocation: PL=Pore Lining, M=Matrix				
R 5/6 100 n. D=Depletion. RM=Red rs: 2)	uced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Lo					
n. D=Depletion. RM=Red rs: 2)						
<b>rs:</b> 2)						
-	Polyvalue Below Sufface (S8) (LKR S, T, U)	Indicators for Problematic Hydric Soils <sup>3</sup> :				
-						
	Langu Musicu Mineral (51) (LRR S, T, U)	2 cm Muck (A10) (LRR S)				
A4)	Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)				
5)	Loamy Gleyed Matrix (F2)	Piedmont Floodpiain Soils (F19) (LRR P, S, T)				
	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)				
		Red Parent Material (TF2)				
		Very Shallow Dark Surface (TF12)				
		Other (Explain in Remarks)				
	_					
(A12)						
(A16) (MLRA 150A)						
al (S1) (LRR O, S)		_				
ix (S4)		<sup>3</sup> Indicators of hydrophytic vegetation and				
		) wetland hydrology must be present, unless disturbed or problematic.				
)						
(LRR P, S, T, U)						
observed):						
		Hydric Soil Present? Yes 🔿 No 🕥				
	( (A16) (MLRA 150A) I (S1) (LRR O, S) X (S4) ) LRR P, S, T, U)	II (A7) (LRR P, T, U)       Depleted Dark Surface (F7)         ) (LR U)       Redox Depressions (F8)         RR P, T)       Marl (F10) (LRR U)         rk Surface (A11)       Depleted Ochric (F11) (MLRA 151)         (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)         (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)         Id (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)         x (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Piedmont Floodplain Soils (F19) (MLRA 149A)         LRR P, S, T, U)				

Applicant/Owner:       NASA         Investigator(s):       Lars Larson, Randy Ellis         Landform (hillslope, terrace, etc.):       Hillside         Subregion (LRR or MLRA):       LRR T         Landform Unit Name:       ESB, Escambia loam, 2 to 5 percent slopes	City/County:       Waveland - Hancock       Sampling Date:       11-Oct-16         State:       MS       Sampling Point:       Up -9         Section, Township, Range:       S 29       T       7 s       R       16 W         Local relief (concave, convex, none):       Slope:       1.0 % /       0.6 °         30° 24' 29.150" N       Long.:       89° 36' 46.346" W       Datum:       NAD83         NWI classification:       N/A         r?       Yes () No ()       (If no, explain in Remarks.)
Are climatic/hydrologic conditions on the site typical for this time of year Are Vegetation . , Soil . , or Hydrology . significantly	r? Yes 🖲 NO 🔾 (If no, explain in Remarks.) y disturbed? Are "Normal Circumstances" present? Yes 🖲 No 🔾
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sam	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No         Wetland Hydrology Present?       Yes       No         Remarks:       Ves       No	Is the Sampled Area within a Wetland? Yes O No O
Sideslope of moving into land drainage feature that feeds and ephem	eral stream flowing into Turtleskin Creek.
HYDROLOGY	
Sediment Deposits (B2)	(LRR U)       □ Drainage Patterns (B10)         dor (C1)       □ Moss Trim Lines (B16)         res along Living Roots (C3)       □ Dry Season Water Table (C2)         ed Iron (C4)       □ Crayfish Burrows (C8)         jon In Tilled Soils (C6)       □ Saturation Visible on Aerial Imagery (C9)         (C7)       □ Geomorphic Position (D2)         emarks)       □ Shallow Aquitard (D3)         ♥ FAC-Neutral Test (D5)       □ Sphagnum moss (D8) (LRR T, U)
Remarks:	

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

×

			Dominant Species?		Sampling Point: Up -9			
		e R	el.Strat.	Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size: 30 m )	% Cove	[	Cover	Status	Number of Dominant Species			
Pinus elilotti	10	✓	31.3%	FACW	That are OBL, FACW, or FAC: 5 (A)			
Magnolia virginiana	15	$\checkmark$	46.9%	FACW	T 1 1 1 5 7 1 1 1			
Quercus nigra	5		15.6%	FAC	Total Number of Dominant Species Across All Strata: 5 (B)			
Nyssa sylvatica	2		6.3%	FAC				
			0.0%		Percent of dominant Species			
	_		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)			
			0.0%	er	Prevalence Index worksheet:			
	0		0.0%					
					Total % Cover of: Multiply by:			
50% of Total Cover: 16 20% of Total Cover: 6.4	32	= 10	otal Cover		OBL species 0 x 1 = 0			
apling or Sapling/Shrub Stratum (Plot size: 30 m	1	_			FACW species 113 x 2 =226			
Magnolia virginiana	20	<b>V</b>	57.1%	FACW	FAC species $18 \times 3 = 54$			
Pinus elliotti	10	$\checkmark$	28.6%	FACW	FACU species $0$ , $x = 0$			
Nyssa sylvatica			14.3%	FAC	UPL species 0 x 5 = 0			
	0		0.0%		Column Totals: 131 (A) 280 (B)			
			0.0%					
A + 1 V			0,0%		Prevalence Index = $B/A = 2.137$			
			0,0%	· · · · · ·	Hydrophytic Vegetation Indicators:			
	0		0.0%					
					✓ 1 - Rapid Test for Hydrophytic Vegetation			
50% of Total Cover: 17.5 20% of Total Cover: 7	35	= Total Cover			2 - Dominance Test is > 50%			
hrub Stratum (Plot size: 30 m )					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 $^1$			
Ilex coriacea	50	<b>Y</b>	83.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
Ilex vomitoria			8.3%	FAC				
Cyrilla racemiflora			8.3%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus			
	0				be present, unless disturbed or problematic.			
			0.0%					
		Н	0.0%		Definition of Vegetation Strata:			
	0		0.0%		Definition of Vegetation Strata:			
	0		0.0% 0.0%		Tree - Woody plants, excluding woody vines,			
	0	□ □ □ = To	0.0%		_			
i0% of Total Cover: 30 20% of Total Cover: 12	0		0.0% 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: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> )	0 0 60		0.0% 0.0% tal Cover	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,			
0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> ) Arundinaria tecta	0 0 60 3		0.0% 0.0% tal 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less			
0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta	0 0 60 3 0		0.0% 0.0% tal Cover 100.0% 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). Sapling - Woody plants, excluding woody vines,			
0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta	0 0 60 3 0 0		0.0% 0.0% tal Cover 100.0% 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). 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: 30 20% of Total Cover: 12 erb Stratum (Plot size: 30 m ) Arundinaria tecta	0 0 60 3 0 0 0		0.0% 0.0% tal Cover 100.0% 0.0% 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less			
0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta	0 0 60 3 0 0 0 0		0.0% 0.0% #tal Cover 100.0% 0.0% 0.0% 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). 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			
0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta	0 0 60 3 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 100.0% 0.0% 0.0% 0.0% 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). 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,			
i0% of Total Cover: 30 20% of Total Cover: 12 erb Stratum (Plot size: 30 m ) Arundinaria tecta	0 0 60 3 0 0 0 0		0.0% 0.0% #tal Cover 100.0% 0.0% 0.0% 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). 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.			
50% of Total Cover: 30 20% of Total Cover: 12 erb Stratum (Plot size: 30 m ) Arundinaria tecta	0 0 60 3 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 100.0% 0.0% 0.0% 0.0% 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). 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: 30 20% of Total Cover: 12 erb Stratum (Plot size: 30 m) Arundinaria tecta	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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			
i0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb. Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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			
50% of Total Cover:       30       20% of Total Cover:       12         lerb Stratum       (Plot size: _30 m)       )         1. Arundinaria tecta       )         2.       .         3.       .         4.       .         5.       .         6.       .         7.       .         8.       .         9.       .	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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			
i0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> ) Arundinaria tecta	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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			
50% of Total Cover:       30       20% of Total Cover:       12         lerb Stratum       (Plot size: _30 m)       )         1. Arundinaria tecta       )         3.       .         4.       .         5.       .         6.       .         7.       .         8.       .         9.       .      <	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 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			
50% of Total Cover:       30       20% of Total Cover:       12         erb Stratum       (Plot size: _30 m)      )         Arundinaria tecta	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 100.0% 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.			
i0% of Total Cover:       30       20% of Total Cover:       12         erb. Stratum       (Plot size: _30 m)      )         Arundinaria tecta	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 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.			
i0% of Total Cover:       30       20% of Total Cover:       12         erb. Stratum       (Plot size: _30 m)      )         Arundinaria tecta	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 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: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta			0.0% 0.0% ttal Cover 100.0% 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.			
30% of Total Cover:       30       20% of Total Cover:       12         erb. Stratum       (Plot size: 30 m)       )         Arundinaria tecta			0.0% 0.0% ttal Cover 100.0% 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.			
30% of Total Cover:       30       20% of Total Cover:       12         erb Stratum       (Plot size: 30 m       )       )         Arundinaria tecta       .       .         .       .       . <td></td> <td></td> <td>0.0% 0.0% ttal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0</td> <td>FACW</td> <td>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.</td>			0.0% 0.0% ttal Cover 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.			
50% of Total Cover: 30 20% of Total Cover: 12   erb Stratum (Plot size: 30 m) Arundinaria tecta			0.0% 0.0% ttal Cover 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.			
50% of Total Cover:       30       20% of Total Cover:       12         Iterb Stratum       (Plot size: .30 m)       )       )         1. Arundinaria tecta       2	0 0 60 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% ttal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	<ul> <li>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).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>			

Sampling Point: Up -9

Color (moist)       %       Color (moist)       %       Type 1       Loc2       Texture       Remarks         0-5       10YR       3/2       100       Loamy Sand       Loamy Sand         5-16       10YR       4/4       100       Loamy Sand       Loamy Sand         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix       Indicators:         Hydric Soil Indicators:        Polyvalue Below Surface (S8) (LRR S, T, U)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)        Polyvalue Below Surface (S8) (LRR S, T, U)       I 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 Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)	Depth	.p (	Matrix	cire depet	needed to document the indicator or confirm the Redox Features	
0-5         10YR         3/2         100         Learny Sand           5-16         10YR         4/4         100         Learny Sand           5-16         10YR         4/4         100         Learny Sand           Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains         *Location: PL=Pore Lining. M=Matrix           Indicators for Problematic Hydric Soils?:           Hydric Soil Indicators:         Indicators for Problematic Hydric Soils?:           Histic Epipedon (A2)         Thin Dark Surface (S9) (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 O)           Hydrogen Suffide LAyers (A5)         Depleted Matrix (F2)         Pedmont Floodplain Soils (F19) (LRR A, S, T)           Stratified Layers (A5)         Depleted Matrix (F2)         Pedmont Floodplain Soils (F20) (MLRA 150A, B)           Granic Bodies (A6) (LRR P, T, U)         Depleted Dark Surface (F7)         Very Shallow Dark Surface (T12)           Muck Presence (A8) (LRR P, T)         Redx Depressions (F8)         Other (Explain in Remarks)           Depleted Below Dark Surface (A11)         Depleted Othric (F11) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophydic wegetation and wetland hydrology must be present, untess disturbed or problematic.           Sandy Muck Mineral (S1) (MRR		Color (		%		Texture Remarks
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining, M=Matrix         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 Soils <sup>3</sup> :       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Domy Mucky Mineral (F1) (LRR 0)       Indicators of Problematic Hydric Soils (F20) (MLRA 150, B)         Hydrige Soilfied Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loarny Soils (F20) (MLRA 153B)         Organic Bodies (A6) (LRR P, T, U)       Depleted Matrix (F3)       Anomalous Bright Loarny Soils (F20) (MLRA 153B)         Sorm Muck (A9) (LRR P, T)       Depleted Matrix (F3)       Anomalous Bright Loarny Soils (F20) (MLRA 153B)         Sorm Muck (A9) (LRR P, T)       Mark (F10) (LRR U)       Redox Dark Surface (F1)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Depleted Othric (F17) (MLRA 151)       Tindicators of hydrophytic veptation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150, S0)	0-5	10YR	3/2	100		Loamy Sand
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A1)       Domy Gleyed Matrix (F1)       2 cm Muck (A10) (LRR S)         Black Histic CA3       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)         S cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR U)       Redox Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR P, T)       Marl (F10) (LRR U)       Depleted Ortric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ortric (F11) (MLRA 151)       Thick Dark Surface (A12)       Inon-Manganese Masses (F12) (LRR O, P, T)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)<	5-16	10YR	4/4	100		Loamy Sand
andicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sufface (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 (F5)       Red Parent Material (TF2)         S cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRU U)       Redox Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR U)       Redox Chric (F11) (MLRA 151)       Thick Dark Surface (A11)         Thick Dark Surface (A12)       Inon-Manganese Masses (F12) (LRR O, P, T)       Other (Explain in Remarks)         S andy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F13) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) <sup>3</sup> Indicators of hydrophytic veget		•				
Histosol (A1)       Połyvałue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A9) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Pledmont Floodplain Solis (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Solis (F20) (MLRA 153B         Organic Bodies (A6) (LRR P, T, U)       Depleted Dark Surface (F6)       Red Parent Material (TF2)         S cm Muck (A9) (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 Ochric (F11) (MLRA 151)         Thich Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Sandy Muck Minerai (S1) (LRR O, S)       Deta Ochric (F13) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)<	Type: C=Conr	centration. D	=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <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 Mucky Mineral (F2)       Piedmont Hoodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loarny Soils (F20) (MLRA 153B         Organic Bodies (A6) (LRR P, T, U)       Redox 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, U)       Depleted Oark Surface (F1) (MLRA 151)       Thick Dark Surface (A11)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Toron-Manganese Masses (F12) (LRR O, P, T)         Cosat Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (MLRA 150A, 150B)       Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D)       Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Settrictive Layer (If observed):       Type:       Piedmont Floodplain Soils (	-				_	Indicators for Problematic Hydric Solis <sup>3</sup> :
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)         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 (A1)       Depleted Ochric (F11) (MLRA 151)       Thick (A12)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       Other (Explain in Remarks)         S andy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F13) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Eestrictive Layer (If Observed):       Type:       Hydric Soil Present? Yes No ®         Type:       Depth (Inches):       Hydric Soil Present? Yes No ®	_ `					1 cm Muck (A9) (LRR O)
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Reduced Vertic (F15) (OutSide MLKA 150A,B)         Stratified Layers (A5)       Depleted Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       Coast Prairie Redox (A16) (MLRA 150A)         S andy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A)       Junchic Surface (F13) (LRR P, T, U)         S andy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Type:						2 cm Muck (A10) (LRR S)
Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F3) (LRR P, S, T)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Mari (F10) (LRR U)       Depleted Deleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       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 (F13) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain: Soils (F19) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         estrictive Layer (If observed):       Type:						Reduced Vertic (F18) (outside MLRA 150A,B)
Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F13) (LRR O, P, T)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)         Sandy Muck Mineral (S1) (LRR O, S)       Deta Ochric (F17) (MLRA 151)         Sandy Gieyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No ©         estrictive Layer (If observed):       Type:         Type:       Hydric Soil Present? Yes No ©						Piedmont Floodplain Soils (F19) (LRR P, S, T)
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)       Marl (F10) (LRR U)       Depleted Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       Coast Prairie Redox (A16) (MLRA 150A)         Sandy Muck Minerai (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A)       Jumbric Surface (F13) (LRR P, T, U)         Sandy Gieyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       *utena hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 149A)       unless disturbed or problematic.         Type:						Anomalous Bright Loamy Soils (F20) (MLRA 153B)
Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Other (Explain in Remarks)         I 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 Minerai (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         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)       Hydric Soil Present? Yes No ®         emarks:       Hydric Soil Present?	-					Red Parent Material (TF2)
I 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)         Sandy Gieyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes         Mark Surface (S7)       No (*)				, T, U)		Very Shallow Dark Surface (TF12)
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)         Sandy Gieyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?         Yes       No (*)	-					Other (Explain in Remarks)
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)         Sandy Gieyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No (*)         Type:						
Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)         Sandy Muck Minerai (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)         Sandy Gieyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No          ************************************	_			.1)		
Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)         Sandy Gieyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No          Hydric Soil Present?       Yes No		-	-		Iron-Manganese Masses (F12) (LRR O, P, T)	
Sandy Gieved Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         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)         estrictive Layer (If observed):       Type:						
Sandy Goycu Hatrix (S1)       Reduced Vertic (F18) (MLRA 130A, 150b)       wetland hydrology must be present, unless disturbed or problematic.         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)       estrictive Layer (If observed):         Type:	_			, S)		<sup>3</sup> Indicators of hydrophytic vegetation and
Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)         estrictive Layer (If observed):         Type:         Depth (inches):         Lemarks:			54)			wetland hydrology must be present.
Dark Surface (S7) (LRR P, S, T, U)  estrictive Layer (If observed):  Type: Depth (inches): Hydric Soil Present? Yes O No						
Type: Depth (inches): Yes O No O temarks:		• •	ι Р, S, T, L	J)	L_ Anomalous Bright Loamy Soils (F20) (MLRA 14	<b>19A, 153C, 153D)</b>
Depth (inches): Yes O No O	estrictive La	yer (If obse	erved):			
Remarks:	Туре:					
	Depth (inch	ies):,		· · · · · · ·		Hydric Soll Present? Yes O No 🛡
		airly dry wil	th crumb	ly texture.	Uniform grayish yellow to brown below 4-inche	25.

Applicant/Owner:       NASA         Investigator(s):       Lars Larson, Randv Ellis       Section         Landform (hillslope, terrace, etc.):       Terrace       Local restriction         Subregion (LRR or MLRA):       LRR T       Lat:       30° 24         Soil Map Unit Name:       SaC, Saucier fine sandy loam, 5 to 8 percent slopes         Are climatic/hydrologic conditions on the site typical for this time of year?         Are Vegetation       , Soil       , or Hydrology       significantly disturbed	
Are Vegetation, Soil, or Hydrology naturally problem:	
Hydrophytic Vegetation Present?       Yes        No          Hydric Soil Present?       Yes        No          Wetland Hydrology Present?       Yes        No          Remarks:	Is the Sampled Area within a Wetland? Yes O No ()
Just off logging road-cut trail 30 feet approximately 500-feet south of railber HYDROLOGY	d on West side of AOI.
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LRR U         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres alon         Sediment Deposits (B2)       Presence of Reduced Iron (         Drift Deposits (B3)       Recent Iron Reduction in Thin Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Remarks)         Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)	.)       Moss Trim Lines (B16)         ng Living Roots (C3)       Dry Season Water Table (C2)         (C4)       Crayfish Burrows (C8)         "illed Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Geomorphic Position (D2)
Field Observations:       Surface Water Present?       Yes       No       Depth (inches):	Wetland Hydrology Present? Yes O No 🖲
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ Remarks:	ous inspections), if available:

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

,			ominant		Sampling Point: Up - 10		
		e R	ipecies? . el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove	_	Cover	Status	Number of Dominant Species		
Pinus elliottii	15		53.6%	FACW	That are OBL, FACW, or FAC:6 (A)		
Nyssa sylvatica	5		17.9%	FAC	Total Number of Dominant		
Quercus virginiana	5		17.9%	FACU	Species Across All Strata; 6 (B)		
Quercus nigra	~		10.7%	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: 100.0% (A/B)		
	0		0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 14 20% of Total Cover: 5.6	28	= T(	otal Cove		OBL species () x 1 = ()		
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species 40 x 2 = 80		
Diaux alliatti	45		60.0%	FACW	FAC species $68 \times 3 = 204$		
			40.0%	FAC	-		
	0		0.0%	170			
	0	H	0.0%		UPL species $0 \times 5 = 0$		
	0	H	0.0%		Column Totals: <u>113</u> (A) <u>304</u> (B)		
					Prevalence Index = B/A = 2.690		
		H	0.0%		Hydrophytic Vegetation Indicators:		
к		Н	0.0%		nyurophyac vegetation indicators.		
an a	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 12.5 20% of Total Cover: 5	25	= Total Cover			✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex vomitoria	40	~	75.5%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex coriacea	10		18.9%	FACW			
Quercus nigra	3		5.7%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
No. 7	-		0.0%		be present, unless disturbed or problematic.		
	15.11.2		0.0%		Definition of Vegetation Strata:		
	0	H	0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 26.5 20% of Total Cover: 10.6					approximately 20 ft (6 m) or more in height and 3 in.		
	53	= 10	otal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )					Carling Mandu Harts such discussed with a		
	0		0.0%		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
	0		0.0%		than 3 in. (7.6 cm) DBH.		
	0		0.0%				
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
	-		01070	z			
	0				than 3 in. DBH and greater than 3.28 ft (1m) tall.		
			0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
Province and the second se	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines,		
Terrena Terrena Natur - Marine Antonio	0		0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
Terra Manusa Ang sa mang ang ang ang ang ang ang ang ang ang	0 0 0 0		0.0% 0.0% 0.0% 0.0%		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		
	0 0 0 0 0		0.0% 0.0% 0.0% 0.0%		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		
Честини Честини Честини и интерного положити и и и и и Честини и и Честини и и	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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		
ан анала Ан ан	0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: 0 20% of Total Cover: 0			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: 0 20% of Total Cover: 0			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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: 0 20% of Total Cover: 0 Toody Vine Stratum (Plot size: 30 m ) Vitis rotundifolia	0 0 0 0 0 0 0 0 0 0 0 5	□ □ □ □ = To	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	-	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: 0 20% of Total Cover: 0 1000dy Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 0 0 0 5		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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: 0 20% of Total Cover: 0 <b>Toody Vine Stratum</b> (Plot size: 30 m ) <b>Vitis rotundifolia</b> Smilax rotundifolia	0 0 0 0 0 0 0 0 0 0 0 5 2 0	□ □ □ □ = To	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 71.4% 28.6% 0.0%	FAC	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.		
5. 6. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	0 0 0 0 0 0 0 0 0 0 0 5 2 0 0 0	□ □ □ □ = To	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% <b>tal Cover</b> 71.4% 28.6% 0.0% 0.0%	FAC	<ul> <li>than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> <li>Hydrophytic</li> </ul>		
9. 0. 1. 2. 50% of Total Cover: 0 20% of Total Cover: 0 Voody Vine Stratum (Plot size: 30 m ) Vitis rotundifolia Smilax rotundifolia	0 0 0 0 0 0 0 0 0 0 0 5 2 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 71.4% 28.6% 0.0%	FAC	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.		

Profile Descr Depth	iption: (De	scribe to Matrix	the depth		e indicator or co x Features	nfirm the a	absence of indicators.)	
(inches)	Celor (	moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	4/2	100					
5-16	10YR	5/3	100					
	E. E. M. 199							·····
							÷	
-							·	** *** ****
<sup>1</sup> Type: C=Conc Hydric Soil I		=Depletio	n. RM <b>=Redu</b>	ced Matrix, CS=Covered o	or Coated Sand Grai	ns ²Locat	tion: PL=Pore Lining, M=1	
Histosol (A				D Pakarahan Palawa	Surface (CO) (LDD (	· <b>T</b> 11		lematic Hydric Soils <sup>3</sup> :
Histosof (2	•				Surface (S8) (LRR S e (S9) (LRR S, T, U		1 cm Muck (A9) (	
Black Histi					neral (F1) (LRR O)	}	2 cm Muck (A10)	
_	Sulfide (A4)						_	F18) (outside MLRA 150A,B)
Stratified L				Depleted Matrix (	. ,		_	lain Soils (F19) (LRR P, S, T)
	odies (A6) (L	RRPTI	n	Redox Dark Surfa				t Loamy Soils (F20) (MLRA 153B)
	y Mineral (A			Depleted Dark Sur	• •		Red Parent Mater	
_	ence (A8) (L		, , , e)	Redox Depressio	• •		Very Shallow Dar	
_	(A9) (LRR I			Marl (F10) (LRR	• •		Other (Explain in	Remarks)
_	Below Dark S		1)		(F11) (MLRA 151)			
<u> </u>	Surface (A1	•	-,		Masses (F12) (LRR	ΟΡΤ		
_	ie Redox (A		150A)		F13) (LRR P, T, U)	0,1,1)		
	k Mineral (S		-	Delta Ochric (F17				
	/ed Matrix (S				F18) (MLRA 150A, 1	50B)	<sup>3</sup> Indicators	of hydrophytic vegetation and
Sandy Red	-	.,			lain Soils (F19) (ML			hydrology must be present, disturbed or problematic.
Stripped M	• •				t Loamy Soils (F20)			distanced of problematic.
	ce (S7) (LRF	PSTI	n		C LOGINY SOIIS (F20)	(MLKA 149	A, 1550, 1550)	
			<i>'</i> )					
Restrictive La	yer (if obse	erved):						
Туре:							Hydric Soil Present?	Yes 🔿 No 🖲
Depth (inch	es):						riyune son Presenti	
Remarks:								

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion City/	County: Waveland - Hancock Sampling Date: 12-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 11
Investigator(s): Lars Larson, Randy Ellis Sec	tion, Township, Range: S 31 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Hillside Local	relief (concave, convex, none): convex Slope: 3.0 % / 1.7°
at the terminant way and the terminant way and the terminant	24' 16.645" N Long.: 89° 37' 26.574" W Datum: NAD83
Soil Map Unit Name: PoB, Poarch fine sandy loam, 2 to 5% slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes  No (If no, explain in Remarks.)
Are Vegetation . , Soii , or Hydrology inaturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing samplin	ng point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes $ullet$ No $igodot$	Is the Sampled Area
Hydric Soil Present? Yes O No 🖲	within a Wetland? Yes O No 👁
Wetland Hydrology Present? Yes O No 🖲	
Remarks:	
On sideslope 30-feet up from bottom drainage area, approximately 150-fee	et North of Turtleskin Creek
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3)	
Water Marks (B1)	
Sediment Deposits (B2)	
Drift Deposits (B3)	
Algal Mat or Crust (B4)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remark	s) Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:       Surface Water Present?     Yes <ul> <li>No</li> <li>Depth (inches):</li> <li>Depth (inches):</li> </ul>	
	Wetland Hydrology Present? Yes O No 💿
Saturation Present? Yes No O Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
1	1

			ominant pecies?		Sampling Point: Up - 11		
Tree Stratum (Plot size: 30 m )	Absolute % Cover	R		Indicator Status	Dominance Test worksheet:		
1. Pinus elliotti	5		20.0%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)		
2 Nyssa sylvatica	10		40.0%	FAC			
3 Magnolia virginiana	8		32.0%	FACW	Total Number of Dominant Species Across All Strata: 6 (B)		
Quercus nigra	and the second sec		8.0%	FAC			
5	0		0.0%		Percent of dominant Species		
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
7			0.0%		Prevalence Index worksheet:		
* Constant	0		0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 12.5 20% of Total Cover: 5		= To	tal Cove		OBL species $0 \times 1 = 0$		
Sapling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species $49 \times 2 = 98$		
		V	55.6%	FAC	FAC species $31 \times 3 = 93$		
Nyssa sylvatica	10		· · · · · · · · · · · · · · · · · · ·	FACW			
Magnolia virginiana			27.8%		FACU species $1 \times 4 = -4$		
Quercus texana		H	5.6%	FACW	UPL species $0 \times 5 = 0$		
Quercus nigra	2		11.1%	FAC	Column Totals: <u>81</u> (A) <u>195</u> (B)		
			0.0%		Prevalence Index = $B/A = 2.407$		
			0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		nyulophytic vegetation indicators.		
B	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
50% of Total Cover: 9 20% of <b>Tota</b> l Cover: 3.6	3.6 18 = 1		18 = Total Cover		✓ 2 - Dominance Test is > 50%		
Shrub Stratum (Plot size: 30 m					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex coriacea	30	~	85.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
2 Ilex vomitoria	3		8.6%	FAC			
] Ilex opaca	2		5.7%	FAC	<sup>1</sup> Indicators of hydric soll and wetland hydrology must		
	0		0.0%		be present, unless disturbed or problematic.		
5.	and the second se		0.0%		Definition of Vegetation Strata:		
)	0	$\Box$	0.0%		Tree - Woody plants, excluding woody vines,		
50% of Total Cover: 17.5 20% of Total Cover: 7	Total Cover: 17.5 20% of Total Cover: 7 35 = Total Cover			•	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
Herb Stratum (Plot size: <u>30 m</u> )		_			Sapling - Woody plants, excluding woody vines,		
1. Pteridium aquilinum	1	Ц,	100.0%	FACU	approximately 20 ft (6 m) or more in height and less		
2	0		0.0%		than 3 in. (7.6 cm) DBH.		
3	0,	Ц,	0.0%				
4	0	<u> </u>	0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.		
5	0	D,	0.0%		than 3 in. DBH and greater than 3.28 tt (1m) tail.		
6	0	$\Box$ .	0.0%		Shrub - Woody plants, excluding woody vines,		
7	- 0	<u> </u>	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
8	0		0.0%				
9	0	$\Box$	0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody		
0.	0		0.0%		plants, except woody vines, less than approximately		
1	0		0.0%		3 ft (1 m) in height.		
2.	0		0.0%				
50% of Total Cover: 0.5 20% of Total Cover: 0.2	1 =	= To	tal Cover		Woody vine - All woody vines, regardless of height.		
Woody Vine Stratum (Plot size: 30 m )	2		100.004	FAC			
Vitis rotundifolia	2		100.0%	FAC .			
• · · · · · · · · · · · · · · · · · · ·			0.0%				
	0	Ц.	0.0%				
•	0	닏.	0.0%		Hydrophytic		
	0	Ц,	0.0%		Vegetation		
50% of Total Cover: 1 20% of Total Cover: 0.4	2 =	= To	tal Cover		Present? Yes I No		

Remarks: (If observed, list morphological adaptations below).

Heavy pine straw layer...herbaceous layer almost absent.

Sampling	Point:	Up - 11

Profile Descri	iption: (De	scribe to	the depth	needed to document the indicator or co	nfirm the a	absence of indicators.)	
Depth		Matrix		Redox Features			
(inches)	Color (		0/0	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	3/3	100			Loamy Sand	
5-16	10YR	5/6	100			Loamy Sand	
						-	
	-						
<sup>1</sup> Type: C=Conc	entration. D	=Depletio	n. RM <b>=R</b> edu	iced Matrix, CS=Covered or Coated Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=	Matrix
Hydric Soil I	ndicators:					Indicators for Prot	lematic Hydric Soils <sup>3</sup> :
🗌 🗌 Histosol (A	1)			Polyvalue Below Surface (SB) (LRR	S, T, U)	1 cm Muck (A9)	
🗌 Histic Epip	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U	)	2 cm Muck (A10	
🔲 Black Histi	c (A3)			Loamy Mucky Mineral (F1) (LRR O)		_ `	F18) (outside MLRA 150A,B)
🗌 Hydrogen :	Sulfide (A4)			Loamy Gleyed Matrix (F2)			lain Soils (F19) (LRR P, S, T)
Stratified L	ayers (A5)			Depleted Matrix (F3)		_	t Loamy Soils (F20) (MLRA 153B)
🗌 Organic Bo	dies (A6) (L	RR P, T, U	J)	Redox Dark Surface (F6)		Red Parent Mate	, , ,, ,
5 cm Muck	y Mineral (A	7) (LRR P	, T, U)	Depleted Dark Surface (F7)			rk Surface (TF12)
	ence (AB) (L			Redox Depressions (F8)			
	(A9) (LRR F	-		Marl (F10) (LRR U)		U Other (Explain in	Remarks)
	eiow Dark S		11)	Depleted Ochric (F11) (MLRA 151)			
	Surface (A1		,	□ Iron-Manganese Masses (F12) (LRR			
	ie Redox (A		1504)		0, 5, 1)		
	k Mineral (S			Umbric Surface (F13) (LRR P, T, U)			
	ved Matrix (S		, .)	Delta Ochric (F17) (MLRA 151)	1 500)	<sup>3</sup> Indicators	of hydrophytic vegetation and
Sandy Gley				Reduced Vertic (F18) (MLRA 150A,	-	wetland	hydrology must be present,
				Piedmont Floodplain Soils (F19) (ML	-		s disturbed or problematic.
Stripped M				Anomaious Bright Loamy Soils (F20)	(MLRA 149	JA, 153C, 153D)	
	ce (S7) (LRR	(P, S, I, I	))				
 De atriatico I a							
Restrictive La	yer (if obse	ervea):			[		
Depth (inch	es):					Hydric Soll Present?	Yes 🔿 No 🖲
Remarks:	/-					·	

andform (hillslope, terrace, etc.):       Hillside       Loc         ubregion (LRR or MLRA):       LRR T       Lat.:       30°         oll Map Unit Name:       At, Atmore silt loam, 0 to 2 percent slopes       Are climatic/hydrologic conditions on the site typical for this time of year?         Are Vegetation       , Soil       , or Hydrology       significantly di         Are Vegetation       , Soil       , or Hydrology       naturally probl         SUMMARY OF FINDINGS - Attach site map showing sample       Display       Display	ematic? (If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present?       Yes ●       No ○         Hydric Soil Present?       Yes ●       No ○         Wetland Hydrology Present?       Yes ○       No ●         Remarks:	Is the Sampled Area within a Wetland? Yes O No O
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LF         Saturation (A3)       Hydrogen Sulfide Odor         Water Marks (B1)       Oxidized Rhizospheres         Sediment Deposits (B2)       Presence of Reduced Ir         Drift Deposits (B3)       Recent Iron Reduction         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Rema         Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)	(C1)       Moss Trim Lines (B16)         along Living Roots (C3)       Dry Season Water Table (C2)         on (C4)       Crayfish Burrows (C8)         n Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Geomorphic Position (D2)
Field Observations:       Surface Water Present?       Yes       No       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):	Wetland Hydrology Present? Yes O No 🖲
Remarks:	

	_		pecies?		Sampling Point: Up - 12
		e Re	el.Strat.	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: <u>30 m</u> )	% Cove	r	Cover	Status	Number of Dominant Species
Pinus elliottii	25	✓	75.8%	FACW	That are OBL, FACW, or FAC:4(A)
Magnolia virginiana	5		15,2%	FACW	Tabl Number of Devicest
Quercus nigra	3		9.1%	FAC	Total Number of Dominant Species Across All Strata: 4 (B)
·	•		0.0%		
			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:
0% of Total Cover: 16.5 20% of Total Cover: 6.6	*	= 10	tal Cove	r	
apling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species $110 \times 2 = 220$
Pinus elliotti	30		71.4%	FACW	FAC species 19 x 3 = 57
Nyssa sylvatica	10	<	23.8%	FAC	FACU species $0$ , $x 4 = 0$
Quercus nigra	2		4.8%	FAC	UPL species $0 \times 5 = 0$
			0.0%		Column Totals: 129 (A) 277 (B)
			0.0%		
			0.0%		Prevalence Index = B/A =2,147
			0.0%		Hydrophytic Vegetation Indicators:
		Π	0.0%		
		ш.			1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 21 20% of Total Cover: 8.4	42	= To	tal Cove	r	✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m)				i	✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea	50	V	92.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Іюх ораса	3	$\square$	5.6%	FAC	
with a second	_		1.9%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
· · · · · · · · · · · · · · · · · · ·		F	0.0%		be present, unless disturbed or problematic.
					Definition of Vegetation Strata:
			0.0%		-
	0	$\Box$	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 27 20% of Total Cover: 10.8	54	= To	tal Cove	r	(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m)					
		$\square$	0.0%		Sapling - Woody plants, excluding woody vines,
	0	Ē	0.0%		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH,
	0	H			
	_	H	0.0%		Sapling/Shrub - Woody plants, excluding vines, less
м. <sup>1</sup> Тг	0	Ξ.	0.0%	•	than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0	Ц.	0.0%		5
			0.0%		Shrub - Woody plants, excluding woody vines,
A	0	Ц.	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
	0	$\Box$	0.0%		
	0		0.0%		Herb - All herbaceous (non-woody) plants, including
· · · · · · · · · · · · · · · · · · ·	0		0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
· · · · · · · · · · · · · · · · · · ·	0		0.0%		3 ft (1 m) in height.
	0	$\square$	0.0%	4	
0% of Total Cover: 0 20% of Total Cover: 0		_ Te	tal Cover	-	Woody vine - All woody vines, regardless of height.
	0	- 10	COL COAG		
oody Vine Stratum (Plot size: 30 m )					· · · · · · · · · · · · · · · · · · ·
	0		0.0%		
	0		0.0%		
			0.0%		
			0.0%		
	0				
		E.			Hydrophytic
	. 0		0.0%		Hydrophytic Vegetation Present? Yes • No ()

C	In a landar	
Sampling	Pointi	Up - 12

JUIL										mpling Point: Up - 12
Profile Desci	ription: (De	scribe to	the depth	needed to a	documen	t the indic	cator or co	onfirm the	absence of indicato	rs.)
Depth		Matrix			Re	dox Feat				
(inches)	Color (	(moist)	%	Color (	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	3/2	100						Loamy Sand	
5-16	10YR	4/3	97	10YR	6/8	3	С	м	Loamy Sand	appears to be mottles,
5 10		1,5			0,0					rossibly some REDOX below
										N 0-
							4.5 E-2400			
					-					
	<u> </u>				_	-		-		
					-					
1		N 1.0								
		=Deblecio	n, KM=Reau	iced Matrix, C	S=Cover	ed or Coate	ed Sand Gra	ains <sup>2</sup> loca	tion: PL=Pore Lining.	M=Matrix
Hydric Soil I									Indicators for F	Problematic Hydric Soils <sup>3</sup> :
Histosol (	A1)			Poly	yvalue Bel	ow Surface	e (S8) (LRR	S, T, U)	🗌 1 cm Muck (	A9) (LRR O)
📋 Histic Epip	pedon (A2)			🗌 Thi	n Dark Su	rface (S9) (	(LRR S, T, I	J)		A10) (LRR S)
🗌 Black Hist	ic (A3)						-1) (LRR O)			tic (F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)					d Matrix (F				
	Layers (A5)				pleted Mat	-	-,		_	oodplain: Soils (F19) (LRR P, S, T)
=	odies (A6) (L	RRPTI	n			Surface (F6)	`		_	Bright Loamy Soils (F20) (MLRA 153B)
<u> </u>	iky Mineral (A					• •	·			(aterial (TF2)
<u> </u>			, 1, 0)			k Surface (			Very Shallow	/ Dark Surface (TF12)
	sence (A8) (L				•	ssions (F8)			Other (Expla	in in Remarks)
_	k (A9) (LRR I			Mar	d (F10) (L	rr u)				
	Below Dark S		11)	Dep	pleted Och	ric (F11) (I	MLRA 151)			
	k Surface (A1	•		Iror	n-Mangane	ese Masses	(F12) (LRF	ξ O, P, T)		
Coast Prai	irie Redox (A	16) (MLRA	A 150A)	🗌 Um	bric Surfac	ce (F13) (L	RR P, T, U)			
🔲 Sandy Mu	ck Mineral (S	1) (LRR O	), S)	Delt	ta Ochric (	F17) (MLR	A 151)		2	
Sandy Gle	yed Matrix (S	54)		Red	luced Vert	ic (F18) (M	LRA 150A,	150B)		tors of hydrophytic vegetation and
Sandy Red	dox (\$5)			_			, Is (F19) (MI			and hydrology must be present, nless disturbed or problematic.
_	Aatrix (S6)					•		-	9A, 153C, 153D)	
	ace (S7) (LRF	DSTI	n			Igne Loanny	7 3013 (1 20		5A, 135C, 135D)	
		(1, 0, 1, 0	5)							
<b>Restrictive La</b>	ayer (if obse	erved);								
Type:										
Depth (inch									Hydric Soil Prese	nt? Yes 🖲 No 🔿
	ics).				i *	-				
Remarks:										
Soil profile is f	fairly bright	below 5	-6 inches	. Mottling i	is evident	t in the lo	wer portic	on of the s	oil profile, but has t	he appearance of a sandy redox
condition.										

State: MS Sampling Point: Up - 14
ection, Township, Range: S 29 T 7 s R 16 W
cal relief (concave, convex, none): none Slope: 0,0 % / 0,0 °
° 24' 10.337" N Long.: 89° 37' 1.097" W Datum: NAD83
NWI classification: N/A
Yes  No O (If no, explain in Remarks.)
isturbed? Are "Normal Circumstances" present? Yes
lematic? (If needed, explain any answers in Remarks.) ling point locations, transects, important features, etc.
ing point locations, transects, important reactines, etc.
Is the Sampled Area
within a Wetland? Yes O No 💿
ntral portion of AOI south of TS Creek. Small patch area that appears to
Secondary Indicators (minimum of 2 required)
Surface Soil Cracks (B6)
RR U) Sparsely Vegetated Concave Surface (B8)
(C1) Moss Trim Lines (B16)
along Living Roots (C3)
ron (C4) Crayfish Burrows (C8)
in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
) Geomorphic Position (D2)
arks) 🗌 Shallow Aquitard (D3)
FAC-Neutral Test (D5)
Sphagnum moss (D8) (LRR T, U)
Wetland Hydrology Present? Yes O No 🖲
previous inspections), if available:

	_		ominant pecies? _		Sampling Point: Up - 14
ree Stratum (Plot size: 30 m)	Absolute % Cover		el.Strat. Cover	Indicator Status	
Pinus elliottii	10	V	66.7%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 9 (A)
Magnolia grandiflora	3		20.0%	FAC	
Magnella virginiana	2		13.3%	FACW	Total Number of Dominant
	~		0.0%	176.00	Species Across All Strata:9 (B)
		Н	0.0%		Percent of dominant Species
	_				That Are OBL, FACW, or FAC: 100.0% (A/B
	-		0.0%		
w			0.0%		Prevalence Index worksheet:
		$\Box$	0.0%	····	Total % Cover of: Multiply by
0% of Total Cover: 7.5 20% of Total Cover: 3	15	= To	stal Cover	r	OBL species $0 \times 1 = 0$
pling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species 77 x 2 = 154
Pinus elliottii	10	V	50.0%	FACW	FAC species $19 \times 3 = 57$
Quercus faicata			5.0%	FACU	FACU species $1 \times 4 = 4$
Acer rubrum	_		25.0%	FAC	UPL species $0 \times 5 = 0$
Liquidambar styraciflua	4		20.0%	FAC	
			0.0%		Column Totals: <u>97</u> (A) <u>215</u> (B
▲ <b>x</b> ,			0.0%		Prevalence Index = B/A = 2.216
	and the second second				Hydrophytic Vegetation Indicators:
			0.0%	r ·	
		Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 10 20% of Total Cover: 4	20	= To	tal Cover	r	✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea	30	~	66.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex vomitoria	5		11.1%	FAC	
			22.2%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
Ilex glabra	•	-		TACW	be present, unless disturbed or problematic.
			0.0%		Definition of Vegetation Strata:
	0		0.0%		Definition of Vegetation Strata:
	0	Ц,	0.0%	k	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 22.5 20% of Total Cover: 9	45 :	= To	stal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30,m )					
Ilex glabra	10		66.7%	FACW	Sapling - Woody plants, excluding woody vines,
Ilex coriacea	5		33.3%	FACW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
	-	-			
	0				
	- 0.		0.0%		Sapling/Shrub - Woody plants, excluding vines, less
•	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
······	0		0.C% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0 0 0		0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines,
	0 0 0 0		0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0		0.0% 0.0% 0.0% 0.0%		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
· · · · · · · · · · · · · · · · · · ·	0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 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%		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
% of Total Cover: 7.5 20% of Total Cover: 3	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%		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.
% of Total Cover:	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% 0.0% 0.0% 0.0%		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.
% of Total Cover: 7.5 20% of Total Cover: 3 ody Vine Stratum (Plot size: 30 m ) Smilax rotundifolia	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% 0.0% 0.0% 0.0%		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.
% of Total Cover: 7.5 20% of Total Cover: 3 wody Vine Stratum (Plot size: 30 m )	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% 0.0% 0.0% 0.0%		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.
% of Total Cover:	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% 0.0% 0.0% 0.0%		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.
9% of Total Cover: 7.5 20% of Total Cover: 3 <b>pody Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Smilax rotundifolia</b>	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% 0.0% 0.0% 0.0%		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: 7.5 20% of Total Cover: 3 <b>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</b>	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% 0.0% 0.0% 0.0%		<ul> <li>than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>
0% of Total Cover: 7.5 20% of Total Cover: 3 oody Vine Stratum (Plot size: 30 m ) Smilax rotundifolia	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	<ul> <li>than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up - 14

Douth	iption: (De	Matrix	the depth	needed to document Red	the Indicator or c ox Features	onfirm the a	absence of indicators.	)
Depth (inches)	Color (		0/0	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	3/2	100				Sandy Loam	
5-18	10YR	5/6	100				Sandy Loam	
		=Depletior	n. RM=Redu	ced Matrix, CS=Covered	or Coated Sand G	ains <sup>2</sup> Loca	tion: PL=Pore Lining. M	=Matrix
ydric Soil I							_	oblematic Hydric Solls <sup>3</sup> :
Histosol (/	•				w Surface (S8) (LRF		1 cm Muck (A9	
Histic Epip					ace (S9) (LRR S, T,		2 cm Muck (A1	
Black Histi					Mineral (F1) (LRR O	)		(F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed			_	lplain Soils (F19) (LRR P, S, T)
	Layers (A5)			Depleted Matri			🔄 Anomalous Brig	ht Loamy Soils (F20) (MLRA 153B)
5	odies (A6) (L			Redox Dark Su			Red Parent Mai	
	ky Mineral (A		, I, U)	Depleted Dark	• •		Very Shallow D	ark Surface (TF12)
	ence (A8) (L	111		Redox Depress	. ,		🔲 Other (Explain	in Remarks)
	k (A9) (LRR F			🔟 Marl (F10) (LR	•			
	Below Dark S		.1)	·	c (F11) (MLRA 151)			
	CSurface (A1			Iron-Manganes	e Masses (F12) (LR	R Ö, P, T)		
	rie Redox (A	197 F		Umbric Surface	: (F13) (LRR P, T, U	)		
	ck Mineral (S		, S)	Delta Ochric (F	17) (MLRA 151)		3 <sub>Indicato</sub>	rs of hydrophytic vegetation and
	yed Matrix (S	54)		Reduced Vertic	(F18) (MLRA 150A	, 150B)		d hydrology must be present,
Sandy Red				Piedmont Flood	iplain Soils (F19) (M	LRA 149A)	unie	ss disturbed or problematic.
Stripped M Dark Surfa	latrix (S6) Ice (S7) (LRR	е Р, <b>S,</b> Т, U	J)	🔲 Anomalous Brig	jht Loamy Soils (F2	)) (MLRA 149	9 <b>A, 1</b> 53C, 153D)	
strictive La	yer (if obse	erved):						
Туре:					-			
Depth (inch	es):						Hydric Soil Present	? Yes 🔾 No 🖲
marks: brightens	up in color	apprecia	bly below	4-5 incher bsg. No r	noisture or hydrid	: indicators.		

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatilon City	/County: Waveland - Hancock Sampling Date: 14-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 16
Investigator(s): Lars Larson, Randy Ellis	ction, Township, Range: S 28 T 7 s R 16 W
Landform (hillslope, terrace, etc.):	I relief (concave, convex, none):Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat.: 30°	24' 11.929" N Long.: 89° 36' 42.814" W Datum: NAD83
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	NWI classification: N/A
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 dis	turbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation , Soil , or Hydrology naturally proble	•
SUMMARY OF FINDINGS - Attach site map showing sampli	
Hydrophytic Vegetation Present? Yes  No O	To the Completion
Hydric Soil Present? Yes O No 🖲	Is the Sampled Area
Wetland Hydrology Present? Yes O No 💿	within a Wetland?
Remarks: Area is just north of the darainage from an old settlement on the East Sid made pond and then downslope into a natural wetland.	le of the AOI. Drinking Water Well (broken - flowing water) feeds a man
HYDROLOGY	
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required: check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LRI         Saturation (A3)       Hydrogen Sulfide Odor (         Water Marks (B1)       Oxidized Rhizospheres a         Sediment Deposits (B2)       Presence of Reduced Irc         Drift Deposits (B3)       Recent Iron Reduction in         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Remark)         Water-Stained Leaves (B9)       Field Observations:         Surface Water Present?       Yes       No          Water Table Present?       Yes       No          Depth (inches):       Saturation Present?       Yes         No        Depth (inches):       Depth (inches):         Saturation Present?       Yes       No        Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro-       Depth (inches):	(C1)       Moss Trim Lines (B16)         Idong Living Roots (C3)       Dry Season Water Table (C2)         on (C4)       Crayfish Burrows (C8)         n Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Geomorphic Position (D2)         iss)       Shallow Aquitard (D3)         Image: FAC-Neutral Test (D5)         Sphagnum moss (D8) (LRR T, U)
Remarks:	

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

			ominant		Sampling Point: Up - 16
		te R	el.Strat.	Indicator	Dominance Test worksheet:
(Plot size: 30 m )	% Cov	/er	Cover	Status	Number of Dominant Species
Pinus taeda	10		Provent from the second	FAC	That are OBL, FACW, or FAC: 8_ (A)
Pinus elliottii	10		38.5%	FACW	
Quercus nigra	5		19.2%	FAC	Total Number of Dominant Species Across All Strata: 8 (B)
Quercus virginiana	1		3.8%	FACU	
· · · · · · · · · · · · · · · · · · ·			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
	_		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
			0.0%		Prevalence Index worksheet:
			0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 13 20% of Total Cover:		= T	otal Cove	r	OBL species $0 \times 1 = 0$
Sapling or Sapling/Shrub Stratum (Piot size: 30)					FACW species $17 \times 2 = 34$
		V	25.0%	FACW	FAC species $63 \times 3 = 189$
<ul> <li>A set of a set of</li></ul>				a second design	
			15.0%	FAC	
Quercus nigra				FAC	UPL species $0 \times 5 = 0$
Quercus virginiana		H	0.0%	FACU	Column Totals: 81 (A) 227 (B)
Magnolia virginlana			10.0%	FACW	Prevalence Index = $B/A = 2.802$
M 7			0.0%		
			0.0%		Hydrophytic Vegetation Indicators:
	0	. Ц	0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 10 20% of Total Cover:	4 20	= To	otal Cove	r	✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m )		-		i	$\overline{\mathbf{V}}$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex vomitoria	20		80.0%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				FAC	
	0		0.0%	[AL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		H			be present, unless disturbed or problematic.
			0.0%		- Cutting of Manatalian Strates
	0		0.0%	5.70.001	Definition of Vegetation Strata:
	0	, L	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 12.5 20% of Total Cover:	5 25	_ = To	otal Cove	r I	(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 30 m )		ا		-	Sapling - Woody plants, excluding woody vines,
1 _ Ilex vomitoria				FAC	approximately 20 ft (6 m) or more in height and less
2	0		0.0%		than 3 in. (7.6 cm) DBH.
3	0		0.0%		
4	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
5,	0		0.0%		than 3 In. DBH and greater than 3.20 it (111) tool.
6	0		0.0%		Shrub - Woody plants, excluding woody vines,
7	0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
8	0		0.0%	-	
9	0		0.0%		Herb - All herbaceous (non-woody) plants, including
D	0		0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
1.	0		0.0%	-	3 ft (1 m) in height.
2	0		0.0%		
50% of Total Cover: 2.5 20% of Total Cover:		- T	otal Cove		Woody vine - All woody vines, regardless of height.
Woody Vine Stratum         (Plot size: 30 m         )					
	5		100.0%	FAC	
Vitis rotundifolia			0.0%	Inc	
	0	<u> </u>			
· · · · · · · · · · · · · · · · · · ·					
	0		0.0%		
	0,0		0.0%		Hydrophytic
	0 0 0				Hydrophytic Vegetation Present? Yes • No •

Heavy pine litter - very little herbaceous layer.

Sampling Point: Up - 16

Profile Descri	iption: (De	scribe to	the depth	needed to document the indicator or confi	rm the	absence of indicators.)
Depth		Matrix		Redox Features		
(inches) 0-5	LOVR	(moist) 3/3	% 100	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks
· · · ·	10YR		-			
5-16	IUTK	5/6	100			Loamy Sand
<sup>1</sup> Type: C=Conc	centration. D	Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains	<sup>2</sup> Loca	ation: PL=Pore Lining. M=Matrix
Hydric Soil I	ndicators:					Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A	<b>\1</b> )			Polyvalue Below Surface (S8) (LRR S, T	r, U)	1 cm Muck (A9) (LRR O)
🗌 Histic Epip	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U)		2 cm Muck (A10) (LRR S)
📃 Black Histi	c (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 L	ayers (A5)			Depleted Matrix (F3)		Anomalous Bright Loamy Soils (F20) (MLRA 153B)
Organic Bo	odies (A6) (L	RR P, T, U	J)	Redox Dark Surface (F6)		Red Parent Material (TF2)
	cy Mineral (A			Depleted Dark Surface (F7)		Very Shallow Dark Surface (TF12)
	ence (AB) (L			Redox Depressions (F8)		
1 cm Muck	(A9) (LRR	P, T)		Marl (F10) (LRR U)		Other (Explain in Remarks)
Depleted E	Below Dark S	Surface (A:	1)	Depleted Ochric (F11) (MLRA 151)		
	Surface (A:			Iron-Manganese Masses (F12) (LRR O,	P. T)	
	rie Redox (A		150A)	Umbric Surface (F13) (LRR P, T, U)	• • • •	
	k Mineral (S		-	Delta Ochric (F17) (MLRA 151)		
	ved Matrix (			Reduced Vertic (F18) (MLRA 150A, 150	IR)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Red		.,		Piedmont Floodplain Soils (F19) (MLRA		wetfand hydrology must be present, unless disturbed or problematic.
Stripped M				Anomalous Bright Loamy Soils (F20) (M		
	ce (S7) (LRI	ς Ρ, <b>S</b> , Τ, ι	J)			77ry 1330, 1330)
Restrictive La	yer (if obs	erved):				
Type:						
Depth (inch	es):					Hydric Soil Present? Yes O No 🖲
Remarks:					_	
No hydric india	cators.					

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/Co	unty: Waveland - Hancock Sampling Date: 14-Oct-16 State: MS Sampling Point: Up - 17
Applicant/Owner: NASA	
Landform (hillslope, terrace, etc.): Hillside Local re	elief (concave, convex, none): none Slope: 1.0 % / 0.6 °
Subregion (LRR or MLRA): LRR T Lat: 30° 23'	44.728" N Long.: 89° 36' 42.219" W Datum: NAD83
Soil Map Unit Name: EsA, Escambia loam, 0 to 2 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes 🖲 No 🔾 (If no, explain In Remarks.)
Are Vegetation . , Soll . , or Hydrology . significantly distur	bed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally problema	tic? (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 $ullet$ No $igodot$	Is the Sampled Area
Hydric Soil Present? Yes O No 🖲	
Wetland Hydrology Present? Yes O No 💿	within a Wetland?
Remarks: Hillslope (slight angle) <2% approximately 75 feet southwest of Wet-17. T lack of hydrology. Soils still show signs of REDOX and mottling.	his is on the side of a drained wetland. This area is dryer because of a
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3)	
Water Marks (B1) Oxidized Rhizospheres along	
Sediment Deposits (B2)     Presence of Reduced Iron (       Drift Deposits (B3)     Recent Iron Reduction in Till	
Algal Mat or Crust (B4)	Geomorphic Position (D2)
□ Iron Deposits (B5) □ Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes O No 💿 Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	
Saturation Present? Ves No  Penth (inches):	Wetland Hydrology Present? Yes 🔿 No 🖲
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previo	ous inspections) if available:
Remarks:	
some light redoximorphic features in lower portion of test hole. No hydrology	

	names or	Do	minant		Sampling Point: Up - 17		
	Absolute		ecies? .	Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cover		Cover	Status			
Quercus nigra	10	$\checkmark$	50.0%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 8 (A)		
Pinus elliottii			25.0%	FACW			
Nyssa sylvatica	_		15.0%	FAC	Total Number of Dominant Species Across All Strata: 8 (B)		
Liquidambar styraclflua		П	5.0%	FAC			
an a			5.0%		Percent of dominant Species		
· · · · · · · · · · · · · · · · · · ·		Π.	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
n n n n n n n n n n n n n n n n n n n			0.0%		Prevalence Index worksheet:		
	0	$\overline{\Box}$	0.0%	• .	Total % Cover of Multiply by:		
0% of Total Cover: 10 20% of Total Cover: 4		= To	tal Cove	-	$\mathbf{OBL species} \qquad 0 \qquad \mathbf{x} 1 = 0$		
	4	- 10			FACW species $16 \times 2 = 32$		
pling or Sapling/Shrub Stratum (Plot size: 30 m			10 50/	EACIAL			
Pinus elliotti	3		12.5%	FACW			
Liquidambar styracifiua			20.8%	FAC	FACU species $4 \times 4 = 16$		
Quercus nigra	10		41.7%	FAC	UPL species 0 x 5 = 0		
Magnolia grandiflora			4.2%	FAC	Column Totals: 80 (A) 228 (B)		
Nyssa sylvatica			20.8%	FAC	Prevalence Index = $B/A = 2.850$		
			0.0%		Hydrophytic Vegetation Indicators:		
			0.0%				
	0	Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 12 20% of Total Cover: 4.8	24	= То	tal Cove	r	✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m)					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex vomitoria	10	✓	71.4%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex coriacea	1		7.1%	FACW			
Magnolia virginiana	2		14.3%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
Morella certifera			7.1%	FAC	be present, unless disturbed or problematic.		
		$\square$	0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 7 20% of Total Cover: 2.8	-	= To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in.		
· · · · · · · · · · · · · · · · · · ·							
					(7.6 cm) or larger in diameter at breast height (DBH).		
Arundinaria tecta			26.3%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
Arundinarla tecta Lygodium japonicum	40		52.6%	FAC	Sapling - Woody plants, excluding woody vines,		
Arundinarla tecta Lygodium japonicum , Pteridium aquilinum	10		52.6% 5.3%	FAC FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Arundinarla tecta Lygodium japonicum , Pteridium aquilinum Eupatorium capiliifolium	10		52.6%	FAC	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		
Arundinarla tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10		52.6% 5.3%	FAC FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Arundinarla tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10		52.6% 5.3% 15.8% 0.0% 0.0%	FAC FACU	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,		
Arundinarla tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10 1 3		52.6% 5.3% 15.8% 0.0%	FAC FACU	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.		
Arundinarla tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10 1 3 0		52.6% 5.3% 15.8% 0.0% 0.0%	FAC FACU	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.		
Arundinaria tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10 1 3 0 0		52.6% 5.3% 15.8% 0.0% 0.0% 0.0%	FAC FACU	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		
Arundinarla tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10 1 3 0 0 0		52.6% 5.3% 15.8% 0.0% 0.0% 0.0%	FAC FACU	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.		
Arundinarla tecta Lygodium japonkum Pteridium aquilinum Eupatorium capiliifolium	10 1 3 0 0 0 0		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0%	FAC FACU	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		
Arundinarla tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10 1 3 0 0 0 0 0 0 0		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC FACU	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.		
Arundinaria tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC FACU FACU	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		
Arundinaria tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium	10 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC FACU FACU	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.		
Arundinaria tecta         Lygodium japonicum         Pteridium aquilinum         Eupatorium capiliifolium         % of Total Cover:       9.5         20% of Total Cover:       3.8         wody Vine Stratum       (Plot size: 30 m)	10 1 3 0 0 0 0 0 0 0 0 0 0 19		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	FAC FACU FACU	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.		
Arundinaria tecta         Lygodium japonicum         Pteridium aquilinum         Eupatorium capiliifolium         % of Total Cover:       9.5         20% of Total Cover:       3.8         wody Vine Stratum       (Plot size: 30 m))         Vitis rotundifolia	10 1 3 0 0 0 0 0 0 0 0 0 0 19 3		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	FACU FACU FACU	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.		
Arundinaria tecta         Lygodium japonicum         Pteridium aquilinum         Eupatorium capiliifolium         % of Total Cover:       9.5         20% of Total Cover:       3.8         wody Vine Stratum       (Plot size: 30 m)	10 1 3 0 0 0 0 0 0 0 0 0 0 0 19 3 1		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 75.0% 25.0%	FAC FACU FACU	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.		
Arundinaria tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium W of Total Cover: 9.5 20% of Total Cover: 3.8 Doody Vine Stratum (Plot size: 30 m ) Vitis rotundifolia	10 1 3 0 0 0 0 0 0 0 0 0 19 3 1 0		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU FACU	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.		
Arundinaria tecta Lygodium japonicum Pteridium aquilinum Eupatorium capiliifolium 0% of Total Cover: 9.5 20% of Total Cover: 3.8 Dody Vine Stratum (Plot size: 30 m) Vitis rotundifolia	10 1 3 0 0 0 0 0 0 0 0 0 0 0 19 3 1 0 0 0 0 19 1 1 1 1 1 1 1 1 1 1 1 1 1		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU FACU	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.		
Lygodium japonkum     Pteridium aquilinum     Eupatorium capiliifolium      Of of Total Cover: 9.5 20% of Total Cover: 3.8      oody Vine Stratum (Plot size: 30 m)      Vitis rotundifolia	10 1 3 0 0 0 0 0 0 0 0 0 19 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0		52.6% 5.3% 15.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FAC FACU FACU FAC FAC FAC	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.		

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Sampling Point: Up - 17

Depth			are acpuil						absence of indicato	,
	Color (	Matrix	04	Calard	(moist)	dox Featu %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
(inches) 0-3	10YR	3/2	% 100	, Çolor i	moist	. %	Type	LOC-	, lexture	Kemarka
		· · · ·			-				Loamy Sand	
3-8	10YR	4/2	100						10.0	rusty brown mottling/redox
8-16	10YR	4/3	90	10YR	5/6	10	c	M	Loamy Sand	rusty brown mottling/redox in lower section of test
Type: C=Conc Tydric Soil I		=Depletio	n. RM <b>≂R</b> edu	ced Matrix,	CS=Covere	ed or Coate	d Sand Gra	ins <sup>z</sup> Loca	tion: PL=Pore Lining.	
Histosol (A					andua Pak	Surface	(69) (100	C T IN	_	Problematic Hydric Soils <sup>3</sup> :
Histic Epip				_		ow Surface			1 cm Muck (	
Black Histi	• •			_		face (S9) ( Mineral (F		-		A10) (LRR S)
_	Sulfide (A4)			_		Matrix (F2			_	tic (F18) (outside MLRA 150A,B)
	ayers (A5)			ومستر	pleted Mati		-)		_	oodplain Soils (F19) (LRR P, S, T)
	odies (A6) (L	RR P. T. I	n	_		urface (F6)			_	Bright Loamy Soils (F20) (MLRA 153B)
	w Mineral (A					c Surface (10)			_	faterial (TF2)
	ence (A8) (Li		, , -,		dox Depres	•	<i>'</i> )		·	Dark Surface (TF12)
-	(A9) (LRR F				rl (F10) (Li				🔟 Other (Expla	in in Remarks)
	Below Dark S		11)			ric (F11) (N	/I RA 151)			
	Surface (A1		,			se Masses				
	ie Redox (A:		(150A)		-	xe (F13) (Lf				
	k Mineral (S			_		F17) (MLR/				
		., (	1 ~/		u ounie (	117) (1100	- 131)		3 <sub>Todica</sub>	tors of hydrophytic vegetation and
Sandy Glev	ved Matrix (S	4)			luced Verti	ic (F18) (M	RA 150A	150B)	11 (01)(16	to:s of hydrophyde vegetation and
	/ed Matrix (S lox (S5)	4)				ic (F18) (M		-	wet	and hydrology must be present,
Sandy Red	ox (S5)	4)		🗌 Pie	dmont Floc	odplain Soil	s (F19) (MI	RA 149A)	wetl	and hydrology must be present, iless disturbed or problematic.
Sandy Red	ox (S5)		(r	🗌 Pie	dmont Floc	odplain Soil	s (F19) (MI	RA 149A)	wet	and hydrology must be present,
Sandy Red Stripped M	ox (S5) latrix (S6) ce (S7) (LRR	P, S, T, (	L)	🗌 Pie	dmont Floc	odplain Soil	s (F19) (MI	RA 149A)	wetl	and hydrology must be present,
Sandy Red	ox (S5) latrix (S6) ce (S7) (LRR	P, S, T, (	)	🗌 Pie	dmont Floc	odplain Soil	s (F19) (MI	RA 149A)	wetl	and hydrology must be present, nless disturbed or problematic.
Sandy Red	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse	P, S, T, (	(L	🗌 Pie	dmont Floc	odplain Soil	s (F19) (MI	RA 149A)	wetl	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa Dark Surfa	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse	P, S, T, (		🗌 Pie	dmont Floc	odplain Soil	s (F19) (MI	RA 149A)	wet! ui 9A, 153C, 153D)	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch temarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch temarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch temarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch temarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch emarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch emarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch emarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa Cestrictive La Type: Depth (inch Remarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch Remarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch emarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.
Sandy Red Stripped M Dark Surfa estrictive La Type: Depth (inch emarks:	ox (S5) latrix (S6) ce (S7) (LRR yer (if obse es):	P, S, T, (		Pie	dmont Floc omalous Br	odplain Soil	s (F19) (Mi Soils (F20	RA 149A) ) (MLRA 14	wet! 9A, 153C, 153D) Hydric Soll Prese	and hydrology must be present, nless disturbed or problematic.

roject/Site: NASA - Stennis; 1,100 Acre Wetland Delinear	tiion City/County: V	Vaveland - Hancock	Sampling Date: 18-Oct-16		
pplicant/Owner: NASA	S	ate: MS Samplin	g Point: Up - 18		
nvestigator(s): Lars Larson, Randy Ellis	Section, Town	ship, Range: S 29	T7s R 16W		
andform (hillslope, terrace, etc.): Hillside	Local relief (con	cave, convex, none):	Slope: 1.0 % / 0.6°		
ubregion (LRR or MLRA): LRR T	Lat: 209 241 45 192	N Long.: 89° 37' 3	8.549" W Datum: NAD83		
4. LWL 1		· · · · · · · · · · · · · · · · · · ·			
oil Map Unit Name: EsA, Escambia loam, 0 to 2 per		0 0	ssification: N/A		
re climatic/hydrologic conditions on the site typical f	for this time of year? Yes		in in Remarks.)		
Are Vegetation , Soil , or Hydrology	significantly disturbed?	Are "Normal Circumstance	es" present? Yes 🖲 No 🔿		
Are Vegetation 🗌 , Soil 🗌 , or Hydrology	naturally problematic?	(If needed, explain any an	ıswers in Remarks.)		
SUMMARY OF FINDINGS - Attach site ma	ap showing sampling point	locations, transects, in	nportant features, etc.		
Hydrophytic Vegetation Present? Yes 🔍 No	O Is the S	ampled Area			
Hydric Soil Present? Yes O No	•	Von O No			
Wetland Hydrology Present? Yes O No	within a	Wetland? Tes VINU (			
Remarks:	<b>_</b>	·			
Hillslope approximately 30 to 40 feet up from draia					
Wetland Hydrology Indicators:	·	Secondary Inc	dicators (minimum of 2 required)		
Primary Indicators (minimum of one required; che	eck all that apply)	Surface Sc	bil Cracks (B6)		
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely V	/egetated Concave Surface (B8)		
High Water Table (A2)	Marl Deposits (B15) (LRR U)	🗌 Drainage f	Drainage Patterns (B10)		
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim	1 Lines (B16)		
Water Marks (B1)	Oxidized Rhizospheres along Living R	oots (C3) 📃 Dry Seaso	n Water Table (C2)		
Sediment Deposits (B2)	Presence of Reduced Iron (C4)		Crayfish Burrows (C8)		
Drift Deposits (B3)	J Recent Iron Reduction in Tilled Soils		Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	J Thin Muck Surface (C7)	·	hlc Position (D2)		
Iron Deposits (B5)	Other (Explain in Remarks)	_	Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Coherence area (D2) (LDD T. L)		
Inundation Visible on Aerial Imagery (B7)					
Water-Stained Leaves (B9)			1 moss (D8) (LRR T, U)		
Field Observations: Surface Water Present? Yes O No 🖲	Douth (inches):				
	Depth (inches):				
Water Table Present? Yes 🔿 No 🏵	Depth (inches):	Wetland Hydrology Present? Yes O No 💿			
Saturation Present? Yes O No O	Depth (inches):	Heliand Hydrology Fresent			
Describe Recorded Data (stream gauge, monitoring	weli, aerial photos, previous inspe	ctions), if available:			
Demolos					
Remarks:					

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

	Dominant				Sampling Point: Up - 18		
	Absolut		pecies? . el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliottil	10	$\checkmark$	62.5%	FACW	That are OBL, FACW, or FAC:6 (A)		
Nyssa sylvatica	5		31.3%	FAC			
Quercus falcata	1	П	6.3%	FACU	Total Number of Dominant		
		П	0.0%		Species Across All Strata: 6 (B)		
			0.0%		Percent of dominant Species		
		H	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
		H		r			
and a second			0.0%		Prevalence Index worksheet:		
	0	Ľ,	0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 8 20% of Total Cover: 3.2	16	= To	otal Cove	r	OBL species 0 x 1 = 0		
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	}				<b>FACW species</b> 74 _ x 2 =148		
Pinus elliottii	10	$\checkmark$	55.6%	FACW	FAC species $20 \times 3 = 60$		
Nyssa sylvatica	-		27.8%	FAC	FACU species $1 \times 4 = 4$		
Magnolia virginlana	-		11.1%	FACW	UPL species $0 \times 5 = 0$		
Quercus nigra			5.6%	FAC	•		
Queress ingra	0	E.	0.0%		Column Totals: 95 (A) 212 (B)		
	0	H			Prevalence Index = $B/A = 2.232$		
			0.0%		Hydrophytic Vegetation Indicators:		
		- 11	0.0%		nydropnytic vegetation mulcators:		
		Ц	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 9 20% of Total Cover: 3.6	18	= Total Cover		r	✓ 2 - Dominance Test is > 50%		
Shrub Stratum (Plot size: 30 m )					✓ 2 · Dominance rest is $> 30$ / $^{1}$		
These sections as	40	V	81.6%	FACW			
	NAD				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex vomitoria			10.2%	FAC	1 Tediestens of hydric cell and webland hydrolegy much		
Ilex opaca		Ц.	4.1%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Liquidambar styracifiua	1	Ш,	2.0%	FAC	· · · · · · · · · · · · · · · · · · ·		
Magnolla virginiana	1		2.0%	FACW	Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 24.5 20% of Total Cover: 9.8	49	= To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: )							
					Sapling - Woody plants, excluding woody vines,		
Ilex coriacea			90.9%	FACW	approximately 20 ft (6 m) or more in height and less		
Arundinarla tecta		$\Box$	9.1%	FACW	than 3 in. (7.6 cm) DBH.		
	0	$\square$	0.0%				
	0		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		0.0%		Shrub - Woody plants, excluding woody vines,		
	0	$\square$	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
<ul> <li>A productive strategy of the stra</li></ul>	0		0.0%				
	0		0.0%	a	Herb - All herbaceous (non-woody) plants, including		
					herbaceous vines, regardless of size, and woody		
N	0		0.0%		plants, except woody vines, less than approximately		
	0	Ц.	0.0%		3 ft (1 m) in height.		
•••	0		0.0%				
0% of Total Cover: 5.5 20% of Total Cover: 2.2	11	= To	tal Cover		Woody vine - All woody vines, regardless of height.		
oody Vine Stratum (Plot size: 30 m )							
Smilax rotundifolia	4		100.0%	EAC			
				IAC			
1 <sub>14</sub>			0.0%				
	0		0.0%				
	°	Ц.	0.0%		Hudronbutic		
	0		0.0%		Hydrophytic Vegetation		
		5					
0% of Total Cover: 0.5 20% of Total Cover: 0.2		= Tol	tal Cover		Present? Yes I No		

Sampling Point: Up - 18

Profile Descr	iption: (De		the depth			onfirm the	absence of indicators.	)
Depth	· · · ·	Matrix			lox Features			-
(inches) 0-4	Color ( 10YR	moist) 4/2	•⁄• 100	Color (moist)	% <b>Type</b> <sup>1</sup>	Loc <sup>2</sup>	Loamy Sand	Remarks
4-16	10YR	5/6	100				Loamy Sand	
			· · · · · · · · · · · · · · · · · · ·	n ( )	····			· · ·
<sup>1</sup> Type: C=Conc Hydric Soil I		=Depletior	n. RM=Redu	ced Matrix, CS=Covere	d or Coated Sand Gra	ains <sup>2</sup> Loca	tion: PL=Pore Lining. M	
Histosol (A Histic Epip Black Histi Hydrogen Stratified L Organic Bc Stratified L Organic Bc Stratified L Organic Bc Striped A Depleted E Thick Dark Coast Prair Sandy Muc Sandy Muc	A1) edon (A2) c (A3) Sulfide (A4) .ayers (A5) odies (A6) (L cy Mineral (A ence (A8) (L c (A9) (LRR F Below Dark S c Surface (A1 rie Redox (A: ck Mineral (S yed Matrix (S ox (S5)	7) (LRR P, RR U) 2, T) urface (A1 2) 16) (MLRA 1) (LRR O, 34)	T, U) 1) 150A) S)	Thin Dark Surf Loamy Mucky Loamy Mucky Depleted Matri Redox Dark Su Depleted Dark Redox Deprese Marl (F10) (LR Depleted Ochri Iron-Manganes Umbric Surface Delta Ochric (F Reduced Vertic Piedmont Flood	ix (F3) Irface (F6) Surface (F7) sions (F8)	J) R O, P, T) 150B) RA 149A)	1 cm Muck (A9)     2 cm Muck (A10     Reduced Vertic     Piedmont Flood     Anomalous Brig     Red Parent Mat     Very Shallow Da     Other (Explain i <sup>3</sup> Indicator     wetlanc     unles	)) (LRR S) (F18) (outside MLRA 150A,B) plain Soils (F19) (LRR P, S, T) ht Loamy Soils (F20) (MLRA 153B) erial (TF2) ark Surface (TF12)
Restrictive La	yer (if obse	erved):				İ		
	es):				•0		Hydric Soil Present?	Yes O No 💿
Remarks:								

abbregion (LRR or MLRA):       LRR T       Lat: 30°         oil Map Unit Name:       HIB, Harleston fine sandy loam, 2 to 5 percent slopes         are climatic/hydrologic conditions on the site typical for this time of year?         Are Vegetation       , Soil       , or Hydrology       significantly dis         Are Vegetation       , Soil       , or Hydrology       naturally proble         SUMMARY OF FINDINGS - Attach site map showing sampli         Hydrophytic Vegetation Present?       Yes <ul> <li>No</li> <li>No</li> <li>Yes</li> <li>No</li> /ul>	matic? (If needed, explain any answers in Remarks.)
Hydric Soil Present? Yes O No 💿	Is the Sampled Area within a Wetland? Yes O No O
Wetland Hydrology Present? Yes O No Remarks: Sideslope of natural ridge leading up to railspur 70 to 80-feet to north.	"L
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Mari Deposits (B15) (LRi         Saturation (A3)       Hydrogen Sulfide Odor (         Water Marks (B1)       Oxidized Rhizospheres a         Sediment Deposits (B2)       Presence of Reduced Irco         Drift Deposits (B3)       Recent Iron Reduction in         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Remark)         Matter-Stained Leaves (B9)       Heaves (B9)	C1)       Moss Trim Lines (B16)         long Living Roots (C3)       Dry Season Water Table (C2)         n (C4)       Crayfish: Burrows (C8)         Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Geomorphic Position (D2)
Field Observations:       Surface Water Present?       Yes O       No O       Depth (inches):	Wetland Hydrology Present? Yes O No 🖲
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro Remarks:	vious inspections), if available:

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

VEGETATION (FIVE/Four Strata) - Use scientific	names v	Dominant			Sampling Point: Up - 19		
	Absolute	Species? e Rel.Strat. Indic		Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species		
Nyssa sylvatica	2		15.4%	FAC	That are OBL, FACW, or FAC:6(A)		
Pinus elliotti	10	$\checkmark$	76.9%	FACW			
Quercus nigra	1		7.7%	FAC	Total Number of Dominant Species Across All Strata: 6 (B)		
	0		0.0%				
	0		0.0%		Percent of dominant Species That Are OBLE ACW or EAC 100.0% (A/B)		
			0.0%		That Are OBL, FACW, or FAC: 100-0% (A/B)		
	0		0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 6.5 20% of Total Cover: 2.6	13	= то	tal Cove	r	OBL species 0 x 1 = 0		
apling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species 41 x 2 = 82		
Pinus elliottii	45	✓	75.0%	FACW	FAC species $39 \times 3 = 117$		
Nyssa sylvatica			10.0%	FAC	FACU species $0 \times 4 = 0$		
Acer rubrum			10.0%	FAC			
Magnolia virginiana			5.0%	FACW	-		
	0	E	0.0%	IAGH	Column Totals: 80 (A) 199 (B)		
	0		0.0%		Prevalence Index = B/A = 2.487		
164°			0.0%		Hydrophytic Vegetation Indicators:		
1	0	Н	0.0%	* *			
		Ш,			1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 20% of Total Cover:4	20	= To	tal Cove	r	✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 $^1$		
Ilex coriacea	5		16.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex vomitoria			66.7%	FAC			
Morella cerifera	5		16.7%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
A			0.0%		be present, unless disturbed or problematic.		
	0		0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 15 20% of Total Cover: 6	30	= То	tal Cove		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )					(7.5 cm) of larger in diameter at breast neight (DDP).		
	10		100.001	FLOW	Sapling - Woody plants, excluding woody vines,		
Arundinaria tecta	10	⊻.	100.0%	FACW	approximately 20 ft (6 m) or more in height and less		
	0		0.0%		than 3 in. (7,6 cm) DBH.		
·	0	Ц.	0.0%		Carling/Chrub Meady slants publishing vinas loss		
•	0	Ц.	0.0%		Sapling/Shrub - Woody plants, excluding vines, le than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	0	<u> </u>	0.0%				
· · · · · · · · · · · · · · · · · · ·	0	Ľ.	0.0%		Shrub - Woody plants, excluding woody vines,		
·····	0	믐.	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
· · · · · · · · · · · · · · · · · · ·		<u> </u>	0.0%		Lieth All harbonous (non-woods) plants instuding		
	0		0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody		
			0.0%		plants, except woody vines, less than approximately		
	0		0.0%	1 ·	3 ft (1 m) in height.		
	0	Ц	0.0%				
0% of Total Cover: <u>5</u> 20% of Total Cover: <u>2</u>	10 :	= To	tal Cover		Woody vine - All woody vines, regardless of height.		
Ody Vine Stratum (Plot size: 30 m )	-		20 624				
Rubus argutus			28.6%	FAC			
Vitis rotundifolia			71.4%	FAC			
			0.0%				
	0		0.0%		Hydrophytic		
k	-						
0% of Total Cover: <u>3.5</u> 20% of Total Cover: <u>1.4</u>	0		0.0%		Vegetation Present? Yes INO		

Profile Descr	ription: (De	scribe to	the depth	needed to document the indicator or confirm	the absence of indi	cators.)
Depth		Matrix		Redox Features		
(inches)		moist)	%	Color (moist) % Type <sup>1</sup> L	c <sup>2</sup> Texture	Remarks
0-4	10YR	4/2	100	•		
4-16	10YR	5/4	100			
	<b>-</b> ••••					
		Y				
<sup>1</sup> Type: C≕Con	centration. D	=Depletior	. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains	Location: PL=Pore Li	ning. M=Matrix
Hydric Soil I	ndicators:				Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol (/	A1)			Polyvalue Below Surface (S8) (LRR S, T,		uck (A9) (LRR O)
🗌 Histic Epip	bedon (A2)			Thin Dark Surface (S9) (LRR S, T, U)		uck (A10) (LRR S)
🗌 Black Hist	ic (A3)			Loamy Mucky Mineral (F1) (LRR O)		d Vertic (F18) (outside MLRA 150A,B)
📋 Hydrogen	Sulfide (A4)			Loamy Gleyed Matrix (F2)	_	nt Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)			Depleted Matrix (F3)		ous Bright Loamy Soils (F20) (MLRA 153B)
📋 Organic B	odies (A6) (L	.RR P, T, U	)	Redox Dark Surface (F6)		rent Material (TF2)
	ky Mineral (A			Depleted Dark Surface (F7)		allow Dark Surface (TF12)
Muck Pres	sence (A8) (L	.RR U)		Redox Depressions (F8)		Explain in Remarks)
1 cm Muc	k (A9) (LRR I	P, T)		Mari (F10) (LRR U)		Explain in Reinarks)
Depleted I	Below Dark S	Surface (A1	1)	Depleted Ochric (F11) (MLRA 151)		
	k Surface (A1			Iron-Manganese Masses (F12) (LRR O, P	р	
Coast Prai	rie Redox (A	16) (MLRA	150A)	Umbric Surface (F13) (LRR P, T, U)	.,	
Sandy Mu	ck Mineral (S	1) (LRR O,	S)	Delta Ochric (F17) (MLRA 151)		
	, yed Matrix (S		•	Reduced Vertic (F18) (MLRA 150A, 150B	3 <sub>I</sub>	ndicators of hydrophytic vegetation and
Sandy Rec		•		Piedmont Floodplain Soils (F19) (MLRA 1-		wetland hydrology must be present, unless disturbed or problematic.
Stripped M				Anomalous Bright Loamy Soils (F20) (ML		uness distance of problemater
	ace (57) (LRF	R Р. S. T. U	n		- 11 <b>3-4</b> 1330, 1330)	
		,-,-	,			
Restrictive La	iyer (if obs	erved):				
Type:	ies):				Hydric Soil P	resent? Yes 🔿 No 🖲
	les).	• • •			-	
Remarks:						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation Ci	ty/County: Waveland - Hancock Sampling Date: 18-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 20
investigator(s): Lars Larson Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace Lo	cal relief (concave, convex, none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA); LRR T Lat.: 3	o 24' 37.542" N Long.: 89° 37' 2.639" W Datum: NAD83
oil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	
Are Vegetation     , Soil     , or Hydrology     significantly of Are Vegetation       Are Vegetation     , Soil     , or Hydrology     naturally prol	
SUMMARY OF FINDINGS - Attach site map showing sam	
Hydrophytic Vegetation Present? Yes  No O	
	Is the Sampled Area
, ·	within a Wetland? Yes 🔿 No 🕥
Wetland Hydrology Present? Yes O No 🖲	
Remarks: This is a broad flat just south of railroad spur 150 feet.	
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (	
Saturation (A3)     Hydrogen Sulfide Odd       Water Marks (B1)     Oxidized Rhizosphere	or (C1)     Image: Moss Trim Lines (B16)       s along Living Roots (C3)     Dry Season Water Table (C2)
Sediment Deposits (B2)	
Drift Deposits (B3)	
Algal Mat or Crust (B4)     Thin Muck Surface (C	
Iron Deposits (B5)     Other (Explain in Rem	
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 O No O Depth (inches):	
	Wetland Hydrology Present? Yes O No 🕥
Saturation Present? Yes O No O Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Remarks:	
TNATTIALINAT	

VEGETATION	(Five/Four Strat	a) -	Use scientific names	of plants
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	Dominant Species?				Sampling Point: Up - 20		
		e R	el.Strat.		Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species		
Magnolia virginiana Nyssa sylvatica	10	✓	83.3%	FACW	That are OBL, FACW, or FAC:3 (A)		
Nyssa sylvatica Quercus nigra			8,3%	FAC	Total Number of Dominant		
Quercus nigra	1		8.3%	FAC	Species Across All Strata: 3 (B)		
End development of the second	0		0.0%				
10. MB			0.0%		Percent of dominant Species That Are OBL_EACW or EAC: 100-0% (A/B)		
· · · · · · · · · · · · · · · · · · ·	0		0.0%		That Are OBL, FACW, or FAC:(A/B)		
	0		0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 6 20% of Total Cover: 2.4	12	= To	tal Cove		OBL species 2 x 1 = 2		
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species $77 \times 2 = 154$		
Pinus elliotti			83.3%	FACW	FAC species $3 \times 3 = 9$		
Quercus nigra			16.7%	FAC	FACU species $0 \times 4 = 0$		
		Π	0.0%				
	-		0.0%				
			0.0%		Column Totals: 82 (A) 165 (B)		
· · · · · · · · · · · · · · · · · · ·			0.0%		Prevalence Index = B/A = 2.012		
	0	H			Hydrophytic Vegetation Indicators:		
		H	0.0%				
		ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 3 20% of Total Cover: 1.2	6	= To	tal Cover		✓ 2 - Dominance Test is > 50%		
nrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex coriacea	50	✓	82.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex glabra			16.4%	FACW			
Vaccinium elliottii			1.6%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
			0.0%		be present, unless disturbed or problematic.		
	0		0.0%		Definition of Vegetation Strata:		
			0.0%		Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines,		
	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Total Cover: 30.5 20% of Total Cover: 12.2	0	  = To			Tree - Woody plants, excluding woody vines,		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 Prb Stratum (Plot size: 30 m )	0	 	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).		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 <b>arb Stratum</b> ( <sup>Plot size: 30 m ) <b>. Sabal minor</b></sup>	0 61	 = To	0.0% tal Cover 33.3%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 Prb Stratum (Plot size: 30 m ) Sabal minor Lycopodielia alopecuroides	0 61 1	= To	0.0% tal 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). Sapling - Woody plants, excluding woody vines,		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m ) , Sabal minor , Lycopodiella alopecuroides	0 61 1		0.0% tal Cover 33.3%	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.		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m ) Sabal minor Lycopodiella alopecuroides	0 61 1 2		0.0% tal Cover 33.3% 66.7%	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		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m ) , Sabal minor , Lycopodielia alopecuroides	0 61 1 2 0		0.0% tal Cover 33.3% 66.7% 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.		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 arb Stratum (Plot size: 30 m ) Sabal minor Lycopodiella alopecuroides	0 61 2 0 0 0		0.0% tal Cover 33.3% 66.7% 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.		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m ) , Sabal minor , Lycopodiella alopecuroides	0 61 2 0 0 0 0		0.0% ttal Cover 33.3% 66.7% 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		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m) , Sabal minor , Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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,		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m ) , Sabal minor , Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m) Sabal minor Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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		
D% of Total Cover: 30.5 20% of Total Cover: 12.2 arb Stratum (Plot size: 30 m ) Sabal minor Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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: 30.5 20% of Total Cover: 12.2 arb Stratum (Plot size: 30 m ) Sabal minor Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m) Sabal minor Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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 plants, except woody vines, less than approximately		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m) Sabal minor Lycopodielia alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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 plants, except woody vines, less than approximately 3 ft (1 m) in height.		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 arb Stratum (Plot size: 30 m ) Sabal minor Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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 plants, except woody vines, less than approximately 3 ft (1 m) in height.		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m) Sabal minor Lycopodiella alopecuroides 	0 61 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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 plants, except woody vines, less than approximately 3 ft (1 m) in height.		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m ) Sabal minor Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 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 3 ft (1 m) in height.		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m) Sabal minor Lycopodiella alopecuroides 	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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 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 3 ft (1 m) in height.		
0% of Total Cover: 30.5 20% of Total Cover: 12.2 erb Stratum (Plot size: 30 m) Sabal minor Lycopodiella alopecuroides	0 61 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 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 3 ft (1 m) in height.		

	infrion: (De		ale veptil i	iceded to (				ann n cie a	absence of indicators.)		
Depth (inches)	Color (	Matrix moist)	%	Color	moist)	dox Feat	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Rem	arke	
0-5	10YR	3/2	100		moise)	a 70	IVpe	LOC	Loamy Sand	or no	
5-12	10YR	4/3	100		· #*				Loamy Sand	14 · · ·	
12-20	10YR	5/4	90	10YR	6/6	10	с	м	Loamy Sand		
		=Depletio	n. RM=Redu	ced Matrix, (	CS=Coven	ed or Coat	ed Sand Gra	ains <sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix		
Hydric Soil I					sector Del	C	(00) (100	ст. II)	Indicators for Problematic Hydr	ic Soils <sup>3</sup> :	
	pedon (A2)				-		(S8) (LRR		1 cm Muck (A9) (LRR O)		
							(LRR S, T, l	-	2 cm Muck (A10) (LRR S)		
Black Hist							1) (LRR O)		Reduced Vertic (F18) (outside N	1LRA 150A,B)	
	Sulfide (A4)				• •	d Matrix (F	2)		Piedmont Floodplain Soils (F19)	(LRR P, S, T)	
_	Layers (A5)				pleted Mat	• •			🗌 Anomalous Bright Loamy Soils (	F20) (MLRA 153B)	
-	iodies (A6) (L		-	Rec	lox Dark S	Surface (F6	)		Red Parent Material (TF2)		
_	ky Mineral (A		, T, U)	🗌 Dep	pleted Dar	k Surface (	F7)		Very Shallow Dark Surface (TF12)		
	sence (A8) (L			Rec	lox Depre	ssions (F8)					
	:k (A9) (LRR			🗌 Mar	<b>1 (</b> F10) (L	rr U)			- · · · · · ·		
Depleted	Below Dark S	Surface (A	11)	🗌 Dep	pleted Och	aric (F11) (I	MLRA 151)				
Thick Dar	k Surface (Al	.2)		🗌 Iror	n-Mangano	ese Masses	; (F12) (LRF	R O, P, T)			
Coast Pra	irie Redox (A	16) (MLRA	\ 150A)	🗌 Um	bric Surfa	ce (F13) (L	RR P, T, U)				
Sandy Mu	ick Mineral (S	1) (LRR O	I, S)	Def	ta Ochric (	(F17) (MLR	A 151)		3		
🗌 Sandy Gle	yed Matrix (S	54)		🗌 Rec	luced Vert	tic (F18) (M	ILRA 150A,	150B)	<sup>3</sup> Indicators of hydrophytic wetland hydrology mus	vegetation and	
Sandy Re	dox (S5)						Is (F19) (MI		unless disturbed or p		
Stripped I	Matrix (S6)			_		•			3A, 153C, 153D)		
Dark Surf	ace (S7) (LRF	R Ρ, S, T, Ι	J)			9	,	, ,			
Restrictive Li	ayer (if obs	erved):									
Type:	× .					-			0	0	
Depth (incl	nes):								Hydric Soil Present? Yes 🖲	No 🔿	
Remarks:				•							
	a and smal	l rodov o	oncontratic	ne holow 1	0_12 inc	bar					
ome mottlin	ig and smai	redox c	oncentratic	ins delow 1	10-12 Inc	mes.					

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: W	/aveland - Hancock	Sai	mpling Date:	18-Oct-16
Applicant/Owner: NASA	St	ate: MS	Sampling Point:	Up - 21	
Investigator(s): Lars Larson, Randy Ellis	Section, Towns	hip, Range: S 29	T 7s	<b>R</b> 16	W
andform (hillslope, terrace, etc.): Hillside	Local relief (cond	cave, convex, none	); undulating	Slope: 2	.0 % / 1.1°
Subregion (LRR or MLRA); LRR T	Lat: 30° 24' 24.404"	N Long.:	89° 37' 15.745"	 W Datu	m: NAD83
oil Map Unit Name: PoB, Poarch fine sandy loam, 2 to 5%	· · · · · · · · · · · · · · · · · · ·	in songh	NWI classificati		
are climatic/hydrologic conditions on the site typical for thi		(	no, explain in Rer		No O
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circ	umstances" pres	ent? Yes 🛡	No U
Are Vegetation , Soil , or Hydrology	naturally problematic?	(If needed, expl	ain any answers i	n Remarks.)	
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point l	locations, trans	sects, importa	int features,	etc.
Hydrophytic Vegetation Present? Yes 🔍 No 🔿	Is the S	ampled Area			
Hydric Soil Present? Yes 🔍 No 🔿		Vee	O No 🖲		
Wetland Hydrology Present? Yes O No 🖲	within a	Wetland? Tes			
Remarks:					
Hillslope just up from Plot Wet 21 approximately 50 to 6	0-feet.				
HYDROLOGY					
Wetland Hydrology Indicators:		Sec	condary Indicators (	minimum of 2 req	uired)
Primary Indicators (minimum of one required; check all	that apply)		Surface Soil Cracks	(B6)	
Surface Water (A1)	atic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)			
🗌 High Water Table (A2) 🗌 Marl	Deposits (B15) (LRR U)	Drainage Patterns (B10)			
	rogen Sulfide Odor (C1)	Moss Trim Lines (B16)			
Water Marks (B1)	ized Rhizospheres along Living Ro	iots (C3)	Dry Season Water	Table (C2)	
	ence of Reduced Iron (C4)		Crayfish Burrows (	28)	
Drift Deposits (B3)	ent Iron Reduction in Tilled Soils (I	C6)	Saturation Visible of	n Aerial Imagery (	(C9)
Algal Mat or Crust (B4)	Muck Surface (C7)		Geomorphic Positio	n (D2)	
	r (Explain in Remarks)		Shallow Aquitard (i	)3)	
Inundation Visible on Aerial Imagery (B7)		$\checkmark$	FAC-Neutral Test (I	25)	
Water-Stained Leaves (B9)			Sphagnum moss (D	98) (LRR T, U)	
Field Observations:					
	pth (inches):				
Water Table Present? Yes O No 💿 De	pth (inches):		N	'es 🔿 No 🖲	
Saturation Present? Yes O No O De	pth (inches):	Wetland Hydrolog	y Present? Y	'es 🔾 No 🖲	
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspe	ctions), if available			
Remarks:					
Remarks:					

VEGETATION	(Five/Four	· Strata) -	Use scientific names of	plants
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			ominant		Sampling Point: Up - 21
	Absolut		pecies? _ el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species
Pinus elliotti	101	$\checkmark$	96.2%	FACW	That are OBL, FACW, or FAC: 3 (A)
Magnolia virginiana	3		2.9%	FACW	
Quercus nigra	1		1.0%	FAC	Total Number of Dominant Species Across All Strata: 3 (B)
	0		0.0%		
· · · · · · · · · · · · · · · · · · ·			0.0%		Percent of dominant Species That Are OBL EACW or EAC: 100.0% (A/B)
· · · · · · · · · · · · · · · · · · ·			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
n an	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of Multiply by:
50% of Total Cover: 52.5 20% of Total Cover: 21		= То	tal Cove		OBL species 3 x 1 = 3
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species 161 x 2 = 322
Discus effective		✓.	83.3%	FACW	FAC species $11 \times 3 = 33$
the second se			16.7%	FACW	
			0.0%	TACW_	
			0.0%		UPL species $0 \times 5 = 0$
			0.0%		Column Totals: 175 (A) 358 (B)
			0.0%		Prevalence Index = B/A = 2.046
					Hydrophytic Vegetation Indicators:
			0.0%		_
		Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 3 20% of Total Cover: 1.2	6	= To	tal Cover		✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m)					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex corlacea	50	<	83.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex vomitoria	10		16.7%	FAC	
	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
i	0		0.0%		be present, unless disturbed or problematic.
*	0	En i	0.004	C	Definition of Vegetation Strata:
	12		0.0%		
		H	0.0%		
	0	 = To	0.0% 0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u>	0	□ □ = To	0.0%		Tree - Woody plants, excluding woody vines,
50% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> )	0 60	Ц ; = То	0.0% tal 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).
0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> ) . Lycopodiella alopecuroides	0 60 2	= To	0.0% tal Cover 66.7%	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
0% of Total Cover: <u>30</u> 20% of Total Cover: <u>12</u> erb Stratum (Plot size: <u>30 m</u> ) . Lycopodiella alopecuroides . Woodwardia areolata	0 60 2 1		0.0% tal Cover 66.7% 33.3%		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,
0% of Total Cover: 30 20% of Total Cover: 12 erb Stratum (Plot size: 30 m ) . Lycopodiella alopecuroides . Woodwardia areolata	0 60 2		0.0% tal Cover 66.7%	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.
0% of Total Cover: 30 20% of Total Cover: 12 erb Stratum (Plot size: 30 m ) . Lycopodiella alopecuroides . Woodwardia areolata	0 60 2 1		0.0% tal Cover 66.7% 33.3%	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
50% of Total Cover: 30 20% of Total Cover: 12 erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> ) . Lycopodiella alopecuroides 2. Woodwardia areolata 3.	0 60 2 1 0		0.0% tal Cover 66.7% 33.3% 0.0%	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.
50% of Total Cover: 30 20% of Total Cover: 12 erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> )   Lycopodiella alopecuroides 2. Woodwardia areolata 3.	0 60 2 1 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0%	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
50% of Total Cover: 30 20% of Total Cover: 12 Ierb Stratum (Plot size: 30 m ) 1. Lycopodiella alopecuroides 2. Woodwardia areolata 3. 4. 5. 5.	0 60 2 1 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0%	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.
50% of Total Cover: 30 20% of Total Cover: 12 lerb Stratum (Plot size: 30 m ) 1. Lycopodiella alopecuroides 2. Woodwardia areolata 3. 4. 5. 6. 7.	0 60 2 1 0 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0%	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.
50% of Total Cover: 30 20% of Total Cover: 12 lerb Stratum (Plot size: 30 m ) 1. Lycopodiella alopecuroides 2. Woodwardia areolata 3. 4. 5. 7. 8.	0 60 2 1 0 0 0 0 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0%	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
50% of Total Cover: 30 20% of Total Cover: 12 lerb Stratum (Plot size: 30 m ) 1. Lycopodiella alopecuroides 2. Woodwardia areolata 3. 4. 5. 6. 7. 8. 9.	0 60 2 1 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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
50% of Total Cover: 30 20% of Total Cover: 12 Herb Stratum (Plot size: 30 m ) 1. Lycopodiella alopecuroides 2. Woodwardia areolata 3. 4. 5. 6. 7. 8. 9. 0.	0 60 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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
50% of Total Cover: 30 20% of Total Cover: 12 Herb Stratum (Plot size: 30 m ) 1. Lycopodiella alopecuroides 2. Woodwardia areolata 3. 4. 5. 6. 7. 8. 9. 1.	0 60 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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
50% of Total Cover: 30 20% of Total Cover: 12 Herb Stratum (Plot size: 30 m ) 1. Lycopodiella alopecuroides 2. Woodwardia areolata 3. 4. 5. 6. 7. 8. 9. 1. 2.	0 60 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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
50% of Total Cover:       30       20% of Total Cover:       12         Herb Stratum       (Plot size: 30 m)       1.       1.         1. Lycopodiella alopecuroides       2.       Woodwardia areolata       3.         3.       4.       5.       5.         5.       5.       5.       5.         6.       7.       5.       5.         7.       5.       5.       5.         6.       7.       5.       5.         7.       5.       5.       5.         6.       7.       5.       5.         7.       5.       5.       5.         6.       7.       5.       5.         7.       5.       5.       5.         7.       5.       5.       5.         7.       5.       5.       5.         7.       5.       5.       5.         7.       5.       5.       5.         7.       5.       5.       5.         7.       5.       5.       5.         5.       5.       5.       5.         5.       5.       5.       5.	0 60 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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 3 ft (1 m) in height.
50% of Total Cover:       30       20% of Total Cover:       12         terb Stratum       (Plot size: 30 m)       1       Lycopodiella alopecuroides         2. Woodwardia areolata       3       3         3.       4       5       5         5.       5       5       5         6.       7       5       5         7.       3       5       5         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       1       1         9.       0       0       0	$ \begin{array}{c} 0 \\ 60 \\ \hline 2 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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 3 ft (1 m) in height.
50% of Total Cover:       30       20% of Total Cover:       12         Introduction of Total Cover:       10       1       1         Introduction of Total Cover:       10       1       1         Introduction of Total Cover:       1.5       20% of Total Cover:       0.6         Introduction of Total Cover:       1.5       20% of Total Cover:       0.6         Introduction of Total Cover:       1.5       20% of Total Cover:       0.6         Introduction of Total Cover:       1.5       20% of Total Cover:       0.6         Introduction of Total Cover:       1.5       20% of Total Cover:       0.6         Introduction of Total Cover:       1.5       20% of Total Cover:       0.6	$ \begin{array}{c} 0 \\ 60 \\ \hline 2 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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 3 ft (1 m) in height.
50% of Total Cover:       30       20% of Total Cover:       12         lerb Stratum (Plot size:       30 m)	0 60 60 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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 3 ft (1 m) in height.
50% of Total Cover:       30       20% of Total Cover:       12         Herb Stratum       (Plot size: 30 m)       1       1         1. Lycopodiella alopecuroides       2       2         2. Woodwardia areolata       3       4       5         3.       4       5       5         5.       5       5       5         5.       5       5       5         6.       7       5       5         7.       8       -       -         9.       -       -       -         10.       -       -       -         11.       -       -       -       -         2.       -       -       0.6       -         50% of Total Cover:       1.5       20% of Total Cover:       0.6         Woody Vine Stratum       (Plot size: 30 m)       -       -	$ \begin{array}{c} 0 \\ 60 \\ \hline 2 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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 3 ft (1 m) in height.
50% of Total Cover:       30       20% of Total Cover:       12         Herb Stratum       (Plot size: 30 m)       )       1. Lycopodlella alopecuroides         2. Woodwardia areolata       3.       4.       5.         3.       4.       5.       6.         7.       8.	$ \begin{array}{c} 0 \\ 60 \\ \hline 2 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
i.       30       20% of Total Cover: 12         Herb Stratum (Plot size: 30 m )       )         1. Lycopodiella alopecuroides         2. Woodwardia areolata         3.         4.         5.         6.         7.         8         9.         0.         1.         2.         50% of Total Cover: 1.5         20% of Total Cover: 0.6         Woody Vine Stratum (Plot size: 30 m )         Smilax laurifolia	$ \begin{array}{c} 0 \\ 60 \\ \hline 2 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$		0.0% tal Cover 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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 3 ft (1 m) in height.

Sampling	Point:	Up -	21
			APR 8.

Profile Descr	iption: (De	scribe to	the depth	needed to d	locument	the indic	ator or co	onfirm the	absence of indicators.	)
Depth		Matrix			Re	dox Featu			-	
(inches)	Color (		0/0	Color (	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3	10YR	3/2	100							
3-15	10YR	5/3	98	10YR	6/6	2	С	М	Sandy Loam	
Hydric Soil I Histosol (A Histo Epip Black Histi Hydrogen Stratified I Organic Bo 5 cm Muck Muck Pres	ndicators: \1) edon (A2)	RR P, T, L 7) (LRR P, RR U) 2, T)	I) , T, U)	Poly Thir Loa Loa Loa Dep Red Red Mar	yvalue Bek n Dark Sur	ow Surface face (S9) ( Mineral (F Matrix (F2) ix (F3) urface (F6) c Surface (I sions (F8) R U)	(S8) (LRR (LRR S, T, U (1) (LRR O) 2) F7)	S, T, U) J)	1 cm Muck (A9)     2 cm Muck (A10     Reduced Vertic     Piedmont Flood     Anomalous Brig     Red Parent Mat	blematic Hydric Soils <sup>3</sup> : ) (LRR O) )) (LRR S) (F18) (outside MLRA 150A,B) plain Soils (F19) (LRR P, S, T) ht Loamy Soils (F20) (MLRA 153B) erial (TF2) ark Surface (TF12)
Coast Prain Sandy Muc Sandy Gley Sandy Red Stripped M		16) (MLRA 1) (LRR O 34)	, S)	Uml	bric Surfac Ta Ochric (I luced Verti Imont Floo	e (F13) (LI F17) (MLR/ c <b>(F18) (M</b> dplain Soil	LRA 150A, s (F19) (MI	150B) .RA 149A)	wetland	s of hydrophytic vegetation and l hydrology must be present, ss disturbed or problematic.
							1			
Restrictive La Type: Depth (inch Remarks:	yer (if obse								Hydric Soil Present?	Yes 🖲 No 🖯
loamy sand to	sanoy toar	11								

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City	y/County: Waveland - Hancock Sampling Date: 18-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 22
Investigator(s): Lars Larson, Randy Ellis Se	ection, Township, Range: S 29 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Hillside Loc	cal relief (concave, convex, none): Slope: 2.0 % / 1.1 °
ubregion (LRR or MLRA): LRR T Lat: 30°	24' 29.094" N Long.: 89° 37' 9.883" W Datum: NAD83
oil Map Unit Name: EuB, Escambia loamy fine sand, 2 to 5 percent slopes	and a second
Are climatic/hydrologic conditions on the site typical for this time of year? Are Vegetation	V () N-
Are Vegetation, Soil, or Hydrology signmeanity of Are Vegetation, Soil, or Hydrology naturality probl	
SUMMARY OF FINDINGS - Attach site map showing samp	ling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	Is the Sampled Area
Hydric Soil Present? Yes O No 🖲	
Wetland Hydrology Present? Yes O No 💿	within a Wetland? Yes 🗢 NO 🙂
Remarks: 900 feet (+/-) east of Up - 21.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one reguired: check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	RR U) Drainage Patterns (B10)
Saturation (A3)	(C1) Moss Trim Lines (B16)
Water Marks (B1)	along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	ron (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	in: Tilled Solls (C6) Saturation Visible on Aerial Imagery (C9)
Aigai Mat or Crust (B4) Thin Muck Surface (C7)	) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Rema	arks) 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 O No 💿 Depth (inches):	
Water Table Present? Yes 🔿 No 💿 Depth (inches):	Wetland Hydrology Present? Yes O No O
Saturation Present? (includes capillary fringe) Yes O No O Depth (inches):	Wetland Hydrology Present? Yes O No 🕥
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Remarks:	
Side slope 60-feet (+/-) up from bottom drain area and riparian buffer zo	one on North side of Turtle Skin Creek

L

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

EGETATION (FIVE/FOUR Strata) - Use scientific	Dominant Species?				Sampling Point: Up - 22		
		Absolute Rel.Strat. Indica					
ree Stratum (Plot size: 30 m) Pinus elliottii	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliottii	10	$\checkmark$	33.3%	FACW	That are OBL, FACW, or FAC:5(A)		
Magnolia virginiana			50.0%	FACW	Total Number of Dominant		
Nyssa sylvatica	. 5		16.7%	FAC	Species Across All Strata: 5 (B)		
The Made I to Ministry Ministry	0		0.0%				
	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC:100.0% (A/B)		
			0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)		
we want the second s	.0		0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 15 20% of Total Cover: 6	30	= To	tal Cove	r	OBL species <u>3</u> x 1 = <u>3</u>		
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species $80 \times 2 = 160$		
Pinus elliottii	5	✓	27.8%	FACW	FAC species 13 x 3 = 39		
Magnolia virginiana			55.6%	FACW	FACU species $0 \times 4 = 0$		
Nyssa sylvatica			16.7%	FAC	UPL species $0 \times 5 = 0$		
			0.0%				
			0.0%		Column Totals: <u>96</u> (A) <u>202</u> (B)		
			0.0%	D	Prevalence Index = B/A =2104		
		$\overline{\Box}$	0.0%		Hydrophytic Vegetation Indicators:		
			0.0%				
0% of Total Cover: 9 20% of Total Cover: 3.6		- <b>T</b> -	tal Cove		✓ 1 - Rapid Test for Hydrophytic Vegetation		
	18	= 10			✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )		_			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex coriacea	40	⊻,	88.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex opaca	5		11.1%	FAC			
			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
	0	Ľ,	0.0%				
	0		0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 22.5 20% of Total Cover: 9	45	= To	tal Cove	r	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )					Sapling - Woody plants, excluding woody vines,		
Sarracenia alabamensis	2	Ц	66.7%	OBL	approximately 20 ft (6 m) or more in height and less		
Lycopodiella alopecuroides	1	-	33.3%	OBL	than 3 in. (7.6 cm) DBH.		
	0		0.0%				
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	0		0.0%		than 5 ki. DBH and greater than 5.26 it (ini) tak.		
where the second s	0		0.0%		Shrub - Woody plants, excluding woody vines,		
•	0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
	0		0.0%				
	0		0.0%		Herb - All herbaceous (non-woody) plants, including		
	0		0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately		
	0		0.0%		3 ft (1 m) in height.		
	0		0.0%				
0% of Total Cover: 1.5 20% of Total Cover: 0.6	3	= To	tal Cover		Woody vine - All woody vines, regardless of height.		
oody Vine Stratum (Plot size: 30 m							
Smilax laurifolia	0		0.0%	FACW			
	0		0.0%				
	0		0.0%				
	0		0.0%				
	0	$\Box$	0.0%		Hydrophytic Vacatation		
	+		· · · · · · · · · · · · · · · · · · ·		Vegetation Present? Yes I No O		

transitional area just up from obvious wetland boundary. Gallberry understrory thickens appreciably within 30 feet of this plot.

Sampling Point: Up - 22

	lepth needed to document the indicator or confirm the	absence of Indicators.)	
Depth Matrix	Redox Features	a de la companya de la compa	Demandra
	% Color (moist) % Type Loc-	Texture	Remarks
		Loamy Sand	
4-16 10YR 5/4 10	D	Loamy Sand	``````````````````````````````````````
	Reduced Matrix, CS=Covered or Coated Sand Grains 2Loc	ation: PL=Pore Lining. M=M	latrix
Hydric Soil Indicators:	_	Indicators for Probl	ematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T, U)	🗌 1 cm Muck (A9) (I	.RR 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)		18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		in Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)		Loamy Soils (F20) (MLRA 153B)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	Red Parent Materi	
5 cm Mucky Mineral (A7) (LRR P, T, U		Very Shallow Dark	• •
Muck Presence (A8) (LRR U)	Redox Depressions (F8)		•
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LRR U)	Other (Explain in I	Remarks)
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 150/			
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 h	ydrology must be present.
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 149A)		disturbed or problematic.
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (MLRA 14	19A, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)			
Restrictive Layer (if observed):			
Туре:			
Depth (inches):	· · · · · · · · · · · · · · · · · · ·	Hydric Soil Present?	Yes 🔿 No 🖲
Remarks:			

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 19-Oct-1	6
Applicant/Owner: NASA	State: MS Sampling Point: Up - 23	
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): rolling Slope: 3.0 % /	1.7 °
A CONTRACTOR OF	Lat.: 30° 24' 25.737" N Long.: 89° 37' 21.949" W Datum: NAD83	
Soil Map Unit Name: EuB, Escambia loamy fine sand, 2 to 5 perc		
Are climatic/hydrologic conditions on the site typical for this time		
Are Vegetation, Soll, or Hydrology signi	ficantly disturbed? Are "Normal Circumstances" present? Yes 🔍 No 🔾	
Are Vegetation 🗌 , Soll 🗌 , or Hydrology 🗌 natu	rally problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Is the Sampled Area	
Hydric Soil Present? Yes O No 💿		
Wetland Hydrology Present? Yes O No 💿	within a Wetland?	
Remarks:		
Area along drainage way (North to south) on the west side of HYDROLOGY	the railspur accesss road - Western AOI.	
· · · · · · · · · · · · · · · · · · ·		_
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that and Surface Water (A1)		
	its (B15) (LRR U)	
	Aulfide Odor (C1) Moss Trim Lines (B16)	
	hizospheres along Living Roots (C3) Dry Season Water Table (C2)	
	F Reduced Iron (C4)	
	Reduction in Tilled Soils (C6)	
	Surface (C7) Geomorphic Position (D2)	
	ain in Remarks) Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)	
Field Observations:		
Surface Water Present? Yes O No 💿 Depth (ind	:hes):	
Water Table Present? Yes O No 💿 Depth (inc	thes):	
Saturation Present? Yes No   Depth (inc	Wetland Hydrology Present? Yes 🔾 No 🔍	
(includes capillary minge)		_
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:	
Remarks:		

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

· · · · · · · · · · · · · · · · · · ·			ominant		Sampling Point: Up - 23
	Absolut		pecies? . el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove	<b>r</b>	Cover	Status	Number of Dominant Species
Pinus elliottil	5	<	22.7%	FACW	That are OBL, FACW, or FAC: 7 (A)
Pinus taeda	5		22.7%	FAC	
Acer rubrum	2		9.1%	FAC	Total Number of Dominant Species Across All Strata: 9 (B)
Quercus falcata	10	$\checkmark$	45.5%	FACU	
			0.0%		Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC: 77.8% (A/B)
			0.0%		Prevalence Index worksheet;
	0		0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 11 20% of Total Cover: 4.4	22	= To	tal Cove	-	OBL species $0 \times 1 = 0$
apling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species $25 \times 2 = 50$
			93.8%	EAC	
	15			FAC	
Quercus muehlenbergli			6.3%	UPL	FACU species $12 \times 4 =48$
	0		0.0%		UPL species $1 \times 5 = 5$
4.8			0.0%		Column Totals: 122 (A) (B)
			0.0%		Prevalence Index = B/A = 2.910
			0.0%		
			0.0%		Hydrophytic Vegetation Indicators:
	0_	$\Box$	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 8 20% of Total Cover: 3.2	16	= To	tal Cove		✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex vomitoria	25	$\checkmark$	55.6%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex coriacea	1 200 400		33.3%	FACW	
			11.1%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Quercus higra	<u>5</u> 0	H	0.0%	FAC	be present, unless disturbed or problematic.
			-		Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
	0	Ц	0.0%		approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 22.5 20% of Total Cover: 9	45	= TC	tal Cove		(7.6 cm) or larger in diameter at breast height (DBH).
lerb Stratum (Plot size: 30 m )					
Quercus falcata	2	✓	28.6%	FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Ilex coriacea	5	$\checkmark$	71.4%	FACW	than 3 in. (7.6 cm) DBH.
	0		0,0%		
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less
	0	П	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0		0.0%	-	
A contraction of the second seco	0		0.0%	, gant 5 110 1100	Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
A	0		0.0%		
	0		0.0%		Herb - All herbaceous (non-woody) plants, including
•	0		0.0%		herbaceous vines, regardless of size, and woody
	0	H	0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.
					o n (r m) in noighe
		<u> </u>	0.0%		Woody vine - All woody vines, regardless of height.
0% of Total Cover: 3.5 20% of Total Cover: 1.4	7	= To	tal Covei		
(Plot size: 30 m )					
			93.8%	FAC	
Smllax rotundifolia		$\Box$	3.1%	FAC	
Smllax rotundifolia Vitis rotundifolia	1				
Smllax rotundifolia	$-\frac{1}{1}$		3.1%	FAC	
Smllax rotundifolia Vitis rotundifolia			3.1% 0.0%	FAC	1) udaanka dia
Smllax rotundifolia Vitis rotundifolia	1			FAC	Hydrophytic Vegetation Present? Yes • No O

Heavy pine needle litter within understory.

Sampling Point: Up - 23

		needed to document the indicator or con	firm the a	absence of indicators.)	)
Depth Matri		Redox Features			
(inches) Color (moist		Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5 10YR 4/2	2 100			Loamy Sand	· · · · · · · · · · · · · · · · · · ·
5-16 10YR 6/4	100	w	ж.	Loamy Sand	
<sup>1</sup> Type: C=Concentration. D=Deple	tion. RM <b>=Re</b> du	ced Matrix, CS=Covered or Coated Sand Grain	ns <sup>2</sup> Loca	tion: PL=Pore Lining. M=	=Matrix
Hydric Soil Indicators:				Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
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	• •
Black Histic (A3)		🛄 Loamy Mucky Mineral (F1) (LRR O)		-	(F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)			plain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)		Depleted Matrix (F3)			ht Loamy Soils (F20) (MLRA 153B)
Organic Bodies (A6) (LRR P, <sup>-</sup>	r, U)	Redox Dark Surface (F6)		Red Parent Mat	
5 cm Mucky Mineral (A7) (LRI	R P, T, U)	Depleted Dark Surface (F7)		Very Shallow Da	ark Surface (TF12)
Muck Presence (A8) (LRR U)		Redox Depressions (F8)		Other (Explain i	n 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	Э, Р, Т)		
Coast Prairie Redox (A16) (MI	-	Umbric Surface (F13) (LRR P, T, U)			
Sandy Muck Mineral (S1) (LRF	τO, S)	Delta Ochric (F17) (MLRA 151)		<sup>3</sup> Indicator	s of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)		Reduced Vertic (F18) (MLRA 150A, 1	-	wetland	hydrology must be present,
Sandy Redox (S5)		Piedmont Floodplain Soils (F19) (MLF			s disturbed or problematic.
Stripped Matrix (S6)		Anomalous Bright Loamy Soils (F20)	(MLRA 149	9A, 153C, 153D)	
Dark Surface (S7) (LRR P, S,	T, U)				
Restrictive Layer (if observed)	:				
Type:				Hydric Soil Present?	Yes 🔿 No 🖲
Depth (inches):				- Hydric Soll Presents	Tes No C
Remarks: No hydric indicators observed.					
No hydric indicators observed.					

Project/Site: NASA - Stennis	; 1,100 Acre Wetland Delineation	City/Cou	nty: Waveland - Hancoc	K Sampling Date: 19-Oct-16
Applicant/Owner: NASA	- Arristantin	-	State: MS	Sampling Point: Up - 24
Investigator(s): Lars Larson	, Randy Ellis	Section	, Township, Range: S	29 T 7 s R 16 W
andform (hillslope, terrace,	etc.): Terrace	Local reli	ef (concave, convex, no	one): Slope: 0.0 % / 0.0
Subregion (LRR or MLRA):	LRR T	Lat.: 30° 24' 3	3.540" N Long.	: 89° 37' 22.840" W Datum: NAD83
Coil Man Linit Name: At. Atr	nore silt loam, 0 to 2 percent :			NWI classification: N/A
	litions on the site typical for th		Yes 💿 No 🔿	(If no, explain in Remarks.)
	bil, or Hydrology	significantly disturbe		Circumstances" present? Yes
		- ,		
Are Vegetation, So	oil 🗌 , or Hydrology 🗌	naturally problemati	c? (If needed, e	xplain any answers in Remarks.)
SUMMARY OF FINDI		howing sampling (	point locations, tra	ansects, important features, etc.
Hydrophytic Vegetation Pr		1	s the Sampled Area	
Hydric Soil Present?	Yes 💿 No 🔿			Yes 🔿 No 🖲
Wetland Hydrology Preser	nt? Yes 🔿 No 🖲	ľ	vithin a Wetland?	
borderline wet/up and no	) feet west of access orad in o significant hydrological indica		ea. There is a prevelan	ce of hydrophytic vegetation, BUT, soils are
HYDROLOGY				
Wetland Hydrology Indica			3	Secondary Indicators (minimum of 2 required)
	num of one required; check all			Surface Soil Cracks (B6)
Surface Water (A1)		latic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Saturation (A3)	_	rl Deposits (B15) (LRR U) Irogen Sulfide Odor (C1)		Drainage Patterns (B10)
			living Deats (C2)	Moss Trim Lines (B16)
		dized Rhizospheres along I		Dry Season Water Table (C2)
Sediment Deposits (B2)	_	sence of Reduced Iron (C4		Crayfish Burrows (C8)
<ul> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> </ul>		ent Iron Reduction in Tille		Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		n Muck Surface (C7)		Geomorphic Position (D2)
Inundation Visible on Ae		er (Explain in Remarks)		Shallow Aquitard (D3) FAC-Neutral Test (D5)
Water-Stained Leaves (B	9)		·····	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present?	Yes O No 🔍 Do	epth (inches):		
Water Table Present? Saturation Present?		epth (inches):	Wetland Hydro	ology Present? Yes 🔿 No 🕥
(includes capillary fringe)	Yes No 🔍 De	epth (inches):		
Remarks:	stream gauge, monitoring well			pear to be areas disturbed by heavy
equipment usage in the pa	ast.			

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

			ominant pecies? _		Sampling Point: Up - 24
	Absolute	e Re	el.Strat.	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: <u>30 m</u> )	% Cove		Cover	Status	Number of Dominant Species
Pinus elliottii	8		80.0%	FACW	That are OBL, FACW, or FAC: 5 (A)
Pinus taeda	2		20,0%	FAC	Total Number of Dominant
			0.0%		Species Across All Strata:5(B)
	0		0.0%		
	0		0.0%		Percent of dominant Species
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
	0		0.0%		Prevalence Index worksheet:
in a second s	0		0.0%	n i vi vi	Total % Cover of: Multiply by:
0% of Total Cover: 5 20% of Total Cover: 2	and the second se		tal Cover		
		= 10	tai covei		
apling or Sapling/Shrub Stratum _ (Plot size: 30 m					FACW species <u>77</u> x 2 = <u>154</u>
Pinus elliottii	5		71,4%	FACW	FAC species $4$ x 3 = $12$
Magnolia virginiana	2	⊻.	28.6%	FACW	FACU species $0 - x 4 = 0$
	0		0.0%		UPL species 0 x 5 = 0
	0		0.0%		Column Totals: (A)168 (B)
			0.0%		
	0		0.0%		Prevalence Index = B/A = 2.024
	0		0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%		
	a second				1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 3.5 20% of Total Cover: 1.4	7	= To	tal Cover		2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex coriacea	50	✓	83.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex glabra	10		16.7%	FACW	
	0		0.0%	THUT	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
101gt -	-	H			be present, unless disturbed or problematic.
	0	믕	0.0%		Definition of Mandation Churches
	0	$\square$	0.0%		Definition of Vegetation Strata:
	0	Ц.	0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 30 20% of Total Cover: 12	60	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )					
				OBL	Sapling - Woody plants, excluding woody vines,
	4			1.001	approximately 20 ft (6 m) or more in height and less
		H.	50.0%		
Andropogon glomeratus	2		50.0%	FACW	than 3 in. (7.6 cm) DBH.
Andropogon glomeratus	2				
Andropogon glomeratus	2		50.0%		Sapling/Shrub - Woody plants, excluding vines, less
Andropogon glomeratus	2		50.0% 0.0%		
Andropogon glomeratus	2 0 0 0		50.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
Andropogon glomeratus	2 0 0 0 0		50.0% 0.0% 0.0% 0.0 <u>%</u> 0.0%		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,
Andropogon glomeratus	2 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
Andropogon glomeratus	2 0 0 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0 0 0 4		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0 0 0 4		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 4		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
Andropogon glomeratus Andropogon glomeratus O% of Total Cover: 2 20% of Total Cover: 0.8 Oddy Vine Stratum (Plot size: 30 m 1)	2 0 0 0 0 0 0 0 0 0 0 0 4 2 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0 0 0 4 2 0 0 0 4		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
Andropogon glomeratus Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0 0 4 2 0 0 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.
Andropogon glomeratus	2 0 0 0 0 0 0 0 0 0 0 4 2 0 0 0 4 2 0 0 0 0		50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.

Sampling Point: Up - 24

Profile Descr	iption: (De	scribe to	the depth n	eeded to d	locument	the ind	icator or co	onfirm the	absence of indicators.)	
Depth		Matrix			Re	dox Feat	tures			
(Inches)	Color (	moist)	%	Color (	moist)	. %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	3/2	100						Loamy Sand	
5-15	10YR	4/3	. 99	10YR	6/8	1	С.	M	Loarny Sand	
· · · · · · · ·			_					·		
		=Depletion	, n. RM=Reduc	ed Matrix, (	CS=Covere	d or Coat	ted Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=	Matrix
Hydric Soll I									Indicators for Prob	ematic Hydric Soils <sup>3</sup> :
Histosol (A	-			Pol	value Belo	w Surfac	æ (58) (LRR	S, T, U)	1 cm Muck (A9)	(LRR O)
	edon (A2)			🗌 Thi	n Dark Sur	face (S9)	(LRR S, T, I	1)	2 cm Muck (A10)	) (LRR S)
Black Hist	• •			🗌 Loa	my Mucky	Mineral (	F1) (LRR O)		Reduced Vertic (	F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loa	my Gleyed	Matrix (F	F2)		Piedmont Floodp	lain Soils (F19) (LRR P, S, T)
Stratified L	_ayers (A5)			Dep	leted Matr	ix (F3)			Anomalous Brigh	t Loamy Soils (F20) (MLRA 153B)
Organic Bo	odies (A6) (L	RR P, T, L	I)	Rec	lox Dark Si	urface (F6	5)		Red Parent Mate	
5 cm Muck	ky Minerai (A	(7) (LRR P	, T, U)	Dep	leted Dark	Surface	(F7)			rk Surface (TF12)
Muck Pres	ence (A8) (L	.RR U)		Rec	lox Depres	sions (F8)	)		Other (Explain in	
1 cm Muck	k (A9) (LRR I	P, T)		Mai	1 (F10) (LF	RU)			<u> </u>	······,
Depleted E	Below Dark S	Surface (A1	1)	🗌 Dep	leted Ochr	ic (F11) (	(MLRA 151)			
Thick Dark	CSurface (A1	.2)		🗌 Iror	n-Mangane	se Masse	s (F12) (LRF	ξ O, P, T)		
🗌 Coast Prair	rie Redox (A	16) (MLRA	150A)	🗌 Um	bric Surfac	e (F13) (l	LRR P, T, U)			
Sandy Muc	ck Mineral (S	1) (LRR O	, S)	Del	a Ochric (I	F17) (MLF	RA 151)		2	
Sandy Gley	yed Matrix (S	54)		Red	uced Verti	c (F18) (N	MLRA 150A,	150B)	<sup>2</sup> Indicators	of hydrophytic vegetation and hydrology must be present,
🖌 Sandy Red	lox (S5)			🗌 Piec	imont Floo	dplain So	ils (F19) (M	LRA 149A)		s disturbed or problematic.
Stripped M	latrix (S6)			🗌 And	malous Bri	ight Loam	y Soils (F20	) (MLRA 14	9A, 153C, 153D)	
Dark Surfa	ice (S7) (LRF	₹ P, S, T, L	Ŋ						,	
Restrictive La	yer (If obse	erved):		<u> </u>	•					
Type:						-				
Depth (inch	es):	02							Hydric Soil Present?	Yes 🔍 No 🔿
Remarks:									· · · · · · · · · · · · · · · · · · ·	
Terrarier a										

Project/Site: NASA - Stennis; 1,100 Acre	Wetland Delineatiion	City/County: Waveland - Han	cock Sampling Date: 19-Oct-16
Applicant/Owner: NASA		State: MS	Sampling Point: Up - 25
nvestigator(s): Lars Larson, Randy Ellis	S	Section, Township, Range:	S 29 T 7 S R 16 W
andform (hillslope, terrace, etc.):	Hillside	Local relief (concave, convex,	, none): undulating Slope: 2.0 % / 1.1
ubregion (LRR or MLRA): LRR T		-	ng.: 89° 37' 31.839" W Datum: NAD83
oil Map Unit Name: EsA, Escambia lo			
•		vear? Yes INO	NWI dassification: N/A
re climatic/hydrologic conditions on 1			(If no, explain in Remarks.)
Are Vegetation 📋 , Soil 🗌	, or Hydrology 🔲 signific	antly disturbed? Are "Norm	nal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation 🗌 , Soil 🔲	, or Hydrology 🗌 natural	ly problematic? (If needed	l, explain any answers in Remarks.)
SUMMARY OF FINDINGS - At	tach site map showing	sampling point locations,	transects, important features, etc.
Hydrophytic Vegetation Present?	Yes 💿 No 🔿	Is the Sampled Area	
Hydric Soil Present?	Yes 🔿 No 🖲		Yes 🔿 No 🖲
Wetland Hydrology Present?	Yes 🔿 No 🖲	within a Wetland?	
Remarks:			
Upland plot approximatley 50-60 fe	et up from lower riparian drai	nage area.	
HYDROLOGY			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of on	e required; check all that appl	y).	Surface Soil Cracks (B6)
Surface Water (A1)	🛄 Aquatic Fauna	(B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits	(B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfi	• •	Moss Trim Lines (B16)
U Water Marks (B1)		spheres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)		educed Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)		eduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Thin Muck Sur	• •	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery	(BZ)	In Remarks)	Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes	No 💿 Depth (inche	sì:	
		s): Wetland Hy	rdrology Present? Yes 🔿 No 🕥
Saturation Present? Yes O	No 💿 Depth (inche	s):	
Describe Recorded Data (stream gau	uge, monitoring well, aerial ph	iotos, previous inspections), if av	ailable:
Remarks:			
			- FC

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

			ominant pecies?		Sampling Point: Up - 25
		e Re	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove	-	Cover	Status	Number of Dominant Species
Pinus elilotti	10		55.6%	FACW	That are OBL, FACW, or FAC: 7 (A)
Nvssa sylvatica	3		16.7%	FAC	Total Number of Dominant
Magnolia virginiana		$\checkmark$	27.8%	FACW	Species Across All Strata:7(B)
	0		0.0%		
	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: 100.0% (A/B)
	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 9 20% of Total Cover: 3.6	18	= To	tal Cove	r	OBL species 0 x 1 = 0
apling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species 83 x 2 = 166
Marine and an Marine	10		45.5%	FAC	FAC species $25 \times 3 = 75$
	and the second second		45.5%	FACW	
1. It is an even in the second compared and the second s		-			
Quercus nigra	2.	Ë	9.1%	FAC	UPL species 0 x 5 = 0
••••••••••••••••••••••••••••••••••••••			0.0%		Column Totals: 108 (A) _241 (B)
		H	0.0%		Prevalence Index = B/A = 2.231
- v.			0.0%		
a	. 0		0.0%		Hydrophytic Vegetation Indicators:
	0	Ш	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 11 20% of Total Cover: 4.4		= To	tal Cove	r	✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
	40		81.6%	FACW	
The second s					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Magnolia grandifiora		H	2.0%	FAC	1 Yndiasten of hydrie sell and webland hydroleny musi
Ilex vomitoria	. 5	1	10.2%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology musi be present, unless disturbed or problematic.
Ilex glabra	3		6.1%	FACW	
				· · · · · · · · · · · · · · · · · · ·	
	0		0.0%		Definition of Vegetation Strata:
	0		0.0% 0.0%		Tree - Woody plants, excluding woody vines,
	0	- To			Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 24.5 20% of Total Cover: 9.8	0	    = To	0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m )	0 49	_	0.0% tal Cove		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,
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) , Ilex corlacea	0 49 10		0.0% tal Cove 66.7%	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: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: <u>30 m</u> ) . Ilex corlacea . Ilex glabra	0 49 10 5	_	0.0% tal Cove 66.7% 33.3%		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,
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) , Ilex corlacea , Ilex glabra	0 49 10 5 0		0.0% tal Cove 66.7% 33.3% 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: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0		0.0% tal Cove 66.7% 33.3% 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
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Tlex corlacea Tlex glabra	0 49 10 5 0 0 0		0.0% tal Cove 66.7% 33.3% 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.
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Tlex corlacea Tlex glabra	0 49 10 5 0 0 0 0		0.0% tal Cove 66.7% 33.3% 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,
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0 0		0.0% tal Cove 66.7% 33.3% 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.
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0 0 0		0.0% tal Cove 66.7% 33.3% 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.
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 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
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Lilex glabra	0 49 10 5 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 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.
0% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 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
50% of Total Cover: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 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: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	FACW 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: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW 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: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea Ilex glabra	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15		0.0% tal Cove 66.7% 33.3% 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: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea ilex glabra 	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15 3		0.0% tal Cove 66.7% 33.3% 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: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea I Iex glabra I Iex glabra 0% of Total Cover: 7.5 20% of Total Cover: 3 cody Vine Stratum (Plot size: 30 m)	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 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: 24.5 20% of Total Cover: 9.8 erb Stratum (Plot size: 30 m) Ilex corlacea ilex glabra	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cove 75.0% 25.0% 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:       24.5       20% of Total Cover:       9.8         erb Stratum       (Plot size: 30 m)       )         Ilex corlacea	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 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.
60% of Total Cover: 24.5 20% of Total Cover: 9.8   erb Stratum (Plot size: 30 m) Ilex glabra Ilex glabra 0% of Total Cover: 7.5 20% of Total Cover: 3 Coody Vine Stratum (Plot size: 30 m) Vitis rotundifolia	0 49 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cove 66.7% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cove 75.0% 25.0% 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.

Sampling Point: Up - 25

Remarks
Kemarks
atrix
ematic Hydric Solls <sup>3</sup> :
RR O)
(LRR S)
18) (outside MLRA 150A,B)
in Soils (F19) (LRR P, S, T)
Loamy Soils (F20) (MLRA 153B)
al (TF2)
Surface (TF12)
lemarks)
f hydrophytic vegetation and drology must be present,
disturbed or problematic.
Yes 🔾 No 🖲

Landform (hillslope, terrace, etc.): Hillside Loca	ematic? (If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes  No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: Area is just inside railbed approximately 200-250-feet, in western-norther	Is the Sampled Area within a Wetland? Yes O No O m portion of AOI.
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required: check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LR         Saturation (A3)       Hydrogen Sulfide Odor (         Water Marks (B1)       Oxidized Rhizospheres a         Sediment Deposits (B2)       Presence of Reduced Irc         Drift Deposits (B3)       Recent Iron Reduction in         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Remar         Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)	(C1)       Moss Trim Lines (B16)         along Living Roots (C3)       Dry Season Water Table (C2)         on (C4)       Crayfish Burrows (C8)         in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Geomorphic Position (D2)
Field Observations:       Surface Water Present?       Yes       No       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):	Wetland Hydrology Present? Yes O No O
Remarks:	

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

			ominant		Sampling Point: Up - 26
	Absolute	e Ri	pecies? . el.Strat.	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 m )	% Cove	<b>r</b>	Cover	Status	Number of Dominant Species
Pinus elilotti	5	$\checkmark$	38.5%	FACW	That are OBL, FACW, or FAC: 6 (A)
Pinus taeda	2		15.4%	FAC	
Magnolia virginiana	3	~	23.1%	FACW	Total Number of Dominant Species Across All Strata: 8 (B)
Liriodendron tulipifera			23.1%	FACU	
	•	$\overline{\Box}$	0.0%		Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC:75.0% (A/B)
	0	$\overline{\Box}$	0.0%		Prevalence Index worksheet:
	0		0.0%		
			MA	-	Total % Cover of: Multiply by:
50% of Total Cover: 6.5 20% of Total Cover: 2.6		= 10	tal Cove	r	OBL species 0 x 1 = 0
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species $\underline{78}$ x 2 = $\underline{156}$
Nyssa sylvatica			21.7%	FAC	FAC species $17 \times 3 = 51$
Magnolia virginiana	10		43.5%	FACW	FACU species $9 \times 4 = -36$
Quercus falcata	5		21.7%	FACU	UPL species x 5 =
Quercus nigra	3		13.0%	FAC	Column Totals: 104 (A) 243 (B)
			0.0%		
			0.0%		Prevalence Index = B/A = 2.337
			0.0%		Hydrophytic Vegetation Indicators:
			0.0%		
0% of Total Cover: 11.5 20% of Total Cover: 4.6		- 70	tal Cove		1 - Rapid Test for Hydrophytic Vegetation
		= 10		ſ	✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m )		_			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex coriacea	50	✓	89.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Quercus nigra	5	$\Box$	8.9%	FAC	
Quercus falcata	1		1.8%	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
	0	$\Box$	0.0%		be present, unless disturbed or problematic.
	0	$\square$	0.0%	<b>* 1 *</b>	Definition of Vegetation Strata:
	0	Ē	0.0%	- 64 x	Tree - Woody plants, excluding woody vines,
0% of Total Cover: 28 20% of Total Cover: 11.2		- To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in.
descent and		- 10	tai corei		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )					
					Capling Weady slarts avaluding weady visco
, Ilex coriacea	10		100.0%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in beight and less
			100.0% 0.0%	FACW	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			FACW	approximately 20 ft (6 m) or more in height and less
· · · · · · · · · · · · · · · · · · · ·	0		0.0%	FACW	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
,	0		0.0% 0.0% 0.0%	FACW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
· · · · ·	0 0 0 0		0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 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	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 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 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	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.
2. 3. 4. 5. 5. 6. 7. 7. 8. 9. 9.	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%		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
2. 3. 4. 5. 6. 7. 3. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9	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%		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: <u>5</u> 20% of Total Cover: <u>2</u> boody Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 0 0 0 0 0 10		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: <u>5</u> 20% of Total Cover: <u>2</u> oody Vine Stratum (Plot size: <u>30 m</u> ) Smilax rotundifolia			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: <u>5</u> 20% of T <b>otal Cover: <u>2</u></b> oody Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 2 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: <u>5</u> 20% of Total Cover: <u>2</u> loody Vine Stratum (Plot size: <u>30 m</u> ) Smilax rotundifolia	0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 2 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
2. 3. 4. 5. 6. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	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% 0.0% 0.0% 0.0%		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.
2	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% 0.0% 0.0% 0.0%		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.
2. 3. 4. 5. 6. 7. 8. 9. 0. 1. 2. 50% of Total Cover: <u>5</u> 20% of Total Cover: <u>2</u> Voody Vine Stratum (Plot size: <u>30 m</u> ) Smllax rotundifolla			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.

Sampling Point:	Up -	26
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Profile Descr	iption: (De	scribe to	the depth	needed to document the in	ndicator or co	onfirm the	absence of indicators.)	
Depth		Matrix		Redox Fe				
(inches) 0-5	Color ( 10YR	moist) 4/2	<u>%</u> 100	Color (moist) 9	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture Sandy Loam	Remarks
5-15	10YR	5/4	100		· · · × /		Loamy Sand	
						_		
	_					_		
		=Depletio	n RM <b>=Re</b> du	ced Matrix, CS=Covered or C	coated Sand Gra	ains <sup>2</sup> Loca	tion: PL≂Pore Lining. M=	Matrix
Hydric Soil I				_			Indicators for Prol	plematic Hydric Soils <sup>3</sup> :
Histosol (/	•			Polyvalue Below Sur	face (S8) (LRR	S, T, U)	🗌 1 cm Muck (A9)	(LRR O)
	edon (A2)			Thin Dark Surface (S	59) (LRR S, T, I	J)	🗌 2 cm Muck (A10	) (LRR S)
Black Hist	• •			Loamy Mucky Minera		I	Reduced Vertic (	F18) (outside MLRA 150A,B)
· ·	Sulfide (A4)			Loamy Gleyed Matrix	• •		Piedmont Flood	olain Soils (F19) (LRR P, S, T)
_	Layers (A5)			Depleted Matrix (F3)			Anomalous Brigh	nt Loamy Soils (F20) (MLRA 153B)
_	odies (A6) (L			Redox Dark Surface			🗌 Red Parent Mate	
_	ky Mineral (A		, 1, 0)	Depleted Dark Surface	. ,		Very Shallow Da	rk Surface (TF12)
	ence (AB) (Li			Redox Depressions (	(F8)		Other (Explain in	Remarks)
	k (A9) (LRR P			Mari (F10) (LRR U)				
	Below Dark S	-	,	Depleted Ochric (F11				
	k Surface (A1 rie Redox (A1		15043	Iron-Manganese Mas				
	ck Mineral (S			Umbric Surface (F13				
	yed Matrix (S		, 5)	Delta Ochric (F17) (N	=	(505)	<sup>3</sup> Indicators	of hydrophytic vegetation and
		m)		Reduced Vertic (F18)			wetland	hydrology must be present,
Sandy Rec				Piedmont Floodplain				s disturbed or problematic.
	ice (S7) (LRR	P, S, T, U	l)	Anomalous Bright Lo	amy Soils (F20	) (MLRA 149	9A, 153C, 153D)	
Restrictive La	ver (if obse	erved):						
Type:	iyai (ii oboc							
Depth (inch	es):		10-0				Hydric Soil Present?	Yes 🔿 No 💿
Remarks:								

Are Vegetation, Soil Are Vegetation, Soil	on the site typical for this time of , or Hydrology Signific , or Hydrology natural Attach site map showing	antly disturbed? Are "Normal ( lly problematic? (If needed, ex sampling point locations, tra	NWI classification: N/A (If no, explain in Remarks.) Circumstances" present? Yes  No  xplain any answers in Remarks.) ansects, important features, etc.
Hydric Soil Present?	Yes O No O	Is the Sampled Area	Yes $\bigcirc$ No $\odot$
Wetland Hydrology Present?	Yes 🔿 No 🖲	within a Wetland?	
HYDROLOGY			Generating Technique (1975)
Wetland Hydrology Indicators: Primary Indicators (minimum of	one required; check all that app	N)	Secondary Indicators (minimum of 2 required)
Surface Water (A1)	Aquatic Fauna		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits		Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulf		Moss Trim Lines (B16)
Water Marks (B1) Sediment Deposits (B2)		ospheres along Living Roots (C3) educed Iron (C4)	Dry Season Water Table (C2)     Crayfish Burrows (C8)
Drift Deposits (B3)		eduction In Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Sur		Geomorphic Position (D2)
Iron Deposits (B5)	🗌 Other (Explain	in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Ima	gery (B7)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes	O No O Depth (inche	s):	
Water Table Present? Yes	0 0		
	F <b>(</b>	s): Wetland Hydro	ology Present? Yes 🔿 No 🖲
(includes capillary fringe) Yes		s):	
iemarks:	gauge, monitoring weily actual pr	notos, previous inspections), if availa	

		pecies?		Sampling Point: Up - 27		
	R	el.Strat.	Indicator	Dominance Test worksheet:		
% Cover		Cover	Status	Number of Dominant Species		
10		41.7%	FACW	That are OBL, FACW, or FAC: 7 (A)		
5		20.8%	FAC	Tetal Number of Deminent		
5		20.8%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)		
3		12.5%	FAC			
1		4.2%	FACU	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:		
24 :	= To	tal Cove	-	OBL species 0 x 1 = 0		
			-	FACW species <u>72</u> x 2 = <u>144</u>		
		67 EW	EACIN	FAC species $46 \times 3 = 138$		
	-		· · · · ·			
	H			FACU species $1 \times 4 = 4$		
-	H.		· · · · · · · · · · · · · · · · · · ·	UPL species <u>0</u> x 5 = <u>0</u>		
	븜			Column Totals: 119 (A) 286 (B)		
			FAC	Prevalence Index = B/A = 2.403		
0	닏.	- · · ·	-	Hydrophytic Vegetation Indicators:		
0	Ц,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
40 =	= То	tal Cove	r	✓ 2 - Dominance Test is > 50%		
				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
35		74.5%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
	-					
	<u> </u>		•	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
			TAC	be present, unless disturbed or problematic.		
911-97	H			Definition of Vegetation Strata:		
and projections.	믐			-		
-	ы,			Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
47 =	= То	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
				· · · · · · · · · · · · · · · · · · ·		
5	<	100.0%	FAC	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
0		0.0%		than 3 in, (7.6 cm) DBH,		
0		0.0%				
0	$\square$			Sapling/Shrub - Woody plants, excluding vines, less		
	$\overline{\Box}^{*}$			than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	$\overline{\Box}$					
0	Ξ.			Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
	Ē			approximately 5 to 20 m (1 to 0 m) in height.		
				Herb - All herbaceous (non-woody) plants, including		
the second s				herbaceous vines, regardless of size, and woody		
	L.			plants, except woody vines, less than approximately		
	Ц.	• • •		3 ft (1 m) in height.		
	Ц,			Mandy vine All woody vines reportions of height		
5 =	= To	tal Cover		Woody vine - All woody vines, regardless of height.		
3		100.0%	FAC			
		A.A				
and the second s						
a and the second			·			
0		0.0%	2	Hydrophytic		
				Vegetation		
	% Cover           10           5           3           1           0           0           0           0           0           0           24           )           25           5           2           3           0	Absolute       Ru         10 $\checkmark$ 5 $\checkmark$ 3       1         0       10         0       10         0       10         0       10         0       10         0       10         24       =         5       10         2       10         0       10         0       10         0       10         2       0         10 $\checkmark$ 2       0         0       10         0       10         0       10         0       10         0       10         0       10         0       10         0       0         0       0         0       0         0       0         0       0         0       0         0       0         0       0         0       0         0       0         0       0         0       0	10       ✓       41.7%         5       ✓       20.8%         3       12.5%         1       4.2%         0       0.0%         0       0.0%         0       0.0%         24       =         25       ✓       62.5%         5       12.5%         2       5.0%         3       7.5%         0       0.0%         0       0.0%         0       0.0%         2       5.0%         3       7.5%         0       0.0%         0       0.0%         0       0.0%         10       21.3%         2       4.3%         0       0.0%         10       21.3%         2       4.3%         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%	Absolute       Rel.Strat. Cover       Indicator         10 $\checkmark$ 41.7%       FACW         5 $\checkmark$ 20.8%       FAC         3       12.5%       FAC         1       4.2%       FACU         0       0.0%       0         0       0.0%       0         0       0.0%       0         0       0.0%       0         0       0.0%       0         24       = Total Cover         5       12.5%       FAC         5       12.5%       FAC         2       5.0%       FACW         3       7.5%       FAC         2       5.0%       FACW         3       7.5%       FAC         0       0.0%       0         0       0.0%       0         0       0.0%       0         0       0.0%       0         10       21.3%       FAC         2       4.3%       FAC         2       4.3%       FAC         0       0.0%       0         0       0.0%       0         0       0.0		

Sampling Point: Up - 27

	iption: (De	scribe to Matrix	the depth I	needed to document the indicator or confirm the Redox Features	absence of indicators.)	
Depth (inches)	Color (		%	1	Texture	Remarks
0-4	10YR	3/2	100		1025ard	Nemana S
4-16	10YR	6/4	100			
0.00						
					(199-1).	
		-				
			-			
 Type: C=Conc	entration. D	=Depletio	n. RM=Redu	ed Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	ation: PL=Pore Lining. M=N	fatrix
Hydric Soil II				_	Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (A	-			Polyvalue Below Surface (S8) (LRR S, T, U)	🗌 1 cm Muck (A9) (	LRR O)
Histic Epip				Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10)	(LRR Ŝ)
Black Histi				Loamy Mucky Mineral (F1) (LRR O)		18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)		ain Soils (F19) (LRR P, S, T)
Stratified L	.ayers (AS) odies (A6) (L	ор с т і	n	Depleted Matrix (F3)		Loamy Soils (F20) (MLRA 153B)
	ky Mineral (A		-	Redox Dark Surface (F6)	Red Parent Mater	
_	ence (A8) (L		, , , 0)	Depleted Dark Surface (F7)	Very Shallow Dar	
	(A9) (LRR F			Redox Depressions (F8)     Marl (F10) (LRR U)	Other (Explain in	Remarks)
	Below Dark S		In	Depleted Ochric (F11) (MLRA 151)		
_ `	Surface (A1	-	,	Iron-Manganese Masses (F12) (LRR O, P, T)		
	rie Redox (A		150A)	Umbric Surface (F13) (LRR P, T, U)		
_	k Mineral (S		-	Delta Ochric (F17) (MLRA 151)		
	ed Matrix (S			Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators	of hydrophytic vegetation and
Sandy Red	-	,		Piedmont Floodplain Soils (F19) (MLRA 149A)		ydrology must be present, disturbed or problematic.
 Stripped M	• •			Anomalous Bright Loamy Soils (F20) (MLRA 14		
Dark Surfa	ce (S7) (LRF	ι Ρ, S, T, I	Ŋ		,	
					1	<u> </u>
Lestrictive La	yer (if obse	erved):				
Type:	es):				Hydric Soil Present?	Yes 🔿 No 🖲
Remarks:			···			· · · · · · · · · · · · · · · · · · ·
Cerridi KS.						

nvestigator(s): Lars Larson, Randy Ellis Section, Township, Range: S 29 T 7 s R 16 W	Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 19-Oct-16
andform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): fiat Slope: 0,0 % /	Applicant/Owner: NASA	State: MS Sampling Point: Up -28
ubregion (LRR or MLRA):       LRT       Lat:       30° 24' 33.408" N       Long::       89° 37' 40.343" W       Detum:       NADB3         oil Map Unit Name:       ESA, Escambia loam, 0 to 2 percent slopes       NWI classification:       NA         ure climatic/hydrologic conditions on the site typical for this time of year?       Yes ● No ○       (If no, explain in Remarks.)         Are Vegetation       , Soil       , or Hydrology       significantly disturbed?       Are "Normal Circumstances" present?       Yes ● No ○         Are Vegetation       , Soil       , or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.       Hydrology Present?       Yes ● No ●         Hydrology Present?       Yes ● No ●       Is the Sampled Area       within a Wetland?       Yes ● No ●         Wetland Hydrology Indicators:       Preso A O ●       Is the Sampled Area       within a Wetland?       Yes ● No ●         Pimary Indicators (minimum of one required; check all that apply)       Surface Sol Cracks (B6)       Sparsety Vegetated Concave Surface (B8)       Phenomes Surface (B8)         High Water Table (A2)       Mart Doposits (B15) (LR IV)       Datage Patterns (B1)       Doddied Rhizopheres along Living Roots (C3)       Dy Season Water Table (C2)       Dy Season Water	Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W
oil Map Unit Name: E6A, Escamble loan, 0 to 2 percent slopes   we climatic/hydrologic conditions on the site typical for this time of year? Yes <ul> <li>No</li> <li>(If no, explain in Remarks.)</li> </ul> Are Vegetation , Soil , or Hydrology isgnificantly disturbed? <li>Are "Normal Circumstances" present?</li> <li>Yes  <ul> <li>No</li> <li>Are Vegetation</li> <li>, Soil</li> <li>, or Hydrology</li> <li>naturally problematic?</li> <li>(If needed, explain any answers in Remarks.)</li> </ul>    SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.   Hydrophytic Vegetation Present? Yes  <ul> <li>No</li> <li>(Yes No</li> <li>(Yes No</li> <li>(Yes No</li> </ul>    Hydrology Present? Yes  <ul> <li>No</li> <li>(Yes No</li> <li>(Hindrology Present?)</li> <li>(Yes No</li> <li>(Hindrology Present?)</li> <li>(Yes No</li> <li>(Hindrology Present?)</li> <li>(Yes No</li> <li>(Hindrology Indicators:</li> <li>(Hindrology Indicators</li></ul></li>	andform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
oil Map Unit Name: E6A, Escamble loan, 0 to 2 percent slopes   we climatic/hydrologic conditions on the site typical for this time of year? Yes <ul> <li>No</li> <li>(If no, explain in Remarks.)</li> </ul> Are Vegetation , Soil , or Hydrology isgnificantly disturbed? <li>Are "Normal Circumstances" present?</li> <li>Yes  <ul> <li>No</li> <li>Are Vegetation</li> <li>, Soil</li> <li>, or Hydrology</li> <li>naturally problematic?</li> <li>(If needed, explain any answers in Remarks.)</li> </ul>    SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.   Hydrophytic Vegetation Present? Yes  <ul> <li>No</li> <li>(Yes No</li> <li>(Yes No</li> <li>(Yes No</li> </ul>    Hydrology Present? Yes  <ul> <li>No</li> <li>(Yes No</li> <li>(Hindrology Present?)</li> <li>(Yes No</li> <li>(Hindrology Present?)</li> <li>(Yes No</li> <li>(Hindrology Present?)</li> <li>(Yes No</li> <li>(Hindrology Indicators:</li> <li>(Hindrology Indicators</li></ul></li>	Subregion (LRR or MLRA): IRR T	
tre climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)   Are Vegetation , Solil , or Hydrology isignificantly disturbed? Are "Normal Circumstances" present? Yes No   Are Vegetation   , Solil , or Hydrology in aturally problematic? (If needed, explain any answers in Remarks.)   SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.   Hydrophytic Vegetation Present? Yes No   Hydrology Present? Yes No Is the Sampled Area   Hydrology Present? Yes No within a Wetland?   Yes No Is the Sampled Area   within a Wetland Hydrology Indicators:   Primarks: Terrace area located in NW part of AOI. Site is near an ephemeral channel that displays evidence of hydric soils.   HYDROLOGY   Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)   Surface Water (A1) Aquete Fauna (B13)   Gardae Sali Cracks (B6) Salimater (B1)   High Water Table (A2) Marl Deposits (B15) (LRR U)   Gardae Sali Cracks (B3) Cardae Sali Cracks (C3)   Wetland Hydrology Hostis (B1) Oddized Rhizospheres along Undig Roots (C3)   Gardae Sali Cracks (B3) Remarks:   Primary Indicators (minimum of one required; check all that apply)   Gardae Sali Cracks (B3)   Primary Indicators (B1)   Oddized Rhizospheres along Undig Roots (C3)   <		and the second
Are Vegetation       , soil       , or Hydrology       significantly disturbed?       Are "Normal Circumstances" present?       Yes       No         Are Vegetation       , soil       , or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrohytic Vegetation Present?       Yes       No       Is the Sampled Area         Hydrology Present?       Yes       No       Is the Sampled Area         within a Wetland?       Yes       No       Is the Sampled Area         within a Wetland?       Yes       No       Is the Sampled Area         within a Wetland?       Yes       No       Is the Sampled Area         within a Wetland?       Yes       No       Is the Sampled Area         Wetland Hydrology Indicators:       Terrace area located in NW part of ADI.       Site is near an ephemeral channel that displays evidence of hydric soils.         HYDROLOGY       Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Creck (B6)         Surface Water (A1)       Aquatic Fauna (B13)       Sparsely Vegetated Conceve Surface (B8)         High Water Table (A2)       Marl Deposits (B15) (LR U)       Damage Patterns (B10)         Suturation (A3)       Hydrogen Sufface O		0 0
Are Vegetation       , Soll       , or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrohytic Vegetation Present?       Yes       No         Hydrohytic Vegetation Present?       Yes       No       Is the Sampled Area within a Wetland?         Wetland Hydrology Present?       Yes       No       Is the Sampled Area within a Wetland?         Wetland Hydrology Present?       Yes       No       Is the Sampled Area within a Wetland?         Wetland Hydrology Indicators:       Ferrace area located in NW part of AOI. Site Is near an ephemeral channel that displays evidence of hydric soils.         HYDROLOGY       Surface Sail Cracks (B6)       Surface Soil Cracks (B6)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         Sufface Water (A1)       Aquatic Fauna (B13)       Sparsely Vegetated Concave Surface (B8)         Sufface Water (A1)       Aquatic Fauna (B13)       Dainage Patterns (B10)         Sufface Water (A1)       Aquatic Fauna (B13)       Bain Mar Orus (C3)         Sufface Mater Table (A2)       Mari Deposits (B15) (LRR U)       Doins ge Patterns (B10)         Sufface Mater Table (A2)       Presence of Reduced Iron (C4)       Crafish Burrows (C8) <t< th=""><th></th><th></th></t<>		
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrophytic Vegetation Present?       Yes       No       Is the Sampled Area within a Wetland?         Hydricology Present?       Yes       No       within a Wetland?       Yes       No         Remarks:       Terrace area located in NW part of AOI. Site is near an ephemeral channel that displays evidence of hydric soils.       HYDROLOGY         Wetland Hydrology Indicators:       Primary Indicators (minimum of one required; check all that apply)       Surface Soil Cracks (B6)         Surface Water (A1)       Aquatic Founa (B13)       Sparsely Vegetated Concave Surface (B8)         High Water Table (A2)       Main 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 (B2)       Other (Explain in Remarks)       Shallow Aquitard (D3)         In undation Visble on Aerial Imagery (B7)       Water Act (D5)       Shallow Aquitard (D3)         Water Marks (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)       Shalgew Aquitard (D3)         In undation V	Are Vegetation, Soil, or Hydrology signification	antly disturbed? Are "Normal Circumstances" present? Yes 🔍 No 🔾
Hydrophytic Vegetation Present?       Yes       No       Is the Sampled Area within a Wetland?         Hydric Soil Present?       Yes       No       within a Wetland?         Wetland Hydrology Present?       Yes       No       within a Wetland?         Remarks: Terrace area located in NW part of AOI.       Site is near an ephemeral channel that displays evidence of hydric soils.         HYDROLOGY	Are Vegetation, Soll, or Hydrology natural	lly problematic? (If needed, explain any answers in Remarks.)
Hydric Soil Present? Yes No   Wetland Hydrology Present? Yes No   Remarks: Terrace area located in NW part of AOI. Site is near an ephemeral channel that displays evidence of hydric soils.   HYDROLOGY   Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)   Surface Soil Cracks (B6)   Surface Soil Cracks (B6)   Surface Soil Cracks (B6)   Surface Water (A1)   Aquetic Fauna (B13)   Sufface Soil Cracks (B6)   Surface (A2)   Hydrogen Sufface (A2)   Hydrogen Sufface (A1)   Saturation (A3)   Hydrogen Sufface Color   Saturation (A3)   Hydrogen Sufface Color   Sediment Deposits (B2)   Presence of Reduced Iron (C4)   Crayfish Burrows (C8)   Sturation Visible on Aerial Imagery (C3)   Adapt Mator Crust (B4)   Inundation Visible on Aerial Imagery (B7)   Water -Stained Leaves (B9)   Field Observations:   Surface Water (Present?   Yes   No   Depth (inches):   Sufface Water Present?   Yes   No   Depth (inches):   Wetland Hydrology Present? Yes	SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydric Soil Present?       Yes       No       within a Wetland?       Yes       No         Wetland Hydrology Present?       Yes       No       within a Wetland?       Yes       No       Image: Solid Creates Solid Creates Solid Creates (B6)         Remarks:       Terrace area located in NW part of AOI.       Site is near an ephemeral channel that displays evidence of hydric soils.         HYDROLOGY       Image: Solid Creates (B6)       Image: Solid Creates (B6)       Image: Solid Creates (B6)         Primary Indicators (minimum of one regulared; check all that apply)       Image: Solid Creates (B6)       Image: Solid Creates (B6)         Image: Solid Creates (B1)       Aquatic Fauna (B13)       Sparsely Vegetated Concave Surface (B8)         Image: Solid Creates (B1)       Mari Deposits (B15) (LRR U)       Image: Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Moss Tim Lines (B16)         Wetlement Deposits (B2)       Presence of Reduced Iron (C4)       Crafish Burrows (C8)         Image: Solid Creates (B2)       Presence of Reduced Iron (C4)       Crafish Burrows (C8)         Image: Solid Creates (B3)       Recent Iron Reduction in Tilled Solis (C5)       Saturation Visible on Aerial Imagery (C9)         Image: Solid Creates (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)       Shallow Aquitard (D3)         Immodation Visible on Aerial	Hydrophytic Vegetation Present? Yes $ullet$ No $igodot$	To the Sampleri Area
Wetland Hydrology Present?       Yes       No       Within a wetcantor         Remarks:       Terrace area located in NW part of AOI. Site is near an ephemeral channel that displays evidence of hydric soils.       Image: Surface Soil Cracks (Bo)         HYDROLOGY       Surface Mater (A1)       Surface Soil Cracks (Bo)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (Bo)         High Water Table (A2)       Mari Deposits (B15) (LRR U)       Darinage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Moss Tim 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)         Adgat Mat or Crust (B4)       Thin Muck Surface (C7)       Gemorphic Position (D2)         I ron Deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       Depth (inches):       Sphagnum moss (D8) (LRR T, U)         Field Observations:       Sufface Soil (Cnches):       Sphagnum moss (D8) (LRR T, U)         Saturation Present?       Yes       No       Depth (inches):         Saturation Present?	Hydric Soil Present? Yes O No 💿	Van O No 🔍
Terrace area located in NW part of AOI, Site is near an ephemeral channel that displays evidence of hydric soils.         HYDROLOGY         Wetland Hydrology Indicators:         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 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)         Orth Deposits (B2)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         High Water Crust (B4)       Thin Muck Surface (C7)       Geomorphic Position (D2)         Iron Deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Iron deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Water Table Present?       Yes       No        Depth (inches):         Water Table Present?       Yes       No        Depth (inches):         Sufface Water Present?       Yes       No        Depth (inches):         Saturat	Wetland Hydrology Present? Yes O No 💿	within a Wetland?
Terrace area located in NW part of AOI, Site is near an ephemeral channel that displays evidence of hydric soils.         HYDROLOGY         Wetland Hydrology Indicators:         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 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)         Orth Deposits (B2)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         High Water Crust (B4)       Thin Muck Surface (C7)       Geomorphic Position (D2)         Iron Deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Iron deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Water Table Present?       Yes       No        Depth (inches):         Water Table Present?       Yes       No        Depth (inches):         Sufface Water Present?       Yes       No        Depth (inches):         Saturat		
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) (LR 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)         Dift Deposits (B3)       Recent Iron Reduction in Tilled Soils (C5)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Thin Muck Surface (C7)       Geomorphic Position (D2)         Innundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Water Table Present?       Yes       No         Depth (inches):         Water Table Present?       Yes       No         Depth (inches):         Water Table Present?       Yes       No         Depth (inches):         Water Stailend Leaves (B9)       Depth (inches):       Wetland Hydrology Present?       Yes       No		ral channel that displays evidence of hydric soils.
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 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 Aerial Imagery (B7)       FAC-Neutral Test (D5)         Water Table Present?       Yes       No          Sufface Water Present?       Yes       No          Mater Table Present?       Yes       No          Depth (inches):       Depth (inches):       Wetland Hydrology Present?       Yes       No          Saturation Present?       Yes       No        Depth (inches):       Peth (inches):       No        Peth (inches):	HYDROLOGY	
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 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 Aerial Imagery (B7)       FAC-Neutral Test (D5)         Water Table Present?       Yes       No          Sufface Water Present?       Yes       No          Mater Table Present?       Yes       No          Depth (inches):       Depth (inches):       Wetland Hydrology Present?       Yes       No          Saturation Present?       Yes       No        Depth (inches):       Peth (inches):       No        Peth (inches):	Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Surface Water (A1)       Aquatic Fauna (B13)       Sparsely Vegetated Concave Surface (B8)         High Water Table (A2)       Marl Deposits (B15) (LRR U)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Moss Trim Lines (B16)         Water Marks (B1)       Oxidized Rhizospheres along Living Roots (C3)       Dry Season Water Table (C2)         Sediment Deposits (B3)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Solis (C6)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Thin Muck Surface (C7)       Geomorphic Position (D2)         I ron Deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         I nundation Visible on Aerial Imagery (B7)       ✓ FAC-Neutral Test (D5)         Water Table Present?       Yes       No          Saturation Present?       Yes       No          Saturation Present?       Yes       No          Saturation Present?       Yes       No          Depth (inches):       Depth (inches):       Wetland Hydrology Present?       Yes       No		Provide the second s
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 Aerial Imagery (B7)       ✓ FAC-Neutral Test (D5)         Water-Stained Leaves (B9)       Depth (inches):       Sphagnum moss (D8) (LRR T, U)         Field Observations:       Surface Water Present?       Yes No        Depth (inches):         Saturation Present?       Yes No        Depth (inches):       Wetland Hydrology Present?       Yes No          Saturation Present?       Yes No        Depth (inches):       Wetland Hydrology Present?       Yes No        No	Surface Water (A1)	
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)         Water-Stained Leaves (B9)       Depth (inches):       Sphagnum moss (D8) (LRR T, U)         Field Observations:       Surface Water Present?       Yes       No          Saturation Present?       Yes       No        Depth (inches):       Wetland Hydrology Present?       Yes       No          Saturation Present?       Yes       No        Depth (inches):       Wetland Hydrology Present?       Yes       No	High Water Table (A2)	(B15) (LRR U) Drainage Patterns (B10)
Sediment Deposits (B2)       □       Presence of Reduced Iron (C4)       □       Crayfish Burrows (C8)         □       Drift Deposits (B3)       □       Recent Iron Reduction in Tilled Soils (C6)       □       Saturation Visible on Aerial Imagery (C9)         □       Algal Mat or Crust (B4)       □       Thin Muck Surface (C7)       □       Geomorphic Position (D2)         □       Iron Deposits (B5)       □       Other (Explain in Remarks)       □       Shallow Aquitard (D3)         □       Inundation Visible on Aerial Imagery (B7)       □       Other (Explain in Remarks)       □       Shallow Aquitard (D3)         □       Inundation Visible on Aerial Imagery (B7)       □       Other (Explain in Remarks)       □       Shallow Aquitard (D3)         □       Inundation Visible on Aerial Imagery (B7)       □       Ø       FAC-Neutral Test (D5)         □       Water-Stained Leaves (B9)       □       Depth (inches):       □       Sphagnum moss (D8) (LRR T, U)         Field Observations:       □       □       Depth (inches):       □       □       Present?       Yes<	Saturation (A3)	ide Odor (C1) Moss Trim Lines (B16)
□ Drift Deposits (B3)       □ Recent Iron Reduction in Tilled Soils (C6)       □ Saturation Visible on Aerial Imagery (C9)         □ Algal Mat or Crust (B4)       □ Thin Muck Surface (C7)       □ Geomorphic Position (D2)         □ Iron Deposits (B5)       □ Other (Explain in Remarks)       □ Shallow Aquitard (D3)         □ Inundation Visible on Aerial Imagery (B7)       ☑ FAC-Neutral Test (D5)         □ Water-Stained Leaves (B9)       □ Depth (inches):       □ Sphagnum moss (D8) (LRR T, U)         Field Observations:       □ Depth (inches):       □ Depth (inches):       □ Depth (inches):         Saturation Present?       Yes ○ No        ○ Depth (inches):       Wetland Hydrology Present?       Yes ○ No          Saturation Present?       Yes ○ No        ○ Depth (inches):       □ Depth (inches):       Wetland Hydrology Present?       Yes ○ No	Water Marks (B1) Oxidized Rhizos	pspheres along Living Roots (C3) Dry Season Water Table (C2)
Algal Mat or Crust (B4)       □ Thin Muck Surface (C7)       □ Geomorphic Position (D2)         □ Iron Deposits (B5)       □ Other (Explain in Remarks)       □ Shallow Aquitard (D3)         □ Inundation Visible on Aerial Imagery (B7)       ☑ FAC-Neutral Test (D5)         □ Water-Stained Leaves (B9)       ☑ Depth (inches):       ☑ Sphagnum moss (D8) (LRR T, U)         Field Observations:       ☑ Depth (inches):       ☑ Depth (inches):       ☑ Parsent?         Yes<	Sediment Deposits (B2)	educed Iron (C4) Crayfish Burrows (C8)
□ Iron Deposits (B5)       □ Other (Explain in Remarks)       □ Shallow Aquitard (D3)         □ Inundation Visible on Aerial Imagery (B7)       □ FAC-Neutral Test (D5)         □ Water-Stained Leaves (B9)       □ Sphagnum moss (D8) (LRR T, U)         Field Observations:       □ Depth (inches):         Surface Water Present?       Yes ○ No ④         Depth (inches):       □ Depth (inches):         Saturation Present?       Yes ○ No ④         Includes capillary fringe)       Yes ○ No ④		
□ 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          Vater Table Present?       Yes ○       No          Depth (inches):       □         Saturation Present?       Yes ○       No          Vest ○       No        □         Depth (inches):       □         Yes ○       No        □         Depth (inches):       □         Yes ○       No        □         Depth (inches):       □         Yes ○       No          Depth (inches):       □         Yes ○       No		
Water-Stained Leaves (B9)       □ Sphagnum moss (D8) (LRR T, U)         Field Observations:       Surface Water Present?       Yes ○       No ④       Depth (inches):		
Field Observations:       Surface Water Present?       Yes       No       Depth (inches):       Depth (inches)		
Surface Water Present?       Yes       No       Depth (inches):       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):       Depth (inches):         Saturation Present? (includes capillary fringe)       Yes       No       Depth (inches):       Wetland Hydrology Present?       Yes       No		Sphagnum moss (D8) (LRR T, U)
Water Table Present?       Yes       No       Depth (inches):		
Saturation Present? Yes O No O Depth (inches): Wetland Hydrology Present? Yes O No O		۶s):
(includes capillary fringe) Yes V No ( Depth (inches):	F (	
		s):
		hotos, previous inspections), if available:
		* AA.
	Remarks:	
Remarks:		

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

			minant		Sampling Point: Up -28
	Absolute		ecies? _	Indicator	
Tree Stratum (Plot size: 30 m )	% Cove	r _ C	Cover	Status	Number of Dominant Species
Pinus elliotti	15	☑.	78.9%	FACW	That are OBL, FACW, or FAC:5_ (A)
Nyssa sylvatica	3		15.8%	FAC	
Magnolia grandifiora	1		5.3%	FAC	Total Number of Dominant Species Across All Strata: 5 (B)
	0		0.0%		
	0		0.0%		Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)
	0		0.0%		Prevalence Index worksheet:
• The second	0	Ē	0.0%	•	
					Total % Cover of: Multiply by:
50% of Total Cover: 9.5 20% of Total Cover: 3.8	19	= 10	tal Cover		OBL species $0 \times 1 = 0$
apling or Sapling/Shrub Stratum (Plot size: 30 m	)	_			FACW species83 x 2 =166
Pinus elliottii			50.0%	FACW	FAC species 18 x 3 =54
Magnolia virginiana		⊻_	30.0%	FACW	FACU species $0 \times 4 = 0$
Liquidambar styraciflua	2	<ul><li>✓</li></ul>	20.0%	FAC	UPL species $0 \times 5 = 0$
			0.0%		
			0.0%		Column Totals: 101 (A) .220 (B)
	0		0.0%		Prevalence Index = B/A = 2.178
<b>a</b> ( <b>a</b> - <b>a</b> ), so the second s	0		0.0%		Hydrophytic Vegetation Indicators:
				(a).	
· · · · · · · · · · · · · · · · · · ·	<u> </u>	Ц.,	0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 5 20% of Total Cover: 2	10	= Tol	tal Cover		✓ 2 - Dominance Test is > 50%
hrub Stratum (Piot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex corlacea	60	✓	85.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
			14.3%	FAC	
				FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
		<u> </u>	0.0%		be present, unless disturbed or problematic.
	0		0.0%		
	0		0.0%		Definition of Vegetation Strata:
		$\equiv$	0.070		-
	0		0.0%	<b></b>	Tree - Woody plants, excluding woody vines,
	0	= Tot		<b>.</b>	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 35 20% of Total Cover: 14	0	= Tot	0.0%		Tree - Woody plants, excluding woody vines,
50% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum (Plot size: <u>33</u> )	0 70	= Tot	0.0% tal Cover	<b>H</b> .	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum (Plot size: <u>33</u> )	0 70 0	= Tot	0.0% t <b>al Cover</b> 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
0% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum ( <sup>Plot</sup> size: <u>33</u> )	0 70 0 0		0.0% tal Cover 0.0% 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). Sapling - Woody plants, excluding woody vines,
0% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum ( <sup>Plot</sup> size: <u>33</u> )	0 70 0		0.0% t <b>al Cover</b> 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). 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: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum ( <sup>Plot</sup> size: <u>33</u> )	0 70 0 0		0.0% tal Cover 0.0% 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). 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
0% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum (Plot size: <u>33</u> )	0 70 0 0 0 0		0.0% tal Cover 0.0% 0.0% 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). 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: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum (Plot size: <u>33</u> )	0 70 0 0 0 0		0.0% tal Cover 0.0% 0.0% 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). 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.
i0% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum ( <sup>Plot size: <u>33</u>)</sup>	0 70 0 0 0 0 0 0		0.0% tal Cover 0.0% 0.0% 0.0% 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). 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
50% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> <b>erb Stratum</b> ( <sup>Plot size: <u>33</u>) </sup>	0 70 0 0 0 0 0 0 0 0		0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 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). 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,
50% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> <b>lerb Stratum</b> (Plot size: <u>33</u> )	0 70 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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
0% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum (Plot size: <u>33</u> )	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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
50% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum ( <sup>Plot</sup> size: <u>33</u> )	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>tal Cover</b> 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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
50% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> <b>lerb Stratum</b> ( <sup>Plot size: <u>33</u>) 1. 2. 3. 4. 5. 6. 7. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9</sup>	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>tal Cover</b> 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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
50% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> <b>lerb Stratum</b> (Plot size: <u>33</u> ) 1. 2. 3. 4. 5. 5. 6. 7. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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.
50% of Total Cover: <u>35</u> 20% of Total Cover: <u>14</u> <b>lerb Stratum</b> (Plot size: <u>33</u> ) 1. 2. 3. 4. 5. 5. 6. 7. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>tal Cover</b> 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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
50% of Total Cover:       35       20% of Total Cover:       14         Image: Stratum       (Plot size: 33       )       )         1.       .       .       .         2.       .       .       .         3.       .       .       .         4.       .       .       .         5.       .       .       .         6.       .       .       .         7.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         5.       .       .       .         6.       .       .       .         7.       .       .       .         3.       .       .       .         3.       .       .       .       .         3.       .       .       .       .         3.       .       .       .       .         5.       .       .       .       .         6.       .       .       .       .         6.       .<	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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:       35       20% of Total Cover:       14         erb Stratum       (Plot size: 33       )	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% cal Cover 0.0% 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). 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: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum (Plot size: <u>33</u> )	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% cal Cover 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% 100.0%		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). 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: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum (Plot size: <u>33</u> )			0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 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). 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: <u>35</u> 20% of Total Cover: <u>14</u> erb Stratum (Plot size: <u>33</u> )	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 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). 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.
00% of Total Cover:       35       20% of Total Cover:       14         erb Stratum       (Plot size: 33       )       .	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 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). 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.
50% of Total Cover:       35       20% of Total Cover:       14         Herb Stratum       (Plot size: 33       )       )         1.       .       .       .         2.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .       .       .         3.       .			0.0% tal Cover 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 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). 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.
50% of Total Cover:       35       20% of Total Cover:       14         Herb Stratum       (Plot size: 33)       )       )         1.	0 70 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% cal Cover 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% 0.0% 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). 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.

Sampling	Point:	Up -28

Profile Descr	iption: (De		the depth	needed to d				onfirm the	absence of indicators.	)	
Depth		Matrix				dox Featu	1				
(inches)		(moist)	%	Color (	moist)	%	Type *	Loc <sup>2</sup>	Texture	Remarks	
0-5	10YR	4/2	100		· · · · ·				Loamy Sand		
5-16	10YR	5/4	95	10YR	7/6	.5	C	PL	Loamy Sand	······································	
		)=Depletio	n. RM <b>=Red</b>	uced Matrix, C	S=Covere	d or Coate	d Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M	- Matrix	
Hydric Soil I				_					Indicators for Pro	<b>blematic Hydric Soils<sup>3</sup>:</b>	
Histosol (#	•					w Surface			1 cm Muck (A9)	) (LRR O)	
Histic Epip				_		face (S9) (l			2 cm Muck (A1	0) (LRR S)	
Black Histi						Mineral (F1				(F18) (outside MLRA 150A,B)	
_	Sulfide (A4)					Matrix (F2	)			lplain Soils (F19) (LRR P, S, T)	
	ayers (A5)				leted Matr				🗌 Anomalous Brig	ht Loamy Soils (F20) (MLRA 153B)	
	odies (A6) (l			_		urface (F6)			Red Parent Mat	erial (TF2)	
_	ky Mineral (A		, T, U)			Surface (F	7)		Very Shallow Dark Surface (TF12)		
	ence (A8) (L				ox Depres				🔛 Other (Explain i	in Remarks)	
	k (A9) (LRR				l (F10) (LR						
	Below Dark S	•	11)			ic (F11) (M	-				
	Surface (A:			Iron	-Mangane	se Masses	(F12) (LRF	R O, P, T)			
_	rie Redox (A		•	Umb	oric Surfac	e (F13) (LR	lr p, T, U)				
	ck Mineral (S		, S)			=17) (MLRA	-		3 <sub>Todicato</sub>	rs of hydrophytic vegetation and	
_	yed Matrix (	S4)		Red	uced Verti	c (F18) (ML	RA 150A,	150B)	wetland	d hydrology must be present,	
Sandy Red				Pied	mont Floo	dplain Soils	s (F19) (M	lra 149a)		ss disturbed or problematic.	
Stripped M     Dark Surfa	latrix (S6) Ice (S7) (LRF	ς Ρ, S, T, Ι	J)		malous Bri	ight Loamy	Soils (F20	) (MLRA 14	9A, 153C, 153D)		
Restrictive La	yer (if obs	erved):									
Type:											
Depth (inch	es):					-			Hydric Soil Present	? Yes 🔾 No 🖲	
Remarks:											
	ottling in la	ower por	tion of soil	profile > 12	2 inches.	No stron	g redoxir	norphic fe	atures in upper part o	f soil profile.	

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 21-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 29
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 31 T 7 s R 16 W
andform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): undulating Slope: 3.0 % / 1.7 °
an,an at an anti-ana ana ana ana ana ana ana ana ana ana	30° 24' 24.071" N Long.: 89° 37' 49.856" W Datum: NAD83
soil Map Unit Name: ScD, Saucier-Susquehanna complex, 5 to 12 percent	and a second
•	
Are climatic/hydrologic conditions on the site typical for this time of ye	V () N ()
Are Vegetation, Soil, or Hydrology significant	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 sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No	To the Convolution
Hydric Soil Present? Yes O No 🖲	Is the Sampled Area
Wetland Hydrology Present? Yes O No 🔍	within a Wetland?
Remarks:	
Hillslope approximately 60-feet south ofr E-W Property line fenceline	e in Western part of the AOI.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	
Surface Water (A1)	13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	5) (LRR U) Drainage Patterns (B10)
Saturation (A3)	Odor (C1) Moss Trim Lines (B16)
Water Marks (B1)	neres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	ced Iron (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	e (C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain In I	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 $\bigcirc$ No $\odot$ Depth (inches):	
Water Table Present? Yes O No 💿 Depth (inches):	
Saturation Present? Yes O No O Depth (inches):	Wetland Hydrology Present? Yes 🔿 No 🖲
(includes capillary fringe) Tes V NO V Depth (include). Describe Recorded Data (stream gauge, monitoring well, aerial photo	
Describe Recorded Data (stream gauge, monitoring weil, achai phot	s, previous inspectoris), il available.
Remarks:	

			ominant pecies? _		Sampling Point: Up - 29		
		R	el.Strat.	Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cover		Cover	Status	Number of Dominant Species		
Pinus elliottii	10	1	50.0%	FACW	That are OBL, FACW, or FAC: 5 (A)		
Quercus nigra	5	$\checkmark$	25.0%	FAC			
Acer rubrum	2		10.0%	FAC	Total Number of Dominant Species Across All Strata: 5 (B)		
Magnolia grandiflora			5.0%	FAC			
Nyssa sylvatica	2		10.0%	FAC	Percent of dominant Species		
		H	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
· · · · ·		H		~ ~ ~			
an and a subscription of the second			0.0%		Prevalence Index worksheet:		
	0	Ш,	0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 10 20% of Total Cover: 4	20	= To	tal Cove		OBL species 0 x 1 = 0		
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species $50 \times 2 = 100$		
Pinus elliottii	2		12,5%	FACW	FAC spectes 31 x 3 = 93		
Quercus nIgra			62.5%	FAC	FACU species $1 \times 4 = -4$		
Magnolia virginiana	3		18.8%	FACW			
Acer rubrum	1	H	6.3%	FAC			
noor rootum		H		IAG	Column Totals: <u>82</u> (A) <u>197</u> (B)		
	0	H	0.0%		Prevalence Index = B/A = 2.402		
- Marine Station of Marine Structure -			0.0%				
	0	$\square$	0.0%		Hydrophytic Vegetation Indicators:		
a construction of the second	- 0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 8 20% of Total Cover: 3.2	16	= To	tal Cove		<ul> <li>✓ 2 - Dominance Test is &gt; 50%</li> </ul>		
κ.							
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex coriacea			81.1%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex vomitoria	5	Ц,	13.5%	FAC			
Quercus nigra	2		5.4%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.		
	0		0.0%		be present, unless disturbed of problematic.		
	0		0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 18.5 20% of Total Cover: 7.4	37	- To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in.		
					(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: <u>30 m</u> )		_					
	5		83.3%	FACW	Sapling - Woody plants, excluding woody vines,		
Arundinaria tecta	5		83.3% 16.7%				
Arundinaria tecta Toxicodendron quercifolia				FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
Arundinaria tecta Toxicodendron quercifolia	1		16.7% 0.0%	FACW	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		
Arundinaria tecta Toxicodendron quercifolia	1 0 0		16.7% 0.0% 0.0%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Arundinaria tecta Toxicodendron quercifolia	1 0 0 0		15.7% 0.0% 0.0% 0.0%	FACW	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.		
Arundinaria tecta Toxicodendron quercifolia	1 0 0 0		16.7% 0.0% 0.0% 0.0%	FACW	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,		
Arundinaria tecta Toxicodendron quercifolia	1 0 0 0 0		15.7% 0.0% 0.0% 0.0% 0.0%	FACW	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.		
Arundinaria tecta Toxicodendron quercifolia			15.7% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.		
Arundinaria tecta Toxicodendron quercifolia	1 0 0 0 0		15.7% 0.0% 0.0% 0.0% 0.0%	FACW	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		
Arundinaria tecta Toxicodendron quercifolia			15.7% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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		
Arundinaria tecta Toxicodendron quercifolia			15.7% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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		
Arundinaria tecta Toxicodendron quercifolia			15.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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		
Arundinaria tecta Toxicodendron quercifolia	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU	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		
Arundinaria tecta Toxicodendron quercifolia 	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU	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.		
Arundinaria tecta Toxicodendron quercifolia % of Total Cover: 3 20% of Total Cover: 1.2 pody Vine Stratum (Plot size: 30 m )	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU	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.		
Arundinaria tecta Toxicodendron quercifolia % of Total Cover: 3 20% of Total Cover: 1.2 ody Vine Stratum (Plot size: 30 m )	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU	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.		
Arundinaria tecta Toxicodendron quercifolia % of Total Cover: <u>3</u> 20% of Total Cover: <u>1.2</u>	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU	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.		
Arundinaria tecta         Toxicodendron quercifolia         % of Total Cover:       3         20% of Total Cover:       1.2         wody Vine Stratum       (Plot size: 30 m )         Vitis rotundifolia       )			16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU	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.		
Arundinaria tecta Toxicodendron quercifolia % of Total Cover:320% of Total Cover:1.2 pody Vine Stratum (Plot size: 30 m) Vitis rotundifolia	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU	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.		
Arundinaria tecta Toxicodendron quercifolia % of Total Cover:320% of Total Cover:1.2 pody Vine Stratum (Plot size: 30 m) Vitis rotundifolia	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU	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.		
Arundinaria tecta Toxkodendron quercifolia % of Total Cover:	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 6 = 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU	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.		

Sampling Point: Up - 29

	iption: (De	scribe to Matrix	the depth	needed to document the indicator or confirm ti Redox Features	ne absence of indicators	.)
Depth (inches)	Color	moist)	0/0	Color (moist)% Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	3/2	100		Loamy Sand	
5-16	10YR	5/4	100		Loamy Sand	
		•			-	
<sup>1</sup> Type: C=Cond	centration. D	Depletion	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains 2Lo	ocation: PL=Pore Lining. N	I=Matrix
Hydric Soil I	ndicators:				Indicators for Pr	oblematic Hydric Soils <sup>3</sup> :
Histosol (A	A1)			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9	) (LRR O)
Histic Epip	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A:	
📃 Black Histi	ic (A3)			Loamy Mucky Mineral (F1) (LRR O)		c (F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)			Loamy Gleyed Matrix (F2)	_	dplain Soils (F19) (LRR P, S, T)
_	Layers (A5)			Depleted Matrix (F3)	🗌 Anomalous Bri	ght Loamy Soils (F20) (MLRA 153B)
	odies (A6) (l			Redox Dark Surface (F6)	🗌 Red Parent Ma	terial (TF2)
	ky Mineral (A		. T, U)	Depleted Dark Surface (F7)	🔲 Very Shallow ī	Dark Surface (TF12)
_	ence (A8) (L			Redox Depressions (F8)	Other (Explain	in Remarks)
	(A9) (LRR			Mari (F10) (LRR U)		
	Below Dark S		.1)	Depleted Ochric (F11) (MLRA 151)		
	Surface (Al			Iron-Manganese Masses (F12) (LRR O, P, T)		
	rie Redox (A			Umbric Surface (F13) (LRR P, T, U)		
	ck Mineral (S		, S)	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicate	rs of hydrophytic vegetation and
	yed Matrix (	54)		Reduced Vertic (F18) (MLRA 150A, 150B)	wetlar	d hydrology must be present,
Sandy Red	• •			Piedmont Floodplain Soils (F19) (MLRA 149A		ess disturbed or problematic.
Stripped M	• •			Anomalous Bright Loarny Soils (F20) (MLRA	14 <b>9A, 15</b> 3C, 153D)	
Dark Surfa	ice (S7) (LRF	τ, S, Τ, C	1)			
Restrictive La	yer (if obs	erved):				
Type:		1			Hydric Soil Present	? Yes 🔿 No 🖲
Depth (inch	es):					
Remarks:						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/County: Way	eland - Hancock Sampling Date: 21-Oct-16
Applicant/Owner: NASA State	e: MS Sampling Point: Up - 30
Investigator(s): Lars Larson, Randy Ellis Section, Townshi	p, Range: S 31 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace Local relief (concav	re, convex, none): undulating Slope: 2.0 % / 1.1°
· · · ·	
Soil Map Unit Name: EsA, Escambia loam, 0 to 2 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year? Yes $\bigcirc$	
Are Vegetation, Soil, or Hydrology significantly disturbed?	Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🔲 naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	
Hydric Soil Present? Yes O No O	
Wetland Hydrology Present? Yes O No  within a W	etland? Tes C NU C
Remarks: Terrace/slight hillside area just above riparian buffer along north side of Turtle Skin Cree HYDROLOGY	ek West of rail spur 300 feet (+/-).
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living Root	s (C3) Dry Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Prift Deposits (B3)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Water Table Present? Yes 🔿 No 🏵 Depth (inches):	/etland Hydrology Present? Yes O No 💿
Saturation Present? Yes No  Depth (inches):	/etland Hydrology Present? Yes 🔾 No 🔍
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspecti	ons), if available:
Remarks:	

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

			Dominant Species2		Sampling Point: Up - 30
	Absolute		ecies? . I.Strat.	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 m )	% Cove		over	Status	Number of Dominant Species
Pinus elliottii	10	$\checkmark$	47.6%	FACW	That are OBL, FACW, or FAC:
Magnolia virginiana	5		23.8%	FACW	
Acer rubrum	3	$\square$	14.3%	FAC	Total Number of Dominant Species Across All Strata: 8 (B)
Oursease sizes	-	$\square$	9.5%	FAC	Species Across All Strata: 8 (B)
Quercus nigra Magnolia grandiflora			4.8%	FAC	Percent of dominant Species
	0	H.	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B
		$\square$			
the second second		1	0.0%	. <b></b>	Prevalence Index worksheet:
	0	Ц.	0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 10.5 20% of Total Cover: 4.2	21	= Toi	tal Cove	r	OBL species $1 \times 1 = 1$
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species 38 x 2 = 76
Pinus elliottii	3	$\checkmark$	21.4%	FACW	FAC species29 x 3 =87
Quercus nigra	5		35.7%	FAC	FACU species $0 \times 4 = 0$
Nyssa sylvatica	3		21.4%	FAC	UPL species $0 \times 5 = 0$
Acer rubrum	2		14.3%	FAC	ore species
Ilex ораса	1		7.1%	FAC	Column Totals: 68 (A) 164 (B)
	0		0.0%		Prevalence Index = B/A = 2.412
			0.0%		Hydrophytic Vegetation Indicators:
n a ser a	- 0	└─	0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 7 20% of Total Cover: 2.8	14	= Tol	tal Cove		✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	15	$\checkmark$	60.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex coriacea Ilex opaca			8.0%	FAC	
			20.0%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
				· · · · · · ·	be present, unless disturbed or problematic.
Cyrilla racemifiora			12.0%	FACW	D-finition of Verstation Strates
		<u> </u>	C.0%		Definition of Vegetation Strata:
		Ш.	0.0%	ст. ж. с	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 12.5 20% of Total Cover: 5	25	= Tol	tal Cove		(7.6 cm) or larger in diameter at breast height (DBH).
ferb Stratum (Plot size: 30 m )					
terb Stratum (Flot size, So fli					
	1		33.3%	OBL	Sapling - Woody plants, excluding woody vines,
, Woodwardia areolata			33.3%	OBL	approximately 20 ft (6 m) or more in height and less
Woodwardia areolata 2. Ilex coriacea	2		66.7%	OBL FACW	
Woodwardia areolata 2. Ilex coriacea 3.	2		66.7% 0.0%		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
, Woodwardia areolata 2. Ilex coriacea 3.	2 0 0		66.7% 0.0% 0.0%		approximately 20 ft (6 m) or more in height and less
1. Woodwardia areolata 2. Ilex coniacea 3. 4. 5.	2 0 0 0		66.7% 0.0% 0.0% 0.0%		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
1. Woodwardia areolata 2. Ilex coniacea 3. 4. 5. 5.	2 0 0 0 0		66.7% 0.0% 0.0% 0.0%		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,
1. Woodwardia areolata 2. Ilex coriacea 3. 4. 5. 5. 6.	2 0 0 0 0 0		66.7% 0.0% 0.0% 0.0%		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.
1. Woodwardia areolata 2. Ilex coriacea 3	2 0 0 0 0		66.7% 0.0% 0.0% 0.0%		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.
1. Woodwardia areolata 2. Ilex coriacea 3. 4. 5. 5. 6. 7.	2 0 0 0 0 0		66.7% 0.0% 0.0% 0.0% 0.0%		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
Woodwardla areolata         Ilex coriacea	2 0 0 0 0 0 0 0 0 0 0 0		66.7% 0.0% 0.0% 0.0% 0.0% 0.0%		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
1. Woodwardia areolata 2. Ilex contacea 3. 4. 5. 6. 7. 8. 9. 9.	2 0 0 0 0 0 0 0 0 0 0 0		66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
1. Woodwardia areolata           2. Ilex confacea           3.           4.           5.           6.           7.           8.           9.           1.	2 0 0 0 0 0 0 0 0 0 0 0		66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
1. Woodwardia areolata           2. Ilex coriacea           3.           4.           5.           6.           7.           3.           9.           1.           2.	2 0 0 0 0 0 0 0 0 0 0 0 0		66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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
1. Woodwardia areolata           2. Ilex corlacea           3.           4.           5.           6.           7.           8.           9.           0.           1.           2.           50% of Total Cover:         1.5           20% of Total Cover:         0.6	2 0 0 0 0 0 0 0 0 0 0 0 0		66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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.
1. Woodwardia areolata           2. Ilex corlacea           3.           4.           5.           6.           7.           8.           9.           0.           1.           2.           50% of Total Cover:         1.5           20% of Total Cover:         0.6	2 0 0 0 0 0 0 0 0 0 0 0 0		66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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.
Woodwardia areolata           Ilex coriacea	2 0 0 0 0 0 0 0 0 0 0 0 0	_	66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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.
Woodwardia areolata Ilex coriacea Ilex coria	2 0 0 0 0 0 0 0 0 0 0 0 3	_	66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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.
Woodwardla areolata         2. Ilex coriacea         3.         4.         5.         6.         7.         8.         9.      <	2 0 0 0 0 0 0 0 0 0 0 3 5	_	66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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.
1. Woodwardia areolata           2. Ilex coriacea           3.           4.           5.           6.           7.           8.           9.           1.           2.           50% of Total Cover:         1.5           20% of Total Cover:         0.6           Voody Vine Stratum         (Plot size: 30 m)           Vitis rotundifolia	2 0 0 0 0 0 0 0 0 0 0 3 5 0	_	66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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.
1. Woodwardia areolata         2. Ilex confacea         3.         4.         5.         6.         7.         8.         9.         0.         1.         2.         50% of Total Cover:       1.5         20% of Total Cover:       0.6         Voody Vine Stratum       (Plot size: 30 m)         Vitis rotundifolia	2 0 0 0 0 0 0 0 0 0 0 0 3 5 0 0 0 0 0 0 0	_	66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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.
1. Woodwardia areolata           2. Ilex corlacea           3.           4.           5.           6.           7.           8.           9.           0.           1.           2.           50% of Total Cover:         1.5           50% of Total Cover:         0.6           Voody Vine Stratum         (Plot size: 30 m)           Vitis rotundifolia	2 0 0 0 0 0 0 0 0 0 0 0 0 3 5 0 0 0 0 0 0		66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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.

Sampling Point: Up - 30

Profile Descr	iption: (De		the <b>depth</b>	needed to document the indicator or confirm the	absence of indicators.)
Depth		Matrix		Redox Features	
(inches) 0-6		moist)	. <u>%</u> . 100	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Sandy Loam
	10YR	3/2		•	
6-16	10YR	5/4	100		Loamy Sand
				C 3 1 Veet	
	4. <b>.</b> .	1		v v	
			·	······································	· · · · · · · · · · · · · · · · · · ·
. 1. 6 . 2					
		=Depletion	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	
Hydric Soil I					Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A	•			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Histic Epip				Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histi	• •			Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodpiain Soils (F19) (LRR P, S, T)
	ayers (A5)			Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
_	odies (A6) (L			Redox Dark Surface (F6)	Red Parent Material (TF2)
	cy Mineral (A		T, U)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
	ence (A8) (L			Redox Depressions (F8)	Other (Explain in Remarks)
	(A9) (LRR I			└── Marl (F10) (LRR U)	
	Below Dark S		.1)	Depleted Ochric (F11) (MLRA 151)	
_	Surface (Al			Iron-Manganese Masses (F12) (LRR O, P, T)	
_	rie Redox (A			Umbric Surface (F13) (LRR P, T, U)	
	k Mineral (S		, S)	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators of hydrophytic vegetation and
	yed Matrix (S	54)		Reduced Vertic (F18) (MLRA 150A, 150B)	wetland hydrology must be present,
Sandy Red				Piedmont Floodpiain Soils (F19) (MLRA 149A)	
Stripped M			-	Anomalous Bright Loamy Soils (F20) (MLRA 14	4 <b>9A, 15</b> 3C, 153D)
Dank Surfa	ce (S7) (LRF	ξ Ρ, S, T, L	J)		
					<u> </u>
Restrictive La	yer (if obs	er <b>ved):</b>			
Type:					Hydric Soil Present? Yes 🔿 No 🕥
Depth (inch	es):			a second s	
Remarks:					
No hydric india	cators.				

Atlantic and Gulf Coastal Plain Region - Version 2.0

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 21-Oct-	-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 31	
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 31 T 7 S R 16 W	
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): Slope: 0.0 % /	0.0°
Subregion (LRR or MLRA): LRR T Lat.:	30° 24' 1.397" N Long.: 89° 37' 23.528" W Datum: NAD8	3
Soil Map Unit Name: PoB, Poarch fine sandy loam, 2 to 5% slopes	NWI classification: N/A	
Are climatic/hydrologic conditions on the site typical for this time of ye	ear? Yes  No  (If no, explain in Remarks.)	
	ntly disturbed? Are "Normal Circumstances" present? Yes 💿 No 🔾	
	problematic? (If needed, explain any answers in Remarks.)	
	ampling point locations, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes  No O		
Hydric Soil Present? Yes O No 🔍	Is the Sampled Area	
Wetland Hydrology Present? Yes O No O	within a Wetland? Yes 🗢 No 👁	
Remarks:		
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)		
High Water Table (A2)		
Saturation (A3)		
	pheres along Living Roots (C3) Dry Season Water Table (C2)	
Sediment Deposits (B2)		
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		
Iron Deposits (B5) Other (Explain in	Remarks) Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		
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):	Wetland Hydrology Present? Yes O No 💿	
Saturation Present? Yes No O Depth (inches):		
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspections), if available:	
Remarks:		
No strong evidence of hydrology.		
		1

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

				minant		Sampling Point: Up - 31
		Absolute		ecies? _ el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )		% Cove	r_ (	Cover	Status	Number of Dominant Species
Pinus elliotti		20	☑	66.7%	FACW	That are OBL, FACW, or FAC: 5 (A)
Pinus taeda		5		16.7%	FAC	T I IN ALL INDUSIN
Magnolia grandifiora		2		6.7%	FAC	Total Number of Dominant Species Across All Strata: 5 (B)
Acer rubrum				10.0%	FAC	
				0.0%		Percent of dominant Species
				0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
		0		0.0%	the de	Prevalence Index worksheet:
		0		0.0%	*	Total % Cover of: Multiply by
50% of Total Cover: 15 20% of Total C		30	- To	tal Cove		OBL species 0 × 1 = 0
apling or Sapling/Shrub Stratum (Plot siz						FACW species 40 x 2 = 80
ma the same		15		65.2%	FACW	FAC species $35 \times 3 = 105$
And a second		_			FAC	
Morella cerifera				21.7%		FACU species $0 - x 4 = -0$
Acer rubrum		3	H	13.0%	FAC	UPL species $0 \times 5 = 0$
P			H	0.0%		Column Totals: 75 (A) 185 (B)
		0		0.0%		Prevalence Index = B/A = 2.467
				0.0%		Hydrophytic Vegetation Indicators:
		0		0.0%		Hydrophytic vegetation indicators:
	82-15 - 20 MS - 10	0	Ц.	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 11.5 20% of Total C	Cover: 4.6	23	= To	tal Cove		✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: <u>30 m</u> )						$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Morella cerifera		15	<b>V</b>	75.0%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex coriacea				25.0%	FACW	
		0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
			Ē	0.0%		be present, unless disturbed or problematic.
A. 1995		and the second se	E	0.0%		Definition of Vegetation Strata:
		0			· · · ·	-
OP/ of Tabal Courses 10 209/ of Tabal C		· · · · ·		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
	Cover: 4	· · · · ·	= To	0.0% tal Cover		
	Cover: 4	· · · · ·	= To			approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: _30 m )		20	= To			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,
erb Stratum (Plot size: _30 m)		20	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: _30 m)		20 0	= To	tal Cover		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
erb Stratum (Plot size: _30 m)		20 0 0 0		0.0%		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
erb Stratum (Plot size: _30 m)		20 0 0 0		0.0% 0.0% 0.0%		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.
erb Stratum (Plot size: _30 m)		20 0 0 0 0		0.0% 0.0% 0.0% 0.0%		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.
erb Stratum (Plot size: _30 m)		20 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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
erb Stratum (Plot size: _30 m)		20 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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,
erb Stratum (Plot size: _30 m)		20 0 0 0 0 0 0 0 0		0.0%           0.0%           0.0%           0.0%           0.0%           0.0%		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
erb Stratum (Plot size: _30 m)		20 0 0 0 0 0 0 0 0 0 0 0 0		0.0%           0.0%           0.0%           0.0%           0.0%           0.0%		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)		20 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%           0.0%           0.0%           0.0%		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
erb Stratum (Plot size: _30 m)		20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Cover           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%		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
lerb Stratum (Plot size: _30 m) 1. 2. 3. 4. 5. 6. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.		20 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%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%		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
Image: Plot size: _30 m)           1.           2.           3.           4.           5.           6.           7.           3.           9.           1.           2.           3.           3.           3.           3.           3.           3.           3.           3.           5.           6.           7.           3.           5.           5.           5.           5.           6.           6.           6.           7.           5.           5.           5.           5.           6.           6.           6.           6.           6.           6.           6.           6.           6.           6.           6.           6.           6.           6.           7.           7. <td></td> <td>20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td></td> <td>Cover           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%</td> <td></td> <td>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.</td>		20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Cover           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%		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)		20 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%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%		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)		20 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%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%		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.
Image: Plot size: _30 m)           Image:	Cover:	20 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%           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%         0.0%           0.0%         0.0%           0.0%         0.0%           0.0%         0.0%		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)	Cover:	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Cover           0.0%           100.0%		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.
Ierb Stratum       (Plot size: _30 m)         1.	Cover:	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0%           0.0%		<ul> <li>approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>
ierb Stratum       (Plot size: _30 m)         1.	Cover:	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0%           0.0%		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.

Heavey pine layer on ground. Not much of a herbaceous layer.

Sam	pling	Point:	Up -	31

	iption: (De	scribe to Matrix	the depth	needed to document the	e indicator or co Features	nfirm the	absence of indicators.	)
Depth (inches)	Color (		%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	4/2	100				Loamy Sand	
5-16	10YR	6/3	100				Loamy Sand	
			·					
		=Depletio	n. RM=Redu	ced Matrix, CS=Covered o	Coated Sand Grai	ns ²Loca		_
Hydric Soil II							<b>r</b>	blematic Hydric Soils <sup>3</sup> :
Histosol (A	•				Surface (S8) (LRR S		1 cm Muck (A9	
Histic Epip	• •			_	(S9) (LRR S, T, U	)	2 cm Muck (A1	
Black Histi				Loamy Mucky Mir				(F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Ma				iplain Soils (F19) (LRR P, S, T)
Stratified L			•	Depleted Matrix (	•		🔄 Anomalous Brig	ht Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L			Redox Dark Surfa			🗌 Red Parent Mat	erial (TF2)
	y Mineral (A		, T, U)	Depleted Dark Su	• •		🗌 Very Shallow D	ark Surface (TF12)
_	ence (A8) (L			Redox Depression			🗌 Other (Explain i	in Remarks)
	(A9) (LRR F			🗌 Marl (F10) (LRR U	)			
-	elow Dark S		.1)	Depleted Ochric (	F11) (MLRA 151)			
_	Surface (A1			🗌 Iron-Manganese I	lasses (F12) (LRR	O, P, T)		
Coast Prair	ie Redox (A	16) (MLRA	150A)	🗌 Umbric Surface (F	13) (LRR P, T, U)			
Sandy Muc	k Mineral (S	1) (LRR O	, S)	Delta Ochric (F17	(MLRA 151)		3	
Sandy Gley	ed Matrix (S	54)		Reduced Vertic (F	18) (MLRA 150A, :	.50B)	"Indicator	rs of hydrophytic vegetation and I hydrology must be present,
Sandy Red	ox (S5)			Piedmont Floodpli	ain Soils (F19) (ML	RA 149A)		ss disturbed or problematic.
Stripped M	atrix (S6)			Anomalous Bright	Loamy Soils (F20)	(MLRA 149	A, 153C, 153D)	
Dark Surfa	ce (S7) (LRR	Р, <b>S, T,</b> L	J)					
estrictive La	yer (if obse	erved):						
Туре:								
Depth (inch	es):						Hydric Soil Present	? Yes 🔾 No 🖲
emarks:				······				
endrks:								
								·····

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/Co	ounty: Waveland - Hancock Sampling Date: 21-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 32
Investigator(s): Lars Larson, Randy Ellis Section	on, Township, Range: S 31 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace Local re	elief (concave, convex, none): undulating Slope: 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR T Lat.: 30° 23	
Soil Map Unit Name: HIB, Harleston fine sandy loam, 2 to 5 percent slopes	
	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes $\bullet$ No $\circ$ (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	rbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation 🗌 , Soil 🗍 , or Hydrology 🗍 naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling	g point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No	Is the Sampled Area
Hydric Soil Present? Yes O No 💿	
Wetland Hydrology Present? Yes O No 💿	within a Wetland?
Remarks:	
This location is approximately 600 feet south of the logging road through of this area.	enter of AOI. This is part of a N-S transect to identify wet-up boundary in
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Mari Deposits (B15) (LRR U	J) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres alon	ng Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	(C4) Crayfish Burrows (C8)
Drift Deposits (B3)	illed Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	🗹 FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes O No  Depth (inches):	
Water Table Present? Yes No  Depth (inches):	
Saturation Present? Ver No Depth (inchec):	Wetland Hydrology Present? Yes O No 💿
(includes capitally range)	and investigation of the state
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ	ous inspections), ir available:
Remarks:	

			minant		Sampling Point: Up - 32
	Absolute		ecies? . I.Strat.	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 m )	% Cover		Cover	Status	Number of Dominant Species
Pinus elliottii	15		62.5%	FACW	That are OBL, FACW, or FAC: 5 (A)
Pinus taeda	2		8.3%	FAC	
Magnolia grandiflora	5		20.8%	FAC	Total Number of Dominant Species Across All Strata:5(B)
Liquidambar styraciflua	2		8.3%	FAC	
an tana an	•	$\square$	0.0%	1000	Percent of dominant Species
		П	0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)
			0,0%		Prevalence Index worksheet:
	. <u> </u>	Ē,	0.0%		
					Total % Cover of: Multiply by:
0% of Total Cover: 12 20% of Total Cover: 4.8	••••••	= TO	tal Cove	Γ	OBL species 1 x 1 = 1
apling or Sapling/Shrub Stratum (Plot size: 30 m	)	_			FACW species _90 x 2 = _180
Pinus elliottii	15		45.5%	FACW	FAC species <u>19</u> x 3 = <u>57</u>
Quercus nigra	1	Ш_	3.0%	FAC	FACU species $1 - x 4 = 4$
Nyssa sylvatica	2		6.1%	FAC	UPL species $0 \times 5 = 0$
Magnolia virginlana	10	<	30.3%	FACW	Column Totals: 111 (A) 242 (B)
Liquidambar styracifiua	5		15.2%	FAC	
	0		0.0%		Prevalence Index = B/A = 2.180
			0.0%		Hydrophytic Vegetation Indicators:
Section and the section of the secti	0	$\square$	0.0%		
		Tel			1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 16.5 20% of Total Cover: 6.6	33	= 10	tal Cove	r	✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Vaccinium elliottii	5		10.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex corlacea	40		80.0%	FACW	
Ilex glabra	5		10.0%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
	0		0.0%		be present, unless disturbed or problematic.
		172			
	0		0.0%		Definition of Vegetation Strata:
			0.0%		Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines,
	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 25 20% of Total Cover: 10	0	  = Tot			Tree - Woody plants, excluding woody vines,
0% of Total Cover: 25 20% of Total Cover: 10	0	- Tol	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: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m )	0 50		0.0%	r 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,
0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) . Lycopodiella alopecuroides	0 50	= Tol	0.0% tal 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).
0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) , Lycopodielia alopecuroides , Pteridium aquilinum	0 50		0.0% tal Cover	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
0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides , Pteridium aquilinum	0 50 1 1 0	= Tol	0.0% tal Cover 50.0% 50.0%	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
0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) . Lycopodiella alopecuroides Pteridium aquilinum	0 50 1 1		0.0% tal Cover 50.0% 50.0% 0.0%	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.
0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum			0.0% tal Cover 50.0% 50.0% 0.0% 0.0%	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: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum	0 50 1 0 0 0 0		0.0% tal Cover 50.0% 50.0% 0.0% 0.0%	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: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum	0 50 1 1 0 0 0 0 0 0		0.0% tal Cover 50.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum	0 50 1 1 0 0 0 0 0 0 0 0		0.0% tal Cover 50.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum	0 50 1 1 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 50.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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
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0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) . Lycopodiella alopecuroides Pteridium aquilinum .			0.0% tal Cover 50.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum			0.0% tal Cover 50.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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 3 ft (1 m) in height.
0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum	0 50 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 50.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum	0 50 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 50.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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 3 ft (1 m) in height.
0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Pteridium aquilinum	0 50 1 1 0 0 0 0 0 0 0 0 0 0 0 0 2		0.0% tal Cover 50.0% 0.0%	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 3 ft (1 m) in height.
0% of Total Cover: 25 20% of Total Cover: 10   erb Stratum (Plot size: 30 m) Lycopodiella alopecuroides Pteridium aquilinum			0.0% tal Cover 50.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0%	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 3 ft (1 m) in height.
0% of Total Cover:       25       20% of Total Cover:       10         erb Stratum       (Plot size: 30 m))       )         Lycopodiella alopecuroides       Pteridium aquilinum         Pteridium aquilinum       .         .       .	0 50 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2		0.0% tal Cover 50.0% 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% 0.0%	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 3 ft (1 m) in height.
0% of Total Cover:       25       20% of Total Cover:       10         erb Stratum       (Plot size: 30 m))       )         Lycopodiella alopecuroides       Pteridium aquilinum         Pteridium aquilinum       .         .       .	0 50 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 2 0 0		0.0% tal Cover 50.0% 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% 0.0%	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 3 ft (1 m) in height.
0% of Total Cover:       25       20% of Total Cover:       10         erb Stratum       (Plot size: 30 m)       .       .         Lycopodiella alopecuroides       .       .       .         Pteridium aquilinum       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .	0 50 50 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 5 0 0 0 0		0.0% tal Cover 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 0.0%	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 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
50% of Total Cover:       25       20% of Total Cover:       10         lerb Stratum       (Plot size: 30 m)       )	0 50 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 2 0 0		0.0% tal Cover 50.0% 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% 0.0%	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 3 ft (1 m) in height.

Sampling Point: Up - 32

Profile Descr	iption: (De	scribe to	the depth	needed to document the indicator or confirm the	e absence of indicators.)
Depth		Matrix		Redox Features	
(inches)	Color		%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	
0-5	10YR	3/2	100		Loamy Sand
5-12	10YR	4/3	100		Loamy Sand
12-22	10YR	5/3	100		Loamy Sand
					aan yan u a∋⊻na .an n.
				· · · · · · · · · · · · · · · · · · ·	
		=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	cation: PL=Pore Lining. M=Matrix
Hydric Soli I				r=-1	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A	-			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Histic Epip				Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
📙 Black Histi				Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
<u> </u>	ayers (A5)		n	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L ky Mineral (A			Redox Dark Surface (F6)	Red Parent Material (TF2)
	• •		, 1, 0)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
	ence (A8) (L < (A9) (LRR F			Redox Depressions (F8)	Other (Explain in Remarks)
	Selow Dark S		11)	Mari (F10) (LRR U)	
	Selow Dark 3	•	.1)	Depleted Ochric (F11) (MLRA 151)	
	rie Redox (A:	•	1504)	Iron-Manganese Masses (F12) (LRR O, P, T)	
	ck Mineral (S		-	Umbric Surface (F13) (LRR P, T, U)	
	yed Matrix (S		,	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Red				Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A)	wetland hydrology must be present,
Stripped M				Anomalous Bright Loamy Soils (F19) (MLKA 149A)	
	ice (S7) (LRR	P. S. T. I	n		49A, 153C, 153D)
		,_,.,.	<i>,</i> ,		
Restrictive La	yer (if obse	erved):			
Туре:					Hydric Soil Present? Yes O No 🕥
	es):				
Remarks:					
Bulk of the soi	il profile ha	s a chror	na > 2. N	ot by much.	
					· · · · · · · · · · · · · · · · · · ·

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 21-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 33
Investigator(s): Lars Larson Randy Ellis	Section, Township, Range: S 32 T 7 5 R 16 W
andform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): undulating Slope: 2.0 % / 1.1 °
ubregion (LRR or MLRA): LRR T	t.: 30° 23' 58.665" N Long.: 89° 37' 9.508" W Datum: NAD83
oil Map Unit Name: HIB, Harleston fine sandy loam, 2 to 5 percent	A REAL PROPERTY OF A REAP
Are climatic/hydrologic conditions on the site typical for this time of	
Are Vegetation, Soil, or Hydrology natural	lly problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	
Hydric Soil Present? Yes O No 🖲	Is the Sampled Area
Wetland Hydrology Present? Yes O No O	within a Wetland? Yes 💛 NO 🕓
Remarks:	
Approximately 80-feet north of Wet 33.	
· · · · · · · · · · · · · · · · · · ·	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required: check all that appl	ly) Surface Soll Cracks (B6)
Surface Water (A1)	(B13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3)	
	ospheres along Living Roots (C3) Dry Season Water Table (C2)
	educed Iron (C4) Crayfish Burrows (C8)
	eduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	
Iron Deposits (B5) Other (Explain 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	.c)
	s): Wetland Hydrology Present? Yes O No 💿
Saturation Present? Yes No O Depth (inchest (includes capillary fringe)	s):
Describe Recorded Data (stream gauge, monitoring well, aerial ph	notos, previous inspections), if available:
Remarks:	

,			minant		Sampling Point: Up - 33
	Absolute		ecies? _ el.Strat.	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 m )	% Cove	r I	Cover	Status	Number of Dominant Species
Pinus elliottii	20		54.1%	FACW	That are OBL, FACW, or FAC: 7 (A)
Quercus nigra	10		27.0%	FAC	
Nyssa sylvatica	5		13.5%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)
Magnolia virginiana	2		5.4%	FACW	
	0		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%	an 1.	Total % Cover of: Multiply by:
0% of Total Cover: 18.5 20% of Total Cover: 7.4		= To	tal Cove		OBL species 2 x 1 = 2
					FACW species 92 x 2 = 184
pling or Sapling/Shrub Stratum , (Plot size: 30 m	)		50.004	EAG144	
Pinus elliottii			58.8%	FACW	FAC species $20 \times 3 = 60$
Nyssa sylvatica			29.4%	FAC	FACU species $0 - x 4 = 0$
Magnolia virginiana		Ц.	11.8%	FACW	VPL species 0 x 5 = 0
v		Ц,	0.0%		Column Totals: 114 (A) 246 (B)
	0		0.0%		Prevalence Index = $B/A = 2.158$
			0.0%		
	0		0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 8.5 20% of Total Cover: 3.4	17	= To	tal Cover		✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq 3.0^{1}$
Ilex coriacea	40	~	75.5%	FACW	
					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex glabra			18.9%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Vaccinium elliottii	3	H	5.7%	FACW	be present, unless disturbed or problematic.
			0.0%		Definition of Verstation Strates
		Ц.	0.0%		Definition of Vegetation Strata:
	0	Ш,	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 26.5 20% of Total Cover: 10.6	53	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m)					
Ilex corlacea	5	$\checkmark$	71,4%	FACW	Sapling - Woody plants, excluding woody vines,
Lycopodielia alopecuroides	2		28.6%	OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
	0	П	0.0%		
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less
	- 0		0.0%	· · · · · · ·	than 3 in. DBH and greater than 3.28 ft (1m) tall.
	U		0.0.0		
	0		0.004		
	0		0.0%		Shrub - Woody plants, excluding woody vines,
	0		0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
	- 0		0.0% 0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
	0 0 0		0.0% 0.0% 0.0%		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 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0%		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
9% of Total Cover: <u>3.5</u> 20% of Total Cover: <u>1.4</u>	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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.
% of Total Cover: <u>3.5</u> 20% of Total Cover: <u>1.4</u>	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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: <u>3.5</u> 20% of Total Cover: <u>1.4</u> <b>pody Vine Stratum</b> (Plot size: <u>30 m</u> )	0 0 0 0 0 0 7 7		0.0% 0.0% 0.0% 0.0% 0.0% tal Cover		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: <u>3.5</u> 20% of Total Cover: <u>1.4</u> <b>pody Vine Stratum</b> (Plot size: <u>30 m</u> )	0 0 0 0 0 0 7 7		0.0% 0.0% 0.0% 0.0% 0.0% tal Cover		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: <u>3.5</u> 20% of Total Cover: <u>1.4</u> <b>pody Vine Stratum</b> (Plot size: <u>30 m</u> )	0 0 0 0 0 7 7 9 0 0		0.0% 0.0% 0.0% 0.0% 0.0% <b>0.0%</b> <b>cal Cover</b> 0.0% 0.0%		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: <u>3.5</u> 20% of Total Cover: <u>1.4</u> <b>oody Vine Stratum</b> (Plot size: <u>30 m</u> )	0 0 0 0 0 7 7 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% <b>0.0%</b> 0.0% 0.0% 0.0%		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.
3. 9. 1. 1. 2. 50% of Total Cover: <u>3.5</u> 20% of Total Cover: <u>1.4</u> <b>Yoody Vine Stratum</b> (Plot size: <u>30 m</u> )	0 0 0 0 0 7 7 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% <b>0.0%</b> 0.0% 0.0%		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)         Col           0-4         10Y           4-16         10Y	Matrix		Redox Features	
	or (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
<b>4-16</b> 10Y	R 3/2	100		
	R 5/4	100		
ype: C=Concentratio ydric Soil Indicato Histosol (A1) Histoc Epipedon (A Black Histic (A3) Hydrogen Sulfide ( Stratified Layers (A Organic Bodies (A4 Organic Bodies (A4 Stratified Layers (A Organic Bodies (A4 Corganic Bodies (A4 Depleted Below Da 1 cm Muck (A9) (L Depleted Below Da Thick Dark Surface Coast Prairie Redo Sandy Muck Minen Sandy Gleyed Matu	rs: 2) 5) (LRR P, T, L al (A7) (LRR P 3) (LRR U) RR P, T) rrk Surface (A: (A12) x (A16) (MLRA al (S1) (LRR O	J) 2, T, U) 11) A 150A)	ced Matrix, CS=Covered or Coated Sand Grains       2Loc         Polyvalue Below Surface (S8) (LRR S, T, U)       Thin Dark Surface (S9) (LRR S, T, U)         Loamy Mucky Mineral (F1) (LRR O)       Loamy Gieyed Matrix (F2)         Depleted Matrix (F3)       Redox Dark Surface (F6)         Depleted Dark Surface (F6)       Depleted Dark Surface (F7)         Redox Depressions (F8)       Mart (F10) (LRR U)         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)         Reduced Vertic (F18) (MLRA 150A, 150B)       Reduced Vertic (F18) (MLRA 150A, 150B)	Cation: PL=Pore Lining. M=Matrix  Indicators for Problematic Hydric Soils <sup>3</sup> :  1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A,B) Piedmont Floodplain Soils (F19) (LRR P, S, T) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Redox (S5) Stripped Matrix (S6 Dark Surface (S7) Strictive Layer (if of Type: Depth (inches):	(LRR P, S, T, U	(L	Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 14 (MLRA 14)	

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: Up - 34
investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 S R 16 W
andform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
ubregion (LRR or MLRA): LRR T	30° 24' 3.767" N Long.: 89° 37' 1.217" W Datum: NAD83
Coil Map Unit Name: EsB, Escambia Ioam, 2 to 5 percent slopes	
	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of y	
Are Vegetation , Soil , or Hydrology significan	ntly 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 s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	Is the Sampled Area
Hydric Soil Present? Yes O No 💿	
Wetland Hydrology Present? Yes O No 💿	within a Wetland?
Remarks:	······································
Transitional area back to an Upland. 100-feet (+/-) from Wet-34.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required: check all that apply)	
Surface Water (A1)	
High Water Table (A2)	
Saturation (A3)	
	pheres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	
Drift Deposits (B3)     Recent Iron Red     Algal Mat or Crust (B4)     Thin Muck Surfac	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) ce (C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in	
Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No  Depth (inches):	
	Wetland Hydrology Present? Yes 🔾 No 🔍
Saturation Present? Yes No   Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photes Remarks:	

			ominant		Sampling Point: Up - 34	
Tree Stratum (Plot size: 30 m )		e R	el.Strat.	Indicator	Dominance Test worksheet:	
	% Cove	-	Cover	Status	Number of Dominant Species	
Pinus elliottii	20			FACW	That are OBL, FACW, or FAC: <u>6</u> (A)	
Pinus taeda	10			FAC	Total Number of Dominant	
Magnolia virginiana Liquidambar styracifiua	5		13.5%	FACW	Species Across All Strata: 6 (B)	
Liquidambar styracifiua		Ц	5.4%	FAC		
			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)	
	0		0.0%		That Rie Obt, Thew, of The.	
	0		0.0%		Prevalence Index worksheet:	
Real Provide Automatical States	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 0 x 1 = 0	
apling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species 74 x 2 = 148	
Pinus elliotti		$\checkmark$	68.2%	FACW	FAC species 36 x 3 = 108	
Pinus taeda				FAC	FACU species $0 x 4 = 0$	
Magnolia virginiana	2	m	9.1%	FACW	UPL species $0 \times 5 = 0$	
	0		0.0%			
	_		0.0%		Column Totals: 110 (A) 256 (B)	
- v		П	0.0%		Prevalence Index = B/A = 2 327	
	0	Ē	0.0%		Hydrophytic Vegetation Indicators:	
	0		0.0%			
					1 - Rapid Test for Hydrophytic Vegetation	
0% of Total Cover: 11 20% of Total Cover: 4.4	22	= Total Cover		r	✓ 2 - Dominance Test is > 50%	
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>	
Ilex coriacea	30	✓	71.4%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Ilex opaca	5		11.9%	FAC		
Vaccinium elliottii	2		4.8%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus	
Morella cerifera	5		11.9%	FAC	be present, unless disturbed or problematic.	
	0		0.0%	** * **	Definition of Vegetation Strata:	
	0	Ē	0.0%		Tree - Woody plants, excluding woody vines,	
0% of Total Cover: 21 20% of Total Cover: 8.4		= To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in.	
					(7.6 cm) or larger in diameter at breast height (DBH).	
(Plot cize: 20 m)						
		<b>111</b>			Sapling - Woody plants, excluding woody vines.	
Lygodium japonicum			100.0%	FAC	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	
Lygodium japonicum	5		100.0% 0.0%	FAC		
Lygodium japonicum				FAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Lygodium japonicum	0		0.0%	FAC	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	
Lygodium japonicum	0		0.0% 0.0%	FAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Lygodium japonicum	0		0.0% 0.0% 0.0%	FAC	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.	
Lygodium japonicum	0 0 0 0		0.0% 0.0% 0.0% 0.0%	FAC	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	
Lygodium japonicum	0 0 0 0		0.0% 0.0% 0.0% 0.0%	FAC	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,	
Lygodium japonicum	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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	
Lygodium japonicum	0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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	
Lygodium japonicum			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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	
Lygodium japonicum	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%	FAC	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	
Lygodium japonicum	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% 0.0%		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	
Lygodium japonicum	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% 0.0%		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.	
Lygodium japonicum			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.	
Lygodium japonicum	0 0 0 0 0 0 0 0 0 0 0 0 0 0 5		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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: 2.5 20% of T <b>otal Cover</b> : 1 oody Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 0 0 0 0 0 0 5		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.	
Lygodium japonicum	0 0 0 0 0 0 0 0 0 0 0 0 0 0 5		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.	
Lygodium japonicum  Lygodium japonicum  O% of Total Cover: 2.5 20% of Total Cover: 1  Oody Vine Stratum (Plot size: 30 m )  Vitis rotundifolia Smilax rotundifolia			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.	
Lygodium japonicum			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.	

Sampling	Point:	Up -	34
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	iption: (De		the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth	<b>a</b> .1. <b>a</b>	Matrix		Redox Features		<b>B</b>
(inches) 0-5	10YR	moist) 6/2	<u>%</u> 100	Color (moist) % Type 1 Loc2	Loamy Sand	Remarks
	4000		• • • • • • •		a de la companya de la	
5-15	10YR	5/6	100		Loamy Sand	
			_			
<sup>1</sup> Type: C=Conc	, entration. D	=Depletion	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	ation: PL≖Pore Lining, M=M	atrix
Hydric Soil I	ndicators:				Indicators for Proble	matic Hydric Solls <sup>3</sup> :
🛄 Histosol (A	1)			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (L	-
Histic Epip	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (	•
🔲 Black Histi	c (A3)			Loamy Mucky Mineral (F1) (LRR O)		8) (outside MLRA 150A,B)
Hydrogen :	Sulfide (A4)			Loamy Gleyed Matrix (F2)		in Soils (F19) (LRR P, S, T)
Stratified L	ayers (A5)			Depleted Matrix (F3)	_	_oamy Soils (F20) (MLRA 153B)
Organic Bo	dies (A6) (L	RR P, T, U	1)	Redox Dark Surface (F6)	Red Parent Materia	
	y Mineral (A			Depleted Dark Surface (F7)	Very Shallow Dark	· ·
	ence (A8) (L			Redox Depressions (F8)		
	(A9) (LRR I	•		Mari (F10) (LRR U)	Other (Explain in R	emarks)
	elow Dark S		1)	Depleted Ochric (F11) (MLRA 151)		
	Surface (Al	•	<i>.</i>	Iron-Manganese Masses (F12) (LRR O, P, T)		
	ie Redox (A		150A)	Umbric Surface (F13) (LRR P, T, U)		
-	k Mineral (S		•	Delta Ochric (F17) (MLRA 151)		
	ed Matrix (S		, .,		<sup>3</sup> Indicators o	f hydrophytic vegetation and
Sandy Gicy		,		Reduced Vertic (F18) (MLRA 150A, 150B)		drology must be present,
Stripped M				Piedmont Floodplain Soils (F19) (MLRA 149A)		listurbed or problematic.
	ce (S7) (LRF	R Ρ, S, T, L	))	🔄 Anomalous Bright Loamy Soils (F20) (MLRA 14	<b>19A,</b> 1530, 1550)	
Restrictive La	yer (if obs	erved):				
Туре:	_		_			
Depth (inch	es):			an a	Hydric Soll Present?	Yes 🔿 No 🖲
Remarks:						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: W	aveland - Hancock	Sampling Date:	24-Oct-16
Applicant/Owner: NASA	Sta	ate: MS Sampl	ling Point: Up - 35	
nvestigator(s): Lars Larson, Randy Ellis	Section, Towns	hip, Range: 5 29	T7s R 16V	N
andform (hillslope, terrace, etc.): Terrace	Local relief (conc	ave, convex, none): flat	Slope: 0.0	0.0°/ 0.0°
ubregion (LRR or MLRA): LRR T	Lat.: 30° 24' 3.834" N		i a la construcción de la	n: NAD83
with the second s			· · · · · · · · ·	In TABUS
oil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slope			classification: N/A	
Are climatic/hydrologic conditions on the site typical for this til	me of year? Yes	()	lain in Remarks.)	No O
Are Vegetation, Soil, or Hydrology si	ignificantly disturbed?	Are "Normal Circumstan	ices" present? Yes 🔍	
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🛄 na	aturally problematic?	(If needed, explain any	answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map show	ving sampling point l	ocations, transects,	important features, e	etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔿	To the Sa	mpled Area		
Hydric Soil Present? Yes O No 💿				
Wetland Hydrology Present? Yes O No 💿	within a	Wetland? Tes 🗢 Nu	,	
Remarks: Transitional area back into an Upland - approximately 100 f	eet north of Wet-35.			
		2 9 13		
Wetland Hydrology Indicators:	t poply)	<u> </u>	Indicators (minimum of 2 requi	red)
Primary Indicators (minimum of one required; check all tha Surface Water (A1)	Fauna (B13)	_	Soil Cracks (86) v Vegetated Concave Surface (1	P9)
	posits (B15) (LRR U)		je Patterns (B10)	50)
	en Sulfide Odor (C1)		rim Lines (B16)	
	Rhizospheres along Living Ro		ason Water Table (C2)	
Sediment Deposits (B2)	e of Reduced Iron (C4)		Burrows (C8)	
Drift Deposits (B3)	Iron Reduction in Tilled Soils (C	C6) Saturati	ion Visible on Aerial Imagery (C	:9)
🛄 Algal Mat or Crust (B4) 📃 Thin Mu	ick Surface (C7)	Geomor	rphic Position (D2)	
	Explain in Remarks)	_	Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		FAC-Net	utral Test (D5)	
Water-Stained Leaves (B9)			um moss (D8) (LRR T, U)	
Field Observations:				
	(inches):			
Water Table Present? Yes O No O Depth	(inches):	Manhan d Hadaalaan Baasa	ent? Yes 🔿 No 🖲	
Saturation Present? (includes capillary fringe) Yes No O Depth	(inches):	Wetland Hydrology Prese		
Describe Recorded Data (stream gauge, monitoring well, ae	rial photos, previous inspec	ctions), if available:		
Remarks:				
				l

			ninant ecies?		Sampling Point: Up - 35
Tree Stratum (Plot size: <u>30 m</u> )	Absolute % Cover	Rel		Indicator Status	Dominance Test worksheet:
Pinus elliotti	10		62.5%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
Magnolia virginiana	5	<b>V</b> .	31.3%	FACW	
Liquidambar styracifiua	1		6.3%	FAC	Total Number of Dominant Species Across All Strata: 5 (B)
	0		0.0%		Species Across Air Surata (b)
			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:
0% of Total Cover: 8 20% of Total Cover: 3.2	16 =	= Tota	al Cover		OBL species $1 \times 1 = 1$
apling or Sapling/Shrub Stratum (Plot size: _30 m					FACW species 95 x 2 = 190
Pinus elliottii	25		78.1%	FACW	FAC species $4 \times 3 = 12$
Magnolla virginiana	5		15.6%	FACW	FACU species $0 x 4 = 0$
Liquidambar styraciflua			6.3%	FAC	UPL species $0 \times 5 = 0$
· · ·			0.0%		Column Totals: 100 (A) 203 (B)
	0		0.0%		
	•		0.0%		Prevalence Index = $B/A = 2.030$
· · · · · · · · · · · · · · · · · · ·			0.0%		Hydrophytic Vegetation Indicators:
- <b>-</b>	0	□.~	0.0%	_	1 - Rapid Test for Hydrophytic Vegetation
% of Total Cover: 16 20% of Total Cover: 6.4	32=	= Tota	al Cover		✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea	40	<	80.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex glabra	10	<b>v</b>	20.0%	FACW	
	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	0		0.0%		be present, unless disturbed or problematic.
	0		0.0%		Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 25 20% of Total Cover: 10 erb Stratum (Plot size: 30 m )	50 =	= Tota	al Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
		Π.		0.51	Sapling - Woody plants, excluding woody vines,
Lycopodiella alopecuroides	and the second s	<u> </u>	100.0%	OBL	approximately 20 ft (6 m) or more in height and less
	0	<u> </u>	0.0%		than 3 in. (7.6 cm) DBH.
•	0	·	0.0%		Conting (Charles Manada and Ming since lass
te and	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0	_	0.0%		<b>3</b>
·			0.0%		Shrub - Woody plants, excluding woody vines,
•			0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
· · · · · · · · · · · · · · · · · · ·			0.0%		Herb - All herbaceous (non-woody) plants, including
		_	0.0%		herbaceous vines, regardless of size, and woody
	0		0.0%		plants, except woody vines, less than approximately
	0	<u> </u>	0.0%		3 ft (1 m) in height.
	0	_	0.0%		
0% of Total Cover: 0.5 20% of Total Cover: 0.2	1=	: Tota	l Cover		Woody vine - All woody vines, regardless of height.
oody Vine Stratum (Plot size: <u>30 m</u> )			00.004	-	· · · · · · · · · · · · · · · · · · ·
Smilax rotundifolia			00.0%	FAC	
7 . <b></b>	l	_	0.0%		
	l	_	0.0%		
	l		0.0%		Hydrophytic
			0.0%		Vegetation
0% of Total Cover: 0.5 20% of Total Cover: 0.2	1 =	Tota	l Cover		Present? Tes 🗢 No 🔾

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up - 35

	lption: (De	scribe to Matrix	the depth		the indicator or co lox Features	nfirm the	absence of indicators.	)
Depth (inches)	Color (	moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/2	100				Loamy Sand	
4-15	10YR	5/4	100				Loamy Sand	
· · · · · · · · · · · · · · · · · · ·	y w w							
<sup>1</sup> Type: C=Conc	entration. D	=Depletion	n. RM= <b>R</b> edu	ced Matrix, CS=Covered	d or Coated Sand Gra	iins <sup>2</sup> Loca	tion: PL=Pore Lining. M=	=Matrix
Hydric Soil I				_			Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
Histosol (A	-				w Surface (S8) (LRR		1 cm Muck (A9)	) (LRR O)
Histic Epip				_	ace (S9) (LRR S, T, L	J)	2 cm Muck (A10	)) (LRR S)
Black Histi				· · ·	Mineral (F1) (LRR O)		Reduced Vertic	(F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed			Piedmont Flood	plain Soils (F19) (LRR P, S, T)
Stratified L				Depleted Matri			🗌 Anomalous Brig	ht Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L		-	Redox Dark Su	. ,		Red Parent Mat	erial (TF2)
_	y Mineral (A		, I, U}	Depleted Dark			Very Shallow Da	ark Surface (TF12)
	ence (A8) (L			Redox Depres	- •		🗌 Other (Explain i	n Remarks)
	: (A9) (LRR I			🗌 Marl (F10) (LR	•			
	Below Dark S		.1)		ic (F11) (MLRA 151)			
	Surface (A1		1504)		e Masses (F12) (LRR	(O, P, T)		
	ie Redox (A		-		e (F13) (LRR P, T, U)			
	k Mineral (S		, 5)		17) (MLRA 151)		<sup>3</sup> Indicator	s of hydrophytic vegetation and
Sandy Gley	/ed Matrix (S	54)			: (F18) (MLRA 150A,		wetland	hydrology must be present,
Stripped M					dplain Soils (F19) (ML	-		ss disturbed or problematic.
	ce (S7) (LRF	ε Ρ, S, T, ι	J)	L Anomaious Bri	ght Loamy Soils (F20)	) (MLKA 14:	9A, 153C, 153D)	
						1		
Restrictive La	yer (if obse	erved):						
Туре:					÷		Hydric Soil Present?	Yes 🔿 No 🖲
Depth (inch	es):			*	3		nyune son Fresent:	
Remarks:								

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 24-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 36
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °
1	at: 30° 24' 4.173" N Long.: 89° 36' 44.961" W Datum: NAD83
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	NWI classification: N/A
•	
Are climatic/hydrologic conditions on the site typical for this time of	
Are Vegetation, Soil, or Hydrology natura	rally problematic? (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 $ullet$ No $igodot$	Is the Sampled Area
Hydric Soil Present? Yes 🔿 No 🕥	Vec O No 🔍
Wetland Hydrology Present? Yes O No 💿	within a Wetland?
Remarks:	
Upland Area approximately 100 feet west of access road along of	eastern side of AOI.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that ap	s the same time the second
Surface Water (A1)	
High Water Table (A2) Marl Deposits	ts (B15) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sul	ulfide Odor (C1) 🗌 Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhiz	izospheres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	Reduced Iron (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algai Mat or Crust (B4)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explai	ain in Remarks) 📃 Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
	hes):
Water Table Present? Yes 🔿 No 🕥 Depth (Inch	hes);
Saturation Present? Yes No  Depth (inch	hes): Wetland Hydrology Present? Yes O No O
(includes capillary fringe) 103 0 100 0 Deput (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial p	
	protos, previous inspections, in available.
Remarks:	

			ominant		Sampling Point: Up - 36		
		R		Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliotti	20	<ul> <li>Image: A start of the start of</li></ul>	69.0%	FACW	That are OBL, FACW, or FAC: 7 (A)		
Magnolia virginiana	5		17.2%	FACW	Total Number of Demission		
Liquidambar styraciflua	3		10.3%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)		
Nyssa sylvatica	1		3.4%	FAC			
	0		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: 14.5 20% of Total Cover: 5.8		= To	tal Cove	r	OBL species 0 x 1 = 0		
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species 91 x 2 = 182		
Diana dia tata	10	~	58.8%	FACW	FAC species $13$ , $x = 39$		
			29.4%	FACW			
			11.8%	FAC	FACU species $0 \times 4 = 0$		
		Ш		FAL	UPL species 0 x 5 = 0		
			0.0%		Column Totals: 104 (A) _221 (B)		
		Н	0.0%		Prevalence Index = B/A = 2.125		
and a second a second a			0.0%				
			0.0%		Hydrophytic Vegetation Indicators:		
and the second sec	0	Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
50% of Total Cover: 8.5 20% of Total Cover: 3.4	17	= To	tal Cove	r	✓ 2 - Dominance Test is > 50%		
Shrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex coriacea	15		41.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex glabra		_	41.7%	FACW			
Ilex vomitoria	5		13.9%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
Cyrilla racemiflora	1		2.8%	FACW	be present, unless disturbed or problematic.		
an the second					Definition of Vegetation Strata:		
		님	0.0%		Tree - Woody plants, excluding woody vines,		
	0	-	0.0%		approximately 20 ft (6 m) or more in height and 3 in.		
50% of Total Cover: 20% of Total Cover:7.2	36	= 10	tal Cove		(7.6 cm) or larger in diameter at breast height (DBH).		
lerb Stratum (Plot size: <u>30 m</u> )							
1 , Ilex coriacea	10	-	50.0%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
2. Ilex glabra		<	50.0%	FACW	than 3 in. (7.6 cm) DBH.		
B	0		0.0%				
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
5.	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
S	0		0.0%				
	0	Ξ.	0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
3,	0		0.0%				
),	0		0.0%		Herb - All herbaceous (non-woody) plants, including		
),	0		0.0%		herbaceous vines, regardless of size, and woody		
· · · · · · · · · · · · · · · · · · ·	0		0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.		
x 2.	0				extraction and and		
		Щ.,	0.0%		Woody vine - All woody vines, regardless of height.		
50% of Total Cover: <u>10</u> 20% of Total Cover: <u>4</u>	20 :	= Tơ	tal Cover				
(Plot size: 30 m )			100 000				
Smilax rotundifolia			100.0%	FAC			
an an an an ann an an an an an an an an		Ц.	0.0%				
			0.0%				
	0		0.0%		Hadaaa ka Ka		
			0.00/		Hydrophytic		
	0	ш,	0.0%		Vegetation Present? Yes I No		

Sampling Point: Up	- 36	
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	Matrix	the depth	needed to document	the indicator or lox Features	connrm the at	sence or indicators.	ł
Depth (inches) Color (		%	Color (moist)	% Type	1 Loc <sup>2</sup>	Texture	Remarks
0-4 10YR	4/2	100					
4-15 10YR	5/6	100			-		
Type: C=Concentration. D Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (L 5 cm Mucky Minerai (A Muck Presence (A8) (L 1 cm Muck (A9) (LRR F Depleted Below Dark S	RR P, T, U 7) (LRR P, RR U) 7, T)	I) , T, U)	Polyvalue Belo     Thin Dark Surf     Loamy Mucky     Loamy Gleyed     Depleted Matri     Redox Dark Su     Depleted Dark     Redox Depress     Marl (F10) (LR	w Surface (S8) (LR Face (S9) (LRR S, T Mineral (F1) (LRR G Matrix (F2) x (F3) urface (F6) Surface (F6) Surface (F7) sions (F8) R U)	R S, T, U) , U) ))	Indicators for Prol 1 cm Muck (A9) 2 cm Muck (A10 Reduced Vertic Piedmont Flood Anomalous Brigi Red Parent Mate	blematic Hydric Soils <sup>3</sup> : (LRR O) ) (LRR S) (F18) (outside MLRA 150A,B) blain Solls (F19) (LRR P, S, T) bit Loamy Soils (F20) (MLRA 153B) erial (TF2) rk Surface (TF12)
Depleted Below Dark S     Thick Dark Surface (A1     Coast Prairie Redox (A:     Sandy Muck Mineral (S     Sandy Gleyed Matrix (S     Sandy Redox (S5)     Stripped Matrix (S6)     Dark Surface (S7) (LRR	2) 16) (MLRA 1) (LRR O, 4)	. 150A) , S)	Iron-Manganes Umbric Surface Delta Ochric (F Reduced Vertic Piedmont Floor	ic (F11) (MLRA 151 se Masses (F12) (Ll e (F13) (LRR P, T, I f17) (MLRA 151) c (F18) (MLRA 150/ dplain Soils (F19) (I ght Loamy Soils (F2	RR O, P, T) J) A, 150B) MLRA 149A)	wetland unles	s of hydrophytic vegetation and hydrology must be present, s disturbed or problematic.
estrictive Layer (if obse Type:	-			-			
Depth (inches):						Hydric Soil Present?	Yes 🔿 No 🕥
temarks:							

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: Up - 37
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): none Slope: 1.0 % / 0.6 °
an an waaraa . r . E	
	energy and the second
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of ye	
Are Vegetation, Soil, or Hydrology significant	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 sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	
Hydric Soil Present? Yes O No O	Is the Sampled Area
Wetland Hydrology Present? Yes O No O	within a Wetland? Yes 🔿 No 🖲
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	· · · · · · · · · · · · · · · ·
Surface Water (A1)	· · · · · · · · · · · · · · · · · · ·
High Water Table (A2)	
Saturation (A3)	
	neres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	
Drift Deposits (B3)	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	e (C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in 1	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 O No O Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	
Saturation Present? Yes O No O Depth (inches):	Wetland Hydrology Present? Yes O No 💿
Describe Recorded Data (stream gauge, monitoring well, aerial photo	
Remarks:	

EGETATION (Five/Four Strata) - Use scientific			ominant pecies?		Sampling Point: Up - 37
	Absolute	e Re		Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 m )	% Cover	r	Cover	Status	Number of Dominant Species
Pinus elliottii	10	<	76.9%	FACW	That are OBL, FACW, or FAC: 3 (A)
Quercus nigra	2		15.4%	FAC	
Quercus faicata	. 1		7.7%	FACU	Total Number of Dominant Species Across All Strata: 3 (B)
	0		0.0%		
	-		0.0%		Percent of dominant Species
			0.0%	· f - manager in	That Are OBL, FACW, or FAC: 100.0% (A/B)
	0		0.0%	*	Prevalence Index worksheet:
	0		0.0%	· • • • •	Total % Cover of: Multiply by:
0% of Total Cover: 6.5 20% of Total Cover: 2.6		= To	tal Cove		OBL species $1 \times 1 = 1$
apling or Sapling/Shrub Stratum (Plot size: 30 m			AA		FACW species $91 \times 2 = 182$
Pinus elliottii			83.3%	FACW	FAC species $4$ , $x = 12$
Nyssa sylvatica		Ц.	16.7%	FAC	FACU species $\frac{1}{2}$ x 4 = $\frac{4}{2}$
			0.0%		UPL species 0 x 5 = 0
			0.0%		Column Totals: 97 (A) 199 (B)
	0	$\square_{a}$	0.0%		Prevalence Index = B/A = 2.052
	0		0.0%		
	0	$\Box$	0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%	_	1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 6 20% of Total Cover: 2.4	12 :	= To	tal Cove		$\checkmark$ 2 - Dominance Test is > 50%
Trub Stratum (Plot size: 30 m )	-				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex corlacea		⊻.	100.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
			0.0%		1
	0	Ц.	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic,
	0	Ш,	0.0%		
	0		0.0%	-	Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 35 20% of Total Cover: 14	70 =	= Tot	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )					
Lycopodiella alopecuroides	1		50,0%	OBL	Sapling - Woody plants, excluding woody vines,
Arundinaria tecta			50.0%	FACW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
		Π	0.0%		
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less
	0	<b>—</b>	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
		<u>—</u>			
·	0	Η.	0.0%		Shrub - Woody plants, excluding woody vines,
· · · · ·			0.0%	r	approximately 3 to 20 ft (1 to 6 m) in height.
et m. m.t. m.t	0	닏.	0.0%		Korh All borboccours (non woods) plants, including
•	0		0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
· · · · · · · · · · · · · · · · · · ·	Ó		0.0%		plants, except woody vines, less than approximately
	0	Ш,	0.0%		3 ft (1 m) in height.
· · · · · · · · · · · · · · · · · · ·	0		0.0%		
0% of Total Cover: 1 20% of Total Cover: 0.4	2 =	= Tot	al Cover		Woody vine - All woody vines, regardless of height.
pody Vine Stratum (Plot size: 30 m )		·			
	0	∟	0.0%		
	0	□	0.0%		
	0		0.0%		
	0		0.0%		
	0		0.0%		Hydrophytic
	0 9		0.070		Vegetation

Remarks: (If observed, list morphological adaptations below).

Heavy layer of pine litter.... Not much of a herbaceous layer.

Sampling Point:	Up -	37
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Profile Descri	ption: (De		the <b>depth</b>	needed to document the indicator or confirm th	e absence of indicators.)
Depth		Matrix		Redox Features	-
(inches)	Color (		0/0	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	
0-6	10YR	4/2	100		Loamy Sand
6-16	10YR	5/4	100		Loamy Sand
					R.,
	• • •				· · · · · · · · · · · · · · · · · · ·
5					
1 Type: C=Conci	entration. D	=Depletio	n. RM≃Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Lo	cation: PI =Pore Lining, M=Matrix
Hydric Soil Ir		Dopiddo			Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A				Polyvalue Below Surface (S8) (LRR S, T, U)	
Histic Epipe	•			Thin Dark Surface (S9) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Black Histic				Loamy Mucky Mineral (F1) (LRR O)	2 cm Muck (A10) (LRR S)
Hydrogen S				Loamy Gleved Matrix (F2)	Reduced Vertic (F18) (outside MLRA 150A,B)
Stratified L				Depleted Matrix (F2)     Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
	dies (A6) (L		N	Redox Dark Surface (F6)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
	y Mineral (A		-		Red Parent Material (TF2)
	ence (A8) (L		, , 0)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
	(A9) (LRR F			Redox Depressions (F8)	Other (Explain in Remarks)
	elow Dark S		1)	Mari (F10) (LRR U)	
_	Surface (A1	-	,	Depleted Ochric (F11) (MLRA 151)	
	-	-	1004	Iron-Manganese Masses (F12) (LRR O, P, T)	
	ie Redox (A:		•	Umbric Surface (F13) (LRR P, T, U)	
	k Mineral (S		, 5)	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators of hydrophytic vegetation and
	ed Matrix (S	64)		Reduced Vertic (F18) (MLRA 150A, 150B)	wetland hydrology must be present,
Sandy Red				Piedmont Floodplain Soils (F19) (MLRA 149A)	
Stripped Ma				Anomalous Bright Loamy Soils (F20) (MLRA 1	14 <b>9A,</b> 153C, 153D)
Dark Surfac	ce (S7) (LRR	с Р, <b>S</b> , Т, U	J)		
					· · · · · · · · · · · · · · · · · · ·
Restrictive Lay	yer (if obse	erved):			
Type:					
Depth (inche	es):				Hydric Soil Present? Yes 🔿 No 🖲
Remarks:					
Remarks.					

	ity/County: Waveland - Hancock Sampling Date: 24-Oct-16			
Applicant/Owner: NASA	State: MS Sampling Point: Up - 38			
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 32 T 7 S R 16 W			
Landform (hillslope, terrace, etc.): Hillside	ocal relief (concave, convex, none): undulating Slope: 1.0 % / 0.6 °			
Subregion (LRR or MLRA): LRR T Lat: 30	0° 23' 52.876" N Long.: 89° 37' 1.236" W Datum: NAD83			
Soil Map Unit Name: EsB, Escambia Ioam, 2 to 5 percent slopes	NWI classification: N/A			
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 O No 💿				
Wetland Hydrology Present? Yes O No 💿	within a Wetland?			
Remarks: Terrace (slight slope) approximately 130 feet up from main drainage w HYDROLOGY	vay near Wet 37.			
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)       High Water Table (A2)     Marl Deposits (B15) (				
Saturation (A3)				
Sediment Deposits (B2)				
Drift Deposits (B3)				
Algai Mat or Crust (B4)				
Iron Deposits (B5)     Other (Explain in Rem	$\square$			
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 O No O Depth (inches):				
Water Table Present? Yes O No O Depth (Inches):				
Saturation Present? Vac ( No ( Denth (inches))	Wetland Hydrology Present? Yes O No 🕥			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, Remarks:				

			minant		Sampling Point: Up - 38
	Absolute		ecies? _ I.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cover		over	Status	Number of Dominant Species
Pinus elliottii	15		60.0%	FACW	That are OBL, FACW, or FAC:5(A)
Nyssa sylvatica	3		12.0%	FAC	
Quercus virginiana			20.0%	FACU	Total Number of Dominant Species Across All Strata:6 (B)
Quercus falcata			4.0%	FACU	
Quercus nigra	1		4.0%	FAC	Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC: 83.3% (A/B)
وياروني مسور بما والمادية المحرية الماريانين.	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of Multiply by:
0% of Total Cover: 12.5 20% of Total Cover: 5	25	= Tot	al Cove	•	OBL species 3 x 1 = 3
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species $61 \times 2 = 122$
And 10	_	$\checkmark$	31.3%	FACW	FAC species $19 \times 3 = 57$
A A A A A A A A A A A A A A A A A A A		Ē.	18.8%	FAC	
The second s			31.3%	FAC	
		-	12.5%	FACU	
C. The rest of the			6.3%	FACU	Column Totals: _92_ (A) _218_ (B)
A second seco		Η-	0.0%	FACU	Prevalence Index = B/A = 2.370
an a		1			Hydrophytic Vegetation Indicators:
		Η-	0.0%	-	
			0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 8 20% of Total Cover: 3.2	. 16	= Tot	al Cover		✓ 2 - Dominance Test Is > 50%
rub Stratum (Plot size: 30 m )					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex corlacea	30	<b>V</b>	68.2%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex glabra	10		22.7%	FACW	
Quercus nigra			6.8%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Magnolia virginiana			2.3%	FACW	be present, unless disturbed or problematic.
· · · · · · · · · · · · · · · · · · ·		П.	0.0%		Definition of Vegetation Strata:
					-
	0		0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 22 20% of Total Cover: 8.8	0	= Tota	0.0% al Cover		approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 22 20% of Total Cover: 8.8		= Tota	a se se tra a		
0% of Total Cover: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m )	44 :	_	al Cover		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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides	 	_	<b>al Cover</b> 100.0%		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: 22 20% of Total Cover: 8.8 rb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides	44 = 3 0	_	al Cover		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,
0% of Total Cover: 22 20% of Total Cover: 8.8 arb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides		_	al Cover		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: 22 20% of Total Cover: 8.8 arb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides	<u> </u>	_	al Cover		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
0% of Total Cover: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides		_	al Cover 100.0% 0.0% 0.0% 0.0%		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: 22 20% of Total Cover: 8.8 arb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides	<u> </u>	_	al Cover 100.0% 0.0% 0.0% 0.0% 0.0%		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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides	44 3 0 0 0 0	_	al Cover 100.0% 0.0% 0.0% 0.0%		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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides		_	al Cover 100.0% 0.0% 0.0% 0.0% 0.0%		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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) . Lycopodiella alopecuroides	44 3 0 0 0 0 0 0 0 0 0	_	al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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
0% of Total Cover: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides	44 3 0 0 0 0 0 0 0 0 0 0 0 0	_	al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.		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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides		_	al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.		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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) . Lycopodiella alopecuroides	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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:       22       20% of Total Cover:       8.8         erb Stratum       (Plot size: 30 m)	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0		al Cover 100.0% 0.0%	OBL	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:       22       20% of Total Cover:       8.8         erb Stratum       (Plot size: 30 m)	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0		al Cover 100.0% 0.0%	OBL	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: 22 20% of Total Cover: 8.8 arb Stratum (Plot size: 30 m) , Lycopodiella alopecuroides	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0		al Cover 100.0% 0.0%	OBL	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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0		al Cover 100.0% 0.0%	OBL	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: 22 20% of Total Cover: 8.8 erb Stratum (Plot size: 30 m) Lycopodiella alopecuroides 	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0		al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1 Cover 75.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>
0% of Total Cover:       22       20% of Total Cover:       8.8         erb Stratum       (Plot size: 30 m)       )         Lycopodiella alopecuroides	44 3 0 0 0 0 0 0 0 0 0 0 0 0 0		al Cover 100.0% 0.0%	OBL	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.

	ihriou: (ne	Matrix	ute depth	needed to document the indicator or confirm the Redox Features	assence of mulcators.)	
Depth (inches)	Color (		%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	4/2	100		Texture	Including
4-16	10YR	5/6	100			
	-					
vpe: C=Cond	centration. D	=Depletio	n, RM <b>≂R</b> edu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loca	ation: PL=Pore Lining. M=1	Matrix
	ndicators:			· · · · · · · · · · · · · · · · · · ·		lematic Hydric Soils <sup>3</sup> :
Histosol (A	A1)			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (	-
Histic Epip	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10)	
Black Histi	ic (A3)			Loamy Mucky Mineral (F1) (LRR O)		F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)			Loamy Gleyed Matrix (F2)	<u> </u>	ain Soils (F19) (LRR P, S, T)
Stratified I	Layers (A5)			Depleted Matrix (F3)		t Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L	RR P, T, U	I)	Redox Dark Surface (F6)	Red Parent Mater	
-	ky Mineral (A		•	Depleted Dark Surface (F7)	m	
	ence (A8) (L			Redox Depressions (F8)	Very Shallow Dar	
	k (A9) (LRR F			Marl (F10) (LRR U)	Other (Explain in	Remarks)
	Below Dark S		11)	Depleted Ochric (F11) (MLRA 151)		
•	surface (A1		,	Iron-Manganese Masses (F12) (LRR O, P, T)		
	rie Redox (A		1504)			
	ck Mineral (S			Umbric Surface (F13) (LRR P, T, U)		
			,	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators	of hydrophytic vegetation and
	yed Matrix (S	9 <del>4</del> )		Reduced Vertic (F18) (MLRA 150A, 150B)	wetland i	nydrology must be present,
Sandy Red				Piedmont Floodplain Soils (F19) (MLRA 149A)		disturbed or problematic.
Stripped M Dark Surfa	tatrix (S6) Ice (S7) (LRR	ι Ρ, S, T, l	J)	Anomalous Bright Loamy Soils (F20) (MLRA 14	9A, 153C, 153D)	
	yer (if obse	erved):				
Туре:					Hydric Soil Present?	Yes 🔿 No 🖲
Depth (inch	es):			· · · · · · · · · · · · · · · · · · ·	riyane oon ricoane.	
emarks:						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Wav	eland - Hancock Sampling Date: 24-Oct-16		
pplicant/Owner: NASA	State	e: MS Sampling Point: Up - 39		
vestigator(s): Lars Larson, Randy Ellis	Section, Townshi	p, Range: S 32 T 7 s R 16 W		
andform (hillslope, terrace, etc.): Hillside	Local relief (concar	re, convex, none): undulating Slope: 2.0 % / 1.1 °		
ubregion (LRR or MLRA): LRR T	Lat.: 30° 23' 48.113" N			
Map Unit Name: PoB, Poarch fine sandy loam, 2 to 5%	e :	NWI dassification: N/A		
	<u>^</u>	0		
re climatic/hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" present? Yes 🔍 No 🖯		
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 📋	naturally problematic?	(If needed, explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map she	owing sampling point lo	cations, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes $ullet$ No $igodot$	Is the Sam	njer årea		
Hydric Soil Present? Yes O No 💿				
Wetland Hydrology Present? Yes O No 💿	within a W	etland?		
Remarks:	I			
Plot is 100 feet east - NE of plot Wet - 19 on slight ridge	above wetland drainage way.			
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)		
Primary Indicators (minimum of one required; check all t		Surface Soil Cracks (B6)		
	itic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)		
	Deposits (B15) (LRR U)	Drainage Patterns (B10)		
	ogen Sulfide Odor (C1)	Moss Trim Lines (B16)		
	ized Rhizospheres along Living Root			
	ence of Reduced Iron (C4)	Crayfish Burrows (C8)		
	nt Iron Reduction in Tilled Soils (C6)			
	Muck Surface (C7)	Geomorphic Position (D2)		
	r (Explain in Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)		
Field Observations:				
	oth (inches):			
Water Table Present? Yes O No O Dep	oth (inches):	/etland Hydrology Present? Yes 🔿 No 🖲		
Saturation Present? Yes O No O Dep	oth (inches):	/etland Hydrology Present? Yes 🔾 No 🔍		
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspecti	ons), if available:		
Remarks:				

	Dominant				Sampling Point: Up - 39		
· · · · · · · · · · · · · · · · · · ·	Absolute		ecies? _ I.Strat.	Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliottii	5		31.3%	FACW	That are OBL, FACW, or FAC: 11 (A)		
Pinus taeda	5		31.3%	FAC			
Nyssa sylvatica	3		18.8%	FAC	Total Number of Dominant Species Across All Strata: 11 (B)		
Quercus nigra	-		12.5%	FAC			
Quercus falcata			6.3%	FACU	Percent of dominant Species		
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B		
			0.0%		Prevalence Index worksheet:		
18 <b>2 b</b>	0		0.0%				
					Total % Cover of Multiply by:		
0% of Total Cover: 8 20% of Total Cover: 3.2	16	= TO	tal Cover		OBL species 0 x 1 = 0		
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species $65 \times 2 = 130$		
Pinus taeda	. 5	⊻.	50.0%	FAC	FAC species . 43 x 3 = 129		
Quercus nigra		⊻.	30.0%	FAC	FACU species $1 \times 4 = \frac{4}{1}$		
Magnolia virginiana			20.0%	FACW	UPL species 0 x 5 = 0		
	0		0.0%		Column Totals: 109 (A) 263 (B)		
	0		0.0%				
	0		0.0%		Prevalence Index = B/A = 2.413		
			0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%				
					1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 5 20% of Total Cover: 2	10	= 10	tal Cover		✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: <u>30 m</u> )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex corracea	3	Ш.	4.4%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex glabra	40		58.8%	FACW			
Ilex vomtoria	20		29.4%	FAC	<sup>1</sup> Indicators of hydric soll and wetland hydrology mus		
Vaccinium elliottii	5		7.4%	FACW	be present, unless disturbed or problematic.		
	0		0.0%		Definition of Vegetation Strata:		
	C		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 34 20% of Total Cover: 13.6	68	= Tot	tal Cover	· · · · · · · · · · · · · · · · · · ·	approximately 20 ft (6 m) or more in height and 3 in.		
	·			_	(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m)			- <u>-</u>		Sapling - Woody plants, excluding woody vines,		
, Ilex glabra	5	⊻_	50.0%	FACW	approximately 20 ft (6 m) or more in height and less		
					and the second sec		
	5		50.0%	FACW	than 3 in. (7.6 cm) DBH.		
· · · · · ·	-		50.0% 0.0%	FACW			
	-			FACW	Sapling/Shrub - Woody plants, excluding vines, less		
	0		0.0%	FACW			
	0 0 0		0.0% 0.0%	FACW	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.		
• · · · · · · · · · · · · · · · · · · ·	0 0 0 0		0.0% 0.0% 0.0%	FACW	Sapling/Shrub - Woody plants, excluding vines, less		
• · · · · · · · · · · · · · · · · · · ·	0 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0%	FACW	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		
	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 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%		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: <u>5</u> 20% of Total Cover: <u>2</u>	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%		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: <u>5</u> 20% of Total Cover: <u>2</u>	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%		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.		
)% of Total Cover: <u>5</u> 20% of Total Cover: <u>2</u>	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%		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.		
% of Total Cover: <u>5</u> 20% of Total Cover: <u>2</u> <b>cody Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Smliax rotundifolia</b>	0 0 0 0 0 0 0 0 0 0 0 0 0 10		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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: 5 20% of Total Cover: 2 coody Vine Stratum (Plot size: 30 m ) Smllax rotundifolia	0 0 0 0 0 0 0 0 0 0 0 0 0 10		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.		
% of Total Cover: <u>5</u> 20% of Total Cover: <u>2</u> <b>cody Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Smliax rotundifolia</b>	0 0 0 0 0 0 0 0 0 0 0 0 0 10		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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: <u>5</u> 20% of Total Cover: <u>2</u> <b>oody Vine Stratum</b> (Plot size: 30 m ) Smilax rotundifolia Vitis rotundifolia	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% 0.0% 0.0% 0.0%	FAC	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.		
0% of Total Cover: 5 20% of Total Cover: 2 oody Vine Stratum (Plot size: 30 m ) Smllax rotundifolia Vitis rotundifolia	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% 0.0% 0.0% 0.0%	FAC FAC	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.		

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Sampling	Point:	UD.	- 39

Profile Desc	ription: (De	scribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)
Depth		Matrix		Redox Features	
(inches)	Color (		%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0-5	10YR	3/2	_100		· · · · · · · · · · · · · · · · · · ·
5-16	10YR	5/6	100		
•	<del></del>				
					1 <b>1</b>
<sup>1</sup> Type: C=Con	centration. D	=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains 2Loca	ation: PL=Pore Lining, M≕Matrix
Hydric Soil I				· · · · ·	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 Epip	oedon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
🗌 Black Hist	ic (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 i	Layers (A5)			Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
🗌 Organic B	odies (A6) (L	RR P, T, L	1)	Redox Dark Surface (F6)	Red Parent Material (TF2)
5 cm Muc	ky Mineral (A	7) (LRR P	, T, U)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
Muck Pres	sence (A8) (LI	RR U)		Redox Depressions (F8)	
	k (A9) (LRR F	-		Mari (F10) (LRR U)	Other (Explain in Remarks)
	Below Dark S		11)	Depleted Ochric (F11) (MLRA 151)	
	k Surface (A1	-		Iron-Manganese Masses (F12) (LRR O, P, T)	
	rie Redox (At		150A)	Umbric Surface (F13) (LRR P, T, U)	
	ck Mineral (S			Deita Ochric (F17) (MLRA 151)	
	yed Matrix (S			Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Red		,		Piedmont Floodplain Soils (F19) (MLRA 1907, 1908)	wetland hydrology must be present,
Stripped M					unless disturbed or problematic.
_	ace (S7) (LRR	PSTI	n	Anomalous Bright Loamy Soils (F20) (MLRA 14	19A, 155C, 155D)
		.,,,,,,,	~		
Restrictive La	iyer (if obse	erved):			
Type:					Hydric Soil Present? Yes 🔿 No 🕥
Depth (inch	ies):		1. P. P.		
Remarks:					
No hydric indi	cators obse	rved.			

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - H	Sampling Sector 23	-Oct-16	
Applicant/Owner: NASA	State: MS	Sampling Point: Up - 40		
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range	e: S 32 T 7 s R 16 W		
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, conve	ex, none): none Slope: 2.0 %	/ 1.1°	
Subregion (LRR or MLRA): LRR T Lat:	30° 23' 42.761" N	Long.: 89° 36' 50.066" W Datum: N	IAD <b>83</b>	
Soll Map Unit Name: HIB, Harleston fine sandy loam, 2 to 5 percent sl	opes	NWI classification: N/A		
Are climatic/hydrologic conditions on the site typical for this time of ye	ar? Yes 🖲 No 🔿	(If no, explain in Remarks.)		
Are Vegetation 🗌 , Soil 🛄 , or Hydrology 🗌 significant	tly disturbed? Are "Noi	rmal Circumstances" present? Yes 💿 No	<b>,</b> O	
Are Vegetation 📋 , Soll 🗌 , or Hydrology 🗌 naturally ;		led, explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point location:	s, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes   No	Is the Sampled Are			
Hydric Soil Present? Yes 🔿 No 🕥				
Wetland Hydrology Present? Yes O No 🕥	within a Wetland?			
Remarks:		· · · · · · · · · · · · · · · · · · ·		
Side slope - step up edge approximtely 25-30 feet of wet drainage a	area - ephemeral drain.			
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)	•	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)		Drainage Patterns (B10)		
Saturation (A3)		Moss Trim Lines (B16)		
	eres along Living Roots (C3)	Dry Season Water Table (C2)		
Sediment Deposits (B2)		Crayfish Burrows (C8)		
	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Thin Muck Surface	• •	Geomorphic Position (D2)		
Iron Deposits (B5) Uther (Explain in F	(emarks)	Shallow Aquitard (D3) FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)		
	<u> </u>			
Field Observations:       Surface Water Present?       Yes       No       Depth (inches):				
	Wetland	Hydrology Present? Yes 🔿 No 🕥		
Saturation Present? Yes No O Depth (inches):	in the second			
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if	available:		
Remarks:				

			ominant		Sampling Point: Up - 40
Tree Stratum (Plot size: 30 m)	Absolute % Cove	e R		Indicator Status	Dominance Test worksheet:
					Number of Dominant Species
	· · · · · · · · · · · · · · · · · · ·		5,4%	FAC	That are OBL, FACW, or FAC: 8 (A)
there aduation	45				Total Number of Dominant
Nyssa sylvalica	. <u>10</u> 0		27.0%	FAC	Species Across All Strata:
			0.0%		Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
	0		0.0%	-	
ж			0.0%		Prevalence Index worksheet:
	0		0.0%	1.18	Total % Cover of: Multiply by:
0% of Total Cover: 18.5 20% of Total Cover: 7.4		= T(	otal Cove	r	OBL species x 1 =
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species 8 x 2 = 16
Quercus nigra			54.1%	FAC	FAC species
Liquidambar styraciflua			27.0%	FAC	FACU species $0 \times 4 = 0$
Acer rubrum			13.5%	FAC	UPL species $0 \times 5 = 0$
Nyssa sylvatica	2		5.4%	FAC	Column Totals: 103 (A) 301 (B)
	0		0.0%		Prevalence Index = B/A = 2.922
	0		0,0%		
	0		0.0%		Hydrophytic Vegetation Indicators:
agestates and a set of a	- 0		0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 18.5 20% of Total Cover: 7.4	37	= То	tal Cover		$\checkmark$ 2 - Dominance Test is > 50%
nrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq 3.0^{1}$
O	5	✓	25.0%	FAC	
Ilex vomitoria	a second		50.0%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Tiest ennen				FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
· · · · · · · · · · · · · · · · · · ·			10,0%	FAC	be present, unless disturbed or problematic.
Vaccinium elliottii	3		15.0%	FACW	Definition of Vegetation Stanto
	0		0.0%		Definition of Vegetation Strata:
		Ē,			The state of the s
	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
		` = To	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).
		— To			approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
rb Stratum (Plot size: 30 m)	20	С = То		FACW	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,
rb Stratum (Plot size: 30 m ) Arundinaria tecta	20		otal Cover		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
rb Stratum (Plot size: 30 m ) Arundinaria tecta Rubus argutus	20 5		otal Cover 71.4%	FACW	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,
rb_Stratum (Plot size: 30 m) Arundinaría tecta Rubus arguitus	20 5 2		71.4% 28.6%	FACW	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
erb Stratum (Plot size: 30 m) Arundinaria tecta Rubus argutus	20 5 2 0		71.4% 28.6% 0.0%	FACW	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.
erb Stratum (Plot size: 30 m) Arundinaria tecta Rubus argutus	20 5 2 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0%	FACW	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.
erb Stratum (Plot size: <u>30 m</u> ) Arundinaría tecta Rubus argutus	20 5 2 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0%	FACW	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,
rb Stratum (Plot size: 30 m) Arundinaria tecta Rubus argutus	20 5 2 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0%	FACW	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.
Plot size: 30 m ) Arundinaria tecta Rubus argutus	20 5 2 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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
erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0		71.4%           28.6%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%	FACW	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 . Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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
erb Stratum (Plot size: 30 m) Arundinaria tecta Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	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 Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW FAC	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 Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW FAC	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
erb Stratum       (Plot size: 30 m)         Arundinaria tecta         Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW FAC	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         Rubus argutus         % of Total Cover:       3.5         2% of Total Cover:       3.5         20% of Total Cover:       1.4         pody Vine Stratum       (Plot size: 30 m)         Vitis rotundifolia       )	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7 2		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW FAC	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         Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW FAC	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 Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW FAC	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 Rubus argutus	20 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW FAC	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.

Sampling	Point:	Up - 4	0
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Profile Descr Depth	iption: (De	scribe to Matrix	the depth	needed to document the indicator or confirm the Redox Features	e absence of indicators.)	
(inches)	Color (	moist)	0/0	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-6	10YR	4/2	100		Loamy Sand	
6-16	10YR	5/3	100		Loamy Sand	
·						
		=Depletion	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	zation: PL=Pore Lining, M=	Matrix
Hydric Soil I					Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (/				Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9)	(LRR O)
Histic Epip				Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10)	) (LRR S)
Black Histi				Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (	F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodp	lain Soils (F19) (LRR P, S, T)
_	Layers (A5)			Depleted Matrix (F3)	🗌 Anomalous Brigh	t Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L		-	Redox Dark Surface (F6)	🗌 Red Parent Mate	
	ky Mineral (A		. T, U)	Depleted Dark Surface (F7)	Very Shallow Dar	k Surface (TF12)
Muck Pres	ence (A8) (L	RR U)		Redox Depressions (F8)	Other (Explain in	Remarks)
	k (A9) (LRR I	· •		Mari (F10) (LRR U)	_ ,,	
	Below Dark S	-	.1)	Depleted Ochric (F11) (MLRA 151)		
Thick Dark	Surface (A1	.2)		Iron-Manganese Masses (F12) (LRR O, P, T)		
Coast Prai	rie Redox (A	16) (MLRA	150A)	Umbric Surface (F13) (LRR P, T, U)		
Sandy Muc	ck Mineral (S	1) (LRR O	, S)	🗌 Delta Ochric (F17) (MLRA 151)	3	
Sandy Gley	yed Matrix (S	54)		Reduced Vertic (F18) (MLRA 150A, 150B)	"Indicators	of hydrophytic vegetation and hydrology must be present,
Sandy Red	lox (S5)			Piedmont Floodplain Soils (F19) (MLRA 149A)	unless	disturbed or problematic.
Stripped M	latrix (S6)			Anomalous Bright Loamy Solls (F20) (MLRA 14	49A, 153C, 153D)	
Dark Surfa	ice (S7) (LRF	ι Ρ. S, T, l	))			
Restrictive La	yer (if obse	erved):				
Type:						
Depth (inch	es):				Hydric Soil Present?	Yes 🔿 No 🖲
Remarks:						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County	Waveland - Hancoc	k Sa	mpling Date:	25-Oct-16
Applicant/Owner: NASA		State: MS	Sampling Point	Up - 41	
Investigator(s): Lars Larson, Randy Ellis	Section, T	ownship, Range: S	32 <b>T</b> 7 s	R 1	6 W
Landform (hillslope, terrace, etc.): Terrace	Local relief	(concave, convex, no	ne):	Slope:	1.0 % / 0.6°
Subregion (LRR or MLRA): LRR T	Lat: 30° 23' 47.	331" N Long.	89° 36' 56.907"	W Dat	um: NAD83
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent	slopes		NWI classificati	ion: N/A	
Are climatic/hydrologic conditions on the site typical for th Are Vegetation , Soil , or Hydrology Are Vegetation , Soil , or Hydrology SUMMARY OF FINDINGS - Attach site map sl	significantly disturbed	? Are "Normal ( (If needed, ex	(If no, explain in Rer Circumstances" prese xplain any answers i ansects, importa	ent? Yes ( n Remarks.)	
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No       No         Wetland Hydrology Present?       Yes       No       No		he Sampled Area	fes 🔿 No 🖲		- <u>N</u>
Remarks:		_			
HYDROLOGY					
Wetland Hydrology Indicators:		,	Secondary Indicators (		quired)
Primary Indicators (minimum of one required; check all			Surface Soil Cracks	. ,	(-0)
	atic Fauna (B13)		Sparsely Vegetated		e (R8)
	Deposits (B15) (LRR U)		Drainage Patterns	•••	

<ul> <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 (B5)</li> </ul>		Marl Deposits (B15) (LRR U)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (     Thin Muck Surface (C7)     Other (Explain in Remarks)	Crayfish Burrows (C8)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (s	Yes ○ No ● Yes ○ No ● Yes ○ No ● stream gauge, monit	Depth (inches): Depth (inches): Depth (inches): oring well, aerial photos, previous inspe	Wetland Hydrology Present? Yes O No ()
Remarks:			

Here Stratum         Protection         Absolute         Bit Strate         Test workwheet:           Mise silktid         10         Ø         41.7%         FXC         Number of Dominant Species         B         (A)           Magnila viginina         7         Ø         23.2%         FXC         FXC         Test workwheet:         Number of Dominant Species         B         (A)           Aver rubrum         2         0.0.6%         0.0.6%         Test workwheet:         Test workwheet: <th></th> <th></th> <th></th> <th>Do</th> <th>pecies?</th> <th></th> <th>Sampling Point: Up - 41</th>				Do	pecies?		Sampling Point: Up - 41
Prime eliketi         10         Ø417% F2CW         Number of Dominant Species         8         (A)           Megna dvignina         7         Ø 282% FAC         Total Number of Dominant Species         8         (B)           Acer rubrum         2         0.85% FAC         Percent of dominant Species         8         (B)           Acer rubrum         2         0.85% FAC         Percent of dominant Species         100.05%         Mathematics         100.05%         Mathematics         100.05%         Percent of dominant Species         100.05%         Mathematics         100.05%         Mathematics         100.05%         Mathematics         100.05%         Percent of dominant Species         100.05%         Mathematics         100.05%         Mathematics         100.05%         Percent of dominant Species         100.05%         Mathematics         100.05%         Mathematics         100.05%         Percent of dominant Species         100.05%         Mathematics			Absolute	_		Indicator	Dominance Test worksheet:
Phrue Bildtit         10         Ø         41.7%         FACW         That are OBL, FACW, or FAC:         8         (A)           Myses syndice         5         Ø         20.8%         FACW         Total Number of Domisant Species         8         (B)           Acer robrum         2         8.3%         FAC         Total Number of Domisant Species         8         (B)           Acer robrum         2         8.3%         FAC         Total XR Cover of Advisor	ree	Stratum (Plot size: 30 m )	% Cove	r_ 1	Cover	Status	Number of Dominant Species
Insess sylvestion         5         Ø 20.8%         FAC         Total Number of Dominant Species         8         (9)           Acor rubrum         2         0.3%         FAC         Percent of dominant Species         100.0%         (AR           0         0.0%         That Are Dil, FACW, or FAC         100.0%         (AR           0         0.0%         That Are Dil, FACW, or FAC         100.0%         (AR           0         0.0%         Total X Dil, FAC         Species         1         X X = 1           1         Are Total X         1         Are X Species         0         X X = 0           1         Perseines Index         3         13.6%         FAC         Dil Species         0         X X = 0           1         Ager toturun         2         0         0.0%         Are toturun         2         0         0         0.0%         Y X = 0         0         0         0         0         0         0         0	P	inus elliotti	10	∕,	41.7%	FACW	
Mysse syndice       5       Ø       20.0%       FAC       Species Arons Al Strats:       §       (9)         Acer rubrum       0       0.0%       Derest of dominant Species       100.0%       Pervalence Index worksheet:       100.0%       Pervalence Index worksheet:       100.0%       Total % Cover of Multiply by:       00         % of Total Cover:       12       20% of Total Cover:       4.8       24       = total Cover       FAC species       7.4       X 2 = .148         Prevalence Index worksheet:       0       0.0%       Pervalence Index worksheet:       7.4       X 2 = .148         Prevalence Index Species       0.x 4 = .0       1.5       FAC species       0.x 4 = .0       1.6         Uptidemarc Index Species       0.x 4 = .0       1.5       FAC species       0.x 4 = .0       1.6         Mysse synatice       0       0.0%       1.3       FAC       Species       0.x 4 = .0       1.6	M	agnolia virginiana	7		29.2%	FACW	Tatal Number of Demissrat
Acer rubrum       2       8.3%       FAC         0       0.09%       Percent of dominant Species       100.09%         % of total Cover:       12       20% of total Cover:       14       Are OBL, FACW, or FAC:       100.09%       OBL species:       1       1       1         Wind off total Cover:       12       20% of total Cover:       4.8       24       = Total Scover of:       MUltiply by:       OBL species:       7.4       2       1.45         Plus elibeti       0       0.0%       Most species:       7.4       2       1.45       PAC       Species:       7.4       2       1.45         Migradium strysmithia       0       0       0.0%       FAC       Species:       0       X 4 = 0       0         Mysas sylvatica       2       9.1%       FAC       Species:       0       X 5 = 0.0       X 4 = 0         Mysas sylvatica       2       9.1%       FAC       Species:       1.1       1.20% of Total Cover:       1.2.25	N	yssa sylvatica	5		20.8%	FAC	
0         0.0%         That Are OBL, FACW, or FAC:         100.0%         (AW)           0         0.0%         0         0.0%         Prevalence Index worksheet:         100.0%         (AW)         (AW)<	A	cer rubrum	2		8.3%	FAC	
0         0.0%         The Course (1.000) (1.000) (1.000)           0         0.0%         The Course (1.000) (1.000) (1.000) (1.000)           8% of Total Cover:         12         20% of Total Cover:         4.8         24         = Total Cover           pling or Sapina/Shrub Stratum         (Plot size: 3.0.0	_		0	$\Box$	0.0%		
0       0.0%       Otal Gover       1       Total % Cover of:       Multiply by:         0kg of Total Cover:       1.2       20% of Total Cover:       4.8       24       = Total Gover         Plane elicitii       10       M 45.5%, FACW       FAC species       2.8       3.3       64         Magnalia Wighiana       5       Ø 2.2%       FACW       FACU species       0.44       0.         Ludidamber Synophiana       2       9.1%       FAC       Prevalence Index = 5/A =       2.262.         Hydrophytic Vegetation Indicators:       0       0.0%       9.3%       FAC       Prevalence Index = 5/A =       2.262.         Hydrophytic Vegetation Indicators:       0       0.0%       2.5%       FACW       1.5%       FAC         Bis contacos       5       1.3%       F	_		0		0.0%		That Are UBL, FACW, or FAC:
2% of Total Cover:       12       20% of Total Cover:       4.8       24       = Total Cover         Pilles of Sapiling/Shrub Stratum       (Plot size: 30 m)       )       Prove allocidi       1       4.4       2       -       148         Prove allocidi       10       Ø 45.5%       FACU       Species       2.8       X 4       -       0         Uquidmbar Styradfue       3       13.6%       FAC       Species       0.8       X 4       -       0         Uquidmbar Styradfue       3       13.5%       FAC       Species       0.8       X 5       =       0         Myse sylvation       2       9.1%       FAC       Species       1.8       2.262       Hydrophytic Vegetation Indicators:         0       0.0%       0.0%       9.1%       FAC       Species       1.8       2.262         Hydrophytic Vegetation Indicators:       0       0.0%       1.7       Provalence Index is 3.3.0       1.8	_		0		0.0%		Prevalence Index worksheet:
piling or Sapiline/Shrub Stratum (Plot size: 30.m)       )       FAC species       74       x 2 =143         Prue ellotdi	_		0		0.0%		Total % Cover of: Multiply by:
Phus elliciti       10       ✓       45.5% FACW       FAC species       28       x 3 =       64         Magnolia vegniana       5       ✓       227% FACW       FAC       species       0       x 4 =       0         Acer rubrum       2       9.1% FAC       0       UPL species       0       x 5 =       0         Myses sylvetica       2       9.1% FAC       0       0.0%       Prevalence Index = B/A =       2.262.         Wyses sylvetica       0       0.0%       0       0.0%       Prevalence Index = B/A =       2.262.         Wyses sylvetica       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%       0       0.0%       0       0       0.0%       0 <t< td=""><td>0%</td><td>of Total Cover: 12 20% of Total Cover: 4.8</td><td>24</td><td>= To</td><td>tal Cove</td><td>r</td><td>OBL species 1 x 1 = 1</td></t<>	0%	of Total Cover: 12 20% of Total Cover: 4.8	24	= To	tal Cove	r	OBL species 1 x 1 = 1
Messellicitil       10       ✓       45.5%       FACU       FAC species       28       x 3 =       64         Megolia virginiana       5       ✓       22.7%       FACU       species       0       x 4 =       0         Acer rubrum       2       9.1%       FAC       species       0       x 5 =       0         Mysse sylvatica       2       9.1%       FAC       species       0       x 4 =       0         Mysse sylvatica       2       9.1%       FAC       species       0       x 5 =       0         0       0.0%       0       0.0%       Prevalence Index = B/A =       2.262.       Prevalence Index = B/A =       2.262.         0       0.0%       0       0.0%       1       Rapid Test for Hydrophytic Vegetation       10       2.3%       FACU       Species       2.3%       FACU       Species       2.3%       FACU       Species       2.3%       FACU       Species       Species       2.3%       FACU       Species       2.3%       FACU       Species       2.3%       FACU       Species       Species       2.3%       FACU       Species       2.3%       FACU       Species       2.3%       Species       2.3%       <	ilae	ng or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species 74 x 2 = 148
Magnolia virginitians       5       ✓       22.7%       FACU       FACU spectes       0       x 4 =       0         Liquidmobr styracifila       3       13.6%       FAC       UPL spectes       0       x 5 =       0         Aver rubarm       2       9.1%       FAC       prevalence       103       (A)       233       (W)         Myses sylvatica       0       0.0%       Hydrophytic Vegetation Indicators:       0       2.262         0       0.0%       Hydrophytic Vegetation Indicators:       0       0.0%       1       1.8 Rapid Test for Hydrophytic Vegetation 1       Explain         12k glabra       20       ✓       5.41%       FACU       Previence Index is 3.0 <sup>1</sup> Explain         12k glabra       20       ✓       5.41%       FACU       Problematic Phydrophytic Vegetation 1       Explain         12k glabra       20       ✓       5.41%       FACU       Problematic Phydrophytic Vegetation 1       Explain         12k versiona       20       ✓       5.41%       FACU       Problematic Phydrophytic Vegetation 1       Explain         12k versiona       2       5.41%       FACU       Problematic Phydrophytic Vegetation 1       Explain         12k versiona					45.5%	FACW	
Liquidambar styradiha       3       13.6%       FAC         Ager ruburm       2       9.1%       FAC         Mysaa sylvatica       2       9.1%       FAC         0       0.0%       FAC         0       0.0%       Prevalence Index = B/A = 2.262         Hydrophytic Vegetation Indicators:       0         0       0.0%         9% of Total Cover:       1.1         12       20% of Total Cover:       4.4         22       54.1%       FACW         Prevalence Index is ≤ 30.0       2         12x contaces       5         12x contaces       5         12x contaces       5         12x contaces       0         0       0.0%         14x contaces       5         15       2.7% FAC         16x contaces       0         0       0.0%         7% of Total Cover:       1.4.5         14x contactace       1.5         15       2.3.5% FACW         Definition of Vegetation Strata:         Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 ln, 7.6 m) DBH.         Arundharia tacia       1.5.5% OBL.         0 </td <td>M</td> <td></td> <td></td> <td></td> <td></td> <td>and the second se</td> <td></td>	M					and the second se	
Accer rubrum       2       9.1%       FAC       Collumn Totals:       103       (A)       233       (A)         Nysas sykatica       0       0.0%       Prevalence Index = B/A =       2.262         0       0.0%       Hydrophytic Vegetation Indicators:       0       0.0%         1 1       20% of Total Cover:       1.4       22       = Total Cover       2       Solv         1 Ber solvation       20       ✓ 54.1%       FACW       3       Prevalence Index is \$3.0 <sup>1</sup> Exceptation 3 (Explain)         1 Bex combories       20       ✓ 2.0%       FACW       1       Indicators of hydric soil and wetland hydrology measing proximately 20 ft (6 m) or more in height and 3 in.         7.6 orn or larger in diameter at breast height (DEH).       0       0.0%       Saping -Woody plants, excluding woody vines,         9% of Total Cover:       18.5       20% of Total Cover:       7.4       37       = Total Cover         0       0.0%       0       0.0%       Saping -Woody pl	ter.	- The second		П			
Mysex sylvatics       2       9.1%       PAC       Prevalence Index = B/A =2262         0       0.0%       Prevalence Index = B/A =2262         0%       0       0.0%       Hydrophytic Vegetation Indicators:         0       0.0%       I - Rapid Test for Hydrophytic Vegetation         0%       0       0.0%       I - Rapid Test for Hydrophytic Vegetation         0%       0       0.0%       I - Rapid Test for Hydrophytic Vegetation         18x glabra       20       ✓ 54.1%       FACW         1ex conteces       5       13.5%       FACW         1ex conteces       5       0.0%       1 - Capid Test for Hydrophytic Vegetation 1 (Explain)         1ex conteces       5       0.0%       FACW         Presse palustris       0       0.0%       Definition of Vegetation Strata:         0       0.0%       0       0.0%       Definition of Vegetation Strata:         1fbx stratum       (Plot size: 30 m)       -       Tree - Woody plants, excluding woody vines, approximately 20 ft (fn m) or more in height and less than 3 in. (7.6 m) DBH.         0       0.0%       0       0.0%       Sapling-Whoody plants, excluding woody vines, approximately 20 ft (fn m) or more in height and less than 3 in. (7.6 m) DBH.         0       0.0%       0<	-		_				
0       0.0%       Prevalence Index = E/A = 2.262.         0       0.0%       Hydrophytic Vegetation Indicators:         0       0.0%       Hydrophytic Vegetation Indicators:         0       0.0%       1. Rapid Test for Hydrophytic Vegetation I         0K6 of Total Cover:       11       20% of Total Cover:       4.4         1       22       = Total Cover       2       - Dominance Test is > 50%         1       16x glabha       20       13.5%       FACW         1       13.5%       FACW       - Problematic Hydrophytic Vegetation 3 (Explain)         1       18x combroia       10       17.5%       FACW         1       10       17.5%       FACW       - Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         1       0       0.0%       - Dominance Test is > 50%       - Dominance Test is > 10%         0       0.0%       - Dominance Test is > 10%       - Dominance Test is > 10%       - Dominance Test is > 10%         0       0.0%       - Dominance Test is > 20%       - Test Icover       - Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         0       0.0%       - Dominance Test is > 20%       - Dominance Testis > 20%       - Dominance Test is > 20%	- <b>a</b> r	urea autottea		$\Box$			Column Totals: 103 (A) 233
0       0.0%       Hydrophytic Vegetation Indicators:         0% of Total Cover:       11       20% of Total Cover:       4.4       22       = Total Cover         1 - Rapid Test for Hydrophytic Vegetation       2       2       - Dominance Test is > 50%         1 kg glabra       20       5       5       - 13.5%       FACW         1 kex contacce       5       - 13.5%       FACW       Problematic Hydrophytic Vegetation 1 (Explain)         1 kex contacce       5       - 13.5%       FACW       - Problematic Hydrophytic Vegetation 2 (Explain)         1 kex contacce       0       0.0%       - Problematic Hydrophytic Vegetation 1 (Explain)         1 kex contacce       0       0.0%       - Problematic Mydrology must be present, unless disturbed or problematic.         0       0.0%       - 0.0%       - Total Cover	-			Π			Prevalence Index = B/A = 2.262
0       0.0%         0% of Total Cover:       11       20% of Total Cover:       4.4       22       = Total Cover         11/2       20% of Total Cover:       4.4       22       = Total Cover       2       Dominance Test is > 50%         11/2       11/2       20       15/2       2       Dominance Test is > 50%         11/2       11/2       20       15/2       2       Dominance Test is > 50%         11/2       11/2       20       15/2       2       Dominance Test is > 50%         11/2       11/2       20%       15/2       2/2.0%       FACW         11/2       10       12/2.0%       FACW       Problematic Hydrophytic Vegetation 1         11/2       0       0.0%       Test correst       0       0.0%         11/2       0       0.0%       Test correst       0       0.0%         11/2       15       93.8%       FACW       Saping - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1sn. (7.6 cm) of BHL       Saping/Shrub - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1sn. (7.6 cm) of BHL       Saping/Shrub - Woody plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height.         11/2       0       0.0%       0.0%       0.0% <td>-</td> <td></td> <td>-</td> <td>Ē</td> <td></td> <td></td> <td>Hydrophytic Vegetation Indicators:</td>	-		-	Ē			Hydrophytic Vegetation Indicators:
0% of Total Cover:       11       20% of Total Cover:       4.2       = Total Cover         1       20% of Total Cover:       4.2       = Total Cover       2       - Dominance Test is > 50%         1       1       20       ✓       5.41%       FACW       FACW         1 <td>-</td> <td></td> <td></td> <td>Ξ.</td> <td></td> <td>1 der - 11</td> <td></td>	-			Ξ.		1 der - 11	
rub Stratum       (Plot size: 30 m       )         Ilex glabra       20       ✓ 54.1%       FACW         Ilex corisoce       5       13.5%       FACW         Persea palustris       2       5.4%       FACW         0       0.0%       FACW         15       93.8%       FACW         16       5.3%       6ACW         17.0       FACM family woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. DBH and greater than 3.28 ft (1m) tall.         18.0       0       0.0%         19.00%       0       0.0%         19.00%       0       0.0%         19.00%       0       0.0%         19.00%       0 <td< td=""><td></td><td></td><td></td><td><u> </u></td><td>-</td><td></td><td>1 - Rapid Test for Hydrophytic Vegetation</td></td<>				<u> </u>	-		1 - Rapid Test for Hydrophytic Vegetation
Ilex glabra       20       ✓ 54.1%       FACW       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         Ilex contacca       5       13.5%       FACW       Indicators of hydric soil and wettand hydrology must be present, unless disturbed or problematic.         Persea palustris       0       0.0%       FACW       Definition of Vegetation Strata:         0       0.0%       0.0%       approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or more in height and 1 in. (7.6 cm) or more in height and 1 in. (7.6 cm) or BHL       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 less than 3 in. (7.6 cm) or DBH.	0%	of Total Cover: 11 20% of Total Cover: 4.4		= 10	tal Covel	r	
Iex contaces       5       □ 13.5%       FACW <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Persea palustris       2       5.4%       FACW         0       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:       1       6.3%       OBL         4. Lycopodiella alopecuroldes       1       6.3%       OBL         0       0.0%       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or DBH.         2. Lycopodiella alopecuroldes       1       6.3%       OBL         0       0.0%       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         3. Lycopodiella alopecuroldes       1       6.3%       OBL         0       0.0%       Sapling/Shrub - Woody plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height.         0       0.0%       Shrub - Woody plants, excluding woody vines, approximately 30 ft (1 to 6 m) in height.         0       0.0%       Shrub - Woody vines, tegardless of size, and woody vines, approximately 30 ft (1 to 6 m) in height.         0       0.0%       0       0.0%         0	hrul	Stratum (Plot size: 30 m )		_			✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Hex vomitoria       10       ✓       27.0%       FAC       1 indicators of hydric soil and wetland hydrology musts be present, unless disturbed or problematic.         Persea palustris       2       5.4%       FACW       Definition of Vegetation Strata:         0       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).         Arundinaria tecta       15       ✓       93.8%       FACW       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         . Lycopodielja alopecuroides       1       6.3%       OBL       than 3 in. (7.6 cm) DBH.         . Lycopodielja alopecuroides       0       0.0%       sapling/Shrub - Woody plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height and less than 3 in. DBH and greater than 3.28 ft (1m) tall.         0       0.0%       0       0.0%         0       0.0%       plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         0       0.0%       0       0.0%         1       0.0%       0       0.0%         1       0.0%       0       0.0%         1       0.0%       0       0.0%         1       0.0%       0       0.0%	I	ex glabra	and a subscreen state of		54.1%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Persea palustris       2       5.4%       FACW       be present, unless disturbed or problematic.         0       0.0%       0.0%       0.0%       Definition of Vegetation Strata:         0%       0.0%       0.0%       aproximately 20 ft (6 m) or more in height and 3 in.         0%       0.0%       93.8%       FACW         nrb Stratum       (Plot size: 30 m)	I	ex corlacea	5	$\Box_{i}$	13.5%	FACW	
Persea palustris       2       5.4%       FACW         0       0.0%       0.0%         0% of Total Cover:       18.5       20% of Total Cover:       7.4       37       = Total Cover         arb Stratum       (Plot size: 30 m)       3.8%       FACW       Sapling - 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).         Arundinaria tecta       15       93.8%       FACW       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	Ik	ex vomitoria	10		27.0%	FAC	
0       0.0%         0% of Total Cover:       18.5       20% of Total Cover:       7.4       37       = Total Cover       approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         arb Stratum       (Plot size: 30 m)	Pe	ersea palustris	2		5.4%	FACW	be present amess distanced of problematic.
0       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).         arb Stratum (Plot size: 30 m))       15       93.8% FACW       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or BBH.							
00% of i trail Cover:       18.5       20% of i total Cover:       7.4       37       = Total Cover         erb Stratum       (Plot size: 30 m)       37       = Total Cover       7.6 cm) or larger in diameter at breast height (DBH).         Arundharla tecta       15       93.8%       FACW       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         9       0       0.0%       Sapling/Shrub - Woody plants, excluding wines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.         0       0.0%       0       0.0%         0       0.0%       0       0.0%         0       0.0%       Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         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%         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%		Definition of Vegetation Strata:
erb Stratum       (Plot size: 30 m)         Arundinaria tecta       15       93.8%       FACW         Lycopodielja alopecuroides       1       6.3%       OBL         0       0.0%       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       0.0%       Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.         0       0.0%       Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         0       0.0%       On         0       0.0%       Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 to 20 ft (1 to 6 m) in height.         0       0.0%       On         0       0.0%       Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 th (1 m) in height.         0       0.0%       0       0.0%         0       0.0%       Woody vines, regardless of height.         0       0.0%       FAC         0       0.0%       Vitis rotundifolia         2       50.0%       FAC         Vitis rotundifolia       2       50.0%       FAC	_						Tree - Woody plants, excluding woody vines,
Arundinaria tecta       15       93.8%       FACW       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 m) DBH.         0       0.0%       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 m) DBH.         0       0.0%       Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 m) DBH.         0       0.0%       Sapling - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         0       0.0%       Oncome         0       0.0%       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       0.0%       Oncome         0       0.0%       Strub - All woody vines, regardless of height.         0       0.0%       Strub - All woody vines, regardless of height.         0       0.0%       FAC         Vitis rotundifolia       2       <	-		0	□ □ = To	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Lycopodielia alopecuroides       1       6.3%       OBL       apploximately 20 it (0 m) of more in regint and less than 3 in. (7.6 cm) DBH.          0       0.0%       Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.          0       0.0%       Sapling/Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.          0       0.0%       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       0.0%       Strub - Woody vines, less than approximately 3 ft (1 m) in height.          0       0.0%       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       0.0%       Stratum (Plot size: 30 m)         Smilax rotundifolia       2       50.0%       FAC         0       0.0%       0       0.0%         0       0.0%       Hydrophytic Vegetation       Vegetation		of Total Cover: 18.5 20% of Total Cover: 7.4	0	□ □ = To	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0       0.0%         0       0.0% <td>erb</td> <td>of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m)</td> <td><u>0</u> <u>37</u></td> <td></td> <td>0.0% tal Cover</td> <td></td> <td>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,</td>	erb	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m)	<u>0</u> <u>37</u>		0.0% tal 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). Sapling - Woody plants, excluding woody vines,
0       0.0%       Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.         0       0.0%       Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         0       0.0%       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       0.0%       0.0%         0       0.0%       91 m. height.         0       0.0%       91 m. height.         0       0.0%       91 m. height.         0       0.0%       Woody vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.         0       0.0%       0.0%         0% of Total Cover:       3.2       16         2       50.0%       FAC         0       0.0%       0.0%         10       0.0%       0.0%         11       2       50.0%       FAC         12       50.0%       FAC         13       1       2       50.0%         14       0       0.0%       40         15       0       0.0%       40         16       0.0%       0       0.0% <td>erb Al</td> <td>of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) undinaria tecta</td> <td>0 37 15</td> <td></td> <td>0.0% <b>tal Cove</b> 93.8%</td> <td>FACW</td> <td>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</td>	erb Al	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) undinaria tecta	0 37 15		0.0% <b>tal Cove</b> 93.8%	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       0.0%         Vite stratum (Plot size: 30 m )       2         Smilax rotundifolia       2         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%	erb Aı Ly	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum (Plot size: <u>30 m</u> ) rundinaria tecta roopodiella alopecuroides	0 37 15 1		0.0% tal Cover 93.8% 6,3%	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       0.0%       Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         0       0.0%       Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, tess than approximately 3 ft (1 m) in height.         0       0.0%       0         0       0.0%       Plants, except woody vines, tess than approximately 3 ft (1 m) in height.         0       0.0%       3 ft (1 m) in height.         0       0.0%       Woody vine - All woody vines, regardless of height.         0% of Total Cover:       3.2       16       = Total Cover         0       0.0%       FAC       Woody vine - All woody vines, regardless of height.         0       0.0%       0       0.0%       Hydrophytic         Vitis rotundifolia       2       50.0%       FAC       Hydrophytic         0       0.0%       0       0.0%       Hydrophytic	erb Aı Ly	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) rundinaria tecta rcopodiella alopecuroides	0 37 15 1 0		0.0% tal Cover 93.8% 6.3% 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       0.0%       approximately 3 to 20 ft (1 to 6 m) in height.         0       0.0%       0.0%         0       0.0%       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       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%       Woody vines, regardless of height.         0       0.0%       FAC         0       0.0%       Hydrophytic         Vitis rotundifolia       2       50.0%       FAC         0       0.0%       O       O       O	erb Ar Ly	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) rundinaria tecta rcopodiella alopecuroides	0 37 15 1 0 0		0.0% tal Cover 93.8% 6.3% 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
0       0.0%         Vitis rotundifolia       2         2       50.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%	erb Aı Ly	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) rundinaria tecta roopodiella alopecuroides	0 37 15 1 0 0 0		0.0% tal Cover 93.8% 6.3% 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.
C     0.0%     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     0.0%	erb Aı Ly	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) undinaria tecta recopodiella alopecuroides	0 37 15 1 0 0 0 0		0.0% tal Cover 93.8% 6.3% 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,
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%         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%         Smilax rotundifolia       2         2       50.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%	erb Au	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum (Piot size: <u>30 m</u> ) undinaria tecta recopodiella alopecuroides	0 37 15 1 0 0 0 0 0 0		0.0% tal Cover 93.8% 6.3% 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,
0       0.0%         0       0.0%         0       0.0%         0       0.0%         0% of Total Cover:       3.2         16       = Total Cover         00% of Total Cover:       3.2         16       = Total Cover         00% of Total Cover:       3.2         16       = Total Cover         00% of Total Cover:       3.2         16       = Total Cover         00% of Total Cover:       3.2         16       = Total Cover         00% of Total Cover:       3.2         16       = Total Cover         Smilax rotundifolia       2         2       50.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%	erb Aı	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum (Plot size: <u>30 m</u> ) rundinaria tecta rcopodiella alopecuroides	0 37 15 1 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 93.8% 6.3% 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.
0       0.0%         0% of Total Cover:       8         20% of Total Cover:       3.2         16       = Total Cover         0       0.0%         Smilax rotundifolia       2         2       50.0%         2       50.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%         0       0.0%	erb Au	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum (Plot size: <u>30 m</u> ) rundinaria tecta rcopodiella alopecuroides	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 93.8% 6.3% 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
0% of Total Cover:       8       20% of Total Cover:       3.2       16       = Total Cover         voody Vine Stratum (Plot size:       30 m       )       2       50.0%       FAC         Vitis rotundifolia       2       50.0%       FAC       0         0       0.0%       0       0.0%         0       0.0%       0       0.0%	erb Au	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum (Plot size: <u>30 m</u> ) rundinaria tecta roopodiella alopecuroides	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 93.8% 6.3% 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
Condy Vine Stratum (Plot size: 30 m )     2     50.0%     FAC       Similax rotundifolia     2     50.0%     FAC       Vitis rotundifolia     2     50.0%     FAC       0     0.0%     0     0.0%       0     0.0%     0	erb Au	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum (Plot size: <u>30 m</u> ) rundinaria tecta roopodiella alopecuroides	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 93.8% 6.3% 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
Smilax rotundifolia         2         50.0%         FAC           Vitis rotundifolia         2         50.0%         FAC           0         0.0%         0         0.0%           0         0.0%         0         0.0%           0         0.0%         0         0.0%	erb Au	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum (Plot size: <u>30 m</u> ) rundinaria tecta roopodiella alopecuroides	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 93.8% 6.3% 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.
Smilax rotundifolia         2         50.0%         FAC           Vitis rotundifolia         2         50.0%         FAC           0         0.0%         0         0.0%           0         0.0%         0         0.0%           0         0.0%         0         0.0%	erb Ar	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) undinaria tecta rcopodiella alopecuroides	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 93.8% 6.3% 0.0% 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 plants, except woody vines, less than approximately 3 ft (1 m) in height.
Vitis rotundifolia         2         50.0%         FAC           0         0.0%         0         0.0%           0         0.0%         0         Vitis rotundifolia	erb Au J. Ly J. J. J. J. J. J. J. J. J. J. J. J. J.	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum (Plot size: <u>30 m</u> ) rundinaria tecta copodiella alopecuroides of Total Cover: <u>8</u> 20% of Total Cover: <u>3.2</u>	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 93.8% 6.3% 0.0% 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 plants, except woody vines, less than approximately 3 ft (1 m) in height.
0 0.0% 0 0.0% 0 0.0% 0 0.0% Vegetation Veg ♥ No 0	erb Au Ly	of Total Cover: <u>18.5</u> 20% of Total Cover: <u>7.4</u> Stratum       (Plot size: <u>30 m</u> )         rundinaria tecta         roopodiella alopecuroides         of Total Cover: <u>8</u> 20% of Total Cover: <u>3.2</u> y Vine Stratum       (Plot size: <u>30 m</u> )	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 16		0.0% tal Cover 93.8% 6.3% 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 plants, except woody vines, less than approximately 3 ft (1 m) in height.
0 □ 0.0% 0 □ 0.0% Hydrophytic Vegetation Vegetation	AL Ly	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) undinaria tecta rcopodiella alopecuroides of Total Cover: 8 20% of Total Cover: 3.2 y Vine Stratum (Plot size: 30 m) nilax rotundifolia	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 16		0.0% tal Cover 93.8% 6.3% 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 plants, except woody vines, less than approximately 3 ft (1 m) in height.
0 0.0% Hydrophytic Vegetation Veg () No ()	erb Au Ly	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) undinaria tecta rcopodiella alopecuroides of Total Cover: 8 20% of Total Cover: 3.2 y Vine Stratum (Plot size: 30 m) nilax rotundifolia	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 16 2 2		0.0% tal Cover 93.8% 6.3% 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 3 ft (1 m) in height.
	erb Au Ly	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) undinaria tecta rcopodiella alopecuroides of Total Cover: 8 20% of Total Cover: 3.2 y Vine Stratum (Plot size: 30 m) nilax rotundifolia	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 16 2 2 0		0.0% tal Cover 93.8% 6.3% 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 3 ft (1 m) in height.
	50%   Arr 2. Ly 3. 1. 5. 5. 7 3. 1. 7 3. 1. 7 3. 7 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	of Total Cover: 18.5 20% of Total Cover: 7.4 Stratum (Plot size: 30 m) rundinaria tecta roopodiella alopecuroides of Total Cover: 8 20% of Total Cover: 3.2 y Vine Stratum (Plot size: 30 m) nilax rotundifolia tis rotundifolia	0 37 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 16 2 2 2 0 0		0.0% tal Cover 93.8% 6.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 50.0% 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 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.

Sampling Point:	Up - 41
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Depth	-		the <b>depth</b> r	needed to document the indicator or confirm the	absence of indicators.)
		Matrix		Redox Features	
(inches)		.,.	0/0	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0-5	10YR	3/2	100	······································	
5-15	10YR	5/4	100	· · · · · · · · · · · · · · · · · · ·	
	· · · · · · · · · · · · · ·				
					· · · ·
		w			
ype: C=Conc	centration. D=	Depletion	. RM=Reduc	ed Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loca	ation: PL=Pore Lining. M=Matrix
lydric Soil I					Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A	-			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Histic Epip				Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histi				Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
	ayers (A5)			Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
_	odies (A6) (LF			Redox Dark Surface (F6)	Red Parent Material (TF2)
-	ky Mineral (A7		T, U)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
Muck Pres	ence (AB) (LF	RU)		Redox Depressions (F8)	Other (Explain in Remarks)
1 cm Muck	k (A9) (LRR P	, T)		Marl (F10) (LRR U)	
Depleted E	Below Dark Su	urface (A1	1)	Depleted Ochric (F11) (MLRA 151)	
Thick Dark	Surface (A12	2)		Iron-Manganese Masses (F12) (LRR O, P, T)	
Coast Prair	rie Redox (A1	6) (MLRA	150A)	Umbric Surface (F13) (LRR P, T, U)	
Sandy Muc	k Mineral (S1	) (LRR O,	S)	Delta Ochric (F17) (MLRA 151)	2
Sandy Giey	yed Matrix (S4	4)		Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Red	lox (S5)			Piedmont Floodplain Soils (F19) (MLRA 149A)	unless disturbed or problematic.
Stripped M	latrix (S6)			Anomalous Bright Loamy Soils (F20) (MLRA 14	9A, 153C, 153D)
Dark Surfa	ce (S7) (LRR	P, S, T, U	)		
	yer (if obse	rved):			
estrictive La					
strictive La					
Туре:	es):				Hydric Soil Present? Yes 🔿 No 🖲
Type: Depth (inch	es):,.				
Type: Depth (inch- emarks:					
Type: Depth (inch- emarks:					
Type: Depth (inch- emarks:					
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Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 25-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 42
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 32 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Slope: 1.0 % / 0.6 °
and to the second and	at.: 30° 23' 44.711" N Long.: 89° 37' 11.723" W Datum: NAD83
	A REMARK AND A REMARK
Soil Map Unit Name: EsA, Escambia loam, 0 to 2 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time o	
Are Vegetation, Soil, or Hydrology signifi	icantly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodoldsymbol{ imes}$
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗍 natura	ally problematic? (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	Is the Sampled Area
Hydric Soil Present? Yes O No 💿	
Wetland Hydrology Present? Yes O No 🖲	within a Wetland?
Remarks:	
NO Wet 42	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that app	ply) Surface Soil Cracks (B6)
Surface Water (A1)	a (B13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	s (B15) (LRR U) Drainage Patterns (B10)
Saturation (A3)	Ifide Odor (C1) Moss Trim Lines (B16)
Water Marks (B1)	zospheres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	Reduced Iron (C4) Crayfish Burrows (C8)
	Reduction in Tilled Soils (C6)
Algal Mat or Crust (B4)	
	in in Remarks)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
	es):
Water Table Present? Yes O No 💿 Depth (inche	es): Wetland Hydrology Present? Yes O No 💿
Saturation Present? Yes O No O Depth (includes capillary fringe)	Wetland Hydrology Present? Yes No ()
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:
Remarks:	
Remarks.	

			ominant		Sampling Point: Up - 42
	Absolute		pecies? . el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30 m</u> )	% Cove	r	Cover	Status	Number of Dominant Species
Pinus elliotti	15	$\checkmark$	40.5%	FACW	That are OBL, FACW, or FAC: 7 (A)
Nyssa sylvatica	10	✓	27.0%	FAC	
Quercus nigra	5		13.5%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)
Magnolia grandiflora	2		5.4%	FAC	
Pinus taeda	5		13.5%	FAC	Percent of dominant Species
· · · · · · · · · · · · · · · · · · ·	0		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:
0% of Total Cover: 18.5 20% of Total Cover: 7.4		= To	tal Cove		OBL species 0 x 1 = 0
apling or Sapling/Shrub Stratum (Plot size: 30 m	·				FACW species 92 x 2 = 184
Name alltandt		✓.	41.7%	FACW	<b>FAC species</b> $\frac{32}{42} \times 3 = \frac{126}{126}$
and the second		_			
Nyssa sylvatica			29.2%	FAC	FACU species $0 \times 4 = 0$
Magnolia virginiana			20.8%	FACW	UPL species 0 x 5 = 0
Acer rubrum			8.3%	FAC	Column Totals: 134 (A) 310 (B)
		H	0.0%	_	Prevalence Index = $B/A = 2.313$
			0.0%		
5 m			0.0%		Hydrophytic Vegetation Indicators:
·	0	Ш,	0.0%	·	1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 12 20% of Total Cover: 4.8	24	= То	tal Cove	r	2 - Dominance Test is > 50%
hrub Stratum (Plot size: <u>30 m</u> )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex coriacea	50	✓	83.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex vomitoria		Ē,	16.7%	FAC	
The Control of the Co	0		0.0%	140	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
			• • •		be present, unless disturbed or problematic.
		H	0.0%		Definition of Vocatation Strate.
		H	0.0%		Definition of Vegetation Strata:
• •	0	Ш,	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 30 20% of Total Cover: 12	60	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
	60	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: _30 m)		= Та	<b>tal Cove</b>	FACW	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,
rb Stratum ( <sup>p</sup> lot size: _30 m) , Ilex coriacea	10				(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
rb Stratum ( <sup>Plot</sup> size: _30 m) , Ilex corlacea , Arundinaria tecta	10		83.3%	FACW	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,
rb Stratum (Plot size: _30 m) , Ilex corlacea , Arundinaria tecta	10 2 0		83.3% 16.7% 0.0%	FACW	(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
erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> ) , Ilex coriacea , Arundinaria tecta	10		83.3% 16.7% 0.0% 0.0%	FACW	(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.
erb Stratum (Plot size: _30 m) , Ilex corlacea , Arundinaria tecta	10 2 0 0		83.3% 16.7% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>
erb Stratum (Plot size: _30 m) , Ilex corlacea , Arundinaria tecta	10 2 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>
erb Stratum (Plot size: _30 m) , Ilex corlacea , Arundinaria tecta	10 2 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0%	FACW	(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.
erb Stratum (Plot size: _30 m) , Ilex corlacea , Arundinaria tecta	10 2 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> </ul>
erb Stratum (Plot size: _30 m) , Ilex corlacea . Arundinaria tecta	10 2 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>
erb Stratum (Plot size: _30 m) , Ilex corlacea	10 2 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
erb Stratum (Plot size: _30 m) , Ilex coriacea . Arundinaria tecta	10 2 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>
erb Stratum (Plot size: _30 m) , Ilex coriacea . Arundinaria tecta	10 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
erb Stratum (Plot size: _30 m) , Ilex corlacea . Arundinaria tecta	10 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
Prb Stratum       (Plot size: _30 m)         . Ilex coriacea         Arundinaria tecta         . Arundinaria tecta	10 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
stratum (Plot size: _30 m)   Tlex corlacea Arundinaria tecta Arundinaria tecta % of Total Cover:6 20% of Total Cover:2.4 mody Vine Stratum (Plot size: _30 m)	10 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
srb Stratum (Plot size: 30 m   Tlex corlacea   Arundinaria tecta   % of Total Cover: 6 20% of Total Cover: 2.4 wody Vine Stratum (Plot size: 30 m) Vitis rotundifolia	10 2 0 0 0 0 0 0 0 0 0 0 0 0 12		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
erb Stratum (Plot size: 30 m) . Ilex corlacea Arundinaria tecta	10 2 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
erb Stratum (Plot size: 30 m) . Ilex corlacea . Arundinaria tecta 	10 2 0 0 0 0 0 0 0 0 0 0 0 0 12 1 0 0 0 0 12		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
erb Stratum (Plot size: _30 m) _ Ilex corlacea _ Arundinaria tecta      	10 2 0 0 0 0 0 0 0 0 0 0 0 0 0 12 1 0 0 0 0		83.3% 15.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>
erb Stratum (Plot size: 30 m) Tiex corlacea Arundinaria tecta 	10 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 12 1 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 0.0%	FACW FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>

Sampling	Point:	Up - 42

Depth (inches)	iption: (De		the depth i	needed to document the indicator or confirm the	e absence of indicators.)
	Colo.	Matrix	o/	Redox Features           Color (moist)         %         Type <sup>1</sup> Loc <sup>2</sup>	Tauluna
0-5	10YR	(moist) 3/2	100	Color (moist) % Type Loc <sup>2</sup>	Texture Remarks
· · · · · · · · · · · · · · · · · · ·		1000			5. I <u> </u>
5-15	10YR	5/3	100		
			. •		
		=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loca	ation: PL=Pore Lining. M=Matrix
Hydric Soil I				_	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A				Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
	oedon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histi				Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified I	Layers (A5)			Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
Organic Br	odies (A6) (L	RR P, T, L	J)	Redox Dark Surface (F6)	Red Parent Material (TF2)
5 cm Mucł	ky Mineral (A	7) (LRR P	, T, U)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
Muck Pres	ence (A8) (L	.RR U)		Redox Depressions (F8)	Other (Explain in Remarks)
🗌 1 cm Mucł	k (A9) (LRR	P, T)		Marl (F10) (LRR U)	
Depleted F	Below Dark S	Surface (A1	1)	Depleted Ochric (F11) (MLRA 151)	
	Surface (A)			Iron-Manganese Masses (F12) (LRR O, P, T)	
	rie Redox (A	•	(150A)	Umbric Surface (F13) (LRR P, T, U)	
	ck Mineral (S			Delta Ochric (F17) (MLRA 151)	
_ ·	yed Matrix (S		,		<sup>3</sup> Indicators of hydrophytic vegetation and
_ ` `		<b>,</b>		Reduced Vertic (F18) (MLRA 150A, 150B)	wetland hydrology must be present,
Sandy Red				Piedmont Floodplain Soils (F19) (MLRA 149A)	
Stripped M				Anomalous Bright Loamy Soils (F20) (MLRA 14	49A, 153C, 153D)
Dark Surfa	ice (S7) (LRF	ι Ρ, <b>S</b> , Τ, ι	1)		
Restrictive La	yer (if obs	erved):			
Type:					
Depth (inch	es):				Hydric Soil Present? Yes 🔿 No 🖲
Remarks:		- haudad	1		
ioil chroma ap	opears to b	e borden	line 2 - 3.		

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation Applicant/Owner: NASA	City/County: Waveland - Hancock Sampling Date: 25-Oct-16 State: MS Sampling Point: Up - 43
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 32 T 7 s R 16 W
andform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Slope: 1.0 % / 0.6
Subregion (LRR or MLRA): LRR T	Lat.: 30° 23' 51.321" N Long.: 89° 37' 18.476" W Datum: NAD83
ioil Map Unit Name: EsB, Escambia Ioam, 2 to 5 percent slopes	
re climatic/hydrologic conditions on the site typical for this tim	
	nificantly disturbed? Are "Normal Circumstances" present? Yes • No
	turally problematic? (If needed, explain any answers in Remarks.) ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No	Is the Sampled Area
Hydric Soil Present? Yes 🔿 No 💿	
Wetland Hydrology Present? Yes O No 💿	within a Wetland?
Remarks: Plot is about 75 feet south-southeast of Wet-43 on side slope HYDROLOGY	e just up from the drainage area.
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that a	are the second
	auna (B13)
High Water Table (A2)	osits (B15) (LRR U)
Saturation (A3)	Sulfide Odor (C1) Moss Trim Lines (B16)
	Rhizospheres along Living Roots (C3) Dry Season Water Table (C2)
	of Reduced Iron (C4) Crayfish Burrows (C8)
	on Reduction in Tilled Soils (C6)
	<pre></pre>
Inundation Visible on Aerial Imagery (B7)	plain in Remarks)  In Shallow Aquitard (D3) In Shallow Aquitard (D3) In Shallow Aquitard (D5) In Shallow Aquitard (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes O No 🖲 Depth (ir	nches):
Water Table Present? Yes O No O Depth (ir	nches):
Saturation Present? Yes No  Depth (ir	nches): Wetland Hydrology Present? Yes O No ()
(includes capillary fringe) Tes V NO V Deput (in Describe Recorded Data (stream gauge, monitoring well, aeria	
Remarks:	

			ominant		Sampling Point: Up - 43
	Absolute		pecies? . el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species
Pinus elliottii	10		66.7%	FACW	That are OBL, FACW, or FAC: 7 (A)
Magnolia virginiana	3	$\checkmark$	20.0%	FACW	
Nyssa sylvatica	0		0.0%	FAC	Total Number of Dominant Species Across All Strata: 7(B)
Pinus taeda	2		13.3%	FAC	
			0.0%		Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
a a su a	0		0.0%	.,	Prevalence Index worksheet:
ու տարերապարությունը, որոնչյուն հերուք, արդերագարծում տեսանում տասե	0		0.0%	··	Total % Cover of: Multiply by:
0% of Total Cover: 7.5 20% of Total Cover: 3	4.	- Te	tal Cove		OBL species $1 \times 1 = 1$
and the second sec		- 10	car cove		
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species $94 \times 2 = 188$
Pinus elilottii	15		68.2%	FACW	FAC species <u>11</u> x 3 = <u>33</u>
Magnolia virginiana	5		22.7%	FACW	FACU species 0 x 4 = 0
Magnolia grandiflora	1		4.5%	FAC	UPL species <u>0</u> x 5 = <u>0</u>
Liquidambar styracifiua	1		4,5%	FAC	Column Totals: 106 (A) 222 (B)
	0		0.0%		
	Q		0.0%		Prevalence Index = B/A = 2.094
	0		0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%		
0% of Total Cover: 11 20% of Total Cover: 4.4	22	- 70	tal Cove		1 - Rapid Test for Hydrophytic Vegetation
		- 10	car cove		✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m )		_			✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea	_ 10	✓	21.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex glabra			65.2%	FACW	
Liquidambar styraciflua	5		10.9%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
Persea palustris	1		2.2%	FACW	be present, unless disturbed or problematic.
			0.0%		Definition of Vegetation Strata:
	0	$\square$	0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 23 20% of Total Cover: 9.2		_			approximately 20 ft (6 m) or more in height and 3 in.
	40	= To	tal Cove	r i	
(Pletrizer 20 m	46	= To	tal Cove	r	(7.6 cm) or larger in diameter at breast height (DBH).
		= то			(7.6 cm) or larger in diameter at breast height (DBH).
Lycopodiella alopecuroides			4.8%	OBL	(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
. Lycopodiella alopecuroides . Ilex glabra					(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,
. Lycopodiella alopecuroides . Ilex glabra	1		4.8%	OBL	(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.
. Lycopodiella alopecuroides . Ilex glabra	1 20		<b>4.8%</b> 95.2%	OBL	(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
, Lycopodiella alopecuroides , Ilex glabra	1 20 0		4.8% 95.2% 0.0%	OBL	(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.
Lycopodiella alopecuroides Ilex glabra	1 20 0 0 0		4.8% 95.2% 0.0% 0.0%	OBL	(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.
, Lycopodiella alopecuroides , Ilex glabra	1 20 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0%	OBL	(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
Lycopodiella alopecuroides Ilex glabra	1 20 0 0 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>
Lycopodiella alopecuroides Ilex glabra	1 20 0 0 0 0 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>
Lycopodiella alopecuroides Ilex glabra	1 20 0 0 0 0 0 0 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>
Lycopodiella akopecuroides Liex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
Lycopodiella alopecuroides Ilex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>
Lycopodiella akopecuroides Ilex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella alopecuroides Ilex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
Lycopodiella alopecuroides Ilex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella alopecuroides Ilex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 21		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella akopecuroides Jiex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 21 1 1		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella akopecuroides Jiex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 21 1 1 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella alopecuroides Ilex glabra 0% of Total Cover: 10.5 20% of Total Cover: 4.2 oody Vine Stratum (Plot size: 30 m ) Smllax rotundifolia Vitis rotundifolia	1 20 0 0 0 0 0 0 0 0 0 0 0 0 21 1 1 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 50.0% 50.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>
Ilex glabra	1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 21 1 1 0 0 0 0		4.8% 95.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>

SUIL
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	iption: (De	scribe to Matrix	the depth	needed to document the indicator or confi Redox Features	irm the a	absence of indicators	.)
Depth (inches)	Color (	moist)	%	Color (moist) % Type 1	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/2	100	4-15		Loamy Sand	
4-15	10YR	5/3	100	0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		Loamy Sand	
						Lound band	- 10
· • • •			· ·=-				
n.							
			••	· · · · · · · · · · · · · · · · · · ·			<b>A.</b>
<sup>1</sup> Type; C=Cond	centration. D	=Depletior	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains	<sup>2</sup> Loca	tion: PL=Pore Lining, M	=Matrix
Hydric Soll I							oblematic Hydric Soils <sup>3</sup> :
Histosol (A	A1)			Polyvalue Below Surface (S8) (LRR S,	T, U)	1 cm Muck (A9	) (LRR O)
Histic Epip	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U)		2 cm Muck (A1	
Black Histi	ic (A3)			Loamy Mucky Mineral (F1) (LRR O)			: (F18) (outside MLRA 150A,B)
🗌 Hydrogen	Sulfide (A4)			Loarny Gleyed Matrix (F2)			Iplain Soils (F19) (LRR P, S, T)
Stratified I	Layers (A5)			Depleted Matrix (F3)		_	ght Loamy Soils (F20) (MLRA 153B)
Organic Bo	odies (A6) (L	.RR P, T, U	)	Redox Dark Surface (F6)		Red Parent Mai	
5 cm Muci	ky Mineral (A	7) (LRR P,	T, U)	Depleted Dark Surface (F7)			ark Surface (TF12)
Muck Pres	ence (A8) (L	.RR U)		Redox Depressions (F8)		Other (Explain	
🗌 1 cm Muc	k (A9) (LRR I	Р, Т)		Marl (F10) (LRR U)			in Kendrkay
Depleted a	Below Dark S	Surface (A1	.1)	Depleted Ochric (F11) (MLRA 151)			
Thick Dark	CSurface (A1	.2)		Iron-Manganese Masses (F12) (LRR O,	P, T)		
Coast Prai	rie Redox (A	16) (MLRA	150A)	Umbric Surface (F13) (LRR P, T, U)			
Sandy Muc	ck Mineral (S	1) (LRR O,	. S)	Delta Ochric (F17) (MLRA 151)		_	
Sandy Gley	yed Matrix (S	54)		Reduced Vertic (F18) (MLRA 150A, 150	)B)	<sup>3</sup> Indicato	rs of hydrophytic vegetation and
Sandy Red	lox (S5)			Piedmont Floodplain Soils (F19) (MLRA	•		d hydrology must be present, ss disturbed or problematic.
Stripped M	latrix (S6)			Anomalous Bright Loamy Soils (F20) (N	-		
Dark Surfa	ice (\$7) (LRF	R Ρ, S, Τ, U	1)				
Restrictive La	yer (if obse	erved):					
Type:						Hydric Soil Present	? Yes 🔾 No 🖲
	ies):		· . ·				
Remarks:							

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatilon	City/County:	Waveland - Hancock	Sampling Date:	25-Oct-16
Applicant/Owner: NASA		State: MS	Sampling Point: Up - 44	
Investigator(s): Lars Larson, Randy Ellis	Section, Tov	vnship, Range: S 37	T75 R1	6 W
Landform (hillslope, terrace, etc.): Hillside	Local relief (o	oncave, convex, none):	none Slope:	1.0 % / 0.6°
Subregion (LRR or MLRA): LRR T	Lat.: 30° 23' 47.29	7" N Long.: 89	9° 37' 20.892" W Dal	um: NAD83
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent sl	1		NWI classification: N/A	
Are climatic/hydrologic conditions on the site typical for this	s time of year? Ye	s 🖲 No 🔾 🛛 (If no	, explain In Remarks.)	
Are Vegetation 🗌 , Soil 🛄 , or Hydrology 🗍	significantly disturbed?	Are "Normal Circu	nstances" present? Yes 🤅	No ()
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌	naturally problematic?	(If needed, explain	any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map she	owing sampling poir	t locations, transe	cts, important features	, etc.
Hydrophytic Vegetation Present? Yes   No O	Te th	Sampled Area		
Hydric Soil Present? Yes O No 🕥		- Vec (	) No 🖲	
Wetland Hydrology Present? Yes O No 💿	with	n a Wetland?		
Remarks: Transect between Northwest-Southeast trending site road	d within the SW portion o	the overall AOI.		
HYDROLOGY				
Wetland Hydrology Indicators:		Secon	ndary Indicators (minimum of 2 re	quired)
Primary Indicators (minimum of one required; check all t	hat apply)		urface Soil Cracks (B6)	
	tic Fauna (B13)	_	parsely Vegetated Concave Surfac	e (B8)
	Deposits (B15) (LRR U)	_	rainage Patterns (B10)	
	ogen Sulfide Odor (C1)	_	oss Trim Lines (B16)	
	zed Rhizospheres along Living		ry Season Water Table (C2)	
	ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soi		rayfish Burrows (C8)	(00)
	Muck Surface (C7)		aturation Visible on Aerial Imagery eomorphic Position (D2)	(((3))
	r (Explain in Remarks)		nallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	(Explain in Kenlarks)	_	AC-Neutral Test (D5)	
Water-Stained Leaves (B9)			phagnum moss (D8) (LRR T, U)	
Field Observations:		·		
	oth (inches):			
	oth (inches):			
Cotruction Brocont		Wetland Hydrology	Present? Yes 🔿 No 🤅	
(includes capillary fringe) Yes V No V Dep	oth (inches):			
Describe Recorded Data (stream gauge, monitoring well, a				

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

			minant		Sampling Point: Up - 44		
	Absolut		ecies? _ I.Strat.	Indicator	Dominance Test worksheet:		
(Plot size: <u>30 m</u> )	% Cove		over	Status	Number of Dominant Species		
Pinus elliottii			51.3%	FACW	That are OBL, FACW, or FAC: 7. (A)		
Pinus taeda	5		12.8%	FAC			
Magnolia virginiana	10		25.6%	FACW	Total Number of Dominant		
		Π	7.7%	FAC	Species Across All Strata: 7 (B)		
Nyssa sylvatica		Ë,	2.6%	FAC	Percent of dominant Species		
		H-	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
		- H	1 1 M M 1 1				
		Η.	0.0%		Prevalence Index worksheet:		
	0	Ľ,	0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 19.5 20% of Total Co	ver: 7.8 39	= Tot	tal Cover		OBL species x 1 =		
apling or Sapling/Shrub Stratum (Plot size:	30 m )				FACW species 83 x 2 = 166		
Pinus elliottii	15	$\checkmark$	62.5%	FACW	FAC species 25 x 3 = 75		
Magnolia virginiana	5		20.8%	FACW	FACU species $0 \times 4 = 0$		
Liquidambar styraciflua	3		12.5%	FAC	UPL species $0 \times 5 = 0$		
Nyssa sylvatica	1		4.2%	FAC	•		
	0		0.0%		Column Totals: 108 (A) 241 (B)		
			0.0%		Prevalence Index = B/A = 2.231		
					Hydrophytic Vegetation Indicators:		
			0.0%				
•2 · · · • • • • · · · · · · · ·	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 12 20% of Total Co	ver: 4.8 24	= Tol	otal Cover		✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m )					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Iles et le con	20	~	52.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Careford and the second s	10		26.3%	FAC			
the second s					<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
			13,2%	FACW	be present, unless disturbed or problematic.		
Ilex glabra	3		7.9%	FACW	<u> </u>		
				the second se			
			0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
	0	= Tot			Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Total Cover: <u>19</u> 20% of Total Cov	0	 = Tot	0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: <u>19</u> 20% of Total Cov <b>arb Stratum</b> (Plot size: <u>30 m</u> )	0 ver: 7.6 38		0.0% al 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). Sapling - Woody plants, excluding woody vines,		
0% of Total Cover: 19 20% of Total Cov <b>rb Stratum</b> (Plot size: <u>30 m</u> ) <b>Tlex glabra</b>	0 ver: 7.6 38 5	<b>.</b>	0.0% al 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
0% of Total Cover: <u>19</u> 20% of Total Cov <b>rb Stratum</b> (Plot size: <u>30 m</u> ) <b>Tlex glabra</b>	0 ver: 7.6 38 5 0		0.0% al Cover 100.0% 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). Sapling - Woody plants, excluding woody vines,		
0% of Total Cover: <u>19</u> 20% of Total Cov <b>arb Stratum</b> (Plot size: <u>30 m</u> ) , <b>Ilex glabra</b>	0 ver: 7.6 38 5 0 0	<b>.</b>	0.0% al Cover 100.0% 0.0% 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). 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: <u>19</u> 20% of Total Cov <b>arb Stratum</b> (Plot size: <u>30 m</u> ) , <b>Ilex glabra</b>	0 ver: 7.6 38 5 0 0 0 0	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
0% of Total Cover: <u>19</u> 20% of Total Cov <b>arb Stratum</b> (Plot size: <u>30 m</u> ) <b>Ilex glabra</b>	/er: 7.6 38 5 0 0 0 0 0	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 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). 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		
0% of Total Cover: <u>19</u> 20% of Total Cov <b>arb Stratum</b> (Plot size: <u>30 m</u> ) , <b>Ilex glabra</b>	0 /er: 7.6 38 5 0 0 0 0 0 0	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 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). 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: <u>19</u> 20% of Total Cov erb Stratum (Plot size: <u>30 m</u> ) Tlex glabra	ver: 7.6 0 0 5 0 0 0 0 0 0 0 0	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 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). 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: <u>19</u> 20% of Total Cov <b>arb Stratum</b> (Plot size: <u>30 m</u> ) , <b>Ilex glabra</b>	ver: 7.6 38	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 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). 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: <u>19</u> 20% of Total Cov erb Stratum (Plot size: <u>30 m</u> ) , Ilex glabra	ver: 7.6 38	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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		
0% of Total Cover: <u>19</u> 20% of Total Cov arb Stratum (Plot size: <u>30 m</u> ) Tlex glabra	ver: 7.6 38	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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: <u>19</u> 20% of Total Cov arb Stratum (Plot size: <u>30 m</u> ) Ilex glabra	0       /er:     7.6       38       5       0	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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		
0% of Total Cover: <u>19</u> 20% of Total Cov arb Stratum (Plot size: <u>30 m</u> ) Ilex glabra	ver: 7.6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>.</b>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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: <u>19</u> 20% of Total Cov erb Stratum (Plot size: <u>30 m</u> ) Tlex glabra	ver: 7.6 38		0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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: 19 20% of Total Cov arb Stratum (Plot size: 30 m ) Ilex glabra 	ver: 7.6 38		0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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: 19 20% of Total Cov arb Stratum (Plot size: 30 m ) Ilex glabra 	ver: 7.6 38		0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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: <u>19</u> 20% of Total Cov arb Stratum (Plot size: <u>30 m</u> ) Ilex glabra 	ver: 7.6 38	<ul> <li>✓</li> /ul>	0.0% al Cover 100.0% 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.		
0% of Total Cover: <u>19</u> 20% of Total Cov arb Stratum (Plot size: <u>30 m</u> ) Tlex glabra	ver: 7.6 0 ver: 7.6 38 5 0 0 0 0 0 0 0 0 0 0 0 0 0	<ul> <li>✓</li> /ul>	0.0% al Cover 100.0% 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: 19 20% of Total Cov arb Stratum (Plot size: 30 m ) Ilex glabra 	ver: 7.6 38	<ul> <li>✓</li> /ul>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 100.0% 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: <u>19</u> 20% of Total Cov arb Stratum (Plot size: <u>30 m</u> ) Ilex glabra 	0         /er:       7.6       38         5       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         rer:       1       5         )       2       0         0       0       0	<ul> <li>✓</li> /ul>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 100.0% 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: 19 20% of Total Cov arb Stratum (Plot size: 30 m ) Ilex glabra 	ver: 7.6 0 ver: 7.6 38 5 0 0 0 0 0 0 0 0 0 0 0 0 0	<ul> <li>✓</li> /ul>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 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: 19 20% of Total Cov erb Stratum (Plot size: 30 m ) Ilex glabra 	ver: 7.6 0 ver: 7.6 38 5 0 0 0 0 0 0 0 0 0 0 0 0 0	<ul> <li>✓</li> /ul>	0.0% al Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 100.0% 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.		

Profile Descri Depth	iption: (De	scribe to Matrix	the depth	needed to document the indicator or confirm the Redox Features	e absence of indicators.)
(inches)	Color (		0/0	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0-5	10YR	4/2	100		Loamy Sand
5-16	10YR	5/3	100		Loamy Sand
		· · · · · · · · · · · · · · · · · · ·			
<sup>1</sup> Type: C=Conc	entration. D	=Depletior	a. RM= <b>R</b> edu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	ation: PL=Pore Lining. M=Matrix
Hydric Soil II					Indicators for Problematic Hydric Soils <sup>3</sup> :
🗌 Histosol (A	-			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Histic Epip				Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histid				Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified L				Depleted Matrix (F3)	🔲 Anomałous Bright Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L		•	Redox Dark Surface (F6)	Red Parent Material (TF2)
	y Mineral (A		T, U)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
	ence (A8) (L			Redox Depressions (F8)	Other (Explain in Remarks)
	(A9) (LRR I		~	☐ Marl (F10) (LRR U)	
· ·	elow Dark S	•	1)	Depleted Ochric (F11) (MLRA 151)	
	Surface (A1		15053	Iron-Manganese Masses (F12) (LRR O, P, T)	
	ie Redox (A		•	Umbric Surface (F13) (LRR P, T, U)	
	k Mineral (S /ed Matrix (S		5)	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Gley	•	H)		Reduced Vertic (F18) (MLRA 150A, 150B)	wetland hydrology must be present,
Sandy Ked				Piedmont Floodplain Soils (F19) (MLRA 149A)	-
	ce (S7) (LRF	t P, S, ⊤, U	)	L.] Anomalous Bright Loamy Soils (F20) (MLRA 14	19 <b>A, 153C, 153U)</b>
Restrictive La	yer (if obse	erved):	<u>.                                    </u>	· · · · · · · · · · · · · · · · · · ·	
Type:					
Depth (inche	es):		60		Hydric Soil Present? Yes 🔿 No 🕥
Remarks:					
Nethorks.					

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatilon	City/County:	Naveland - Hancock Sampling Date:	25-Oct-16
Applicant/Owner: NASA	S	tate: MS Sampling Point: Up - 45	
Investigator(s): Lars Larson, Randy Ellis	Section, Town	ship, Range: S 37 T 7 s R 16 W	1
andform (hillslope, terrace, etc.): Hillside	Local relief (con	cave, convex, none): none Slope: 1.0	%/ 0.6°
Subregion (LRR or MLRA): LRR T	Lat.: 30° 23' 44,917'	'N Long.: 89° 37' 23.042" W Datum:	NAD83
oil Map Unit Name: EsB, Escambia loam, 2 to 5 percent :		NWI classification: N/A	
Are climatic/hydrologic conditions on the site typical for th	io unic or your		No O
Are Vegetation, Soli, or Hydrology	significantly disturbed?	Are "Normal Circumstances" present? Yes 🔍	
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map sh	lowing sampling point	locations, transects, important features, et	tc
Hydrophytic Vegetation Present? Yes 🔍 No 🔿	Te the S	ampled Area	
Hydric Soil Present? Yes O No 🕥		Yes O No @	
Wetland Hydrology Present? Yes O No 🔍	within a	a Wetland? Tes P No C	
Remarks:	I,		
plot is near disturbed area previously impacted by (apparent)	arently) heavy equipment use	<u>\</u> .	
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 require	ed)
Primary Indicators (minimum of one required; check all		Surface Soil Cracks (B6)	
	atic Fauna (B13)	Sparsely Vegetated Concave Surface (B	8)
	Deposits (B15) (LRR U)	Drainage Patterns (B10)	
	Irogen Sulfide Odor (C1) dized Rhizospheres along Living R	Moss Trim Lines (B16)	
	sence of Reduced Iron (C4)	oots (C3) Dry Season Water Table (C2) Crayfish Burrows (C8)	
	ent Iron Reduction in Tilled Soils (		<i>i</i> i
	1 Muck Surface (C7)	Geomorphic Position (D2)	9
	er (Explain In Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)	
Field Observations:			
Surface Water Present? Yes 🔿 No 🖲 De	epth (inches):		
Water Table Present? Yes O No 💿 De	epth (inches):		
Saturation Present?	epth (inches):	Wetland Hydrology Present? Yes 🔿 No 🕥	
(includes capitaly milde)			
Describe Recorded Data (stream gauge, monitoring well,			
Remarks:			

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

Cover 15 5 2 0 0 0 0 0		A.Strat. Cover 55.6% 18.5% 18.5% 18.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 52.6% 26.3%		Dominance Test worksheet:         Number of Dominant Species         That are OBL, FACW, or FAC:       5         Total Number of Dominant         Species Across All Strata:       5         Percent of dominant Species         That Are OBL, FACW, or FAC:       100.0%         Prevalence Index worksheet:         Total % Cover of:       Multiply by:
15 5 2 0 0 0 0 27 10 5 3 1		55.6% 18.5% 18.5% 0.0% 0.0% 0.0% tal Cover 52.6%	FACW FAC FACW FAC	That are OBL, FACW, or FAC:       5       (A)         Total Number of Dominant       5       (B)         Percent of dominant Species       5       (B)         Percent of dominant Species       100.0%       (A/B)         Prevalence Index worksheet:       5       (A)
5 5 2 0 0 0 0 27 10 5 3 1		18.5% 18.5% 7.4% 0.0% 0.0% 0.0% tal Cover 52.6%	FAC FACW FAC	Total Number of Dominant         Species Across All Strata:         5         (B)         Percent of dominant Species         That Are OBL, FACW, or FAC:         100.0%         (A/B)         Prevalence Index worksheet:
5 2 0 0 0 27 10 5 3 1		18.5% 7.4% 0.0% 0.0% 0.0% tal Cover 52.6%	FACW	Species Across All Strata:       5       (B)         Percent of dominant Species       100.0%       (A/B)         Prevalence Index worksheet:       100.0%       (A/B)
2 0 0 0 0 27 10 5 3 1		7.4% 0.0% 0.0% 0.0% tal Cover	FAC	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B, Prevalence Index worksheet:
0 0 0 27 10 5 3 1		0.0% 0.0% 0.0% tal Cover		That Are OBL, FACW, or FAC:100.0% (A/B) Prevalence Index worksheet:
0 0 27 10 5 3 1		0.0% 0.0% 0.0% tal Cover		That Are OBL, FACW, or FAC:100.0% (A/B Prevalence Index worksheet:
0 0 27 10 5 3 1		0.0% 0.0% <b>tal Cove</b>		Prevalence Index worksheet:
0 27 10 5 3 1		0.0% <b>tal Cove</b> 52.6%		
27 10 5 3 1		<b>tal Cove</b>		Total % Cover of: Multiply by:
10 5 3 1		52.6%		
5 3 1			CACITY.	OBL species <u>1</u> x 1 = <u>1</u>
5 3 1			EACH !!	FACW species 59 x 2 = 118
3 1		76 204	FACW	FAC species $24 \times 3 = 72$
1		20.370	FAC	FACU species $0 \times 4 = 0$
		15.8%	FACW	UPL species $0 \times 5 = 0$
		5.3%	FAC	
		0.0%		Column Totals: 84 (A) (B)
0		0.0%		Prevalence Index = B/A = 2.274
0		0.0%		Hydrophytic Vegetation Indicators:
0		0.0%		
-	-			1 - Rapid Test for Hydrophytic Vegetation
19 :	= To	tal Cover		2 - Dominance Test is > 50%
				✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
15	$\checkmark$	42.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10	$\checkmark$	28.6%	FACW	
5		14.3%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
2		5.7%	FAC	be present, unless disturbed or problematic.
	$\square$	8.6%	FAC	Definition of Vegetation Strata:
			N.S. 58 - 15.	Tree - Woody plants, excluding woody vines,
35 :	= To	tal Cover	15	approximately 20 ft (6 m) or more in height and 3 in.
			_	(7.6 cm) or larger in diameter at breast height (DBH).
			1.1.1.1	Sapling - Woody plants, excluding woody vines,
1			FACW	approximately 20 ft (6 m) or more in height and less
1		50.0%	OBL	than 3 in. (7.6 cm) DBH.
0	$\Box$ .	0.0%		
0		0,0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
0		0.0%		than 5 m. DDH and greater than 5.26 m (m) tail.
0		0.0%		Shrub - Woody plants, excluding woody vines,
0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
0		0.0%		
0		0.0%		Herb - All herbaceous (non-woody) plants, including
0		0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
0	$\square$	0.0%		3 ft (1 m) in height.
n	$\square$			
	- Tol			Woody vine - All woody vines, regardless of height.
	- 10			•
	_		-	
1	$\square$	100.0%	FAC	
0	Ш.	0.0%		
0		0.0%		
0		0.0%		
0		0.0%		Hydrophytic Vegetation
1 =	- Tot	al Cover		Present? Yes $\bullet$ No $\bigcirc$
	15 10 5 2 3 0 35 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	15       ✓       42.9%         10       ✓       28.6%         5       14.3%         2       5.7%         3       8.6%         0       0.0%         35       = Total Cover         1       50.0%         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       0.0%         0       0.0%         0       0.0%         1       100.0%         0       0.0%         1       100.0%         0       0.0%	15 $\checkmark$ 42.9%         FACW          10 $\checkmark$ 28.6%         FACW          5          14.3%         FAC          2          5.7%         FAC          3          8.6%         FAC          3          8.6%         FAC          3          8.6%         FAC          3          8.6%         FAC          1          50.0%         FACW          1          50.0%         FACW          1          50.0%         FACW          1          50.0%         FACW          0          0.0%          0          0.0%          0          0.0%          0          0.0%          0          0.0%          0          0.0%         2          Total Cover          1          100.0%          2          Total Cover          1          100.0%          0          0.0%          0          0.0%

Profile Desci	iption: (De	scribe to	the depth	needed to document the indicator or confirm t	he absence of Indicators.	.)
Depth		Matrix		Redox Features		
(inches)		(moist)	%	Color (moist) %Type <sup>1</sup> Loc		Remarks
0-5	10YR	4/2	100		Loamy Sand	
5-15	10YR	5/4	100		Loamy Sand	
				x t		
r	an waw we	·				
··						
i						
<sup>1</sup> Type: C=Con	centration. D	-Depletion	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> L	ocation: PL=Pore Lining. M	=Matrix
Hydric Soil I	indicators:				Indicators for Pro	oblematic Hydric Solis <sup>3</sup> :
🗌 Histosol (/	A1)			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9	
🗌 Histic Epip	oedon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A1	
🗌 Black Hist	ic (A3)			Loamy Mucky Mineral (F1) (LRR O)		; (F18) (outside MLRA 150A,B)
🗌 Hydrogen	Sulfide (A4)			Loamy Gleyed Matrix (F2)		iplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)			Depleted Matrix (F3)	_	aht Loamy Soils (F20) (MLRA 153B)
🗌 Organic B	odies (A6) (L	RR P, T, U	)	Redox Dark Surface (F6)	Red Parent Mat	
	ky Mineral (A			Depleted Dark Surface (F7)		ark Surface (TF12)
Muck Pres	ence (A8) (L	.RR U)		Redox Depressions (F8)	_	
	k (A9) (LRR I	•		Marl (F10) (LRR U)	Other (Explain	in Remarks)
	Below Dark S		.1)	Depleted Ochric (F11) (MLRA 151)		
	k Surface (Al	•	-,	Iron-Manganese Masses (F12) (LRR O, P, T	۱	
	rie Redox (A	•	150A)		)	
	ck Mineral (S			Umbric Surface (F13) (LRR P, T, U)		
	yed Matrix (S			Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicato	rs of hydrophytic vegetation and
Sandy Gle		JT)		Reduced Vertic (F18) (MLRA 150A, 150B)	wetlan	d hydrology must be present,
Stripped M	• •			Piedmont Floodplain Soils (F19) (MLRA 149/		ss disturbed or problematic.
	ace (S7) (LRF	рети	N .	Anomalous Bright Loamy Soils (F20) (MLRA	149A, 153C, 153D)	
	ICE (37) (LKr	(P, 3, 1, 0	')			
Restrictive La	ayer (if obs	erved):				
Туре:					Hydric Soil Present	? Yes 🔿 No 🖲
Depth (inch	ies):				nyaric son Present	r fes⊖ No ©
Remarks:						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Wa	veland - Hancock	Sampling Date:	26-Oct-16
Applicant/Owner: NASA	Stat	te: MS San	npling Point: Up - 47	
nvestigator(s): Lars Larson, Randy Ellis	Section, Townsh	ip, Range: S 31	T75 R16	W
andform (hillslope, terrace, etc.): Hillside	Local relief (conca	ve, convex, none): u	ndulating Slope: 2	.0%/ 1.1°
ubregion (LRR or MLRA): LRR T	Lat.: 30° 24' 14.486" N			m: NAD83
oil Map Unit Name: EuB, Escambia loamy fine sand, 2 to			I classification: N/A	
	$\sim$			
re climatic/hydrologic conditions on the site typical for thi	o unic or your	(	kplain in Remarks.) ances" present? Yes •	) <sub>No</sub> O
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumst	ances" present? Yes 🙂	
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌	naturally problematic?	(If needed, explain a	ty answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point lo	cations, transect	s, important features,	etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Is the Sar	npled Area		
Hydric Soil Present? Yes O No 🖲		Ven ()		
Wetland Hydrology Present? Yes O No 🔍	within a V	Vetland?		
Remarks;				
Sideslope approximately 60-70 feet up from Wet - 47.				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondar	ry Indicators (minimum of 2 req	uired)
Primary Indicators (minimum of one required; check all	that apply)	Surfa	ce Soil Cracks (B6)	
Surface Water (A1)	itic Fauna (B13)	Spars	ely Vegetated Concave Surface	(B8)
High Water Table (A2)	Deposits (B15) (LRR U)	Drain	age Patterns (B10)	
Saturation (A3)	ogen Sulfide Odor (C1)	Moss	Trim Lines (B16)	
	ized Rhizospheres along Living Root	ts (C3) 🗌 Dry S	Season Water Table (C2)	
	ence of Reduced Iron (C4)	•	ish Burrows (C8)	
	nt Iron Reduction in Tilled Soils (C6		ation Visible on Aerial Imagery	(C9)
	Muck Surface (C7)		norphic Position (D2)	
	r (Explain in Remarks)	_	ow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		_	Neutral Test (D5)	
Water-Stained Leaves (B9)	······································	Spna	gnum moss (D8) (LRR T, U)	
Field Observations: Surface Water Present? Yes O No O De				
	oth (inches):			
	oth (inches):	Netland Hydrology Pre	sent? Yes 🔿 No 🖲	)
Saturation Present? Yes O No O Dej (includes capillary fringe)	oth (inches):	include information of the		
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspect	ions), if available:		
Remarks:				
NCITION S.				

			ominant pecles? .		Sampling Point: Up - 47		
Tree Stratum (Piot size: 30 m )		Absolute Rel.Stra % Cover Cover		Indicator Status	r Dominance Test worksheet:		
Pinus elliottii	10	62.5%		FACW	Number of Dominant Species		
Nyssa sylvatica	5		31.3%	FAC	That are OBL, FACW, or FAC: 8 (A)		
Mognelie grandifiera			6.3%	FAC	Total Number of Dominant		
	<u>1</u>		0.0%	FAC	Species Across All Strata: 8 (B)		
		H	0.0%	- 61 A	Percent of dominant Species		
		H	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/		
		H	0.0%		Bernet was finder to be the		
		H			Prevalence Index worksheet:		
	- 0	ш. —	0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 8 20% of Total Cover: 3.2		= 10	tal Cove	r	OBL species 0 x 1 = 0		
apling or Sapling/Shrub Stratum (Plot size: 30 m		-			FACW species $28 \times 2 = 56$		
Pinus elliottii			7.1%	FACW	FAC species $76 \times 3 = 228$		
Nyssa sylvatica			21.4%	FAC	FACU species $0 \times 4 = 0$		
Ilex opaca			35.7%	FAC	UPL species x 5 =		
Magnolia grandifiora			35.7%	FAC	Column Totals: 104 (A) 284 (B		
	0	Ц.	0.0%		Prevalence Index = $B/A = 2.731$		
			0.0%	•			
	0	Ш.	0.0%		Hydrophytic Vegetation Indicators:		
The second se	_ 0	Ц.	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
50% of Total Cover: 7 20% of Total Cover: 2.8	14 :	= То	tal Cove	r	✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m)					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex vomitoria	50	✓	79.4%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex coriacea	10		15.9%	FACW			
Vaccinium elliotti	2		3.2%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
Quercus nigra	1	<b></b>	1.6%	FAC	be present, unless disturbed or problematic.		
	0		0.0%	Sec. of the sec.	Definition of Vegetation Strata:		
	0	П	0.0%	. (*.	Tree - Woody plants, excluding woody vines,		
50% of Total Cover: 31.5 20% of Total Cover: 12.6	-	= Ta	tal Cove		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: <u>30 m</u> )					Sapling - Woody plants, excluding woody vines,		
Ilex corlacea	-		100.0%	FACW	approximately 20 ft (6 m) or more in height and less		
	- 0		0.0%		than 3 in. (7.6 cm) DBH.		
	0	Ц.	0.0%		Operitor (Ober h. Missing and a starts and dispute starts have		
·	. 0	Ц.	0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	0	Ц.	0.0%				
			0.0%		Shrub - Woody plants, excluding woody vines,		
)	0	님.					
7 No 2000	. 0 ~		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
An	0		0.0% 0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
,	0 0 0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including		
/	0 0 0		0.0% 0.0%	· · · · · · · · ·	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 0 0		0.0% 0.0% 0.0%		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		
7	0 0 0		0.0% 0.0% 0.0% 0.0%		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.		
7	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0%		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		
7	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 5 =		0.0% 0.0% 0.0% 0.0% 0.0% tal Cover		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: 2.5 20% of Total Cover: 1 roody Vine Stratum (Plot size: 30 m ) Lygodium japonicum	0 0 0 0 0 0 5 =		0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3%	FAC	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.		
7 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5	$     \begin{array}{c}       0 \\       0 \\       0 \\       0 \\       0 \\       0 \\       5 \\       5 \\       1 \\       1   \end{array} $		0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3% 16.7%	FAC	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.		
7 3	$ \begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 5 \\ 5 \\ 1 \\ 0 \\ \end{array} $		0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3% 16.7% 0.0%	FAC	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.		
7. 3. 3. 3. 3. 3. 3. 3. 3. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5	$ \begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 5 \\ - \\ 1 \\ 0 \\ 0 \\ 0 \end{array} $		0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3% 16.7% 0.0%	FAC	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.		
Voody Vine Stratum (Plot size: 30 m ) Lygodium japonicum Vitis rotundifolia	$ \begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 5 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{array} $		0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3% 16.7% 0.0%	FAC FAC	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.		

Profile Descr	iption: (De	scribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)
Depth		Matrix		Redox Features	_
(inches)		moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0-5	10YR	4/2	100		
5-15	10YR	6/4	100		
а*					
**					
		,			
			-		- a.c a.c.
P.					· · · · · · · · · · · · · · · · · · ·
		=Depletio	n. RM=Redu	uced Matrix, CS=Covered or Coated Sand Grains 2Loc	ation: PL=Pore Lining. M=Matrix
Hydric Soil I					Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A	•			Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
_	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histi	• •			Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		n	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L		-	Redox Dark Surface (F6)	Red Parent Material (TF2)
	ky Mineral (A ence (A8) (L		, (, U)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
_	k (A9) (LRR I			Redox Depressions (F8)	Other (Explain in Remarks)
	Below Dark S		(1)	Mari (F10) (LRR U)	
	K Surface (A1	•	,	Depleted Ochric (F11) (MLRA 151)	
	rie Redox (A	•	1504)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)	
	ck Mineral (S			Umbric Surface (F13) (LRR P, T, U)	
·	yed Matrix (S		, 3)	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Red		,,,		Reduced Vertic (F18) (MLRA 150A, 150B)	wetland hydrology must be present,
Stripped M	- +			Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 14	unless disturbed or problematic.
	ice (S7) (LRF	2 P. S. T. I	Ŋ		(0.01,
			~		
Restrictive La	iyer (if obse	erved):			
Type:				₩	Hydric Soil Present? Yes 🔿 No 🖲
	ies):				
Remarks:					
		_			

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Wave	eland - Hancock	Sampling Da	te: 26-Oct-16		
Applicant/Owner: NASA	State	MS	Sampling Point: Up - 48			
Investigator(s): Lars Larson, Randy Ellis	Section, Township	, Range: S 20	T 7s	<b>R</b> 16 W		
Landform (hillslope, terrace, etc.):       Terrace         Subregion (LRR or MLRA):       LRR T         Lat.:       Soil Map Unit Name:         At, Atmore silt loam, 0 to 2 percent slopes	Local relief (concav 30° 25' 1.579" N	Long.: 8	fiat Slope: 9° 37' 6.912" W NWI classification: N/A	0.0 % / 0.0 ° Datum: NAD83		
	ar? Yes 🖲					
Are climatic/hydrologic conditions on the site typical for this time of ye		<b>,</b>	o, explain in Remarks.)	es 💿 No 🔿		
			maturices present			
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explai	n any answers in Remarks	5.)		
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point loo	ations, transe	ects, important feat	ures, etc.		
Hydrophytic Vegetation Present? Yes  No						
Hydric Soil Present? Yes  No O	Is the Sam		O No 🔍			
Wetland Hydrology Present? Yes O No 🖲	within a W	etland? Tes				
Remarks:	L					
HYDROLOGY						
Wetland Hydrology Indicators:		Seco	ndary Indicators (minimum o	f 2 required)		
Primary Indicators (minimum of one required; check all that apply)			urface Soil Cracks (B6)			
Surface Water (A1)			parsely Vegetated Concave S	Surface (B8)		
High Water Table (A2)	15) (LRR U)		orainage Patterns (B10)			
Saturation (A3)	Odor (C1)		loss Trim Lines (B16)			
Water Marks (B1)	heres along Living Roots	s (C3)	3)       Dry Season Water Table (C2)         Crayfish Burrows (C8)         Saturation Visible on Aerial Imagery (C9)         Geomorphic Position (D2)			
Sediment Deposits (B2)	iced Iron (C4)					
Drift Deposits (B3)	uction in Tilled Soils (C6)	s				
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	¢				
Iron Deposits (B5) Other (Explain in	Remarks)	s	hallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)			AC-Neutral Test (D5)			
Water-Stained Leaves (B9)		S	phagnum moss (D8) (LRR T,	U)		
Field Observations: Surface Water Present? Yes No      Depth (inches):						
Water Table Present? Yes No      Depth (inches):		etland Hydrology	Present? Yes 🔿	Na 🖲		
Saturation Present? Yes No O Depth (inches):		coand rijerology				
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspectio	ons), if available:				
Remarks:						
No real hydrology indicators in this plot primary or seconday. Soil	has slight evidence of	of REDOX, but chi	oma brightens slightly wi	th depth.		

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

	Dominant Species2				Sampling Point: Up - 48		
		e R	pecies? _ el.Strat.	Indicator	Dominance Test worksheet:		
Free Stratum (Plot size: 30 m )	% Cove	F	Cover	Status	Number of Dominant Species		
Pinus elliotti	15	V	75.0%	FACW	That are OBL, FACW, or FAC: <u>6</u> (A)		
Magnolia virginiana	5		25.0%	FACW			
	0		0.0%		Total Number of Dominant Species Across All Strata: 6 (B)		
	0		0.0%				
	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: 100.0% (A/B)		
	0		0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 10 20% of Total Cover: 4	20	= To	otal Cove		OBL species 0 x 1 = 0		
apling or Sapling/Shrub Stratum (Plot size: 30 m	Y				FACW species 110 x 2 = 220		
ma Di com	10	✓	50.0%	FACIN	FAC species $10 \times 3 = 30$		
Pinus elilotti Magnolla virginiana	10			FACW			
			0.0%	FACW			
· · · · · · · · · · · · · · · · · · ·			0.0%		UPL species $0 \times 5 = 0$		
					Column Totals: <u>120</u> (A) <u>250</u> (B)		
	0		0.0%		Prevalence Index = B/A = 2.083		
		H	0.0%		Hydrophytic Vegetation Indicators:		
	0	H	0.0%		nydropnytic vegetation mutators:		
and the second	0	Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 10 20% of Total Cover: 4	20	= Total Cover			✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					<b>✓</b> 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex coriacea	60	✓	85.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex vomitoria			14.3%	FAC			
e in the second s	•	Π	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
			0.0%		be present, unless disturbed or problematic.		
			0.0%	-	Definition of Vegetation Strata:		
	0	П	0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 35 20% of Total Cover: 14		To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in.		
	/0	- 10			(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )		_			Sapling - Woody plants, excluding woody vines,		
. Ilex glabra	10	$\checkmark$	100.00/	FACW	approximately 20 ft (6 m) or more in height and less		
			100.0%				
			0.0%		than 3 in. (7.6 cm) DBH.		
	0		,				
	0		0.0%	5- 5- 5- 4 F	than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less		
	0		0.0% 0.0%		than 3 in. (7.6 cm) DBH.		
	0 0 0 0		0.0% 0.0% 0.0%		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 0 0 0 0		0.0% 0.0% 0.0% 0.0%		than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less		
	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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		
	0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
	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%		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		
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 Totai Cover: 5 20% of Total Cover: 2 oody Vine Stratum (Plot size: 30 m)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.		
% of Totai Cover: <u>5</u> 20% of Total Cover: <u>2</u> <b>pody Vine Stratum</b> (Plot size: <u>30 m</u> )	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% 0.0% 0.0% 0.0%		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.		
			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 Totai Cover: 5 20% of Total Cover: 2 <b>poody Vine Stratum</b> (Plot size: 30 m )			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 Totai Cover: 5 20% of Total Cover: 2 <b>pody Vine Stratum</b> (Plot size: 30 m)			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		<ul> <li>than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
0% of Totai Cover: 5 20% of Total Cover: 2 <b>poody Vine Stratum</b> (Plot size: 30 m )			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		<ul> <li>than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
.         .			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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)         Matrix         Redox Features           (Inches)         Color (moist)         %         Type 1         Loamy Sand           3-11         10YR         3/2         100         Loamy Sand           3-11         10YR         4/2         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11         Concordentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains         *Location: PL=Pore Lining. M=Matrix           Hydric Soil Indicators:         Transfer Or Problematic Hydric Soils?         Thin Dark Surface (S9) (LRR S, T, U)         Indicators for Problematic Hydric Soils?           Histosio (A1)         Depleted Matrix (F2) </th
0-3         10YR         3/2         100         Loamy Sand           3-11         10YR         4/2         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11-20         10YR         5/3         99         10YR         6/6         1         C         M         Loamy Sand           11         Candot Age
3-11       10YR       4/2       99       10YR       6/6       1       C       M       Learny Sand         11-20       10YR       5/3       99       10YR       6/6       1       C       M       Learny Sand         11-20       10YR       5/3       99       10YR       6/6       1       C       M       Learny Sand         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         Matrix Explore Colspan="2">Totation: PL=Pore Lining. M=Matrix         Totation: PL=Pore Lining. M=Matrix         Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         Matrix Colspan="2"Matrix (F3)       Imm Reduce (SB) (L
11-20       10YR       5/3       99       10YR       6/6       1       C       M       Leamy Sand         ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location:       PL=Pore Lining. M=Matrix         yydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histos (0,1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histos (A1)       Dolyvalue Below Surface (S9) (LRR S, T, U)       2 cm Muck (A0) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A         Yorganic Bodies (A6) (LRR P, T, U)       Depleted Matrix (F2)       Pledmont Floodplain Soils (F19) (LRR P, S, S)         S cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F6)       Red Parent Material (TF2)         S cm Mucky Mineral (A2) (LRR V)       Redox Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Other (Explain in Remarks)         Depleted Dark Surface (F13) (MLRA 151)       Thrick Dark Surface (A11)       Depleted Ochric (F13) (MLRA 151)         Thrick Dark Surface (A31)       Depleted Ochric (F13) (MLRA 151) <sup>3</sup> Indicators of hydrophytic vegetation wetland hydrology must be preses         Sandy Gleyed Matrix (S6)       Detal Ochric (F12) (MLRA 150, 150B)
ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining. M=Matrix         ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A         Hydrogen Sulfide (A4)       Loamy Gieyed Matrix (F2)       Piedmont Floodplain Soils (F20) (MLR S)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLR S)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR P, T, U)       Depleted Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR P, T, U)       Redox Dark Surface (F11) (MLRA 151)       Other (Explain in Remarks)         I cm Muck (A9) (LRR P, T, U)       Depleted Ochric (F11) (MLRA 151) <sup>3</sup> Indicators of hydrophytic vegetation wetland hydrology must be present         Sandy Muck Michael (S11) (LRR O, S)       Delta Ochric (F13) (LRR A) <sup>3</sup> Indicators of hydrophytic vegetation wetland hydrology must be present         Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F13) (LRR A) <sup>3</sup> Indicators of hyd
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histo Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, S         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLR         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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 (A16) (MLRA 150A)       Umbric Surface (F11) (MLRA 151)       Thick Dark Surface (A12)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       3         Sandy Muck Mineral (S1) (LRR O, S)       Deleted Ochric (F13) (MLRA 150A)       3         Sandy Gleyed Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       andess disturbed or problematic Metric wegetation wetland hydrology must be presended (S7) (LRR P, S, T, U)         Stripped Matrix (S6) <t< td=""></t<>
ydric Soil Indicators:       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)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, S         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLR         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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 A 150A)       Umbric Surface (F11) (MLRA 151)       Thick Dark Surface (A12)         Depleted Delow Dark Surface (A12)       Inon-Manganese Masses (F12) (LRR O, P, T)       3         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       3         Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A)       3         Sandy Redox (S5)       Piedmont Floodplain Soils (F20) (MLRA 149A)       1100000000000000000000000000000000000
Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A9) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S,         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLR         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         S tratified Layers (A5)       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 Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Cohric (F13) (LRR O, P, T)       Other (Explain in Remarks)         2 const Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       3Indicators of hydrophytic vegetation wetlan hydrology must be presend unless disturbed or problematic (F17) (MLRA 150A, 150B)         Sandy Muck Mineral (S1) (LRR O, S)       Deta Ochric (F17) (MLRA 150A, 150B)       3Indicators of hydrophytic vegetation wetland hydrology must be presend unless disturbed or problematic (F19) (MLRA 149A)       anomalous Bright Loamy Soils (F2
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)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLR         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F13) (LRR P, T, U)       Depleted Ochric (F13) (LRR O, P, T)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U) <sup>3</sup> Indicators of hydrophytic vegetation wetland hydrology must be pressions         Sandy Gleyed Matrix (S6)       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)         estrictive Layer (If observed):       Type:       Type:       Ty
Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLR         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         1 cm Muck Mineral (S1) (LRR O, S)       Deta Ochric (F13) (LRR P, T, U)       Sandy Muck Mineral (S1) (LRR O, S)         S andy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation wetland hydrology must be presenul unless disturbed or problematic         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         estrictive Layer (if observed):       Type:       Type:       Soils (F12) (MLRA 149A, 153C, 153D)
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (URR P, S, T, U)         Stratified Layers (A5)       Depleted Matrix (F3)       Piedmont Floodplain Soils (F19) (URR P, S, T, U)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLR P, S, T, U)         S cm Mucky Mineral (A7) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Mark (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F13) (URR P, T, U)       Depleted Ochric (F13) (LRR U)         Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F13) (LRR P, T, U)       Sindicators of hydrophytic vegetation wetland hydrology must be presered (S5)         Stripped Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation wetland hydrology must be presered (S7) (LRR P, S, T, U)         estrictive Layer (If observed):       Type:       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Solis (F20) (MLR Organic Bodies (A6) (LRR P, T, U)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F12) (LRR O, P, T)       Goata Ochric (F17) (MLRA 151)         Sandy Muck Mineral (S1) (LRR O, S)       Detat Ochric (F17) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation wetland hydrology must be preser         Stripped Matrix (S6)       Piedmont Floodplain Soils (F20) (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)
Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F13) (LRR O, P, T)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F20) (MLRA 149A)         Dark Surface (S7) (LRR P, S, T, U)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
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)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       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) <sup>3</sup> Indicators of hydrophytic vegetation wetland hydrology must be preserved wetland hydrology must be preserved in the surface (S7) (LRR P, S, T, U)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Type:
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 wetland hydrology must be preseined by the preseined b
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 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Type:
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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Type:
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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Type:
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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Type:
Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       Indicators of hydrophytic vegetation wetland hydrology must be preserved)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       wetland hydrology must be preserved)         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)         Extrictive Layer (If observed):       Type:       Type:       Type:
Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Indicators of hydrophytic vegetation wetland hydrology must be preserved)         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)         Estrictive Layer (if observed):       Type:       Type:       Type:
Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 149A)       wetland hydrology must be preserved in unless disturbed or problematic         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         estrictive Layer (if observed):       Type:       Type:       Dark Surface (S7)
Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)         estrictive Layer (if observed):         Type:
Dark Surface (S7) (LRR P, S, T, U)  estrictive Layer (if observed):  Type:
estrictive Layer (if observed):
Type:
Depth (inches): Yes No O
emarks: me minor redox present below 10-inches. Low chroma soil (<2), but begins to brighten slightly with depth.

s; 1,100 Acre Wetland E	Delineatiion City/C	County: Waveland - Hand	Sampling Date: 26-Oct-16 Sampling Point: Up - 49				
n Dandy Ellic	6ed		and the second				
		Section, Township, Range: S 20 T 7 s R 16 W					
	And the second	5' 1.706" N Loi	And the second				
more silt loam, 0 to	2 percent slopes		NWI classification: N/A				
ditions on the site ty	pical for this time of year?	Yes 🔍 No 🔾	(If no, explain in Remarks.)				
ioil 🗌 👘 , or Hydri	ology 🗌 significantly distr	urbed? Are "Norm:	al Circumstances" present? Yes 🖲 No 🔾				
ioil 🗌 🛛 , or Hydr	ology 🗌 naturally problem	natic? (If needed	, explain any answers in Remarks.)				
NGS - Attach sil	te map showing samplin	ng point locations,	transects, important features, etc.				
Present? Yes 🖲	No O	Is the Sampled Area					
Yes 🖲	No ()		Yes 🔿 No 🖲				
nt? Yes 🔾	No 🖲	within a wetland?					
oint approximately 5	:00-600 feet south of access p	ath along northeast pro	perty fenceline.				
ators:			Secondary Indicators (minimum of 2 required)				
mum of one require	d; check all that apply)		Surface Soil Cracks (B6)				
	🗌 Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)				
	Marl Deposits (B15) (LRR	U)	Drainage Patterns (B10)				
	🔲 Hydrogen Sulfide Odor (C	1)	Moss Trim Lines (B16)				
			Dry Season Water Table (C2)				
			Crayfish Burrows (C8)				
		filled Soils (C6)	Saturation Visible on Aerial Imagery (C9)				
			Geomorphic Position (D2) Shallow Aquitard (D3)				
erial Imagery (BZ)		5)	FAC-Neutral Test (D5)				
			Sphagnum moss (D8) (LRR T, U)				
		· · · · · · · · · · · · · · · · · · ·					
Yes 🔿 No 🖲	Depth (inches):						
Yes 🔿 No 🖲							
			drology Present? Yes 🔿 No 🕥				
	Depth (inches):						
	in, Randy Ellis a, etc.): Terrace LRR T trmore silt loarn, 0 to additions on the site ty ioii , or Hydro ioii , or Hydro (NGS - Attach sit Present? Yes • resent? Yes • ant? Yes • point approximately 5 cators: mum of one required erial Imagery (B7) B9) Yes • No •	a, Randy Ellis Sect   a, etc.): Terrace Local   LR T Lat:: 30° 2   tmore silt loam, 0 to 2 percent slopes   aditions on the site typical for this time of year?   soil , or Hydrology   sioil , or Hydrology   ioil , or Hydrology   intrace Image: Sect   soil , or Hydrology   soil , or Hydrology   intrace Image: Sect   soil , or Hydrology   intrace significantly district   soil , or Hydrology   intrace naturally problem   INGS - Attach site map showing samplin   Present? Yes   Yes No   ent? Yes   Yes No   ent? Yes   No    ators: Imum of one required; check all that apply)   Imum of one required; check all that apply   Imum of one required; check all that apply   Imum of one required; check all that apply	State:       MS         an, Randy Ellis       Section, Township, Range:         a, etc.):       Terrace       Local relief (concave, convex,         LRR T       Lat:       30° 25' 1.706" N       Loci         tmore slit loam, 0 to 2 percent slopes       iditions on the site typical for this time of year?       Yes I to No       No         isoil       , or Hydrology       significantly disturbed?       Are "Normation"         isoil       , or Hydrology       naturally problematic?       (If needed         (INGS - Attach site map showing sampling point locations, '       Present?       Yes No       Is the Sampled Area         within a Wetland?       Yes No       No       Is the Sampled Area         within a proximately 500-600 feet south of access path along northeast pro       Aquatic Fauna (B13)       Mari Deposits (B15) (LRR U)         Import approximately 500-600 feet south of access path along northeast pro       Oxidized Rhizospheres along Living Roots (C3)         Presence of Reduced Iron (C4)       Recent Iron Reduction in Tilled Soils (C6)       Thin Muck Surface (C7)         Other (Explain in Remarks)       Other (Explain in Remarks)       B9)         Yes No        Depth (inches):       Wethend Here				

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

			ominant pecles?		Sampling Point: Up - 49	
	Absolut	e R	el.Strat.	Indicator	Dominance Test worksheet:	
ree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species	
Pinus elliottii	15		65.2%	FACW	That are OBL, FACW, or FAC:6(A)	
Magnolia virginiana	5		21.7%	FACW	Total Number of Dominant	
Acer rubrum	2		8.7%	FAC	Species Across All Strata: 6 (B)	
Quercus nigra	. 1		4.3%	FAC		
			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)	
······			0.0%			
	0		0.0%		Prevalence Index worksheet:	
	0		0.0%		Total % Cover of Multiply by	
0% of Total Cover: 11.5 20% of Total Cover: 4.6	23	= To	tal Cove	r	OBL species 0 x 1 = 0	
apling or Sapling/Shrub Stratum (Plot size: _30 m	)				FACW spectes 91 x 2 = 182	
Pinus elliottii	5		18.5%	FACW	FAC species 20 x 3 = 60	
Magnolia virginiana		~	37.0%	FACW	FACU species $0$ x 4 = $0$	
Acer rubrum			25.9%	FAC	UPL species $0 \times 5 = 0$	
Quercus nigra			18.5%	FAC		
ben an			0.0%	e		
4	0		0.0%		Prevalence Index = $B/A = 2.180$	
	0		0.0%		Hydrophytic Vegetation Indicators:	
			0.0%			
					1 - Rapid Test for Hydrophytic Vegetation	
50% of Total Cover: 13.5 20% of Total Cover: 5.4		27 = Total Cover		r .	✓ 2 - Dominance Test is > 50%	
rub Stratum (Plot size: 30 m)		_			✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>	
Ilex conacea	50	<b>V</b>	90.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Ilex vomitoria	. 5		9.1%	FAC		
	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
	0		0.0%		De presenç unicas utatar del or provienatica	
	0		0.0%		Definition of Vegetation Strata:	
	0		0.0%		Tree - Woody plants, excluding woody vines,	
50% of Total Cover: 27.5 20% of Total Cover: 11		= To	tal Cove	r	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
erb Stratum (Plot size: 30 m )						
					(7.6 dft) of larger in diameter at breast height (Dbh).	
W1	-		100.00/	FACIN	Sapling - Woody plants, excluding woody vines,	
Ilex coriacea	5		100.0%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	
Ilex coriacea	0		0.0%	FAÇW	Sapling - Woody plants, excluding woody vines,	
Ilex coriacea	0		0.0% 0.0%	FAÇW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
, Ilex coriacea	0 0 0		0.0% 0.0% 0.0%	FAÇW	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	
Ilex coriacea	0 0 0 0		0.0% 0.0% 0.0% 0.0%	FAÇW	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.	
Ilex coriacea	0 0 0 0		0.0% 0.0% 0.0% 0.0%	FAÇW	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,	
Ilex coriacea	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	FAÇW	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.	
Ilex coriacea	0 0 0 0 0 0 0		C.0% O.0% O.0% O.0% O.0% O.0%	FAÇW	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.	
, Ilex coriacea	0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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	
, Ilex coriacea	0 0 0 0 0 0 0 0 0		C.0% O.0% D.0% O.0% O.0% O.0% O.0% O.0%	FACW	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	
_ Ilex coriacea	0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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	
_ Ilex coriacea	0 0 0 0 0 0 0 0 0 0 0		C.0% O.0% D.0% O.0% O.0% O.0% O.0% O.0%	FAÇW	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.	
, Ilex coriacea	0 0 0 0 0 0 0 0 0 0 0 0 0		C.0% O.0% O.0% O.0% O.0% O.0% O.0% O.0% O		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	
, Ilex coriacea	0 0 0 0 0 0 0 0 0 0 0 0 0 0		C.0% O.0% O.0% O.0% O.0% O.0% O.0% O.0% O		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.	
Ilex coriacea	0 0 0 0 0 0 0 0 0 0 0 0 0 5		C.0% O.0% O.0% O.0% O.0% O.0% O.0% O.0% O		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.	
Ilex coriacea         % of Total Cover:       2.5         20% of Total Cover:       1         body Vine Stratum       (Piot size: 30 m))         Smilax laurifolia	0 0 0 0 0 0 0 0 0 0 0 0 0 5		C.0% O.0% O.0% O.0% O.0% O.0% O.0% O.0% O		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.	
, Ilex coriacea			C.0% O.0% O.0% O.0% O.0% O.0% O.0% O.0% C.0% tal Cover		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.	
, Ilex coriacea			C.0% O.0% O.0% O.0% O.0% O.0% O.0% O.0% C.0% C.0% C.0% C.0% C.0% C.0%		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.	
, Ilex coriacea			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.	
, Ilex coriacea			C.0% O.0% O.0% O.0% O.0% O.0% O.0% O.0% C.0% C.0% C.0% C.0% C.0% C.0%	FACW	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.	

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Sampling Point: Up - 49
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Profile Desc	iption: (De	scribe to	the depth r	eeded to r	locument	t the indi	ator or o	onfirm the :	absence of indicators.)		
	ilbaoui (ne	Matrix	che depenti	iccucu co c		dox Feat					
Depth (inches)	Color (	moist)	0/0	Color (		%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-3	10YR	3/2	100						Loamy Sand		
3-12	10YR	4/2	99	10YR	6/2	1	D	М	Loamy Sand		
12-20	10YR	5/3	99	10YR	6/2	1	D	M	Loamy Sand	, , ,	
										· · · · · · · · · · · · · · · · · · ·	
				-				-			
							-				
~			· · · · · · · ·				- 1 <b>- 1</b> - 1		2		
		*					-		<b>.</b>		
Type: C=Con	centration. D	=Depletio	n. RM=Reduc	ced Matrix, C	S=Covere	ed or Coate	ed Sand Gr	ains <sup>2</sup> Locat	tion: PL=Pore Lining. M=	Matrix	
łydric Soil I	ndicators:								Indicators for Pro	blematic Hydric Soils <sup>3</sup> :	
Histosol (/	41)			🗌 Poly	value Bel	ow Surface	(S8) (LRR	( S, T, U)	🗌 1 cm Muck (A9)	-	
📙 Histic Epip	oedon (A2)			🗌 Thir	n Dark Sur	face (S9) (	LRR S, T,	U)	2 cm Muck (A10		
Black Hist				Loa	my Mucky	Mineral (F	1) (LRR O	)	·	(F18) (outside MLRA 150A,B)	
Hydrogen	Sulfide (A4)			Loa	my Gleyed	i Matrix (F	2)			blain Soils (F19) (LRR P, S, T)	
Stratified	Layers (A5)			🗌 Dep	leted Mat	rix (F3)				nt Loamy Soils (F20) (MLRA 153B)	
Organic B	odies (A6) (L	RR P, T, I	J)	Red	ox Dark S	urface (F6)	)		Red Parent Mate		
	ky Mineral (A		, Τ, U)	🗌 Dep	leted Dari	Surface (	F7)			rk Surface (TF12)	
Muck Pres	ence (A8) (L	RR U)		Red	ox Depres	isions (F8)			Other (Explain in Remarks)		
1 cm Muc	k (A9) (LRR F	P, T)		Mar	ا (F10) (۱۴	RU)				i i sori Minoy	
Depleted	Below Dark S	Surface (A:	11)	Dep	leted Och	ric (F11) (ľ	/LRA 151)				
Thick Dark	Surface (A1)	.2)		🗌 Iron	-Mangane	se Masses	(F12) (LR	R O, P, T)			
Coast Prai	rie Redox (A:	16) (MLRA	4 150A)	🗌 Uml	bric Surfac	e (F13) (L	RR P, T, U)	)			
Sandy Mu	ck Mineral (S	1) (LRR O	), S)	🗌 Delt	a Ochric (	F17) (MLR	A 151)		-		
Sandy Gle	yed Matrix (S	54)		Red	uced Vert	c (F18) (M	LRA 150A,	150B)	<sup>3</sup> Indicators	s of hydrophytic vegetation and	
🗹 Sandy Rec	lox (S5)			Pled	lmont Floo	dplain Soil	s (F19) (M	LRA 149A)		hydrology must be present, s disturbed or problematic.	
Stripped M	latrix (S6)			Ano	malous Br	ight Loamy	Soils (F20	)) (MLRA 14 <b>9</b>	A, 153C, 153D)	·	
Dark Surfa	ice (S7) (LRR	е Р, S, T, U	U)			• •					
estrictive La	yer (if obse	erved):									
Туре:						-			Hydric Soil Present?	Yes 🔍 No 🔿	
Depth (inch	es):										
Remarks:											
ery sandy - I	oamy soil, d	dry, crun	nbly texture	- seems to	o have g	ood drain	ing capac	tity. Some	slight evidence of red	ox, but not much.	

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/Co	ounty: Waveland - Hancock Sampling Date: 26-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 50
Investigator(s): Lars Larson. Randy Ellis Section	on, Township, Range: S 21 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace Local re	elief (concave, convex, none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat.: 30° 24 Soil Map Unit Name: EsA, Escambia loam, 0 to 2 percent slopes	and the second
	Yes  No NWI classification: N/A (If no, explain in Remarks.)
Are climatic/hydrologic conditions on the site typical for this time of year?	
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 sampling	) point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Is the Sampled Area
Hydric Soil Present? Yes O No 🖲	
Wetland Hydrology Present? Yes O No 🖲	within a Wetland?
Remarks:	
Upland plot within a transect in NE AOI. This is near an old logging chanel/ away (to the south) from the upland flat for logging puporses.	drainage cut that was made apparently to drain/convey surface water
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marí Deposits (B15) (LRR U	) Drainage Patterns (B10)
Saturation (A3)	) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres alon	g Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	C4) Crayfish Burrows (C8)
Drift Deposits (B3)	lled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	🖌 FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes O No O Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	
Saturation Present? Yes No  Depth (inches):	Wetland Hydrology Present? Yes O No 💿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previo	ous inspections). if available:
Remarks:	
Canalis.	

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

	Dominan Species				Sampling Point: Up - 50		
	Absolut		Rel.Strat. Indicator		r Dominance Test worksheet:		
ree Stratum (Plot size: <u>30 m</u> )	% Cove	r	Cover _	Status	Number of Dominant Species		
Pinus elliottii	20		74.1%	FACW	That are OBL, FACW, or FAC: 7 (A)		
Nyssa sylvatica	3		11.1%	FAC	The Museline of Decision of		
Magnolia virginiana	2		7.4%	FACW	Total Number of Dominant Species Across All Strata: 7 (B)		
Quercus virginiana	2		7.4%	FACU			
	0		0.0%		Percent of dominant Species That Are OBL_EACW_or_EAC*100.0% (A/B)		
	0		0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)		
e e construction de la construction			0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 13.5 20% of Total Cover: 5.4	27	= To	tal Cove	r	<b>OBL species</b> $0 \times 1 = 0$		
pling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species <u>50</u> x 2 = <u>100</u>		
			13.3%	FACW	FAC species $42 \times 3 = 126$		
Magaalla udasialaan	0.40		33.3%	FACW			
Freedom and the second s Second second se			33.3%	FAC			
			20.0%	FAC			
	and a second second		0.0%	FAC	Column Totals: 94 (A) 234 (B)		
			-	· · · · · ·	Prevalence Index = $B/A = 2.489$		
			0.0%		Hydrophytic Vegetation Indicators:		
		Η.	0.0%		nyuophytic vegetation indicatoral		
	0	Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 7.5 20% of Total Cover: 3	15	5 = Total Cover		r	✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex vomitoria	30	✓	73,2%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex corlacea	10		24.4%	FACW			
Ilex cassine	1		2.4%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
· · · · · · · · · · · · · · · · · · ·			0.0%		be present, unless disturbed or problematic.		
			0.0%		Definition of Vegetation Strata:		
	0						
					Tree - Woody plants, excluding woody vines,		
	0	- TO	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Total Cover: 20.5 20% of Total Cover: 8.2		— = То					
% of Total Cover: 20.5 20% of Total Cover: 8.2	0		0.0%		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
% of Total Cover: 20.5 20% of Total Cover: 8.2 rb Stratum ( <sup>Plot size: _30 m</sup> ) Ilex corlacea	0 41	= То	0.0%		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,		
% of Total Cover: 20.5 20% of Total Cover: 8.2 rb Stratum (Plot size: <u>30 m</u> ) Ilex coriacea	0 41 10		0.0% tal Cove		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
% of Total Cover: 20.5 20% of Total Cover: 8.2 rb Stratum (Plot size: <u>30 m</u> ) Ilex corlacea	0 41 10		0.0% tal Cover		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		
% of Total Cover: 20.5 20% of Total Cover: 8.2 rb Stratum ( <sup>Plot</sup> size: <u>30 m</u> ) Ilex corlacea	0 41 10 0		0.0% tal Cover 100.0% 0.0%		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		
0% of Total Cover: 20.5 20% of Total Cover: 8.2 <b>rb Stratum</b> ( <sup>Plot size: <u>30 m</u>) <b>Ilex corlacea</b></sup>	0 41 10 0 0		0.0% tal Cover 100.0% 0.0% 0.0%		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: 20.5 20% of Total Cover: 8.2 rb Stratum ( <sup>Plot size: _30 m</sup> ) Ilex corlacea	0 41 10 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0%		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.		
% of Total Cover: 20.5 20% of Total Cover: 8.2 rb Stratum (Plot size: <u>30 m</u> ) Ilex corlacea	0 41 10 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0%		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		
% of Total Cover: 20.5 20% of Total Cover: 8.2 rb Stratum (Plot size: _30 m) Ilex coriacea	0 41 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>tal Cover</b> 100.0% 0.0% 0.0% 0.0% 0.0%		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: 20.5 20% of Total Cover: 8.2 prb Stratum (Plot size: _30 m) , Ilex corlacea	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
D% of Total Cover: 20.5 20% of Total Cover: 8.2 <b>arb Stratum</b> (Plot size: <u>30 m</u> ) <b>Tiex coriacea</b>	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
D% of Total Cover: 20.5 20% of Total Cover: 8.2 <b>arb Stratum</b> (Plot size: <u>30 m</u> ) <b>Ilex corlacea</b>	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
D% of Total Cover: 20.5 20% of Total Cover: 8.2 prb Stratum (Plot size: 30 m) Ilex corlacea	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: 20.5 20% of Total Cover: 8.2 erb Stratum (Plot size: 30 m) . Ilex corlacea	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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		
D% of Total Cover:       20.5       20% of Total Cover:       8.2         Brb Stratum       (Plot size: _30 m)	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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:       20.5       20% of Total Cover:       8.2         erb Stratum       (Plot size: _30 m)	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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: 20.5 20% of Total Cover: 8.2   Ilex corlacea   0% of Total Cover: 5 20% of Total Cover: 2   Sody Vine Stratum (Plot size: 30 m ) Smilax rotundifolia	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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: 20.5 20% of Total Cover: 8.2   Ilex corlacea   0% of Total Cover: 5 20% of Total Cover: 2   Sody Vine Stratum (Plot size: 30 m ) Smilax rotundifolia	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	FACW	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:       20.5       20% of Total Cover:       8.2         arb Stratum       (Plot size: 30 m)	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	FACW	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.		
D% of Total Cover: 20.5 20% of Total Cover: 8.2   Ilex corlacea   D% of Total Cover: 5 20% of Total Cover: 2   D% of Total Cover:   5 20% of Total Cover: 2   Smilax rotundifolia	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% tal Cover 100.0%	FACW	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.		
0% of Total Cover:       20.5       20% of Total Cover:       8.2         erb Stratum       (Plot size: 30 m       )         Ilex corlacea	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% tal Cover 100.0% 0.0%	FACW	<ul> <li>approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
0% of Total Cover: 20.5 20% of Total Cover: 8.2 erb Stratum (Plot size: 30 m ) Ilex corlacea	0 41 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10		0.0% tal Cover 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 100.0% 0.0% 0.0% 0.0%	FACW	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.		

Profile Descri	iption: (De	scribe to	the depth	needed to document the indicator or con	firm the	absence of indicators.)	
Depth	5	Matrix		Redox Features		×s	
(inches)		molst)	. %	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	5/2	100	·····		Loamy Sand	
4-16	10YR	5/6	100			Loamy Sand	
						· · · · · · · · · · · · · · · · · · ·	
Type: C=Conc Hydric Soil II		=Depletion	n. RM <b>=Red</b> u	ced Matrix, CS=Covered or Coated Sand Grain	s ²Loca		_
Histosol (A							lematic Hydric Soils <sup>3</sup> :
Histic Epip				Polyvalue Below Surface (S8) (LRR S,	1,0)	1 cm Muck (A9)	
Black Histig				Thin Dark Surface (S9) (LRR S, T, U)		2 cm Muck (A10)	
	Sulfide (A4)			Loamy Mucky Mineral (F1) (LRR O)		Reduced Vertic (I	F18) (outside MLRA 150A,B)
Stratified L				Loamy Gleyed Matrix (F2)			ain Soils (F19) (LRR P, S, T)
_				Depleted Matrix (F3)		Anomalous Bright	t Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L			Redox Dark Surface (F6)		🗌 Red Parent Mater	ial (TF2)
	y Mineral (A		, I, U)	Depleted Dark Surface (F7)		Very Shallow Dar	k Surface (TF12)
_	ence (A8) (L			Redox Depressions (F8)		📋 Other (Explain in	Remarks)
-	: (A9) (LRR F			Mari (F10) (LRR U)			
<b>_</b> '	elow Dark S		1)	Depieted Ochric (F11) (MLRA 151)			
_	Surface (A1			Iron-Manganese Masses (F12) (LRR (	), P, T)		
_	ie Redox (A			Umbric Surface (F13) (LRR P, T, U)			
-	k Mineral (S		, S)	Delta Ochric (F17) (MLRA 151)		3	
Sandy Gley	ed Matrix (S	54)		Reduced Vertic (F18) (MLRA 150A, 1	50B)	-Indicators wetland	of hydrophytic vegetation and hydrology must be present,
Sandy Red	ox (S5)			🗌 Piedmont Floodplain Soils (F19) (MLR	A 149A)		disturbed or problematic.
Stripped M	atrix (S6)			Anomalous Bright Loamy Soils (F20) (	MLRA 149	9A, 153C, 153D)	
Dark Surfac	ce (S7) (LRR	UP, S, T, U	1)				
estrictive La	ver (if obse	erved):		· · · · · · · · · · · · · · · · · · ·			
Туре:							
Depth (inche	es):					Hydric Soil Present?	Yes 🔿 No 🖲
emarks:							

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 26-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 51
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 21 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat:	30° 25' 2.517" N Long.: 89° 36' 38.172" W Datum: NAD83
Soil Map Unit Name: EsA, Escambia Ioam, 0 to 2 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of yes	
Are Vegetation , Soil , or Hydrology significant	itly disturbed? Are "Normal Circumstances" present? Yes 🔍 No 🔾
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	Is the Sampled Area
Hydric Soil Present? Yes O No 🖲	
Wetland Hydrology Present? Yes O No 💿	within a Wetland?
Remarks:	
This plot is approximately 50-feet to the west of an man-made loggi chroma soil colors but NO evidence of hydrology except for the appl	ging drain in the NE part of the AOI. There is hydrophytic vegetation, some low
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	
Surface Water (A1)	
High Water Table (A2)	
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)	uced Iron (C4) Crayfish Burrows (C8)
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	
Iron Deposits (B5) Other (Explain in i	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No  Depth (inches):	
	2
Water Table Present? Yes No      Depth (Inches):	
Saturation Present? Yes No  Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	cos, previous inspections), if available:
	, , , , , , , , , , , , , , , , , , ,
Remarks:	
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## VEGETATION (Five/Four Strata) - Use scientific names of plants.

		Dominant Species?			Sampling Point: Up - 51		
	Absolute		pecies? _ el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliottil	25	$\checkmark$	65.8%	FACW	That are OBL, FACW, or FAC: 6 (A)		
Nyssa sylvatica	10	$\checkmark$	26.3%	FAC			
Magnolia virginiana	3		7.9%	FACW	Total Number of Dominant Species Across All Strata: 6 (B)		
	0		0.0%				
		$\square$	- 0.0%		Percent of dominant Species		
		$\square$	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
	-		0.0%	· ·	Prevalence Index worksheet:		
	0		0.0%				
50% of Total Cover: 19 20% of Total Cover: 7.6			otal Cove		Total % Cover of: Multiply by: OBL species 1 x 1 = 1		
		= 10	Juli Cove				
apling or Sapling/Shrub Stratum (Plot size: 30 m Pinus elliottii					FACW species $101 \times 2 = 202$		
Pinus elliotti			16.7%	FACW	FAC species $15 \times 3 = 45$		
Nyssa sylvatica			41.7%	FAC	FACU species x 4 =0		
Magnolia virginiana	5	✓	41.7%	FACW	UPL species x 5 =		
1	0		0.0%		Column Totals: 117 (A) 248 (B)		
	0		0.0%				
· • • • • • • • •	0		0.0%		Prevalence Index = $B/A = 2.120$		
	0		0.0%		Hydrophytic Vegetation Indicators:		
-	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 6 20% of Total Cover: 2.4	12	= To	otal Cover	_	<ul> <li>✓ 2 - Dominance Test is &gt; 50%</li> </ul>		
Prub Stratum (Plot size: <u>30 m</u> )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex coriacea			82.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex glabra		Ľ,	16.4%	FACW	1		
Persea palustris	1		1.6%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
	0	$\Box$	0.0%	(			
	0		0.0%		Definition of Vegetation Strata:		
	0	$\Box$	0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 30.5 20% of Total Cover: 12.2	61	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in.		
• Terraria (1997)	61	= Ta	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: <u>30 m</u> )		= To			(7.6 cm) or larger in diameter at breast height (DBH).		
rb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides	1		16.7%	OBL	(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		
rb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides , Ilex coriacea	1	= To	16.7% 83.3%	OBL	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,		
rb Stratum (Plot size: <u>30 m</u> ) Lycopodiella alopecuroides Ilex coriacea	1 5 0		16.7% 83.3% 0.0%	OBL	(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.		
erb Stratum (Plot size: 30 m ) , Lycopodiella alopecuroides , Ilex coriacea	1 5 0 0		16.7% 83.3% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less</li> </ul>		
erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex corlacea	1 5 0		16.7% 83.3% 0.0%	OBL	(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.		
erb Stratum (Plot size: <u>30 m</u> ) Lycopodiella alopecuroides Ilex coriacea	1 5 0 0		16.7% 83.3% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less</li> </ul>		
erb Stratum (Plot size: <u>30 m</u> ) Lycopodiella alopecuroides Ilex coriacea	1 5 0 0 0 0 0 0 0		16.7% 83.3% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>		
erb Stratum (Plot size: <u>30 m</u> ) Lycopodiella alopecuroides Ilex coniacea	1 5 0 0 0 0 0 0 0		16.7% 83.3% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> </ul>		
erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex coriacea	1 5 0 0 0 0 0 0 0 0		16.7% 83.3% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>		
erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex coriacea	1 5 0 0 0 0 0 0 0 0		16.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>		
arb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex coriacea	1 5 0 0 0 0 0 0 0 0 0		15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>		
erb Stratum (Plot size: 30 m ) _Lycopodiella alopecuroides _liex coriacea	1 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0		16.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>		
erb Stratum (Plot size: 30 m ) . Lycopodiella alopecuroides . Ilex coriacea	1 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>		
erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex coriacea	1 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardiess of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</li> </ul>		
erb Stratum (Plot size: 30 m ) _Lycopodiella alopecuroides _Iex coriacea 	1 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardiess of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</li> </ul>		
arb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex coriacea			15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardiess of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</li> </ul>		
erb Stratum (Plot size: 30 m ) _Lycopodiella alopecuroides _Iex coriacea 			15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardiess of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</li> </ul>		
arb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex coriacea			15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardiess of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</li> </ul>		
erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex coriacea			15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
erb Stratum (Plot size: 30 m ) Lycopodiella alopecuroides Ilex coriacea			15.7% 83.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		

Profile Description: (Describe to the de	oth needed to document the indicator or confirm the	absence of indicators.)
Depth Matrix	Redox Features	-
(inches) Color (moist) %	Color (moist) % Type Loc <sup>2</sup>	Texture Remarks
0-4 10YR 3/2 100		
4-11 10YR 4/2 100	. *	
11-20 10YR 5/4 100		· · ·
. <u></u>		
Type: C=Concentration, D=Depletion, RM=F	educed Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	ation: Pi ≠Pore Lining, M=Matrix
Hydric Soll Indicators:		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)	Thin Dark Surface (S9) (LRR S, T, U)	
Black Histic (A3)	Loamy Mucky Mineral (F1) (LRR O)	2 cm Muck (A10) (LRR S)
Hydrogen Sulfide (A4)		Reduced Vertic (F18) (outside MLRA 150A,B)
	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)	Anomalous Bright Loamy Solis (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)	
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)	
J Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, P, T)	
Coast Prairle Redox (A16) (MLRA 150A)	Umbric Surface (F13) (LRR P, T, U)	
Sandy Muck Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)	3 month and a second
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Redox (55)	Piedmont Floodplain Soils (F19) (MLRA 149A)	unless disturbed or problematic.
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (MLRA 14	
Dark Surface (S7) (LRR P, S, T, U)		
testrictive Layer (if observed):		
Туре:		
Depth (inches):		Hydric Soll Present? Yes 🔿 No 🖲
lemarks:		
il chroma begins to change to a ligh <b>te</b>	3-4 below 11-12 inches.	

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 26-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 52
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 21 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat.:	30° 25' 2.571" N Long.: 89° 36' 31.359" W Datum: NAD83
Soil Map Unit Name: HIA, Harleston fine sandy loam, 0 to 2 percent sic	the second se
Are climatic/hydrologic conditions on the site typical for this time of yea	
Are Vegetation 🗌 , Soil 🛄 , or Hydrology 🗌 significant	ly disturbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sar	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Is the Sampled Area
Hydric Soil Present? Yes O No 🖲	Van O Na 🔍
Wetland Hydrology Present? Yes O No 💿	within a Wetland? Tes O NO O
Remarks: Upland area approximately 300-feet south of fence line in NE AOI. A	Along N-S transect.
HYDROLOGY	
Sediment Deposits (B2)	i) (LRR U)       Drainage Patterns (B10)         Ddor (C1)       Moss Trim Lines (B16)         eres along Living Roots (C3)       Dry Season Water Table (C2)         ed Iron (C4)       Crayfish Burrows (C8)         tion in Tilled Solls (C6)       Saturation Visible on Aerial Imagery (C9)         (C7)       Geomorphic Position (D2)         emarks)       Shallow Aquitard (D3)         Image: FAC-Neutral Test (D5)       Sphagnum moss (D8) (LRR T, U)         Image: Wetland Hydrology Present?       Yes       No (*)
Remarks:	

			ominant		Sampling Point: Up - 52		
<u></u>	Absolut		pecies? . el.Strat.	Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cove	-	Cover	Status	Number of Dominant Species		
Pinus elliottii	15	$\checkmark$	60.0%	FACW	That are OBL, FACW, or FAC:7 (A)		
Magnolia virginiana	5		20.0%	FACW			
	2		8.0%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)		
Magnolia grandiflora			12.0%	FAC	Species Across All Strata: (B)		
		Ξ.	0.0%		Percent of dominant Species		
		Ξ.	0.0%	14.	That Are OBL, FACW, or FAC: 100.0% (A/B		
	•		0.0%	1.0	Bus along Taday wadala ata		
· · · · · · · · · · · · · · · · · · ·		H			Prevalence Index worksheet:		
	0	Ш,	0,0%		Total % Cover of: Multiply by:		
0% of Total Cover: 12.5 20% of Total Cover: 5	25	= To	tal Cove	r	OBL species () x 1 = _0		
pling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species 83 x 2 = 166		
Pinus elliottii	3		25.0%	FACW	FAC species $14 \times 3 = 42$		
Magnolia virginiana	5		41.7%	FACW	FACU species $0 - x 4 = 0$		
Quercus nigra	3		25.0%	FAC	UPL species $0 \times 5 = 0$		
Ilex opaca			8.3%	FAC	Column Totals: 97 (A) 208 (8)		
			0.0%				
			0.0%		Prevalence Index = $B/A = 2.144$		
	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%				
	-				1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: <u>6</u> 20% of Total Cover: <u>2.4</u>	12	= 10	tal Cove	r	✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )		_			✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex coriacea	50	<	92.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex vomitoria	3	$\Box$	5.6%	FAC			
Ilex opaca	1		1.9%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
	0		0.0%	1997 - S	be present, unless disturbed or problematic.		
	0		0.0%		Definition of Vegetation Strata:		
	0		0.0%	P.40	Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 27 20% of Total Cover: 10.8	54	= To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in.		
6					(7.6 cm) or larger in diameter at breast height (DBH).		
rb Stratum (Piot size: 30 m )		<b></b>			Sapling - Woody plants, excluding woody vines,		
Ilex corlacea	5		100.0%	FACW	approximately 20 ft (6 m) or more in height and less		
	0		0.0%		than 3 in. (7.6 cm) DBH.		
		<u> </u>	0.070				
	the second second		0.0%				
	0		•		Sapling/Shrub - Woody plants, excluding vines, less		
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.		
• • • • • • • • • • • • • • • • • • •	0 0 0		0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	0 0 0		0.0% 0.0% 0.0%				
	0 0 0 0		0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines,		
	0 0 0 0 0		0.0% 0.0% 0.0% 0.0%		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		
	0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
	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%		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 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%		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		
% of Total Cover: 2.5 20% of Total Cover: 1	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%		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.		
% of Total Cover: 2.5 20% of Total Cover: 1 ody Vine Stratum (Plot size: 30 m )	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%		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.		
% of Total Cover: 2.5 20% of Total Cover: 1 ody Vine Stratum (Plot size: 30 m )	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%		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.		
% of Total Cover: 2.5 20% of Total Cover: 1 ody Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 0 0 0 5		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.		
% of Total Cover: 2.5 20% of Total Cover: 1 pody Vine Stratum (Plot size: 30 m )			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.		
% of Total Cover: 2.5 20% of Total Cover: 1 ody Vine Stratum (Plot size: 30 m ) Vitis rotundifolia			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.		
9% of Total Cover: <u>2.5</u> 20% of Total Cover: <u>1</u> <b>body Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Vitis rotundifolia</b>			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		<ul> <li>than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
9% of Total Cover: <u>2.5</u> 20% of Total Cover: <u>1</u> <b>body Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Vitis rotundifolia</b>			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	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.		

Profile Descr	iption: (De	scribe to	the depth	needed to document	the indicator or co	nfirm the a	absence of indicators.)		
Depth		Matrix			lox Features				
(inches)		moist)	%	Color (moist)	% Type	_Loc <sup>2</sup> _	Texture	Remarks	
0-5	10YR	4/2	100						
5-16	10YR	5/6	100						
a	L	ya (x: x···							
10.1									
<sup>1</sup> Type: C=Conc	centration. D	=Depletio	n. RM=Redu	ced Matrix, CS=Covere	d or Coated Sand Grai	ns <sup>2</sup> Locat	tion: PL=Pore Lining. M=N	latrix	
Hydric Soil I		•						ematic Hydric Soils <sup>3</sup> :	
🗌 Histosol (A	A1)			Polyvalue Belo	w Surface (S8) (LRR S	6, T, U)	1 cm Muck (A9) (		
🔲 Histic Epip	edon (A2)				ace (S9) (LRR S, T, U		P		
Black Histi	ic (A3)				Mineral (F1) (LRR O)	•	2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A,B)		
Hydrogen	Sulfide (A4)			Loamy Gleved				ain Soils (F19) (LRR P, S, T)	
	_ayers (A5)			Depleted Matri	. ,			Loamy Soils (F20) (MLRA 153B)	
	odies (A6) (L	.RR P, T, L	n	Redox Dark Su			Red Parent Mater		
	ky Mineral (A			Depleted Dark				• •	
_	ence (A8) (L		, , _,	Redox Depress			Very Shallow Dark		
	(A9) (LRR I			Marl (F10) (LR			Other (Explain in	Remarks)	
_	Below Dark S	· ·	11	<u> </u>	ic (F11) (MLRA 151)				
	Surface (A1		,	= •	se Masses (F12) (LRR	0 0 70			
	rie Redox (A		1504)	_		0, P, 1)			
	ck Mineral (S			-	e (F13) (LRR P, T, U)				
	yed Matrix (S		, 3)		17) (MLRA 151)		<sup>3</sup> Indicators	of hydrophytic vegetation and	
		(+0		_	: (F18) (MLRA 150A, 1		wetiand h	ydrology must be present,	
Sandy Red				_	dplain Soils (F19) (MLI			disturbed or problematic.	
Stripped M		DCT	15	Anomalous Bright	ght Loamy Soils (F20)	(MLRA 149	A, 153C, 153D)		
	ice (S7) (LRF	(P, 5, 1, (	1)						
Restrictive La	yer (if obse	erved):							
Type:					-				
Depth (inch	es):	·		1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -			Hydric Soil Present?	Yes 🔿 No 🖲	
Remarks:								· · · // · · · · · · ·	
N									
					· · · · · · · · · · · · · · · · · · ·				

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 31-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 53
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 21 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
	30° 25' 2.412" N Long.: 89° 36' 15.101" W Datum: NAD83
	V production of the second
Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of yea	
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation 🔲 , Soli 🗌 , or Hydrology 🗌 naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	Is the Sampled Area
Hydric Soil Present? Yes   No	
Wetland Hydrology Present? Yes O No 🕥	within a Wetland?
Remarks:	
Upland transect approximately 150-feet east of Wet - 53 to the sout	h of the access road in the NE AOI.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Secondary Andreadors (Minimutin dr 2 required)
Surface Water (A1)	
High Water Table (A2)	
Saturation (A3)	
	eres along Living Roots (C3) 🛛 Dry Season Water Table (C2)
Sediment Deposits (B2)	
	tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	
Iron Deposits (B5)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes O No O Depth (inches):	
	Wetland Hydrology Present? Yes 🔿 No 🖲
(includes capillary fringe) Yes V No V Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	

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

	Dominant Species?				Sampling Point: Up - 53		
	Absolut			Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cove	ж. —	Cover	Status	Number of Dominant Species		
Pinus elliottii	10	$\checkmark$	76.9%	FACW	That are OBL, FACW, or FAC:4(A)		
Magnolia virginiana	2		15.4%	FACW			
Nyssa sylvatica	1		7.7%	FAC	Total Number of Dominant Species Across All Strata: 4 (B)		
i se	0		0.0%				
	0		0.0%		Percent of dominant Species		
		Ē	0.0%	•	That Are OBL, FACW, or FAC: 100.0% (A/B		
		$\Box$	0.0%	~	Prevalence Index worksheet;		
·	0		0.0%				
					Total % Cover of: Multiply by:		
0% of Total Cover: 6.5 20% of Total Cover: 2.6		= 10	tal Cover		OBL species <u>0</u> x 1 = <u>0</u>		
pling or Sapling/Shrub Stratum (Plot size: 30 m	)	_			FACW species 122 x 2 = 244		
Pinus elliottii	_		71.4%	FACW	FAC species $4 \times 3 = 12$		
Magnolia virginiana	5		17.9%	FACW	FACU species 0 x 4 = 0		
Nyssa sylvatica			10.7%	FAC	UPL species 0 x 5 = 0		
			0.0%		Column Totals: 126 (A) _ 256 (B)		
			0.0%				
	0		0.0%		Prevalence Index = $B/A = 2.032$		
	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%				
	· · · · ·				✓ 1 - Rapid Test for Hydrophytic Vegetation		
1% of Total Cover: 14 20% of Total Cover: 5.5	28	= 10	tal Cover		2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 $^1$		
Ilex coriacea	75		100.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
	0		0.0%	-			
	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
	-		0.0%		be present, unless disturbed or problematic.		
	0		0.0%		Definition of Vegetation Strata:		
	0	Ē	0.0%		Tree - Woody plants, excluding woody vines,		
% of Total Cover: 37.5 20% of Total Cover: 15	75	- 10	tal Cover		approximately 20 ft (6 m) or more in height and 3 in.		
		- 10	dir corei		(7.6 cm) or larger in diameter at breast height (DBH).		
rb Stratum (Plot size: <u>30 m</u> )							
		_			Senling Woody plants evoluting woody vince		
Ilex coriacea	10		100.0%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
A			100.0% 0.0%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
				FACW	approximately 20 ft (6 m) or more in height and less		
	0		0.0%	FACW	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		
	0 0		0.0% 0.0%	FACW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
	0 0 0		0.0% 0.0% 0.0% 0.0%	FACW	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 0 0		0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 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	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 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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 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	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		
% of Total Cover: 5 20% of Total Cover: 2	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	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.		
% of Total Cover: 5 20% of Total Cover: 2 ody Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 0 0 0 0 0 0 10		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.		
% of Total Cover: <u>5</u> 20% of Tota' Cover: <u>2</u> ody Vine Stratum (Plot size: <u>30 m</u> )	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% 0.0% 0.0% 0.0%	FACW	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.		
% of Total Cover: <u>5</u> 20% of Total Cover: <u>2</u> <b>cody Vine Stratum</b> (Plot size: <u>30 m</u> )	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% 0.0% 0.0% 0.0%	FACW	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.		
% of Total Cover: 5 20% of Total Cover: 2 ody Vine Stratum (Plot size: 30 m )			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.		
% of Total Cover: 5 20% of Total Cover: 2 <b>body Vine Stratum</b> (Plot size: <u>30 m</u> )	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% 0.0% 0.0% 0.0%	FACW	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.		
% of Total Cover:5 20% of Total Cover:2			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	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.		

Profile Descri	ption: (De	scribe to	the depth	needed to document	t the indi	icator or co	onfirm the	absence of indicators	,)	
Depth		Matrix		Re	dox Feat	ures				
(inches)	Color (	moist)	%	Color (moist)	0/0	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-4	10YR	4/1	100					Loamy Sand		
4-16	10YR	5/2	98	10YR 7/2	_ 20	С	M	Loamy Sand		
		=Depletion	n. RM≕Redı	uced Matrix, CS=Covere	ed or Coat	ed Sand Gra	ins <sup>2</sup> Loca	ition: PL=Pore Lining. M	I=Matrix	
Hydric Soil In				_				Indicators for Pro	oblematic Hydric Soils <sup>3</sup> :	
Histosol (A	•			Polyvalue Belo			,	🗌 1 cm Muck (A9	)) (LRR O)	
Histic Epipedon (A2)				_				2 cm Muck (A10) (LRR S)		
Black Histic				Loamy Mucky				Reduced Vertic	: (F18) (outside MLRA 150A,B)	
Hydrogen S				Loamy Gleyed	l Matrix (!	-2)		Piedmont Floor	dplain Soils (F19) (LRR P, S, T)	
Stratified La				🗌 Depleted Mati	rix (F3)			Anomalous Bri	ght Loamy Soils (F20) (MLRA 153B)	
🗌 Organic Bo				Redox Dark S	urface (F6	5)		🗌 Red Parent Ma	terial (TF2)	
5 cm Muck			T, U)	Depleted Dark	c Surface	(F7)		Very Shallow D	ark Surface (TF12)	
Muck Prese		,		Redox Depres	sions (F8)	)		🗌 Other (Explain	in Remarks)	
1 cm Muck				Marl (F10) (LF	R U)					
Depleted B		•	.1)	Depleted Och						
Thick Dark	-	•		Iron-Mangane						
📋 Coast Prairi	•			🔲 Umbric Surfac	æ (F13) (l	RR P, T, U)				
Sandy Muci			, S)	Delta Ochric (	F17) (MLF	RA 151)		3To all on the	rs of hydrophytic vegetation and	
Sandy Gley	-	54)		Reduced Verti	ic (F18) (*	4LRA 150A,	150B)		d hydrology must be present,	
Sandy Redo				Piedmont Floo	dplain So	ils (F19) (MI	.RA 149A)		ss disturbed or problematic.	
Stripped Ma	atrix (S6)			🗌 Anomalous Br	ight Loam	y Soils (F20	) (MLRA 14	9A, 153C, 153D)		
Dark Surfac	æ (S7) (LRF	ι Ρ, S, T, l	))							
Restrictive Lay	er (if obse	erved):								
Туре:					-			Hydric Soil Present	? Yes 🖲 No 🔿	
Depth (inche	es):							nyaric Soli Present	r tes © ND ∪	
Remarks:										
Very small amo	ount of sar	ndy redox	ι.							

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Wave	eland - Hancock	Sampling Date: 14-Oct-16		
Applicant/Owner: NASA	State	MS Sampling Po	int: Up - 13		
Investigator(s): Lars Larson, Randy Ellis	Section, Township	<b>, Range: S</b> 29 <b>T</b> 7	s <b>R</b> 16 W		
Landform (hillslope, terrace, etc.): Terrace	Local relief (concav	e, convex, none): flat	Slope: 0.0 % / 0.0°		
Subregion (LRR or MLRA):	Lat.: 30° 24' 8.736" N	Long.: 89° 37' 10.57	6" W Datum: NAD83		
Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slo	pes	NWI classific			
Are climatic/hydrologic conditions on the site typical for this	0	No O (If no, explain in I	Remarks.)		
		Are "Normal Circumstances" pr			
		(If needed, explain any answe			
SUMMARY OF FINDINGS - Attach site map sho			-		
Hydrophytic Vegetation Present? Yes   No					
Hydric Soil Present? Yes O No 🔍	Is the Sam	otloanda Yes 🔿 No 💿			
Wetland Hydrology Present? Yes O No 🔍	within a W	stland? Tes C NO C			
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicato	rs (minimum of 2 required)		
Primary Indicators (minimum of one required; check all th		Surface Soil Cra	· ·		
	ic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)		
	Deposits (B15) (LRR U)				
	gen Sulfide Odor (C1) ad Rhizospheros along Living Roots				
	nce of Reduced Iron (C4)	eres along Living Roots (C3)     Dry Season Water Table (C2)       red Iron (C4)     Crayfish Burrows (C8)			
	t Iron Reduction in Tilled Soils (C6)		le on Aerial Imagery (C9)		
	luck Surface (C7)	Geomorphic Pos			
	(Explain in Remarks)	Shallow Aquitan			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Tes			
Water-Stained Leaves (B9)		Sphagnum mos	s (D8) (LRR T, U)		
Field Observations:					
Surface Water Present? Yes O No 🔍 Depti	h (inches):				
Water Table Present? Yes 🔿 No 🔍 Depti	h (inches):				
Saturation Present? Yes No  Depti	h (inches):	etland Hydrology Present?	Yes 🔾 No 🖲		
(includes capillary fringe) 165 NOC Deput Describe Recorded Data (stream gauge, monitoring well, a		ons), if available:			
	F F				
Remarks:					

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

		Dominant Species?		Sampling Point: Up - 13
	Absolute	Rel.Strat.		Dominance Test worksheet:
ee Stratum (Plot size: 30 m )	% Cove		Status	Number of Dominant Species
Pinus elliottii	15	71.4%	FACW	That are OBL, FACW, or FAC:6(A)
Quercus virginiana	5	23.8%	FACU	Tatal Number of Demiserat
Quercus nigra	1	4.8%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)
	0	0.0%		
		0.0%	229 C	Percent of dominant Species
	0	0.0%		That Are OBL, FACW, or FAC: 85.7% (A/B
المراجع والمراجع والم	0	0.0%		Prevalence Index worksheet:
		0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 10.5 20% of Total Cover: 4.2		= Total Cove		OBL species $0 \times 1 = 0$
				FACW species $52 \times 2 = 104$
pling or Sapling/Shrub Stratum (Plot size: 30 m	_	20,0%	FLOW	
Pinus elliotti			FACW	
Quercus nigra		60.0%	FAC	FACU species $\frac{8}{100} \times 4 = \frac{32}{100}$
Quercus virginiana		12.0%	FACU	UPL species $0 \times 5 = 0$
Magnolia virginiana	2	8.0%	FACW	Column Totals: 87 (A) 217 (B)
	0	0.0%		Prevalence Index = B/A = 2.494
x - x, (x)(0, x)		0.0%		
		0.0%	404 B 1	Hydrophytic Vegetation Indicators:
		0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 12.5 20% of Total Cover: 5	25	= Total Cove		✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m				$\checkmark$ 3 - Prevalence Index is $\leq 3.0^{1}$
	25	71.4%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Martin Martin Control		28.6%	FAC	
Ilex vomitoria			TAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
	0	0.0%		be present, unless disturbed or problematic.
		L C.0%		D-Finiting of Magnetation Country
	0	0.0%		Definition of Vegetation Strata:
N. 41	0	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 17.5 20% of Total Cover: 7	35	= Total Cover		(7.6 cm) or larger in diameter at breast height (DBH).
rb Stratum (Plot size: 33 )				
Ilex coriacea	5	✔ 100.0%	FACW	Sapling - Woody plants, excluding woody vines,
	0	0.0%		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
and a second	0	0.0%		
	0	0.0%		Sapling/Shrub - Woody plants, excluding vines, less
	0	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
n and a second	0			Shrub - Woody plants, excluding woody vines,
······································				approximately 3 to 20 ft (1 to 6 m) in height.
	0			Herb - All herbaceous (non-woody) plants, including
	0	0.0%		herbaceous vines, regardless of size, and woody
	0	0.0%		plants, except woody vines, less than approximately
		0.0%		3 ft (1 m) in height.
	0	0.0%		
% of Total Cover: 2.5 20% of Total Cover: 1	5 :	= Total Cover		Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot size: 30 m )				
Smilax rotundifolia	1	100.0%	FAC	
			TAC	
	0	0.0%		
	0	0.0%		Hudron hutic
	0	0.0%		Hydrophytic Vegetation Present? Yes () No ()

Profile Descri	iption: (De	scribe to a	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth		Matrix		Redox Features	2	
(inches)	Color (		%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	3/2	100		Loamy Sand	
5-18	10YR	5/4	100		Loamy Sand	
	_					
				· · · · · · · · · · · · · · · · · · ·		
Type: C-Conc	contration D	-Doplation	DM-Dod	uced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	ation: PI-Pore Liping M-N	Antrix
Hydric Soil I		-Depietion	. RH - Reul			
Histosol (A				Polyvalue Below Surface (SB) (LRR S, T, U)	_	ematic Hydric Soils <sup>3</sup> :
Histic Epip	,			Thin Dark Surface (S9) (LRR S, T, U)	1 cm Muck (A9) (	
Black Histi				Loamy Mucky Mineral (F1) (LRR O)	2 cm Muck (A10)	
	Suifide (A4)			Loamy Gleyed Matrix (F2)		18) (outside MLRA 150A,B)
Stratified L				Depleted Matrix (F3)	_	ain Soils (F19) (LRR P, S, T)
_	odies (A6) (L	RRPTN	۱			Loamy Solls (F20) (MLRA 153B)
	y Mineral (A			Redox Dark Surface (F6)	Red Parent Mater	
	ence (A8) (L	• • •	1,0,	Depleted Dark Surface (F7)	Very Shallow Dark	
	(A9) (LRR F			Redox Depressions (F8)	🔛 Other (Explain in	Remarks)
	Below Dark S		1)	L Mari (F10) (LRR U)  Depleted Ochric (F11) (MLRA 151)		
	Surface (A1	-	-)			
	ie Redox (A		1504)	Iron-Manganese Masses (F12) (LRR O, P, T)		
	-		-	Umbric Surface (F13) (LRR P, T, U)		
	k Mineral (S		5)	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators	of hydrophytic vegetation and
	ed Matrix (S	4)		Reduced Vertic (F18) (MLRA 150A, 150B)	wetland h	iydrology must be present,
Sandy Red				Piedmont Floodplain Solls (F19) (MLRA 149A)		disturbed or problematic.
Stripped M	• •			Anomalous Bright Loamy Soils (F20) (MLRA 14	19A, 153C, 153D)	
Dark Suita	ce (S7) (LRR	P, 5, 1, U	)			
Restrictive La	yer (if obse	rved):				
Туре:						
Depth (inch	es):		+0-5	and the second sec	Hydric Soil Present?	Yes 🔿 No 🖲
Remarks:						

Landform (hillslope, terrace, etc.):       Terrace       Lot         Subregion (LRR or MLRA):       LRR T       Lat:       30         Soil Map Unit Name:       EsB, Escambia loarn, 2 to 5 percent slopes         Are climatic/hydrologic conditions on the site typical for this time of year?         Are Vegetation       , Soil       , or Hydrology       significantly of         Are Vegetation       , Soil       , or Hydrology       naturally prob         SUMMARY OF FINDINGS - Attach site map showing sample	disturbed? Are "Normal Circumstances" present? Yes  No  No  blematic? (If needed, explain any answers in Remarks.)				
Hydrophytic Vegetation Present?       Yes        No          Hydric Soil Present?       Yes        No	Is the Sampled Area				
Wetland Hydrology Present? Yes O No 💿	within a Wetland? Yes O No 🔍				
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)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2) Marl Deposits (B15) ( Saturation (A3) Hydrogen Sulfide Odd					
	es along Living Roots (C3) Dry Season Water Table (C2)				
Sediment Deposits (B2)					
Drift Deposits (B3)					
Algal Mat or Crust (B4) Thin Muck Surface (C					
Iron Deposits (B5) Other (Explain in Ren	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):	Wetland Hydrology Present? Yes O No 🖲				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, Remarks:					

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

	Dominant Species?				Sampling Point: Up - 15		
	Absolute	e Ré	el.Strat.	Indicator	Dominance Test worksheet:		
(Peot size: <u>30 m</u> )	% Cove	-	Cover	Status	Number of Dominant Species		
	. 15		65.2%	FACW	That are OBL, FACW, or FAC:6(A)		
Magnolia virginiana			8.7%	FACW	Total Number of Dominant		
Liquidambar styracifiua			21.7%	FAC	Species Across All Strata: 6 (B)		
Quercus texana	1		4.3%	FACW	Demonstraf demonstrate Constitute		
	_ 0_	Ц.	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)		
	0	Ц.	0.0%		That the obly then, of the		
	0	Ц.	0.0%		Prevalence Index worksheet:		
	0	$\Box$	0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 11.5 20% of Total Cover: 4.6	23	= To	tal Cove	r	OBL species 0 x 1 = 0		
pling or Sapling/Shrub Stratum_ (Plot size: _30 m	)				FACW species <u>95</u> x 2 = <u>190</u>		
Pinus elliotti	20	$\checkmark$	71.4%	FACW	FAC species 12 x 3 = 36		
Magnolia virginiana	5		17.9%	FACW	FACU species $0 x 4 = 0$		
Quercus nigra			7.1%	FAC	UPL species $0 \times 5 = 0$		
Persea palustris			3.6%	FACW			
1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	0		0.0%		Column Totals: 107 (A) 226 (B)		
	0		0.0%		Prevalence Index = $B/A = 2.112$		
			0.0%		Hydrophytic Vegetation Indicators:		
			0.0%	· · ·			
					1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 14 20% of Tota! Cover: 5.6	28	= TO	tal Cove	r	✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )				i	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex coriacea	30		65.2%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex vomitoria	-		10.9%	FAC			
Ilex glabra	10		21.7%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
Sabal minor			2.2%	FACW	be present, unless disturbed or problematic.		
a de la companya de l							
	0		0.0%		Definition of Vegetation Strata:		
	0				Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 23 20% of Total Cover: 9.2	0	□ □ = To	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Total Cover: 23 20% of Total Cover: 9.2	0	- To	0.0% 0.0%		Tree - Woody plants, excluding woody vines,		
v% of Total Cover: 23 20% of Total Cover: 9.2	0 46	_	0.0% 0.0% tal Cove		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: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10	□ = To	0.0% 0.0% tal Cove		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		
% of Total Cover: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10 0	_	0.0% 0.0% tal Cove 100.0% 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). Sapling - Woody plants, excluding woody vines,		
0% of Total Cover: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: <u>30 m</u> ) Ilex glabra	0 46 10 0	_	0.0% 0.0% tal Cove		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: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: <u>30 m</u> ) Ilex glabra	0 46 10 0	_	0.0% 0.0% tal Cove 100.0% 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). 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		
0% of Total Cover: 23 20% of Total Cover: 9,2 rb Stratum (Plot size: <u>30 m</u> ) Ilex glabra	0 46 10 0 0	_	0.0% 0.0% tal Cove 100.0% 0.0% 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
9% of Total Cover: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10 0 0	_	0.0% 0.0% tal Cove 100.0% 0.0% 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). 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		
9% of Total Cover: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10 0 0 0 0	_	0.0% 0.0% tal Cove 100.0% 0.0% 0.0% 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). 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.		
9% of Total Cover: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10 0 0 0 0 0 0 0	_	0.0% 0.0% tal Cove 100.0% 0.0% 0.0% 0.0% 0.0% 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). 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: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10 0 0 0 0 0 0 0	_	0.0% 0.0% tal Cove 100.0% 0.0% 0.0% 0.0% 0.0% 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). 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		
0% of Total Cover: 23 20% of Total Cover: 9.2 <b>stb Stratum</b> (Plot size: <u>30 m</u> ) <b>Tiex glabra</b>	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	0.0% 0.0% tal Cove 100.0% 0.0% 0.0% 0.0% 0.0% 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). 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: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	0.0% 0.0% tal Cove 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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		
0% of Total Cover: 23 20% of Total Cover: 9,2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	0.0% 0.0% tal Cove 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 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). 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: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% tal Cove 100.0% 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		
D% of Total Cover:       23       20% of Total Cover:       9.2         brb Stratum       (Plot size: 30 m)	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% tal Cove 100.0% 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.		
% of Total Cover: 23 20% of Total Cover: 9.2 <b>rb Stratum</b> (Plot size: 30 m) <b>Tlex glabra</b> % of Total Cover: 5 20% of Total Cover: 2 <b>wody Vine Stratum</b> (Plot size: 30 m)	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% tal Cove 100.0% 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.		
% of Total Cover: 23 20% of Total Cover: 9.2 rb Stratum (Plot size: 30 m) Ilex glabra % of Total Cover: 5 20% of Total Cover: 2 wody Vine Stratum (Plot size: 30 m)	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% tal Cove 100.0% 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: 23 20% of Total Cover: 9.2 <b>rb Stratum</b> (Plot size: 30 m) <b>Ilex glabra</b> % of Total Cover: 5 20% of Total Cover: 2 <b>ody Vine Stratum</b> (Plot size: 30 m) Smilax rotundifolia	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% tal Cove 100.0% 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: 23 20% of Total Cover: 9.2   Ilex glabra   9% of Total Cover: 5 20% of Total Cover: 2   9% of Total Cover:   5 20% of Total Cover: 2   9% of Total Cover:   6 20% of Total Cover: 2   9% of Total Cover:   7 20% of Total Cover: 2   9% of Total Cover:   2 20% of Total Cover: 2   9% of Total Cover:   2 20% of Total Cover: 2   9% of Total Cover:   3 20% of Total Cover: 2	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% tal Cove 100.0% 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: 23 20% of Total Cover: 9.2   Ilex glabra   9% of Total Cover: 5 20% of Total Cover: 2   9% of Total Cover:   5 20% of Total Cover: 2   9% of Total Cover:   6 20% of Total Cover: 2   9% of Total Cover:   7 20% of Total Cover: 2   9% of Total Cover:   2 20% of Total Cover: 2   9% of Total Cover:   2 20% of Total Cover: 2   9% of Total Cover:   3 20% of Total Cover: 2	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% tal Cove 100.0% 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.		
0% of Total Cover:       23       20% of Total Cover:       9,2         orb Stratum       (Plot size: 30,m)	0 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% tal Cove 100.0% 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.		

Profile Descri	iption: (De	scribe to	the depth	needed to document t	he indic	ator or co	nfirm the	absence of indicators.)	
Depth		Matrix			ox Featu				
(inches) 0-4	Color ( 10YR	moist) 3/2	<b>%</b> 100	Color (moist)	⁰⁄₀	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Loamy Sand	Remarks
4-16	10YR	5/4	100					Loamy Sand	<b>.</b>
					**	_			
		≃Depletio	n. RM=Redu	ced Matrix, CS=Covered	• · · · or Coate	d Sand Gra	ns <sup>°</sup> ²Loca	tion: PL≃Pore Lining, M=N	fatrix
Hydric Soil In				_				Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (A				Polyvalue Belov				🗌 1 cm Muck (A9) (	LRR O)
Li Histic Epipedon (A2)				Thin Dark Surfa			)	🗌 2 cm Muck (A10)	(LRR S)
Black Histi				Loamy Mucky M	•			Reduced Vertic (F	18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed N	•	2)		Piedmont Floodpl	ain Soils (F19) (LRR P, S, T)
Stratified L			n	Depleted Matrix	• •			-	Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L cy Mineral (A			Redox Dark Sur	• •			Red Parent Mater	
	ence (A8) (L		, 1, 0)	Depleted Dark S	-	F7)		Very Shallow Darl	k Surface (TF12)
	(A9) (LRR F	-		Redox Depressi	• •			Other (Explain in	Remarks)
	Below Dark S		11	Marl (F10) (LRR		ALDA 151)			
	Surface (A1		,	Depleted Ochric		-	0.0.70		
	ie Redox (A	-	150A)	Umbric Surface			0, 8, 1)		
	k Mineral (S		-		• • •				
	/ed Matrix (S		, 5)	Delta Ochric (F1	• -		C00)	<sup>3</sup> Indicators	of hydrophytic vegetation and
Sandy Red		,,,		Reduced Vertic     Piedmont Flood				wetland h	ydrology must be present,
Stripped M								9A, 153C, 153D)	disturbed or problematic.
	ce (S7) (LRR	ι Ρ, S, Τ, Ι	J)		in, Loanny	5013 (120)	(112107-23.	, 1990, 1990)	
Restrictive La	yer (if obse	erved):							
Type:									
Depth (inche	es):							Hydric Soll Present?	Yes 🔾 No 🖲
Remarks:									
Remarkar									

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 07-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 1
nvestigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 20 T 7 s R 16 W
andform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none): flat Slope: 0,0 % / 0,0 °
ubregion (LRR or MLRA): LRR T Lat.:	30° 25' 1.091" N Long.: 89° 37' 13.129" W Datum: NAD83
oil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: PFO 1/4 C
Are climatic/hydrologic conditions on the site typical for this time of yea	
	roblematic? (If needed, explain any answers in Remarks.) mpling point locations, transects, important features, etc.
	Is the Sampled Area
Hydric Soil Present? Yes  No O	within a Wetland? Yes $\odot$ No $\bigcirc$
Wetland Hydrology Present? Yes  No O	
Remarks: Low drainage area approximately 60 feet from a topographic rise the HYDROLOGY	at transitions up toward Upland Plot #1.
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of 2 required)
Surface Water (A1)	3) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3)	
	eres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	
	tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	(C7) Geomorphic Position (D2)
Iron Deposits (85) Other (Explain in R	lemarks) 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 O No O Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	
Saturation Present? (includes capillary fringe) Yes O No  Depth (inches):	Wetland Hydrology Present? Yes  No
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	
	nage area that conveys water from the hillslope above to the riparian buffer
next to Turtieskin Creek below.	

	Dominant Species?				Sampling Point: Wet - 1
ree Stratum (Plot size: <u>30 m</u> )	Absolute % Cover	Rel		Indicator Status	Dominance Test worksheet:
Pinus efliottii	5		23.8%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 9 (A)
Magnolia virginiana	10		47.6%	FACW	
Nyssa sylvatica	5	_	23,8%	FAC	Total Number of Dominant Species Across All Strata: 9 (B)
Taxodium ascendens	1		4.8%	OBL	Species Across All Strata: 9 (B)
n na ser alar an	0		0.0%		Percent of dominant Species
	0	<u> </u>	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B
			0.0%	N •	Prevalence Index worksheet:
1999 K. V. V.	0		0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 10.5 20% of Total Cover: 4.2		= Tot:	al Cove	-	OBL species $9 \times 1 = 9$
6 T		- 100			FACW species $63 \times 2 = 126$
apling or Sapling/Shrub Stratum (Plot size: 30 m Magnolia virginiana		$\checkmark$	F0.00/	FACILI	
Notes ad a firm			50.0%	FACW	FAC species $19 \times 3 = 57$
Nyssa sylvatica			33.3%	FAC	FACU species $0 \times 4 = 0$
Cyrilla racemiflora	3 .		10.0%	FACW	UPL species $0 \times 5 = 0$
Acer rubrum		<u> </u>	6.7%	FAC	Column Totals: 91 (A) 192 (B)
		H-	0.0%		Prevalence Index = $B/A = 2.110$
	0	<u>H</u> _	0.0%		
1 - V-X		<u> </u>	0.0%		Hydrophytic Vegetation Indicators:
Reconciliation of the second	0	Ľ.	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 15 20% of Total Cover: 6	30 =	= Tota	al Cover	1 C C C C	2 - Dominance Test is > 50%
rub Stratum (Plot size: 30m)					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Cyrilla racemifiora	10	<b>V</b>	31.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex coriacea	15	<b>y</b>	46.9%	FACW	
Iiex glabra	5		15.6%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
Acer rubrum	2	Π.	6.3%	FAC	be present, unless disturbed or problematic.
	0		0.0%		Definition of Vegetation Strata:
	0	<u> </u>	0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 16 20% of Total Cover: 6.4		= Tota	al Cover	P	approximately 20 ft (6 m) or more in height and 3 in.
					(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )					Sapling - Woody plants, excluding woody vines,
Woodwardia areolata			62.5% <sub>.</sub>	OBL	approximately 20 ft (6 m) or more in height and less
Woodwardia virginica	_		37.5%	OBL	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		0.0%		
•	0	<u> </u>	0.0%		
	0	<u> </u>	0.0%		
	0	<u> </u>	0.0%		Shrub - Woody plants, excluding woody vines,
	0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
ъ. — р. — м. сам. — .			0.0%	•• •• ••	
		Ц_	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%		
0% of Total Cover: 4 20% of Total Cover: 1.6	8 =	- Tota	l Cover		Woody vine - All woody vines, regardless of height.
oody Vine Stratum (Plot size: 30 m )					
	o		0.0%		
•	0	•	0.0%		Hydrophytic
	0				
	-		0.0%	+	
•	[	Bec. of	0.0%		
D% of Total Cover: 0 20% of Total Cover: 0	0 l		0.0%	-	Vegetation
0% of Total Cover: 0 20% of Total Cover: 0	0 =		l Cover		Present? Yes 🔍 No 🗸

Depth         Matrix         Redox Features           (inches)         Color (moist)         %         Type 1         Loc2         Texture         Remarks           3-16         10YR         3/2         95         10YR         7/2         5         C         M         Sandy Leam           3-16         10YR         5/2         95         10YR         7/2         5         C         M         Sandy Leam           3-16         10YR         5/2         95         10YR         7/2         5         C         M         Sandy Leam           3-16         10YR         5/2         95         10YR         7/2         5         C         M         Sandy Leam           3-16         10YR         5/2         95         10YR         7/2         5         C         M         Sandy Leam           3         10         10         10         Moticators:         Tundicators for Problematic Mydric Solls?:         Tundicators for Problematic Hydric Solls?: <th>Color (moist)         %         Color (moist)         %         Type:         Loc:         Texture         Remarks           0-3         10YR         3/2        </th> <th>(inches) 0-3</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>absence of indicators</th> <th></th>	Color (moist)         %         Color (moist)         %         Type:         Loc:         Texture         Remarks           0-3         10YR         3/2	(inches) 0-3									absence of indicators	
0-3       10YR       3/2       Loarny Sand         3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Learn         3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Learn         3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Learn         3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Learn         3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Learn         4       10       Polyvalue Below Surface (S9) (LRR S, T, U)       1       Imm Muck (A9) (LRR C)       1       Imm Muck (A9) (LRR C)       1       1       Muck (A9) (LRR C)       1       1       Muck (A10) (LRR S)       1       Depleted Matrix (F2)       Pedomont Roodplain Solis (F19) (URR P, S, T)       1       Depleted Matrix (F2)       Pedomont Roodplain Solis (F20) (MLRA 150, RS)       1       Anomalous Bright Learny Solis (F20) (MLRA 151, NC)       Solis (F20) (MLRA 151, NC)       Solis (F20) (MLRA 151, NC)       Solis (F20) (MLR P, T, U)       Depleted Ortrix (F11) (MLRA 150, SOLis (F12) (LRR O, P, T)       1	0-3       10YR       3/2       Learny Sand         3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Learn         3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Learn         3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Learn         7/9e:       C-Concentration.       D-Depletion. RM-Reduced Matrix, CS-Covered or Coated Sand Grains       *Location:       PL-Pore Lining. M-Matrix         Type:       C-Concentration.       D-Depletion. RM-Reduced Matrix, CS-Covered or Coated Sand Grains       *Location:       PL-Pore Lining. M-Matrix         Type:       C-Concentration.       PL-Pore Lining. M-Matrix       Timpy Hydroid Soil Information:       M-Matrix         Hydroid       Dial Information:       Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)       Reduced Verkic (F18)         Histic Explored (A2)       Tim In Dark Surface (S9) (LRR S, T, U)       Redox Depresions (F6)       Redox Depresions (F6)       Redox Dark Surface (F7)       Ver Shallow Dark Surface (T12)         Muck Presence (A8) (LRR V, T)       Redox Dark Surface (F12) (LRR O, P, T)       Matrix (F10) (LRR V, T)       Sandy Redox (S1)       Depleted Dark Surface (F	0-3									23	
3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Leam         Type: C-Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         Hydric Soll Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histic Epipedion (A2)       Din Dark Surface (S9) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       2 cm Muck (A10) (LRR S)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (LRR O)       Peduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F3)       Pedivalue Below Surface (F7)       Pedivalue Below Surface (F7)         Straffied Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153)         Organic Bodies (A6) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TT2)         Muck Presence (A8) (LRR P, T)       Depleted Dark Surface (F7)       Very Shallow Dark Surface (A11)         Depleted Bodrix (F13) (LRR A, T, U)       Depleted Dark (F13) (LRR A, T, U)         Sandy Gleyed Matrix (S4)       Depleted Ortic (F11) (MLRA 151) <sup>3</sup> Indicators of hydrophytic vegetation and wetland flytology rusk be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S4)       Pelomont Floodplain Soils (F20) (M	3-16       10YR       5/2       95       10YR       7/2       5       C       M       Sandy Leam         Type: C-Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix         Indicators:         Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histos Epideón (A2)       Thin Dark Surface (S8) (LRR S, T, U)       1       m Muck (A9) (LRR O)         Black Histic (A3)       Leamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Progen Suffide (A4)       Leamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18)       Red Parent Material (F12)         Straffide Layers (A5)       Depleted Matrix (F2)       Piedmont Floodplain Soils (F20) (MLRA 153B)       Red Parent Material (F12)         Organic Bodies (A6) (LRR P, T, U)       Depleted Dark Surface (F7)       Very Shallow Dark Surface (F12)       Werky Shaflow Dark Surface (F12)         Muck Presence (A8) (LRR U)       Redox Depresensors (F8)       Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Deted Ochric (F17) (MLRA 151) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Leamy Soils (F20)				%	Color (	moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>		Remarks
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains       *Location: PL=Pore Lining. M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S3) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A0) (LRR O)         Back Histo (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F16) (outside MLRA 150A,B)         Hydrogen Suffide Layers (A5)       Depleted Matrix (F2)       Predmont Floodplain Soils (F20) (MLRA 153         Organic Bodies (A6) (LRR P, T, U)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153)         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) (URR P, 7)       Depleted Ochric (F11) (MLRA 151)       Thick Dark Surface (A11)         Depleted Watrix (S4)       Beditore Vertic (F18) (MLRA 150, P, T, U)       Sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S4)       Depleted Vertic (F19) (MLRA 149A) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Danomalous Bright Loamy Soils (F20) (MLRA 149A)       Incideators of hydrophytic v	Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Costed Sand Grains       ?Location: PL-Pore Lining, M-Matrix         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       1 cm Muck (A0) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       Peledmont Floodplain Soils (F19) (LRR P, S, T)         Organic Bodies (A6) (LRR P, T, U)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 1538)         Organic Bodies (A6) (LRR P, T, U)       Depleted Dark Surface (F7)       Very Shallow Dark Surface (F20) (MLRA 1538)         S om Mucky Mineral (X2) (LRR P, T, U)       Depleted Dark Surface (F7)       Cytery Shallow Dark Surface (TF12)         Muck (A9) (LRR P, T, U)       Depleted Dark Surface (F7)       Cytery Shallow Dark Surface (TF12)         Muck (A9) (LRR P, T, U)       Depleted Ochric (F11) (MLRA 151)       Cyter (Explain in Remarks)         I orm -Manganese Masses (F12) (LRR O, P, T)       Coase Praire Redox (A16) (MLRA 150A)       Unbric Surface (F13) (MLRA 151)         Sandy Redox (S5)       Delta Ochric (F17) (MLRA 151) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Delta Ochrin (F17) (MLRA 151) <sup>3</sup> Indica	3-16	10YR	3/2							Loamy Sand	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Solis (F20) (MLRA 153         Organic Bodies (A6) (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)       Mari (F10) (LRR U)       Depleted Dechric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Delta Ochric (F13) (MLRA 1504, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         2 Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       unless disturbed or problematic.         2 Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Deptemont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)	Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histo Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Micky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (IRR 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)         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)       Mari (F10) (LRR U)       Depleted Ohric (F11) (MLRA 151)         Thick Dark Surface (A12)       Ion-Manganese Masses (F12) (LRR O, P, T)       Other (Explain in Remarks)         Sandy Muck Mineral (S1) (LRR O, S)       Delia Ochric (F17) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) <sup>3</sup> Indicators of hydrophytic veg		10YR	5/2	95	10YR	7/2	5	С	M	Sandy Loam	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histoc 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)       2 cm Muck (A10) (LRR S)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (LRR O)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Solis (F20) (MLRA 153         Organic Bodies (A6) (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)       Mari (F10) (LRR U)       Depleted Dark Surface (F11) (MLRA 151)         Thic Dark Surface (A11)       Depleted Chric (F11) (MLRA 151)       Other (Explain in Remarks)         Torn-Manganese Masses (F12) (LRR O, P, T)       Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Delta Ochric (F17) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A) </td <td>Hydric Soil Indicators:       Indicators for Problematic Hydric Soils<sup>3</sup>:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (IRR 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)         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)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR 0, P, T)       Other (Explain in Remarks)         S andy Muck Mineral (S1) (LRR 0, S)       Delate Ochric (F17) (MLRA 150A, 150B)       <sup>3</sup>Indicators of hydrophytic vegetation and wetain hydrology must be present, unless disturbed or problematic.         S Striped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 149A)       Inless disturbed or problematic.</td> <td></td>	Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (IRR 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)         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)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR 0, P, T)       Other (Explain in Remarks)         S andy Muck Mineral (S1) (LRR 0, S)       Delate Ochric (F17) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetain hydrology must be present, unless disturbed or problematic.         S Striped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 149A)       Inless disturbed or problematic.											
Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       I cm Muck (A9) (LRR O)         Histoc Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A9) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Gieyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153         Organic Bodies (A6) (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)         I cm Muck (A9) (LRR P, T, U)       Depleted Ochric (F11) (MLRA 151)       Thick Dark Surface (A11)         Depleted Below Dark Surface (A11)       Depleted Ochric (F13) (LRR O, P, T)       Gaard Cepressions (F8)       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150)       Jindicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Delta Ochric (F17) (MLRA 150A, 150B)       Jindicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         Type:       Depth (inches):       Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)         Bark S	Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histoc Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A9) (LRR O)         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)       Depleted Dark Surface (F6)       Red Parent Material (TF2)         S cm Muck (A9) (LRR V, 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 A, T)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         3 sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Inless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) </td <td></td> <td></td> <td>=Depletior</td> <td>n. RM=Redu</td> <td>iced Matrix, 4</td> <td>CS=Covere</td> <td>ed or Coate</td> <td>ed Sand Gra</td> <td>ains <sup>2</sup>Loca</td> <td>ation: PL=Pore Lining, M</td> <td>=Matrix</td>			=Depletior	n. RM=Redu	iced Matrix, 4	CS=Covere	ed or Coate	ed Sand Gra	ains <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 Gieyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         5 cm Muck (A9) (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 A, S1)       Depleted Ochric (F11) (MLRA 151)       Thin Dark Surface (T13) (LRR Q, P, T, U)         Depleted Below Dark Surface (A11)       Depleted Ochric (F17) (MLRA 150A)       Umbric Surface (F13) (LRR Q, P, T, U)         Sandy Muck Mineral (S1) (LRR Q, S)       Delta Ochric (F17) (MLRA 150A) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Jancelaser (If observed):         Type:	Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       C m Muck (A9) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (outside MLRA 150A,B)         Organic Bodies (A6) (LRR P, T, U)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153B)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TT2)         Muck (A9) (LRR U)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Mari (F10) (LRR U)       Redox Depressions (F12) (URR O, P, T)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Mari (F10) (LRR U)       Reduced Vertic (F13) (URR P, T, U)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR 0, S)       Delta Ochric (F13) (URR P, T, U)       Beloc Arrive (F13) (URR P, T, U)         Sandy Muck Mineral (S1) (LRR 0, S)       Delta Ochric (F13) (URR P, T, U) <sup>3</sup> Indicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	_				_					Indicators for Pro	oblematic Hydric Soils <sup>3</sup> :
Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR 0)       Reduced Vertic (F18) (outside MLRA 150A,B)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         \$ 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 Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Thock Mineral (S1) (LRR O, S)         Sandy Muck Mineral (S1) (LRR O, S)       Depleta Ochric (F17) (MLRA 151)       3Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Depth (inches):       Depth (inches):       Hydric Soil Present? Yes No O <td>Black Histic (A3)       □ Loamy Mucky Mineral (F1) (LRR O)       □ 2 din Huck (HJ) (LRK 3)         Hydrogen Sulfide (A4)       □ Loamy Mucky Mineral (F1) (LRR O)       □ Reduced Vertic (F18) (outside MLRA 150A, B)         Hydrogen Sulfide Layers (A5)       □ Depleted Matrix (F2)       □ Piedmont Floodplain Soils (F19) (LRR P, 5, T)         Stratified Layers (A5)       □ Depleted Matrix (F3)       □ Anomalous Bright Loamy Soils (F20) (MLRA 153B)         Organic Bodies (A6) (LRR P, T, U)       □ Depleted Dark Surface (F6)       □ Red Parent Material (TF2)         S cm Mucky Mineral (A7) (LRR P, T, U)       □ Depleted Dark Surface (F7)       □ Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR P, T)       □ Redox Depressions (F8)       □ Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       □ Mari (F10) (LRR U)       □ Depleted Ochric (F11) (MLRA 151)         □ Depleted Below Dark Surface (A12)       □ Iron-Manganese Masses (F12) (LRR O, P, T)       □ Other (Explain in Remarks)         □ Sandy Muck Mineral (S1) (LRR O, S)       □ Delta Ochric (F17) (MLRA 150A)       □ Umbric Surface (F13) (URR P, T, U)       □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 149A)       □ anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)       □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       □ Dark Surface (S7) (LRR P, S, T, U)         &lt;</td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td>🗌 1 cm Muck (A9</td> <td>) (LRR O)</td>	Black Histic (A3)       □ Loamy Mucky Mineral (F1) (LRR O)       □ 2 din Huck (HJ) (LRK 3)         Hydrogen Sulfide (A4)       □ Loamy Mucky Mineral (F1) (LRR O)       □ Reduced Vertic (F18) (outside MLRA 150A, B)         Hydrogen Sulfide Layers (A5)       □ Depleted Matrix (F2)       □ Piedmont Floodplain Soils (F19) (LRR P, 5, T)         Stratified Layers (A5)       □ Depleted Matrix (F3)       □ Anomalous Bright Loamy Soils (F20) (MLRA 153B)         Organic Bodies (A6) (LRR P, T, U)       □ Depleted Dark Surface (F6)       □ Red Parent Material (TF2)         S cm Mucky Mineral (A7) (LRR P, T, U)       □ Depleted Dark Surface (F7)       □ Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR P, T)       □ Redox Depressions (F8)       □ Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       □ Mari (F10) (LRR U)       □ Depleted Ochric (F11) (MLRA 151)         □ Depleted Below Dark Surface (A12)       □ Iron-Manganese Masses (F12) (LRR O, P, T)       □ Other (Explain in Remarks)         □ Sandy Muck Mineral (S1) (LRR O, S)       □ Delta Ochric (F17) (MLRA 150A)       □ Umbric Surface (F13) (URR P, T, U)       □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 149A)       □ anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)       □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       □ Dark Surface (S7) (LRR P, S, T, U)         <					_					🗌 1 cm Muck (A9	) (LRR O)
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20) (MLRA 153)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         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)       Mart (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       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 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S6)       Pledmont Floodplain Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Depter (fit observed):         Type:	Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Reduced Vertic (F16) (fullside PRICA ISOK,6)         Stratified Layers (A5)       Depleted 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)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F13) (ULR P, T, U)       Sandy Muck Mineral (S1) (LRR 0, S)         Sandy Muck Mineral (S1) (LRR 0, S)       Delta Ochric (F13) (ULR 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Janciactors of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S										🗌 2 cm Muck (A1	0) (LRR S)
Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F2) (MLRA 153         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 Ochric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       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 (F13) (MLRA 150) <sup>3</sup> Indicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Type:	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)         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)       Mari (F10) (LRR U)       Depleted Deleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Thick Dark Surface (A12)         Sandy Muck Mineral (S1) (LRR O, S)       Delta Ochric (F13) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       unless disturbed or problematic.         Type:									Reduced Vertic	: (F18) (outside MLRA 150A,B)	
Organic Bodies (A6) (LRR P, T, U) <ul> <li>Redox Dark Surface (F6)</li> <li>Red Parent Material (TF2)</li> <li>Very Shallow Dark Surface (TF12)</li> <li>Muck Presence (A8) (LRR U)</li> <li>Depleted Dark Surface (F7)</li> <li>Very Shallow Dark Surface (TF12)</li> <li>Muck (A9) (LRR P, T)</li> <li>Depleted Dark Surface (A11)</li> <li>Depleted Deleted Ochric (F11) (MLRA 151)</li> <li>Thick Dark Surface (A12)</li> <li>Iron-Manganese Masses (F12) (LRR 0, P, T)</li> <li>Coast Prairie Redox (A16) (MLRA 150A)</li> <li>Umbric Surface (F13) (LRR P, T, U)</li> <li>Sandy Gleyed Matrix (S4)</li> <li>Reduced Vertic (F18) (MLRA 150A, 150B)</li> <li>Stripped Matrix (S6)</li> <li>Anomalous Bright Loarny Soils (F20) (MLRA 149A, unless disturbed or problematic.</li> <li>Morallous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)</li> </ul> restrictive Layer (if observed):           Type:	Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       Red Parent Material (TF2)         S orm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F6)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         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 Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Pledmont Floodplain Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Reduced Vertic (F18) (MLRA 149A, 153C, 153D)         Restrictive Layer (if observed):       Type:         Type:       Hydric Soil Present?       Yes No         Remarks:       Hydric Soil Present?       Yes No							•	2)		Piedmont Flood	lplain Soils (F19) (LRR P, S, T)
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 Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       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) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 149A)       unless disturbed or problematic.         Type:	S cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Patent Material (H2)         Muck Presence (A8) (LRR 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)       Mari (F10) (LRR U)       Depleted Ochric (F11) (MLRA 151)         Depleted Below Dark Surface (A11)       Depleted Ochric (F13) (LRR 0, P, T)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)         S andy Muck Mineral (S1) (LRR 0, S)       Delta Ochric (F17) (MLRA 151)         S andy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A)         S Stripped Matrix (S6)       Pledmont Floodplain Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Depth (inches):       Mydric Soil Present? Yes No         Remarks:       No					_ `		•••			Anomalous Brig	ght Loamy Soils (F20) (MLRA 1538
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 Below 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)         Sandy Redox (S5)       Delta Ochric (F18) (MLRA 150A)         Stripped Matrix (S6)       Pledmont Floodplain Soils (F19) (MLRA 149A)         Dark Surface (S7) (LRR P, S, T, U)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         estrictive Layer (if observed):       Type:         Type:	Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR P, T)       Mari (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         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) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Pledmont Floodplain Soils (F19) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Depth (inches):         Type:	_			•						Red Parent Mai	terial (TF2)
1 cm Muck (A9) (LRR P, 7)       Mari (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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Pledmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No O	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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Pledmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         Destrictive Layer (if observed):       Type:         Type:       Pepth (inches):         Depth (inches):       Hydric Soil Present?         Yes (No (Context))       No (Context)	_			r, U)			-	F <b>7</b> )		Very Shallow D	ark Surface (TF12)
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)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Pledmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes NO	□ Depleted Below Dark Surface (A11)       □ Depleted Ochric (F11) (MLRA 151)         □ Thick Dark Surface (A12)       □ Iron-Manganese (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)         □ Sandy Gleyed Matrix (S4)       □ Delta Ochric (F18) (MLRA 150A)         □ Sandy Redox (S5)       □ Delta Ochric (F18) (MLRA 150A)         □ Sandy Redox (S5)       □ Pledmont Floodplain Soils (F19) (MLRA 149A)         □ Stripped Matrix (S6)       □ Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         □ Dark Surface (S7) (LRR P, S, T, U)       □ Pledmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)         □ Depth (inches):       □ Depth (inches):         □ Depth (inches):       □ Mucric Soil Present? Yes No ○			-				• •			Other (Explain	in Remarks)
☐ 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)         ☐ Sandy Gleyed Matrix (S4)       ☐ Reduced Vertic (F18) (MLRA 150A, 150B)         ☑ Sandy Redox (S5)       ☐ Pledmont Floodplain Soils (F19) (MLRA 149A)         ☑ Stripped Matrix (S6)       ☐ Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)         ☐ Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No ○	☐ 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)         ☐ Sandy Redox (S4)       ☐ Reduced Vertic (F18) (MLRA 150A, 150B)         ☐ Sandy Redox (S5)       ☐ Pledmont Floodplain Soils (F19) (MLRA 149A)         ☑ Stripped Matrix (S6)       ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         ☐ Dark Surface (S7) (LRR P, S, T, U)       ☐         Kestrictive Layer (if observed):       Type:         Type:	_						-				
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)         Sandy Gleyed Matrix (S4)       □ Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       □ Pledmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes No ○	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)         Sandy Gleyed Matrix (S4)       □ Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       □ Pledmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       ■         testrictive Layer (if observed):       Type:         Type:	_			1)	·			-			
Sandy Muck Mineral (S1) (LRR O, S)       □ Delta Ochric (F17) (MLRA 151) <sup>3</sup> Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       □ Pledmont Floodplain Soils (F19) (MLRA 149A)       unless disturbed or problematic.         ✓ Stripped Matrix (S6)       □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       unless disturbed or problematic.         Type:	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)       Pledmont Floodplain Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?         Yes       No		-	-			-					
Sandy Gleved Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Pledmont Floodplain Soils (F19) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       unless disturbed or problematic.         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes (No (Charles))	Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Indicators of hydrophytic vegetation and wetiand hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Pledmont Floodplain Soils (F19) (MLRA 149A)       unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         testrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes No         Remarks:       Remarks:       Hydric Soil Present?       Yes       No	Contract Data and				_						
Sandy Redox (S5)       Pledmont Floodplain Soils (F19) (MLRA 149A)       wetiand hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         testrictive Layer (if observed):       Type:       Hydric Soil Present? Yes No O	Sundy Get/Get Hadak (CF) <ul> <li>Reducted Verice (F16) (MLRA 130A, 130B)</li> <li>wetiand hydrology must be present, unless disturbed or problematic.</li> </ul> Sandy Redox (S5) <ul> <li>Piedmont Floodplain Soils (F19) (MLRA 149A)</li> <li>unless disturbed or problematic.</li> </ul> Stripped Matrix (S6) <ul> <li>Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D)</li> <li>Dark Surface (S7) (LRR P, S, T, U)</li> </ul> Restrictive Layer (if observed): <ul> <li>Type:</li> <li>Depth (inches):</li> <li>Remarks:</li> </ul>					Deli Deli	ta Ochric <i>(</i> I	F17) (MLR/	A 151)		3 <sub>Tedicoto</sub>	<b></b>
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Restrictive Layer (if observed): Type: Depth (inches): Yes  No	Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  testrictive Layer (if observed): Type: Depth (inches): Remarks:	Sandy Muck			5)							rs of hydronnyfic vegetation and
Dark Surface (S7) (LRR P, S, T, U)	Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):         Type:         Depth (inches):         Remarks:	Sandy Muck	ed Matrix (S		5)	Rec	luced Verti	c (F18) (M		-	wetian	d hydrology must be present,
Type: Depth (inches): Yes	Type: Depth (inches): Yes  No	Sandy Muck Sandy Gleye Sandy Redo	ed Matrix (S ox (S5)		5)	Rec     Piec	luced Verti Imont Floo	c (F18) (M dplain Soil	s (F19) (M	.RA 149A)	wetian unle	d hydrology must be present,
Depth (inches): Yes No	Depth (inches):     Hydric Soil Present?     Yes     No       Remarks:	Sandy Muck Sandy Gleye Sandy Redo Stripped Ma	ed Matrix (S ox (S5) atrix (S6)	4)		Rec     Piec	luced Verti Imont Floo	c (F18) (M dplain Soil	s (F19) (M	.RA 149A)	wetian unle	d hydrology must be present,
bepar (mane).	Remarks:	Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac	ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR	4) . P, S, T, U		Rec     Piec	luced Verti Imont Floo	c (F18) (M dplain Soil	s (F19) (M	.RA 149A)	wetian unle	d hydrology must be present,
lemarks:		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surface	ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR	4) . P, S, T, U		Rec     Piec	luced Verti Imont Floo	c (F18) (M dplain Soil	s (F19) (M	.RA 149A)	wetian unle 9A, 153C, 153D)	d hydrology must be present, ss disturbed or problematic.
ripped depleted matrix lower in soil column > 4 inches with some small redox concentrations.		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surface estrictive Lay	ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR yer (if obse	4) . P, S, T, U		Rec     Piec	luced Verti Imont Floo	c (F18) (M dplain Soil	s (F19) (M	.RA 149A)	wetian unle 9A, 153C, 153D)	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M doplain Soil ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M doplain Soil ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M doplain Soil ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M doplain Soil ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M Indplain Soil Ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M Indplain Soil Ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M Indplain Soil Ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M Indplain Soil Ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M Indplain Soil Ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M doplain Soil ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surfac estrictive Lay Type: Depth (inche emarks:	ed Matrix (S bx (S5) atrix (S6) ce (S7) (LRR yer (if obse es):	4) . P, S, T, U erved):	)	Rec     Plec     Anc	luced Verti Imont Floo omalous Bri	c (F18) (M doplain Soil ight Loamy	s (F19) (M v Soils (F20	LRA 149A) ) (MLRA 14	wetian unle 9A, 153C, 153D) Hydric Soil Present	d hydrology must be present, ss disturbed or problematic.
ipped depleted matrix lower in soil column > 4 inches with some small redox concentrations.		Sandy Muck Sandy Gleye Sandy Redo Stripped Ma Dark Surface	ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR	4) . P, S, T, U		Rec     Piec	luced Verti Imont Floo	c (F18) (M dplain Soil	s (F19) (M	.RA 149A)	wetian unle	d hydrology must be prese ss disturbed or problemat

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 07-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 2
nvestigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 20 T 7 s R 16 W
andform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
ubregion (LRR or MLRA): LRR T Lat:	30° 24' 53.385" N Long.: 89° 36' 51.572" W Datum: NAD83
oil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: PFO 1/4 C
re climatic/hydrologic conditions on the site typical for this time of ye	
	itly disturbed? Are "Normal Circumstances" present? Yes
	problematic? (If needed, explain any answers in Remarks.)
	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	
Hydric Soil Present? Yes  No	Is the Sampled Area
Wetland Hydrology Present? Yes  No	within a Wetland? Tes 🔍 NO 🔾
Remarks:	
HYDROLOGY	· · · · · · · · · · · · · · · · · · ·
	Alexandrian Beneficial Alexandrian and the second second
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	
Surface Water (A1)     Aquatic Fauna (B     High Water Table (A2)     Marl Deposits (B:	
Saturation (A3)	
	heres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	
Iron Deposits (B5)     Other (Explain In	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (89)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes O No O Depth (inches):	
м О и <b>О</b>	
	Wetland Hydrology Present? Yes 🔍 No 🔾
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	12
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if available:
Remarks:	
Saturation begins to develop around 10 to 12 inches below ground	surface. However, numerous other hydology indicators are evident.

(EGETATION (Five/Four Strata) - Use scientific	names u	Do	ominant		Sampling Point: Wet - 2		
	Abcolute		pecies? . el.Strat.	Indicator			
Tree Stratum (Plot size: .30 m )	% Cove		Cover	Status			
Magnolia virginiana	15		48.4%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 8 (A)		
Nyssa sylvatica	40		32.3%	FAC			
Marrie - Ilite Lati			16.1%	FACW	Total Number of Dominant		
Taxodium ascendens	1		3.2%	OBL	Species Across All Strata:8 (B)		
	-	H		UDL	Percent of dominant Species		
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
		븜	0.0%	r as			
			0.0%		Prevalence Index worksheet:		
	0	Ц.	0.0%	··· · · · · · · · · · · · · · · · · ·	Total % Cover of Multiply by		
0% of Total Cover: 15.5 20% of Total Cover: 6.2	31	= TQ	tal Cove	r	OBL species <u>4</u> x 1 = <u>4</u>		
pling or Sapling/Shrub Stratum (Plot size: 30 m	_ }	_		-	FACW species <u>85</u> x 2 = <u>170</u>		
Magnolia virginiana	25		59.5%	FACW	FAC species 25 x 3 = 75		
Pinus elliottii	10	⊻.	23.8%	FACW	FACU species $0 \times 4 = 0$		
Nyssa sylvatica	5		11.9%	FAC	UPL species 0 x 5 = 0		
Acer rubrum	2		4.8%	FAC	Column Totals: 114 (A) 249 (B)		
	0		0.0%				
	_		0.0%		Prevalence Index = B/A =2.184		
	_		0.0%		Hydrophytic Vegetation Indicators:		
	•		0.0%				
% of Total Cover: 21 20% of Total Cover: 8.4		= To	tal Cove	-	1 - Rapid Test for Hydrophytic Vegetation		
	ь	- 10			✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Cyrilla racemiflora			71.4%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Magnolia virginiana		Ц.	17.9%	FACW	1		
Acer rubrum	3	Ц.	10.7%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
	0	Ц,	0.0%				
	0		0.0%		Definition of Vegetation Strata:		
N	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover:         14         20% of Total Cover:         5.6           rb Stratum         (Plot size: .30 m)	28	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
A	5		62.5%	FACW	Sapling - Woody plants, excluding woody vines,		
Woodwardia areolata	-		37.5%	OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
	_		0.0%				
			0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
n de falle e las la desta de la desta d	0	<u> </u>			than 3 in. DBH and greater than 3.28 ft (1m) tall.		
		Η.	0.0%	· · ·			
			0.0%		Shrub - Woody plants, excluding woody vines,		
···· ··· ··· ··· ··· ··· ··· ··· ··· ·	0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
	0		0.0%	-	Herb - All herbaceous (non-woody) plants, including		
	0		0.0%		herbaceous vines, regardless of size, and woody		
	0		0.0%		plants, except woody vines, less than approximately		
	0	$\square$	0.0%	;	3 ft (1 m) in height.		
	0		0.0%		147 1 1 1 40.00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
% of Total Cover:     4     20% of Total Cover:     1.6       pody Vine Stratum     (Plot size:     30 m     )	8 :	= Tol	tal Cover		Woody vine - All woody vines, regardless of height.		
Vitis rotundifolia			100.007	EAC 1			
		<b>⊡</b>	100.0%	PAC			
/			0.0%				
	0		0.0%				
	0	닏	0.0%		Hydrophytic		
6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	<mark>.</mark> 0	Ц.,	0.0%		Vegetation		
0% of Total Cover: 2.5 20% of Total Cover: 1		= Total Cover			Vegetation Present? Yes INO		

	iption: (De	Matrix	the depth	needed to docur	Redox Fea		ontirm the	absence of indicator	5.)
Depth (inches)	Color (		%	Color (mois		4	Loc <sup>2</sup>	Texture	Remarks
C-4	10YR	3/1	100						
4-20	10YR	4/2	95	10YR 6	/2 5	D	М	Sandy Loam	Very fine granied
		=Depletio	n. RM= <b>Red</b>	uced Matrix, CS=Co	vered or Coa	ited Sand Gr	ains <sup>2</sup> Loca	ation: PL=Pore Lining.	M=Matrix
lydric Soil I				_				Indicators for P	roblematic Hydric Soils <sup>3</sup> :
Histosol (	-			·	Below Surfa			🗌 1 cm Muck (/	49) (LRR O)
	edon (A2)			_	Surface (S9	• • •	•	🗌 2 cm Muck (A	
Black Hist				_	ucky Mineral		)		tic (F18) (outside MLRA 150A,B)
Loamy Gleyed Matrix (F2)								Piedmont Flo	odplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)     Depleted Matrix (F3)       Organic Bodies (A6) (LRR P, T, U)     Redox Dark Surface (F6)								Anomalous B	right Loamy Soils (F20) (MLRA 153B)
_				_	rk Surface (F	•		Red Parent M	laterial (TF2)
_	ky Mineral (A		r, I, U)		Dark Surface			Very Shallow	Dark Surface (TF12)
-	ence (A8) (L	-			pressions (Fi	3)		Other (Explai	n in Remarks)
-	k (A9) (LRR F				) (LRR U)				
_	Below Dark S		11)	·	Ochric (F11)	• •			
-	Surface (A1			_	ganese Mass				
	rie Redox (A			_	urface (F13)		)		
-	ck Mineral (S		), 5)	_	ric (F17) (ML			3 <sub>Indical</sub>	tors of hydrophytic vegetation and
-	yed Matrix (S	4)			Vertic (F18) (		-	wetta	and hydrology must be present,
Sandy Red					Floodplain S		-		less disturbed or problematic.
Stripped N Dark Surfa	ace (S7) (LRR	: Р, S, T, I	U)		is Bright Loar	ny Soiis (F2i	J) (MLRA 14	9A, 153C, 153D)	
estrictive La	yer (if obse	erved):							
Туре:								Hydric Soll Preser	nt? Yes 🖲 No 🔿
Depth (Inch	es):							infunction Preser	
emarks: pletions in l	lower soil o	olumn aj	ppear to b	e scattered throu	ghout the p	orimary ma	ıtrix. Very	light, but not domin	ant.

Project/Site: NASA - Stennis; 1.100 Acre Wetland Delineation City/Co	ounty: Waveland - Hancock Sampling Date: 11-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 5
Investigator(s): Lars Larson, Randy Ellis Section	on, Township, Range: S 28 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Swale-drainage Local n	elief (concave, convex, none): Slope: 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR T Lat.: 30° 24	' 42.445" N Long.: 89° 36' 41.842" 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?	Yes  No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	
Are Vegetation, Soil, or Hydrology naturally problem.	
	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling	g point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	Is the Sampled Area
Hydric Soil Present? Yes 💿 No 🔿	
Wetland Hydrology Present? Yes <ul> <li>No O</li> </ul>	within a Wetland?
Remarks:	
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR U	J) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1	.) Moss Trim Lines (B16)
Water Marks (B1)	ng Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	(C4) Crayfish Burrows (C8)
Drift Deposits (B3)	illed Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes O No O Depth (inches):	
Water Table Present? Yes No  Depth (inches):	Wetland Hydrology Present? Yes  No
Saturation Present? Yes No Depth (inches): 1	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ	ious inspections), if available:
Remarks:	
i de la constancia de la c	

		C-	Control .		Sampling Point: Wet - 5		
	Absolute	e Re	ecies? . I.Strat.	Indicator	Dominance Test worksheet:		
Free Stratum (Plot size: 30 m )	% Cove	r (	Cover	Status	Number of Dominant Species		
Magnolia virginiana	15		45.5%	FACW	That are OBL, FACW, or FAC: 9 (A)		
Nvssa sylvatica	15		45.5%	FAC	Table also al De al cal		
Quercus nigra	3		9.1%	FAC	Total Number of Dominant Species Across All Strata: 9 (B)		
ing may provide accounting and the	0		0.0%				
•	0		0.0%		Percent of dominant Species		
	0		0.0%		That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)		
· · · · · · · · · · · · · · · · · · ·			0.0%	P. P. J	Prevalence Index worksheet:		
	0		0.0%	n 2 - 44 - 14	Total % Cover of: Multiply by		
0% of Total Cover: 16.5 20% of Total Cover: 6.6	d	= Tot	tal Cove		OBL species 10 x 1 = 10		
		- 10					
pling or Sapling/Shrub Stratum (Plot size: 30 m	,			FLOW			
Magnolia virginiana			52.6%	FACW	FAC species $38 \times 3 = 114$		
Quercus nigra		⊻.	26.3%	FAC	FACU species $0 \times 4 = 0$		
Acer rubrum	. 5		13.2%	FAC	UPL species 0 x 5 = 0		
Cyrilla racemiflora			7.9%	FACW	Column Totals: <u>126</u> (A) <u>280</u> (B)		
· · · · · · · · · · · · · · · · · · ·	0		0.0%		Prevalence Index = $B/A = 2.222$		
	0		0.0%				
	0		0.0%	· · · · · · ·	Hydrophytic Vegetation Indicators:		
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 19 20% of Total Cover: 7.6	38	= Tol	tal Cove	r	$\checkmark$ 2 - Dominance Test is > 50%		
(Plot cize: 20 m )							
(Plot size: <u>30 m</u> )	20		F7 40/	FACIN	✓ 3 - Prevalence Index is $\leq 3.0^{1}$		
Cyrilla racemiflora			57.1%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex coriacea			28.6%	FACW			
Magnolia virginiana	5	<u> </u>	14.3%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.		
	0	Ľ	0.0%	· G = 1			
	0	Ш,	0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 17.5 20% of Total Cover: 7	0	  = Tol			Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Total Cover: 17.5 20% of Total Cover: 7	0	 = Tol	0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 17.5 20% of Total Cover: 7 <b>rb Stratum</b> (Plot size: , 30 m )	<u>0</u> 35		0.0% t <b>al Cove</b> r		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,		
% of Total Cover: 17.5 20% of Total Cover: 7 rb Stratum (Plot size: 30 m ) Arundinaria tecta	0 35 5		0.0% tal Cover 33.3%	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		
% of Total Cover: 17.5 20% of Total Cover: 7 rb Stratum (Plot size: 30 m ) Arundinaria tecta Woodwardia areolata	0 35 5 10		0.0% tal Cover 33.3% 66.7%		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,		
% of Total Cover: <u>17.5</u> 20% of Total Cover: <u>7</u> rb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta Woodwardia areolata	0 35 5 10 0		0.0% al Cover 33.3% 66.7% 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: 17.5 20% of Total Cover: 7 rb Stratum (Plot size: 30 m ) Arundinaria tecta Woodwardia areolata	0 35 5 10 0		0.0% tal Cover 33.3% 66.7% 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		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m ) , Arundinaria tecta . Woodwardia areolata	0 35 5 10 0 0		0.0% tal Cover 33.3% 66.7% 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.		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m ) , Arundinaria tecta . Woodwardia areolata	0 35 5 10 6 0 0		0.0% <b>al Cove</b> 33.3% 66.7% 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,		
D% of Total Cover: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: , 30 m) , Arundinaria tecta Woodwardia areolata	0 35 5 10 6 0 0 0 0		0.0% <b>al Cove</b> 33.3% 66.7% 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.		
0% of Total Cover: <u>17.5</u> 20% of Total Cover: <u>7</u> erb Stratum (Plot size: <u>30 m</u> ) Arundinaria tecta Woodwardia areolata	0 35 5 10 0 0 0 0 0		0.0% <b>al Cove</b> 33.3% 66.7% 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.		
0% of Total Cover: <u>17.5</u> 20% of Total Cover: <u>7</u> erb Stratum ( <sup>Plot</sup> size: <u>30 m</u> ) Arundinaria tecta Woodwardia areolata	0 35 5 10 0 0 0 0 0 0 0 0		0.0% <b>al Cove</b> 33.3% 66.7% 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		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb.Stratum (Plot size: 30 m ) , Arundinaria tecta . Woodwardia areolata	0 35 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 33.3% 66.7% 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: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m ) Arundinaria tecta Woodwardia areolata	0 35 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% <b>al Cover</b> 33.3% 66.7% 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		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m ) Arundinaria tecta Woodwardia areolata	0 35 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% cal Cover 33.3% 66.7% 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: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m ) Arundinaria tecta Woodwardia areolata	0 35 5 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% cal Cover 33.3% 66.7% 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 plants, except woody vines, less than approximately		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb. Stratum (Plot size: 30 m ) Arundinaria tecta Woodwardia areolata	0 35 5 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% cal Cover 33.3% 66.7% 0.0% 0.0% 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 plants, except woody vines, less than approximately 3 ft (1 m) in height.		
0% of Total Cover: 17.5 20% of Total Cover: 7   orb Stratum (Plot size: 30 m )   Arundinaria tecta Woodwardia areolata Woodwardia areolata % of Total Cover: 7.5 20% of Total Cover: 3 Dody Vine Stratum (Plot size: 30 m )	0 35 10 0 0 0 0 0 0 0 0 0 0 15		0.0% cal Cover 33.3% 66.7% 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 3 ft (1 m) in height.		
3% of Total Cover: 17.5 20% of Total Cover: 7   arb Stratum (Plot size: 30 m)   Arundinaria tecta   Woodwardia areolata	0 35 5 10 0 0 0 0 0 0 0 0 0 0 0 5		0.0% cal Cover 33.3% 66.7% 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 3 ft (1 m) in height.		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m) Arundinaria tecta Woodwardia areolata Woodwardia areolata 	0 35 10 0 0 0 0 0 0 0 0 0 0 15 5 0		0.0% cal Cover 33.3% 66.7% 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 3 ft (1 m) in height.		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m) Arundinaria tecta Woodwardia areolata Woodwardia areolata 	0 35 10 0 0 0 0 0 0 0 0 0 0 0 0 0 15 5 0 0		0.0% cal Cover 33.3% 66.7% 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 3 ft (1 m) in height.		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m) Arundinaria tecta Woodwardia areolata Woodwardia areolata 	0 35 10 0 0 0 0 0 0 0 0 0 0 0 0 0 15 5 0 0		0.0% cal Cover 33.3% 66.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 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 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.		
0% of Total Cover: 17.5 20% of Total Cover: 7 erb Stratum (Plot size: 30 m) Arundinaria tecta Woodwardia areolata 	0 35 10 0 0 0 0 0 0 0 0 0 0 0 0 0 15 5 0 0		0.0% cal Cover 33.3% 66.7% 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 3 ft (1 m) in height.		

Sampling	Point:	Wet -	5

	where it is the		ale depui					annin uie	absence of indicators	· <i>y</i>
Depth	Cala d	Matrix	~			dox Featu	ires Type <sup>1</sup>	1 2	<b>T</b> -1	B
(inches) 0-5	10YR	moist) 3/1	% 95	Color (moi 10YR	sc) 6/6	<b>%</b>	C	Loc <sup>2</sup>	Sandy Loam	Remarks
						•		6 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		-
5-22	10YR	3/2	90	10YR	6/2	10	D	<u>М</u>	Sandy Loam	
				· · · · · · · · · · · · · · · · · · ·						
		=Depletio	n. RM=Red	uced Matrix, CS=C	Covere	d or Coate	ed Sand Gr	ains ²Loca	ation: PL=Pore Lining, M	=Matrix
Hydric Soil J				_					Indicators for Pro	oblematic Hydric Soils <sup>3</sup> :
Histosof (							(S8) (LRR		1 cm Muck (A9	) (LRR 0)
	pedon (A2)			_			LRR S, T, I	-	2 cm Muck (A1	0) (LRR S)
Black Hist	4				-		1) (LRR O)	)	Reduced Vertic	(F18) (outside MLRA 150A,B)
	Sulfide (A4)				-	Matrix (F2	2)			Iplain Solls (F19) (LRR P, S, T)
_	Layers (A5)								🔄 Anomalous Brig	ht Loamy Soils (F20) (MLRA 153B)
	Bodies (A6) (L			_		urface (F6)			Red Parent Mai	terial (TF2)
	ky Mineral (A		', I, U)	_ '		Surface (I	F7)		Very Shallow D	ark Surface (TF12)
	sence (A8) (L				'	sions (F8)			🗌 Other (Explain	in Remarks)
	:k (A9) (LRR I			🛄 Marl (F1						
	Below Dark S		11)	·			4LRA 151)			
	k Surface (A1			_	-		(F12) (LR			
	irie Redox (A						RR P, T, U)	)		
_	ick Mineral (S		), S)			F17) (MLR/			<sup>3</sup> Indicator	rs of hydrophytic vegetation and
	yed Matrix (S	54)					LRA 150A,		wetlan	d hydrology must be present,
Sandy Red	• •			_		•		LRA 149A)		ss disturbed or problematic.
	Matrix (S6) ace (S7) (LRF	R P, S, T, I	U)		ous Bri	ight Loamy	/ Solls (F20	)) (MLRA 14	9A, 153C, 153D)	
Restrictive La	ayer (if obse	erved):								
Туре:						1				
Depth (incl	nes):								Hydric Soil Present	? Yes 🖲 No 🔿
Remarks:										
olotchy area	s with light	er colorir	ng that app	bear stripped of	dark	er organie	c materia	Ι.		
	2		5	••						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Wavel	land - Hancock	Sampling Date:	11-Oct-16	
Applicant/Owner: NASA	State:	MS Sampl	ing Point: Wet- 6		
nvestigator(s): Lars Larson, Randy Ellis	Section, Township,	Range: S 28	T7s R1	6 W	
andform (hillslope, terrace, etc.): Floodplain	Local relief (concave	, convex, none): undu	ulating Slope:	1.0 % / 0.6°	
Subregion (LRR or MLRA): LRR T				um: NAD83	
	Lat: 30° 24' 40.727" N	Long.: 89° 36'	T 1 X		
Soil Map Unit Name: Atmore			lassification: PFO 1/4	L	
Are climatic/hydrologic conditions on the site typical for this tin	ne of year? Yes 🔍 I	Vo U (If no, expl	ain in Remarks.)		
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 sig	nificantly disturbed? A	re "Normal Circumstan	ces" present? Yes 🤄	No ○	
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 nat	turally problematic? ()	lf needed, explain any a	answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map show	ing sampling point loca	ations, transects, i	important features	, etc.	
Hydrophytic Vegetation Present? Yes  No	Is the Samp	lad Area			
Hydric Soil Present? Yes   No	· · · ·	Ver 🕘 Ne	.0		
Wetland Hydrology Present? Yes   No	within a We	tland? Tes O NO			
Remarks:	I				
Low bottom-draiange area approximately 60-70 feet from UI HYDROLOGY	2-6 within riparian flood plain	or Lurgeskin Creek.			
Wetland Hydrology Indicators:		Secondary I	ndicators (minimum of 2 re	quired)	
Primary Indicators (minimum of one required; check all that	apply)	· · · · · ·	Soil Cracks (B6)		
Surface Water (A1)	auna (B13)	_	Vegetated Concave Surfac	e (B8)	
High Water Table (A2)	osits (B15) (LRR U)	✓ Drainag	e Patterns (B10)		
Saturation (A3)	Sulfide Odor (C1)	Moss Tri	im Lines (B16)		
Water Marks (B1) Oxidized	Rhizospheres along Living Roots	(C3) Dry Sea:	son Water Table (C2)		
Sediment Deposits (B2)	of Reduced Iron (C4)	🗹 Crayfish	Burrows (C8)		
Drift Deposits (B3)	on Reduction in Tilled Soils (C6)		on Visible on Aerial Imagery	/ (C9)	
	k Surface (C7)		phic Position (D2)		
	(plain in Remarks)	_	Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)			ıtral Test (D5)		
Water-Stained Leaves (B9)		Sphagnu	um moss (D8) (LRR T, U)		
Field Observations:					
	inches):				
Water Table Present? Yes 🔿 No 🖲 Depth (i	inches):	Wetland Hydrology Present? Yes  No			
Saturation Present? Yes O No O Depth (includes capillary fringe)	inches):	stand nydrology Prese		_	
Describe Recorded Data (stream gauge, monitoring well, aeri	al photos, previous inspection	ns), if available:			
Remarks:					
Drainage patterns, low bottom area with numerous buttresse	a trees.				

		Dominant Species?			Sampling Point: Wet- 6		
	Absolute			Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m)	% Cove		Cover	Status	Number of Dominant Species		
Nyssa sylvatica	15		55.6%	FAC	That are OBL, FACW, or FAC:8(A)		
Quercus nigra	10	$\checkmark$	37.0%	FAC			
Pinus elliottii	2		7.4%	FACW	Total Number of Dominant Species Across All Strata: 8 (B)		
	0		0.0%				
	0		0.0%		Percent of dominant Species		
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
			0.0%	1917 1917 1917	Prevalence Index worksheet:		
	0		0.0%		Total % Cover of Multiply by:		
0% of Total Cover: 13.5 20% of Total Cover: 5.4	27	= To	tal Cove	r	OBL species <u>12</u> x 1 = <u>12</u>		
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species x 2 =44		
Manage and and have		<b>V</b>	50.0%	FAC	FAC species $45 \times 3 = 135$		
	-		25.0%	FAC			
			15.0%	FACW			
			10.0%	FACW	UPL species $0 \times 5 = 0$		
				FACW	Column Totals: 79 (A) 191 (B)		
			0.0%		Prevalence Index = B/A = 2.418		
· · · ·			0.0%		Hydrophytic Vegetation Indicators:		
			0.0%		nyuophytic vegetation matators.		
	. 0	$\Box$	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 10 20% of Total Cover: 4	20	= To	tal Cove	r	✓ 2 - Dominance Test is > 50%		
rub Stratum_ (Plot size: _30 m)					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Magnolia virginiana	10	✓	58.8%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Acer rubrum	5		29.4%	FAC			
Pinus elliottii	2		11.8%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
			0.0%		be present, unless disturbed or problematic.		
			··· ··· ···				
			0.084		Definition of vegetation Strata:		
			0.0%	44 - 200	Definition of Vegetation Strata:		
••••••••••••••••••••••••••••••••••••••	. 0		0.0%	4	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Totai Cover: 8.5 20% of Total Cover: 3.4	. 0	  = To			Tree - Woody plants, excluding woody vines,		
0% of Totai Cover: 8.5 20% of Total Cover: 3.4 erb Stratum (Plot size: 30 m )	0 17		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 Totai Cover: 8.5 20% of Total Cover: 3.4 <b>rb Stratum</b> (Plot size: 30 m )	0	□ = To	0.0%	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,		
% of Totai Cover: 8.5 20% of Total Cover: 3.4 rb Stratum (Plot size: <u>30 m )</u> Woodwardia areolata	0 17 10		0.0% Ital 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).		
% of Totai Cover: 8,5 20% of Total Cover: 3,4 <b>rb Stratum</b> (Plot size: 30 m ) <b>Woodwardla areolata</b> <b>Arundinaria tecta</b>	0 17 10		0.0% Ital Cover	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		
% of Totai Cover: 8.5 20% of Total Cover: 3.4 rb Stratum (Plot size: 30 m ) Woodwardia areolata Arundinaria tecta Woodwardia virginica	- 0 17 10 3 2		0.0% tal Cover 66.7% 20.0%	OBL 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		
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)% of Totai Cover: <u>8.5</u> 20% of Total Cover: <u>3.4</u> <b>rb Stratum</b> (Plot size: <u>30 m</u> ) <b>Woodwardla areolata</b> <b>Arundinaria tecta</b> <b>Woodwardla virginica</b>	0 17 3 0 0 0		0.0% otal Cover 66.7% 20.0% 13.3% 0.0% 0.0%	OBL 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		
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0% of Total Cover:       8.5       20% of Total Cover:       3.4         erb Stratum       (Plot size: 30 m)       )         Woodwardla areolata	0         10         3         2         0         15		0.0% tal Cover 66.7% 20.0% 13.3% 0.0%	OBL 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 3 ft (1 m) in height.		
0% of Totai Cover: 8.5 20% of Total Cover: 3.4   erb Stratum (Plot size: 30 m)   Woodwardla areolata   Arundinaria tecta   Woodwardla virginica	0 17 10 3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15 0		0.0% tal Cover 66.7% 20.0% 13.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 13.3% 0.0	OBL 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 3 ft (1 m) in height.		
0% of Total Cover:       8.5       20% of Total Cover:       3.4         erb Stratum       (Plot size: 30 m)       )         Woodwardla areolata	0 17 10 3 2 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 66.7% 20.0% 13.3% 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%	OBL 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 3 ft (1 m) in height.		
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Sampling Point: Wet- 6

Profile Descri	ption: (De	scribe to	the depth r	needed to a	locument	t the indic	cator or o	onfirm the	absence of indicators.)	
Depth	a. • · · · · · · · · · · · · · ·	Matrix	i		Re	dox Feat				
(inches) 0-5	Color ( 10YR	moist) 3/1	•⁄o 100	Color (	moist)	%	, Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
5-16	10YR	3/2	90	10YR	7/2	10	с	м	Sandy Loam	1
5.10	TOLK				1/2	10	· · ·		Sandy Loann	
1. W							<u></u>			
					· · · ·	, <u> </u>				
<sup>1</sup> Type: C=Conc Hydric Soil I		≃Depletio	n. RM=Redu	ced Matrix, (	S=Covere	ed or Coate	ed Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=	
Histosol (A					s mhua Dal	C	(00) (100	с т II)	_	ematic Hydric Soils <sup>3</sup> :
	•						(S8) (LRR		1 cm Muck (A9)	
-				_			LRR S, T,	·	2 cm Muck (A10)	
Black Histi	• •			_			1) (LRR O)	}	Reduced Vertic (	F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)     Loamy Gleyed Matrix (F2)       Stratified Layers (A5)     Depleted Matrix (F3)								_	lain Soils (F19) (LRR P, S, T)	
			•		leted Mat	• •				t Loamy Soils (F20) (MLRA 153B)
	dies (A6) (L		-			urface (F6)			Red Parent Mate	rial (TF2)
	y Mineral (A		, T, U)			< Surface (	F7)		Very Shallow Da	rk Surface (TF12)
	ence (A8) (L				•	sions (F8)			🗌 Other (Explain in	Remarks)
	(A9) (LRR F			Mar	l (F10) (Ll	rr U)				
F	elow Dark S	-	(1)	Dep	leted Och	ric (F11) (M	MLRA 151)			
	Surface (A1	-		Iror	i-Mangane	ese Masses	(F12) (LR	R O, P, T)		
_	ie Redox (A:			🗌 Uml	bric Surfac	e (F13) (L	RR P, T, U)	)		
Sandy Muc	k Mineral (S	1) (LRR O	, S)	Delt	a Ochric (	F17) (MLR	A 151)		3	
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)							150B)	"Indicators	of hydrophytic vegetation and hydrology must be present,	
Sandy Red	ox (S5)			Pied	Imont Floo	dplain Soll	s (F19) (M	LRA 149A)		s disturbed or problematic.
Stripped M	atrix (S6)			Ano	malous Br	ight Loamy	Solls (F20	) (MLRA 14	9 <b>A,</b> 153C, 153D)	
Dark Surfa	ce (S7) (LRR	P, S, T, l	J)							
Restrictive La	yer (If obse	erved):								
Depth (inch			1000			-			Hydric Soil Present?	Yes 💿 No 🔿
	:s):	· • • · · ·				•				
Remarks:										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Wa	aveland - Hancock Sampling Date: 11-Oct-16
pplicant/Owner: NASA	Sta	te: MS Sampling Point: Wet - 7
nvestigator(s): Lars Larson, Randy Ellis	Section, Townsh	nip, Range: S 28 T 7 s R 16 W
andform (hillslope, terrace, etc.): Terrace	Local relief (conca	ave, convex, none): none Skope: 0.0 % / 0.0
ubregion (LRR or MLRA): LRR T	Lat: 30º 24' 46.797" [	N Long.: 89° 36' 26.603" W Datum: NAD83
oil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slop		NWI classification: PFO 1/4 C
re climatic/hydrologic conditions on the site typical for this ti		
Are Vegetation, Soil, or Hydrology si	ignificantly disturbed?	Are "Normal Circumstances" present? Yes 🔍 No 🔾
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 n	aturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	wing sampling point k	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 🔍 No 🔿	To the Sa	mpled Area
Hydric Soil Present? Yes 🔍 No 🔿		
Wetland Hydrology Present? Yes 💿 No 🔿	within a V	Netland? Tes of hig of
Remarks:		
Terrace area within 100 feet of power line ROW. Area seen	ns possibly disturbed with a	mix of vegetative species just north of heavy pine overstory.
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that	at apply)	Surface Soil Cracks (B6)
	: Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
	eposits (B15) (LRR U)	✓ Drainage Patterns (B10)
	en Sulfide Odor (C1)	Moss Trim Lines (B16)
	d Rhizospheres along Living Roc	
	ce of Reduced Iron (C4)	Crayfish Burrows (C8)
	Iron Reduction in Tilled Soils (C	
	uck Surface (C7)	Geomorphic Position (D2)
	Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No  Depth	(in all no ) .	
	(inches):	
	(inches):	Wetland Hydrology Present? Yes 💿 No 🔿
Saturation Present? Yes No O Depth	(inches):	
Describe Recorded Data (stream gauge, monitoring well, ae	rial photos, previous inspec	tions), if available:
Remarks:		·

			ominant		Sampling Point: Wet - 7
	Absolut		pecies? . el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove	_	Cover	Status	Number of Dominant Species
Pinus elliotti	10	$\checkmark$	52,6%	FACW	That are OBL, FACW, or FAC: 10 (A)
Nyssa sylvatica	5		26.3%	FAC	Tabel Number of Devices t
Quercus nigra	3		15.8%	FAC	Total Number of Dominant Species Across All Strata: 10 (B)
Magnolia virginiana	1		5.3%	FACW	
	0		0.0%		Percent of dominant Species
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
	0		0.0%		Prevalence Index worksheet:
	0		0.0%	(	Total % Cover of: Multiply by:
50% of Total Cover: 9.5 20% of Total Cover: 3.8	19	= To	tal Cove		OBL species $7 \times 1 = 7$
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	•••••				FACW species x 2 =58
Disco allight		V	FF 60/	EACIAL	the second se
			55,6%	FACW	
Magnolia virginiana Acer rubrum		⊻.	27.8%	FACW	FACU species $0 \times 4 = 0$
			16.7%	FAC	UPL species $0 \times 5 = 0$
en aneren Marke ree a			0.0%	(	Column Totals: 80 (A) 197 (B)
	0		0.0%		Prevalence Index = B/A = 2.463
			0.0%		
21			0,0%		Hydrophytic Vegetation Indicators:
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 9 20% of Total Cover: 3.6		= To	tal Cove	r i	✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m ,)					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
	10	$\checkmark$	40.0%	FAC	
· · · · · · · · · · · · · · · · · · ·		1.0			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Acer rubrum				FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Nyssa sylvatica			20.0%	FAC	be present, unless disturbed or problematic.
Persea palustris			12.0%	FACW	
	0				Definition of Vegetation Strata
			0.0%		Definition of Vegetation Strata:
	, 0		0.0%		Tree - Woody plants, excluding woody vines,
	. 0	- To			Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 12.5 20% of Total Cover: 5	. 0	- To	0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m</u> )	, <u>0</u> 25		0.0% tal 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). Sapling - Woody plants, excluding woody vines,
0% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m )</u> ) . Woodwardia areolata	0 25 5	☑.	0.0% tal Cover 71.4%	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
0% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m</u> ) . Woodwardia areolata . Woodwardia virginica	0 25 5 2		0.0% <b>tal Cove</b> 71.4% 28.6%		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,
0% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m )</u> Woodwardia areolata Woodwardia virginica	0 25 5 2 0	☑.	0.0% tal Cover 71.4% 28.6% 0.0%	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.
D% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m )</u> . Woodwardia areolata . Woodwardia virginica	0 25 5 2	☑.	0.0% tal Cover 71.4% 28.6% 0.0% 0.0%	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
0% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m )</u> . Woodwardia areolata . Woodwardia virginica	0 25 5 2 0 0 0 0	☑.	0.0% tal Cover 71.4% 28.6% 0.0% 0.0% 0.0%	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
0% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m</u> ) . Woodwardia areolata . Woodwardia virginica	0 25 2 0 0 0 0 0	☑.	0.0% tal Cover 71.4% 28,6% 0.0% 0.0% 0.0% 0.0%	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: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m</u> ) Woodwardia areolata Woodwardia virginica	0 25 2 0 0 0 0 0 0 0 0	☑.	0.0% tal Cover 71.4% 28,6% 0.0% 0.0% 0.0% 0.0% 0.0%	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: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m</u> ) Woodwardia areolata Woodwardia virginica	0 25 2 0 0 0 0 0 0 0 0 0 0 0	☑.	0.0% tal Cover 71.4% 28.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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.
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50% of Total Cover: 12.5 20% of Total Cover: 5 erb Stratum (Plot size: 30 m) Woodwardia areolata Woodwardia virginica	0 25 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	☑.	0.0% tal Cover 71.4% 28.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m</u> ) . Woodwardia areolata . Woodwardia virginica	0 25 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	☑.	0.0% tal Cover 71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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
50% of Total Cover: 12.5 20% of Total Cover: 5 erb Stratum (Plot size: 30 m) Woodwardia areolata Woodwardia virginica	0 25 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	☑.	0.0% tal Cover 71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	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 3 ft (1 m) in height.
50% of Total Cover: 12.5 20% of Total Cover: 5 erb Stratum (Plot size: 30 m) Woodwardia areolata Woodwardia virginica	0 25 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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
50% of Total Cover: 12.5 20% of Total Cover: 5 erb Stratum (Plot size: 30 m) Woodwardia areolata Woodwardia virginica Woodwardia virginica Woodwardia 2.2 20% of Total Cover: 1.4	0 25 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 71.4% 28,5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	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 3 ft (1 m) in height.
0% of Total Cover: 12.5 20% of Total Cover: 5   erb Stratum (Plot size: 30 m) Woodwardia areolata Woodwardia virginica Woodwardia virginica 0% of Total Cover: 3.5 20% of Total Cover: 1.4 cody Vine Stratum (Plot size: 30 m)	0 25 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7		0.0% tal Cover 71.4% 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	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 3 ft (1 m) in height.
0% of Total Cover: 12.5 20% of Total Cover: 5   erb Stratum (Plot size: 30 m) Woodwardia areolata Woodwardia virginica Woodwardia virginica 0% of Total Cover: 3.5 20% of Total Cover: 1.4 cody Vine Stratum (Plot size: 30 m) Vitis rotundifolia	0 25 2 0 0 0 0 0 0 0 0 0 0 0 0 7 10		0.0% tal Cover 71.4% 28,6% 0.0%	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 3 ft (1 m) in height.
0% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> erb Stratum (Plot size: <u>30 m</u> ) Woodwardia areolata Woodwardia virginica Woodwardia virginica 0% of Total Cover: <u>3.5</u> 20% of Total Cover: <u>1.4</u> cody Vine Stratum (Plot size: <u>30 m</u> ) Vitis rotundifolia Rubus argutus	0 25 5 2 0 0 0 0 0 0 0 0 0 0 0 7 10 1		0.0% tal Cover 71.4% 28.5% 0.0%	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 3 ft (1 m) in height.
0% of Total Cover: 12.5 20% of Total Cover: 5   erb Stratum (Plot size: 30 m) Woodwardia areolata Woodwardia virginica Woodwardia virginica 0% of Total Cover: 3.5 20% of Total Cover: 1.4 cody Vine Stratum (Plot size: 30 m) Vitis rotundifolia Rubus argutus	0 25 5 2 0 0 0 0 0 0 0 0 0 0 0 0 7 10 1 0		0.0% tal Cover 71.4% 28.6% 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%	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 3 ft (1 m) in height.
50% of Total Cover: 12.5 20% of Total Cover: 5     erb Stratum (Plot size: 30 m)     Woodwardia areolata   Woodwardia virginica     Vita virginica     Woodwardia virginica     Wo	0 25 5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7 10 1 0 0 0 0		0.0% tal Cover 28.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	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 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
50% of Total Cover: 12.5 20% of Total Cover: 5     lerb Stratum (Plot size: 30 m )     1. Woodwardla areolata   2. Woodwardla virginica   3.   4.   5.   6.   7.   3.   4.   5.   6.   7.   3.   4.   5.   6.   7.   7.   8.   9. <td>0 25 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7 10 1 0 0 0 0</td> <td></td> <td>0.0% tal Cover 71.4% 28.6% 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%</td> <td>OBL OBL    FAC FAC</td> <td>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.</td>	0 25 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7 10 1 0 0 0 0		0.0% tal Cover 71.4% 28.6% 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%	OBL OBL    FAC FAC	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.

Sampling	Point:	Wet - 7

Profile Descr	iption: (De	scribe to	the depth	needed to do	cumen	t the indic	ator or co	onfirm the	absence of indicators.)	
Depth		Matrix			Re	dox Featu				
(inches)		moist)	%	Color (m	oist)	%	Type <sup>1</sup>	Loc2	Texture	Remarks
0-6	10YR	3/1	100							
6-16	10YR	4/2	90	10YR	7/2	10	D	. М	Loamy Sand	
<sup>1</sup> Type: C=Conc	entration. D	=Depletio	n. RM=Redu	ced Matrix, CS	=Cover	ed or Coate	d Sand Gr	ains <sup>2</sup> Loca	ition: PL=Pore Lining. M=I	Matrix
Hydric Soil I									· · · · ·	lematic Hydric Soils <sup>3</sup> :
<ul> <li>Stratified L</li> <li>Organic Bc</li> <li>5 cm Muck</li> <li>Muck Press</li> <li>1 cm Muck</li> <li>Depleted E</li> <li>Thick Dark</li> <li>Coast Prain</li> <li>Sandy Muc</li> <li>Sandy Red</li> <li>Stripped M</li> </ul>	edon (A2) c (A3) Sulfide (A4) ayers (A5) dies (A6) (L y Mineral (A ence (A8) (L c (A9) (LRR F eelow Dark S Surface (A1 ie Redox (A: k Mineral (S red Matrix (S ox (S5)	7) (LRR P RR U) P, T) Surface (A: 2) 16) (MLRA 1) (LRR O 54)	, T, U) 11) \ 150A) , S)	Thin I Loam Loam Loam Deple Redos Redos Redos Marl ( Deple Iron-N Umbri Delta Reduc Piedm	Dark Sur y Mucky y Gleyed ted Mat c Dark S ted Darl c Dark S ted Darl c Darres F10) (LI ted Och Mangane ic Surfac Ochric ( ced Vert cont Floc	urface (F6) k Surface (F ssions (F8) RR U) ric (F11) (M ese Masses te (F13) (LF F17) (MLRA ic (F18) (MI odplain Soiks	LRR S, T, ( 1) (LRR O) ) 77) (F12) (LRI (F12) (LRI (R P, T, U) \ 151) _RA 150A, \$ (F19) (MI	υ) ( Ο, Ρ, Τ) 150B) LRA 149A)		(LRR O) (LRR S) F18) (outside MLRA 150A,B) lain Soils (F19) (LRR P, S, T) t Loamy Soils (F20) (MLRA 153B) fal (TF2) k Surface (TF12)
Restrictive La Type: Depth (inche		erved):			s				Hydric Soil Present?	Yes  No O
Remarks:										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 11-Oct-16
pplicant/Owner: NASA	State: MS Sampling Point: Wet - 8
nvestigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 28 T 7 s R 16 W
andform (hillslope, terrace, etc.):	Local relief (concave, convex, none): Slope: 0.0 % / 0.0 °
i Manana i i a m	
	a service a service of the service o
oil 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	
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodoldsymbol{ imes}$
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🔲 naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	To the Convolution
Hydric Soil Present? Yes   No	Is the Sampled Area
Wetland Hydrology Present? Yes   No	within a Wetland?
Remarks:	
Low drainage 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)	) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	) (LRR U) Drainage Patterns (B10)
Saturation (A3)	
	res along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	
	ion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (	
Iron Deposits (B5) Other (Explain in Re Inundation Visible on Aerial Imagery (B7)	emarks) L_ Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No   Depth (inches):	
Water Table Present? Yes No O Depth (inches):	Wetland Hydrology Present? Yes 🖲 No 🔾
Saturation Present? Yes No  Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos	, previous inspections), if available:
Remarks:	

		_	ominant		Sampling Point: Wet - 8
	Absolut		pecies? . el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30 m</u> )	% Cove	r	Cover	Status	Number of Dominant Species
Pinus elliottii	10		50.0%	FACW	That are OBL, FACW, or FAC:9(A)
Nyssa aquatica	5		25.0%	OBL	
Quercus virginiana	5	✓	25.0%	FACU	Total Number of Dominant Species Across All Strata: 10 (B)
	0		0.0%		
140	0		0.0%		Percent of dominant Species That Are OBL_EACW_or_EAC*90.0% (A/B)
	Q		0.0%		That Are OBL, FACW, or FAC: 90.0% (A/B)
	Q		0.0%		Prevalence Index worksheet:
	Q		0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 10 20% of Total Cover: 4	20	= To	tal Cove		OBL species 28 x 1 = 28
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species $_{68}$ x 2 = $_{136}$
Liquidambar styraciflua	5	$\checkmark$	35.7%	FAC	FAC species 19 x 3 = 57
Pinus elliottii	the second second		35.7%	FACW	FACU species $7 \times 4 = 28$
Quercus virginiana	2	Π	14.3%	FACU	UPL species $0 \times 5 = 0$
Acer rubrum	2	$\Box$	14.3%	FAC	
	0		0.0%	1710	Column Totals: 122 (A) 249 (B)
	0		0.0%		Prevalence Index = B/A = 2.041
		Ē	0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%		
					1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 2.8	14	= 10	tal Cove		✓ 2 - Dominance Test is > 50%
nrub Stratum (Plot size: 30 m )		_			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Cyrilla racemifiora			28.8%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex coriacea	25	<ul><li>✓</li></ul>	48.1%	FACW	
Ilex opaca	10	$\Box$	19.2%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Morella cerifera	2		3.8%	FAC	be present, unless disturbed or problematic.
11			0.0%		Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 26 20% of Total Cover: 10.4	52	= To	tal Cove	· · · · · ·	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30_m)					(7.0 Gif) of Riger in Gameter at breast height (DDH).
					Sapling - Woody plants, excluding woody vines,
Meedumedia vitrainian	10		100 55	OPI	cuping rooty plants, excluding rooty intoo,
in a second s			27.8%	OBL	approximately 20 ft (6 m) or more in height and less
Woodwardia areolata	10		27.8%	OBL	
Woodwardia areolata Arundinaria tecta	10 8		27.8% 22.2%	obl Facw	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium	10 8 5		27.8% 22.2% 13.9%	obl Facw Facw	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
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3		27.8% 22.2% 13.9% 8.3%	obl Facw	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0		27.8% 22.2% 13.9% 8.3% 0.0%	obl Facw Facw	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,
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0%	obl Facw Facw	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.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0%	obl Facw Facw	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.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0%	obl Facw Facw	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
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0%	obl Facw Facw	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
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0%	obl Facw Facw	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
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0%	obl Facw Facw	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.
. Woodwardia areolata . Arundinaria tecta	10 8 5 3 0 0 0 0 0 0 0 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW FACW OBL	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
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0 0 0 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW FACW OBL	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.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum % of Total Cover: 18 20% of Total Cover: 7.2 % of Total Cover: 18 20% of Total Cover: 7.2	10 8 5 3 0 0 0 0 0 0 0 0 0 36		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW FACW OBL	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.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0 0 0 0 36		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	OBL FACW FACW OBL	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.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0 0 0 0 0 36 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	OBL FACW FACW OBL	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.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0 0 0 0 36 0 0 0 0 0 0 0 0 0 0 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	OBL FACW FACW OBL	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.
Woodwardia areolata Arundinaria tecta Hypericum cistifolium Dichanthelium scabriusculum	10 8 5 3 0 0 0 0 0 0 0 0 36 0 0 0 0 0 0 0 0 0 0 0 0 0		27.8% 22.2% 13.9% 8.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW FACW OBL	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.

Profile Descri	iption: (De	scribe to	the depth r	eeded to	documen	t the indic	cator or co	nfirm the	absence of indicators.)	)
Depth		Matrix			Re	dox Feat			-	
(inches)		(moist)	%	Color	(moist)	. %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-7	10YR	2/1	. 90						Clay Loam	
7-16	10YR	4/1	80	10YR	3/1	20				
			_					• · ·		
• •	2	<u></u>				.: <b>. x</b>				
			L M							
	<u></u>						_		*	
<sup>1</sup> Type: C=Conc	centration. D	)=Depletio	n. RM=Reduc	ed Matrix,	CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=	Matrix
Hydric Soil I				_					Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
Histosol (A				🗹 Pol	yvalue Bel	ow Surface	(S8) (LRR	S, T, Ų)	1 cm Muck (A9)	(LRR O)
Histic Epip				🗌 Thi	n Dark Su	face (59) (	(LRR <b>S, T, U</b>	)	2 cm Muck (A10	) (LRR 5)
Black Histi	• •			_			1) (LRR O)		<u> </u>	(F18) (outside MLRA 150A,B)
	Sulfide (A4)			🗌 Loa	my Gleyed	l Matrix (F	2)		_	blain Soils (F19) (LRR P, S, T)
_	ayers (A5)			🗋 Dej	pleted Mat	rlx (F3)			_	nt Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L		-	Rec	dox Dark S	urface (F6)	)		Red Parent Mate	erial (TF2)
	cy Mineral (A		, T, U)	🗌 Dej	pleted Darl	c Surface (	F7)		🗌 Very Shallow Da	rk Surface (TF12)
	ence (A8) (L			🗌 Red	lox Depres	isions (F8)			Other (Explain in	1 Remarks)
_	k (A9) (LRR			🗌 Ma	r <b>i (</b> F10 <b>) (</b> LI	RR U)				
	Below Dark S		11)	🗌 Dep	oleted Och	ric (F11) (I	MLRA 151)			
	Surface (At	-		Iro:	n-Mangane	se Masses	(F12) (LRR	O, P, T)		
_	rie Redox (A		-	🗌 Um	bric Surfac	e (F13) (L	RR P, T, U)			
	ck Mineral (S		, S)	🗌 Del	ta Ochric (	F17) (MLR	A 151)		3	
	yed Matrix (S	54)		Rec	luced Vert	ic (F18) (M	LRA 150A,	150B)	-indicator wetland	s of hydrophytic vegetation and hydrology must be present,
Sandy Red				Piece	dmont Floo	dplain Soil	s (F19) (ML	.RA 149A)		s disturbed or problematic.
Stripped M				🗌 And	malous Br	ight Loamy	/ Soils (F20)	(MLRA 149	9A, 153C, 153D)	
Dark Surfa	ice (S7) (LRF	R Ρ, S, T, I	J)							
Restrictive La	yer (if obs	erved):								
Туре:			_							
Depth (inch	es):								Hydric Soil Present?	Yes 🖲 No 🔾
Remarks:										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Wavela	and - Hancock	Sampling Date:	11-Oct-16
Applicant/Owner: NASA	State:	MS Sampli	ing Point: Wet - 9	
Investigator(s): Lars Larson, Randy Ellis	Section, Township,	Range: 5 28	T 7 s R 16	5 W
Landform (hillslope, terrace, etc.):	Local relief (concave,	, convex, none):	Siope: (	).0 % / 0.0°
Subregion (LRR or MLRA): LRR T	Lat.: 30° 24' 29.150" N	Long.: 89° 36'	46.346" W Dat	um: NADB3
Soil Map Unit Name: HIB, Harleston fine sandy loam, 2 to 5 perce	· · · · · · · · · · · · · · · · · · ·	Ve V	lassification: PFO 1/4	с
Are climatic/hydrologic conditions on the site typical for this time	0	0	ain in Remarks.)	
	-	e "Normal Circumstand		) No ()
Are Vegetation, Soil, or Hydrology natur SUMMARY OF FINDINGS - Attach site map showing		f needed, explain any a ations, transects, i		, etc.
Hydrophytic Vegetation Present? Yes  No O	<b>1 1 1 1 1</b>			
Hydric Soil Present? Yes  No O	Is the Sampl	led Area Houdo Yes 🔍 No	$\cap$	
Wetland Hydrology Present? Yes  No O	within a Wet	land? Tes 🗢 No	0	
Remarks:	·	<u> </u>		
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Ir	ndicators (minimum of 2 rec	ulred)
Primary Indicators (minimum of one required; check all that ap	oply)	· _ · · · · · · · · · ·	Soll Cracks (B6)	
Surface Water (A1)	na (B13)	Sparsely	Vegetated Concave Surface	e (B8)
	ts (B15) (LRR U)		e Patterns (B10)	
	ulfide Odor (C1)	_	im Lines (B16)	
	izospheres along Living Roots (	/	son Water Table (C2)	
	Reduced Iron (C4)		Burrows (C8)	(60)
Drift Deposits (B3)     Recent Iron     Algal Mat or Crust (B4)     Thin Muck S	Reduction in Tilled Soils (C6)		on Visible on Aerial Imagery phic Position (D2)	(C9)
	ain in Remarks)		Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	in a senaray	_	itral Test (D5)	
Water-Stained Leaves (B9)			im moss (D8) (LRR T, U)	
Field Observations:				
Surface Water Present? Yes O No 🔍 Depth (incl	thes):			
	thes):			<b>`</b>
Caturation Dranast2	hes):	tland Hydrology Presei	nt? Yes 🖲 No 🤇	)
(includes capillary inlige)				· · · -
Describe Recorded Data (stream gauge, monitoring well, aerial	pnotos, previous inspection	is), if available:		
Remarks:				

	Dominant Species?				Sampling Point: Wet - 9		
	Absolute	Re	el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species		
Magnolia virginiana Pinus elliottii	25		62.5%	FACW	That are OBL, FACW, or FAC:(A)		
Pinus elliottii Nyssa sylvatica	10		25.0%	FACW	Total Number of Dominant		
Nyssa sylvatica	5		12.5%	FAC	Species Across All Strata: <u>11</u> (B)		
	0	Ľ,	0.0%		Demonst of dominant Crossion		
a ga anna a sua a su		Ц.	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 90.9% (A/B)		
. به در دود به المراجع مراجع مراجع	-	Ц,	0.0%				
	0	Ц	0.0%	-	Prevalence Index worksheet:		
	0	Ш.	0.0%		Total % Cover of: Multiply by		
50% of Total Cover: 20 20% of Total Cover: 8	40	= To	tal Cove	r	OBL species <u>52</u> x 1 = <u>52</u>		
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species <u>115</u> x 2 = <u>230</u>		
Magnolia virginiana	20		44.4%	FACW	FAC species $26 \times 3 = 78$		
Cyrilla racemiflora	15_		33.3%	FACW	FACU species $5 \times 4 = 20$		
Morella cerifera	10	<ul> <li>✓</li> </ul>	22.2%	FAC	UPL species 0 x 5 = 0		
	0		0.0%		Column Totals: 198 (A) 380 (B)		
	0		0.0%				
	0		0.0%		Prevalence Index = B/A = 1.919		
	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		4 David Tech for Undershutic Vegetation		
0% of Total Cover: 22.5 20% of Total Cover: 9	45	= To	tal Cove		<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>✓ 2 - Dominance Test is &gt; 50%</li> </ul>		
hrub Stratum (Plot size: <u>30 m</u> )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex corlacea			43.5%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Cyrilla racemifiora			32.6%	FACW	1 Tudiastan of budate call and methods budate a subst		
Ilex vomitoria			21.7%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Morella cerifera			2.2%	FAC			
	0		0.0%		Definition of Vegetation Strata:		
	0	Ц.	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
50% of Total Cover: 23 20% of Total Cover: 9.2	46	= To	tal Cove	•	(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )							
Dichanthelium scabriusculum	50		87.7%	OBL	Sapling - Woody plants, excluding woody vines,		
Hypericum cistifolium	-		8.8%	FACW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Eriocaulon decangulare	2		3.5%	OBL			
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
	0	$\overline{\Box}$	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	0	$\square$	0.0%		Oberth Manda alasta such dise weede dise		
<ul> <li>A state of a state of the state</li></ul>	0	$\square$	0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
<ul> <li>Source of a particular production of the second seco</li></ul>	0		0.0%				
ан санын на 1992 — сананан сооран сан	0	$\overline{\Box}$	0.0%		Herb - All herbaceous (non-woody) plants, including		
	0		0.0%		herbaceous vines, regardless of size, and woody		
	0		0.0%	· · · · ·	plants, except woody vines, less than approximately 3 ft (1 m) in height.		
• <u>•</u> •••••	0		0.0%				
% of Total Cover: 28.5 20% of Total Cover: 11.4	-	- Tef	tal Cover	·	Woody vine - All woody vines, regardless of height.		
		- 10	rai cover				
oody Vine Stratum (Plot size:		_		ł			
Smilax laurifolia			50.0%	FACW			
Rubus trivialis	5		50.0%	FACU			
	0		0.0%				
	0	Ц_	0.0%		the descent set of		
	0		0.0%		Hydrophytic Vegetation		
0% of Total Cover: 5 20% of Total Cover: 2	10 =	- Tot	tal Cover		Present? Yes 🖲 No 🔿		

	iption: (De		the depth	needed to d				nfirm the a	bsence of indicators.)	
Depth (inches)	Calas	Matrix	D	Color (		dox Featu %	Type <sup>1</sup>	10-7	Towner	Remarks
(inches) 0-5	10YR	(moist) 3/1	90	Color ( 10YR	2/1	10	, IVD¢	_Loc <sup>2</sup> _	Texture	Kemarks
5-18	10YR	3/2	80	10YR	2/1	20				
		-				_				
	-	-	+							
		-	• • •							
						аст.			······································	
<sup>1</sup> Type: C=Cond	centration. D	=Depletio	n. RM=Redu	ced Matrix, C	S=Covere	ed or Coated	d Sand Gra	ins <sup>2</sup> Locati	on: PL=Pore Lining. M=N	latrix
Hydric Soil I									Indicators for Probl	ematic Hydric Soils <sup>3</sup> :
Histosol (/	A1)			Poly	value Bel	ow Surface	(S8) (LRR :	S, T, U)	🗌 1 cm Muck (A9) (	LRR O)
Histic Epip	edon (A2)			🗌 Thir	n Dark Sur	rface (S9) (L	.RR \$, T, U	1)	2 cm Muck (A10)	
Black Histi	ic (A3)			Loa	my Mucky	/ Mineral (F1	1) (LRR O)			18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)			Loa	my Gleyed	d Matrix (F2	)			ain Soils (F19) (LRR P, S, T)
Stratified I	ayers (A5)			_ Dep	leted Mat	rix (F3)				Loamy Soils (F20) (MLRA 153B)
Organic Be	odies (A6) (L	RR P, T, I	J)			Surface (F6)			Red Parent Materi	
5 cm Mucl	ky Mineral (A	7) (LRR P	, T, U)			k Surface (F			Very Shallow Dari	
Muck Pres	ence (A8) (L	RR U)				ssions (F8)	- /			
	k (A9) (LRR I				(F10)(山				Other (Explain in	Remarks)
_	Below Dark S		11)			ric (F11) (M	U DA 151)			
	Surface (A!		,	_						
_	rie Redox (A		1504)			ese Masses (		0, 6, 1)		
	ck Mineral (S		-	<u> </u>		ce (F13) (LR				
			, 5)			(F17) (MLRA	-		<sup>3</sup> Indicators (	of hydrophytic vegetation and
	yed Matrix (S	54)				ic (F18) (ML		-	wetland h	ydrology must be present,
Sandy Rec				Pied	mont Floo	odplain Soils	s (F19) (ML	.RA 149A)	unless	disturbed or problematic.
Stripped M				Апо	malous Br	right Loamy	Soils (F20)	) (MLRA 149/	A, 153C, 153D)	
Dark Surfa	ice (S7) (LRF	ξ Ρ, S, T, I	U)							
Restrictive La	yer (If obsi	erved):								
Туре:										
Depth (inch	es):					-			Hydric Soil Present?	Yes 🔍 No 🔿
Remarks:										
Stripped/deple	eted matrix	below 5	inches							

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 12-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet -10
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 31 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex, none): concave Slope: 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR T Lat.: 3	30° 24' 8.987" N Long.: 89° 37' 35.144" W Datum: NAD83
Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: PFO 1/4 C
Are climatic/hydrologic conditions on the site typical for this time of year	0 0
Are Vegetation, Soil, or Hydrology significantly	
Are Vegetation , soil , or Hydrology naturally pro	
	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	
Hydric Soil Present? Yes  No O	Is the Sampled Area
Wetland Hydrology Present? Yes  No O	within a Wetland? Yes 🔍 NO 🔾
Remarks:	
Natural drain to ephemeral stream approximatly 30-40 feet west of ac	ccess path.
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)	
High Water Table (A2) Marl Deposits (B15)	(LRR U) 🗹 Drainage Patterns (B10)
Saturation (A3)	dor (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospher	res along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	d Iron (C4) Crayfish: Burrows (C8)
	ion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	(C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Re	
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 O     No O     Depth (inches);	
Water Table Present? Yes No   Depth (inches):	Wetland Hydrology Present? Yes   No
Saturation Present? Yes No O Depth (inches):	9
Describe Recorded Data (stream gauge, monitoring well, aerial photos, Remarks:	, previous inspections), ir available:

			ominant pecies? .		Sampling Point: Wet -10	
		e Re	el.Strat.		Dominance Test worksheet:	
ree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species	
Magnolia virginiana			16.7%	FACW	That are OBL, FACW, or FAC: 9 (A)	
Pinus elilottii			33.3%	FACW	Total Number of Dominant	
Nyssa sylvatica		⊻.	50.0%	FAC	Species Across All Strata: 9 (B)	
n na an			0.0%	·	Deveent of device of Creation	
			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)	
	0	Ц	0.0%			
×	0	Ц	0.0%		Prevalence Index worksheet:	
	. 0	Ш,	0.0%	- e - n	Total % Cover of Multiply by:	
0% of Total Cover: 15 20% of Total Cover:	6 30	= To	tal Cove	r	OBL species $6 \times 1 = 6$	
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species 52 x 2 = _104	
Magnolia virginiana	10	✓	37.0%	FACW	FAC species $32 \times 3 = 96$	
Nyssa sylvatica	10	∕.	37.0%	FAC	FACU species $0 \times 4 = 0$	
Cyrilla racemífiora	5	$\Box$	18.5%	FACW	UPL species $0 \times 5 = 0$	
Pinus elliottii	2		7.4%	FACW	Column Totals: 90 (A) 206 (8)	
	0		0.0%			
	0	$\Box$	0.0%		Prevalence Index = B/A = 2.289	
	0	$\Box$	0.0%		Hydrophytic Vegetation Indicators:	
	0		0.0%	10	1 - Panid Test for Hydrophytic Vegetation	
0% of Total Cover: 13.5 20% of Total Cover:	5.4 27	= To	tal Cove	_	<ul> <li>↓ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>✓ 2 - Dominance Test is &gt; 50%</li> </ul>	
rub Stratum (Plot size: 30 m )					✓ 2 - Dominance rest is > 50%	
Magnolia virginiana	5	~	22 70/	FACIAL		
Outilla manatificati			22.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Cyrilla racemifiora			45.5%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus	
Morella cerifera			22.7%	FAC	be present, unless disturbed or problematic.	
Ilex vomitoria			9.1%	FAC	Definition of Vegetation Strates	
	C	Ц.	0,0%	,	Definition of Vegetation Strata:	
					The state of the sector of the	
			0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.	
		= To	0.0% tal 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).	
		- To		_	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
rb Stratum (Plot size: , 30 m )	4.4 22	= To		OBL	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,	
rb Stratum (Plot size: <u>30 m</u> ) Woodwardia areolata	4.4 22		tal Covei		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	
rb Stratum <sup>(Plot size: , 30 m )</sup> Woodwardia areolata Hypericum cistifolium	4.4 <u>22</u> <u>5</u> 2		<b>tal Cove</b>	OBL	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,	
rb Stratum <sup>(Plot size: 30 m )</sup> Woodwardia areolata Hypericum cistifolium Osmunda regalis	4.4 <u>22</u> 5 2 1		62.5% 25.0%	OBL FACW	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	
rb Stratum <sup>(Plot size: 30 m )</sup> Woodwardia areolata Hypericum cistifolium Osmunda regalis	4.4 <u>22</u> 5 2 1		62.5% 25.0% 12.5% 0.0%	OBL FACW	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.	
rb Stratum (Plot size: 30 m ) Woodwardla areolata Hypericum cistifolium Osmunda regalis	4.4 22 5 2 1 0		62.5% 25.0% 12.5%	OBL FACW	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.	
erb Stratum <sup>(Plot size: <u>30 m</u>) Woodwardia areolata Hypericum cistifolium Osmunda regalis</sup>	4.4 22 5 2 1 0 0		62.5% 25.0% 12.5% 0.0% 0.0%	OBL FACW	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,	
rb Stratum <sup>(Plot size: <u>30 m</u>) Woodwardla areolata Hypericum cistifolium Osmunda regalis</sup>	4.4 22 5 2 1 0 0 0		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0%	OBL FACW	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.	
rb Stratum <sup>(Plot size: <u>30 m</u>) Woodwardia areolata Hypericum cistifolium Osmunda regalis</sup>	4.4 22 5 2 1 0 0 0 0 0 0		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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	
erb Stratum (Plot size: 30 m ) Woodwardla areolata Hypericum cistifolium Osmunda regalis	4.4         22           5         2           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0		tal Cover           62.5%           25.0%           12.5%           0.0%           0.0%           0.0%           0.0%           0.0%           0.0%	OBL FACW	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	
Pro Stratum (Plot size: 30 m ) Woodwardla areolata Hypericum cistifolium Osmunda regalis	4.4         22           5         2           1         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		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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	
erb Stratum_ (Plot size: <u>30 m</u> ) Woodwardia areolata Hypericum cistifolium Osmunda regalis	4.4     22       5     2       1     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		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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 ) Woodwardla areolata Hypericum cistifolium Osmunda regalis	4.4     22       5     2       1     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		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW	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	
erb Stratum (Plot size: 30 m ) Woodwardla areolata Hypericum cistifolium Osmunda regalis	4.4     22       5     2       1     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		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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.	
woodwardla areolata         . Hypericum cistifolium         . Osmunda regalis         . Osmunda regalis	4.4 22 5 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW OBL	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.	
wrb Sţratum (Plot size: 30 m)         Woodwardla areolata         Hypericum ciştifolium         Osmunda regalis         "% of Total Cover:420% of Total Cover:1         woody Vine Stratum (Plot size: 30 m)	4.4     22       5     2       1     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		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW OBL	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.	
wrb Stratum (Plot size: 30 m )         Woodwardla areolata         Hypericum cistifolium         Osmunda regalis         "% of Total Cover: 4 20% of Total Cover: 1         woody Vine Stratum (Plot size: 30 m )         Smilax laurifolia	4.4     22       5     2       1     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       1.6     8		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW OBL	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.	
Prb Stratum (Plot size: 30 m )         Woodwardla areolata         Hypericum cistifolium         Osmunda regalis         Osmunda regalis         "% of Total Cover: 4 20% of Total Cover: 1         px of Total Cover: 4 20% of Total Cover: 1         Smilax laurifolia	4.4     22       5     2       1     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       1.6     8		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW OBL	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.	
Prb Stratum (Plot size: 30 m )         Woodwardla areolata         Hypericum cistifolium         Osmunda regalis         Osmunda regalis         "% of Total Cover: 4 20% of Total Cover: 1         px of Total Cover: 4 20% of Total Cover: 1         Smilax laurifolia	4.4     22       5     2       1     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       1.6     8       3     0		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW OBL	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.	
erb Stratum (Plot size: 30 m ) Woodwardla areolata Hypericum cistifolium Osmunda regalis 	4.4     22       5     2       1     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       1.6     8       3     0		tal Cover 62.5% 25.0% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW OBL	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.	

FIOTILE Desci	iption: (De		the depth	needed to document			nnrm the	absence of Indicat	ors.)
Depth (inches)		Matrix			lox Featu	1			
(inches) 0-4	10YR	moist)	100	Color (moist)	%	Type *	Loc <sup>2</sup>	Muck	Remarks
		3/1					-		wet-saturated 8-9-inches
4-16	10YR	3/2	100		5	D	M	Muck	wet saturated 5 5 menes
			· · · · · · · · · · · · · · · · · · ·						
ype: C=Conc	entration. D	=Depletio	n. R <b>M=Redu</b>	ced Matrix, CS=Covered	d or Coate	d Sand Gra	iins <sup>z</sup> Loca	tion: PL=Pore Linin	g. M=Matrix
ydric Soil Iı	ndicators:							Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol (A	•			Polyvalue Belo	w Surface	(S8) (LRR	S, T, U)	🗌 1 cm Muck	(A9) (LRR O)
Histic Epip	• •			🔲 Thin Dark Surf	ace (S9) (	LRR S, T, I	J)	2 cm Muck	(A10) (LRR 5)
Black Histi				Loamy Mucky	Mineral (F	1) (LRR O)			ertic (F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)			Loamy Gleyed	Matrix (F2	2)		_	loodplain Soils (F19) (LRR P, S, T)
-	ayers (A5)			Depleted Matri	x (F3)				Bright Loamy Soils (F20) (MLRA 153B)
Organic Bo	odies (A6) (L	RR P, T, l	J)	🗌 Redox Dark Su	rface (F6)			<u> </u>	Material (TF2)
5 cm Muck	y Mineral (A	7) (LRR P	, ⊤, U)	Depleted Dark	Surface (I	-7)		Very Shallo	w Dark Surface (TF12)
Muck Pres	ence (A8) (L	rr U)		Redox Depress	ions (F8)				lain in Remarks)
_	: (A9) (LRR i			🗌 Marl (F10) (LR	RU)				,
Depleted B	elow Dark S	urface (A:	11)	Depleted Ochri	c (F11) (N	ILRA 151)			
Thick Dark	Surface (A1	2)		Iron-Manganes	æ Masses	(F12) (LRF	( O, P, T)		
_	rie Redox (A		-	Umbric Surface	e (F13) (Li	R P, T, U)			
Sandy Muc	k Mineral (S	1) (LRR O	), S)	🗌 Delta Ochric (F	17) (MLR/	A 151)		7.	
Sandy Gley	ed Matrix (S	4)		Reduced Vertic	(F18) (M	LRA 150A,	150B)	-Indi	cators of hydrophytic vegetation and tland hydrology must be present,
Sandy Red	ox (S5)			Piedmont Floor	iplain Soik	s (F19) (MI	.RA 149A)		unless disturbed or problematic.
Stripped M Dark Surfa	atrix (S6) ce (S7) (LRR	P.S.T.I	b	🗌 Anomalous Brig	ght Loamy	Soils (F20	) (MLRA 14	9 <b>A, 153C,</b> 153D)	
	-								
estrictive La	yer (if obse	erved):							
Туре:					-			Hydric Soil Pres	ent? Yes 🖲 No 🔾
Depth (inch	es);								
emarks: ick to sandy ovel sample.		nieral. S	iolid dark g	ray to brown all the v	way to b	ase of sh	ovel. Muc	k at top with more	e sitly clay material toward base of

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion City,	/County: Waveland - Hancock Sampling Date: 12-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 11
Investigator(s): Lars Larson, Randy Ellis Se	ction, Township, Range: 5 31 T 7 s R 16 W
andform (hillslope, terrace, etc.): Floodplain Loca	al relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat: 30°	24' 16.775" N Long.: 89° 37' 26.844" W Datum: NADB3
oil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: PFO 1/4 C
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 dis	
Are Vegetation, Soil, or Hydrology naturally proble SUMMARY OF FINDINGS - Attach site map showing sampli	
Hydrophytic Vegetation Present? Yes  No O	
Hydric Soil Present? Yes  No O	Is the Sampled Area
Wetland Hydrology Present? Yes  No O	within a Wetland? Yes 🔍 No 🔾
Remarks:	
Bottom riparian floodplain area approximately 40 feet from Up-11.	
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3)	
Water Marks (B1) 🗹 Oxidized Rhizospheres a	
Sediment Deposits (B2)	
Drift Deposits (B3)	
Algal Mat or Crust (B4)	
Iron Deposits (B5) Other (Explain in Remar	
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 O     No      Depth (inches);	
	··*
Water Table Present? Yes No  Depth (inches):	Wetland Hydrology Present? Yes 💿 No 🔾
Saturation Present? Yes No O Depth (inches):	11
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	

		_ Do	pecies?		Sampling Point: Wet - 11
Tree Stratum (Plot size: 30 m)	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:
					Number of Dominant Species
	10		47.6%	FACW	That are OBL, FACW, or FAC:(A)
Magnolia virginiana Nyssa sylvatica			33.3%	FACW	Total Number of Dominant
Nyssa sylvatica			14.3%	FAC	Species Across All Strata: 10 (B)
Llquidambar styraciflua	1		4.8%	FAC	Derest of deminant Contine
	0	Щ.	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
	0	븜	0.0%		
2 W. X.*		Ц	0.0%		Prevalence Index worksheet:
	0	Ш,	0,0%		Total % Cover of: Multiply by:
50% of Total Cover: 10.5 20% of Total Cover: 4.2	21 :	= To	tal Cove		OBL species <u>13</u> x 1 = <u>13</u>
apling or Sapling/Shrub Stratum (Plot size: 30 m	_)				FACW species X Z =
Pinus elliotti	2		9.1%	FACW	FAC species <u>14</u> x 3 = 42
Magnolia virginiana	5		22.7%	FACW	FACU species $0 - x 4 = 0$
Liquidambar styraciflua			22.7%	FAC	UPL species $0 \times 5 = 0$
Cyrilla racemiflora		$\checkmark$	45.5%	FACW	Column Totals: 115 (A) 231 (B)
	0		0.0%		
	0		0.0%		Prevalence Index = $B/A = 2.009$
			0.0%		Hydrophytic Vegetation Indicators:
a mag and an array and a start and a start and a		Π.	0.0%		
0% of Total Cover: 11 20% of Total Cover: 4.4		- To			1 - Rapid Test for Hydrophytic Vegetation
	, 22 ,	- 10			✓ 2 - Dominance Test Is > 50%
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea		⊻.	40.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Cyrilla racemiflora	30	<	60.0%	FACW	
	0	Π,	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			0.0%		be present, unless distance of problematic.
	0		0.0%		Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
O% of Total Cover:         25         20% of Total Cover:         10           erb Stratum         (Plot size:         30 m         )	50 =	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
	3		18.8%	FACW	Sapling - Woody plants, excluding woody vines,
1 111 A			50.0%	OBL	approximately 20 ft (6 m) or more in height and less
Woodwardia areolata					than 3 in. (7.6 cm) DBH.
		<b>•</b>	31.3%	OBL	Sapling/Shrub - Woody plants, excluding vines, less
- a contraction and the second	0	8	0.0%	·	than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0	Η.	0.0%		
	0	Η.	0.0%		Shrub - Woody plants, excluding woody vines,
the second s		님-	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
Чак написана, на за насти, на так и то к. нак	0	님	0.0%	6 1.0 C	Herb - All herbaceous (non-woody) plants, including
The common		<u> </u>	0.0%		herbaceous vines, regardless of size, and woody
)	0	Ц.	0.0%	-	plants, except woody vines, less than approximately
	0	ш.	0.0%		3 ft (1 m) in height.
	0	Ο_	0.0%		
0% of Total Cover: 8 20% of Total Cover: 3.2	16 =	= Tol	tal Cover		Woody vine - All woody vines, regardless of height.
(Plot size: <u>30 m</u> )			00.004		
Vitis rotundifolia		<b>V</b> i.	83.3%	•••••	
Smliax laurifolia			16.7%	FACW	
		Ľ.	0.0%		
		Ц.	0.0%		Hydrophytic
	0	$\Box_{r}$	0.0%		Vogetation
0% of Total Cover: 3 20% of Total Cover: 1.2	6 =	Tot	al Cover		Present? Yes  No

Profile Descr	iption: (De	scribe to	the depth	needed to docu	ment the ind	icator or co	onfirm the	absence of indicators.)	)
Depth	0.11.	Matrix			Redox Feat			74	
(inches)		moist)	%	Color (mois	t) %	Tvpę <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	10YR	3/1	100					Sandy Loam	
4-16	10YR	4/2	90	10YR (	/2 10	D	M	Loamy Sand	
		* *							
+ Type: C=Cond Hydric Soil I		=Depletio	n. RM=Reau		overed or Coa	ted Sand Gra	ains 210Ca	tion: PL=Pore Lining. M=	
Histosol (A Histic Epip Black Histi Hydrogen Stratified I Organic Ba Stratified I Organic Ba Stratified I Organic Ba Striped B Thick Dark Sandy Muc Sandy Gley Sandy Red	A1) eedon (A2) c (A3) Sulfide (A4) ayers (A5) odies (A6) (L cy Mineral (A ence (A8) (L c (A9) (LRR I c (A9) (LRR I below Dark S c Surface (A1 c (A9) (LRR I below Dark S c Surface (A1 c (A9) (LRR I c	RR P, T, U (7) (LRR P, RR U) P, T) Surface (A1 2) 16) (MLRA 1) (LRR O, 54)	, T, U) 11) 150A) , S)	Thin Dar Loamy M Loamy G Depleted Redox D Depleted Redox D Marl (F10 Depleted Iron-Mar Umbric S Delta Ocl Reduced Piedmoni	e Below Surfac k Surface (S9) lucky Mineral ( leyed Matrix (F Matrix (F3) ark Surface (F4 Dark Surface (F4 Dark Surface (F1 Dark Surface (F1 Dark Surface (F1 ) (LRR U) Ochric (F11) ( ganese Masse urface (F13) (f Inric (F17) (MLI Vertic (F18) (f : Floodplain So is Bright Loam	(LRR S, T, I (F1) (LRR O) F2) 5) (F7) ) (MLRA 151) s (F12) (LRF LRR P, T, U) RA 151) MLRA 150A, #ils (F19) (MI	J) R O, P, T) 150B) RA 149A)		0) (LRR S) (F18) (outside MLRA 150A,B) plain Soils (F19) (LRR P, S, T) ht Loamy Soils (F20) (MLRA 153B) erial (TF2) ark Surface (TF12)
Restrictive La Type: Depth (inch		_						Hydric Soil Present?	Yes  No O
Remarks:									

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: W	aveland - Hancock	Sampling Date: 12-Oct-16				
Applicant/Owner: NASA	Sta	ate: MS Sar	mpilng Point: Wet - 12				
Investigator(s): Lars Larson, Randy Ellis	Section, Towns	hip, Range: S 29	T7s R 16W				
Landform (hillslope, terrace, etc.): Terrace	Local relief (conc	ave, convex, none): f	lat <b>Slope: 0.0 % /</b> 0.0				
Subregion (LRR or MLRA): LRR T Lat.:	: 30° 24' 3.450" N	Long.: 89°	37' 14.246" W Datum: NAD83				
Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes			/I classification: PSS				
Are climatic/hydrologic conditions on the site typical for this time of y	Yes (	30	xplain in Remarks.)				
	ntly disturbed?	Are "Normal Circums					
	-						
Are Vegetation, Soil, or Hydrology naturally	y problematic?	(If needed, explain a	ny answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing s	ampling point l	ocations, transect	s, important features, etc.				
Hydrophytic Vegetation Present? Yes   No							
Hydric Soil Present? Yes  No O	Is the Sa	Impled Area Wetland 2 Yes •	N= ()				
Wetland Hydrology Present? Yes  No	within a	Wetland? Yes 🔍					
Remarks:							
This plot is within a Palustrine Scrub-Shrub habitat (low area) roug	ahivt 200 feet north	of old E-W logging roa	d in middle of AOI.				
	,,						
HYDROLOGY							
Wetland Hydrology Indicators:		Crowde					
Primary Indicators (minimum of one required; check all that apply	0		ry Indicators (minimum of 2 required)				
Surface Water (A1)			Surface Soil Cracks (B6)				
High Water Table (A2)			<ul> <li>Springe Patterns (B10)</li> </ul>				
Saturation (A3)			Moss Trim Lines (B16)				
	pheres along Living Ro		Season Water Table (C2)				
Sediment Deposits (B2)		· ·	fish Burrows (C8)				
	duction in Tilled Soils (0		ration Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	-		morphic Position (D2)				
□ Iron Deposits (65) □ Other (Explain in		_	low Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7)	( Remarks)		Neutral Test (D5)				
Water-Stained Leaves (B9)			agnum moss (D8) (LRR T, U)				
Field Observations:	I						
Surface Water Present? Yes O No O Depth (inches)	):						
		Wetland Hydrology Pre	esent? Yes 🖲 No 🔿				
Saturation Present? Yes No Depth (inches)	): <sub>-*</sub> . [						
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspec	ctions), if available:					
Remarks:	·						
Area is dry - normal for this time of year. This is a low flat area tha	it appears to drain r	orth through culver un	der logging road into ephemeral drain				
that flows down slope (north) toward Turtleskin Creek riparian buff	ler.	·					

		Dominant Species?			Sampling PoInt: Wet - 12		
		R	el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m)	% Cove	_	Cover	Status	Number of Dominant Species		
Pinus elliotti	10	~	40.0%	FACW	That are OBL, FACW, or FAC: 7 (A)		
Nyssa sylvatica	15	~	60.0%	FAC	Total Number of Dominant		
	0		0,0%		Species Across All Strata: 7 (B)		
na n	0		0.0%				
	0		0.0%		Percent of dominant Species That Are OBL_EACW_or_EAC*100.0% (A/B)		
	0		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	25	= TC	otal Cove	-	OBL species $45 \times 1 = 45$		
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species		
			14.3%	EACON			
and a second				FACW			
Nyssa sylvatica			42.9%	FAC	FACU species $0 \times 4 = -0$		
Magnolia virginiana			28.6%	FACW	UPL species 0 x 5 = 0		
Cyrilla racemiflora			14.3%	FACW	Column Totals: <u>123</u> (A) <u>231</u> (B)		
			0.0%		Prevalence Index = $B/A = 1.878$		
a na an	0		0.0%				
	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 17.5 20% of Total Cover: 7	35	= То	tal Cove		$\checkmark$ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Cyrilla racemifiora	10		FF COV	FACIN			
l generano xentitor	10		55.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex corlacea	5		27.8%	FACW	1 Todiantes of budeic coll and webland budgets are sure		
Magnolia virginiana		-	16.7%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.		
and the second	0		0.0%				
	0	Ц.	0.0%		Definition of Vegetation Strata:		
	. 0	Ц	0.0%		Tree - Woody plants, excluding woody vines,		
50% of Total Cover: 9 20% of Total Cover: 3.6	18	= To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m)							
A					Sapling - Woody plants, excluding woody vines,		
I vcohodialla sionectizoides	40		00 00/	<u>∩</u> ₽:			
the second se			88.9%	OBL	approximately 20 ft (6 m) or more in height and less		
Sarracenia alata	5		11.1%	OBL OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Sarracenia alata	5 0		11.1% 0.0%		than 3 in. (7.6 cm) DBH.		
Sarracenia alata	5		11.1% 0.0% 0.0%		than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less		
Sarracenia alata	5 0 0 0		11.1% 0.0% 0.0% 0.0%		than 3 in. (7.6 cm) DBH.		
Sarracenia alata	5 0 0 0 0		11.1% 0.0% 0.0% 0.0%		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,		
Sarracenia alata	5 0 0 0		11.1% 0.0% 0.0% 0.0%		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.		
Sarracenia alata	5 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0%		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.		
Sarracenia alata	5 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0%		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		
Sarracenia alata	5 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0%		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.		
Sarracenia alata	5 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
Sarracenia alata	5 0 0 0 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
Sarracenia alata	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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		
Sarracenia alata	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.		
Sarracenia alata	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 45		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.		
Sarracenia alata	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.		
Sarracenia alata	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 45 5		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.		
Sarracenia alata	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.		
2. Sarracenia alata 3	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.		
2. Sarracenia alata 3. 4. 5. 6. 7. 7. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.		

Profile Descri	iption: (De	scribe to	the depth :	needed to docur	nent the ind	licator or co	mfirm the	absence of indicator	s.)
Depth	•~ · · · · · ·	Matrix			Redox Fea	tures		-	
(inches)	Color (		%	Color (mois	t) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/1	100					Loamy Sand	
4-16	10YR	3/2	90	10YR 7	/2 10	D	м	Loamy Sand	Very`fine grained
		ун сон - ж.	с <u>ч</u>					12. 12.	
		=Depletio	n. RM'=Redu	ced Matrix, CS=Co	vered or Coa	ted Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining. I	M=Matrix
Hydric Soil II								Indicators for P	roblematic Hydric Soils <sup>3</sup> :
Histosol (A					Below Surface			🔄 1 cm Muck (A	49) (LRR O)
Histic Epip					Surface (S9)			🗌 2 cm Muck (A	
Black Histic	Sulfide (A4)				ucky Mineral (				ic (F18) (outside MLRA 150A,B)
Stratified L				_ `	eyed Matrix (	F2)			odplain Soils (F19) (LRR P, S, T)
	odies (A6) (L	ודמפס	n		Matrix (F3)	c)			right Loamy Soils (F20) (MLRA 153B)
	y Mineral (A				rk Surface (F	,		Red Parent M	
	ence (A8) (Li		, 1, 0)	_	Dark Surface			_	Dark Surface (TF12)
	(A9) (LRR F				pressions (F8	9		Other (Explain	n in Remarks)
_	Below Dark S		11	Mari (F10		/MI DA 1013			
	Surface (A1		,		Ochric (F11) ganese Masse				
	ie Redox (A:		1504)		-				
	k Mineral (S				urface (F13) (				
	/ed Matrix (S		,	_	ric (F17) (ML		(500)	<sup>3</sup> Indicat	ors of hydrophytic vegetation and
Sandy Red				_	Vertic (F18) (		-	wetla	nd hydrology must be present,
Stripped M					Floodplain So				less disturbed or problematic.
	ce (S7) (LRR	DCTI	N		is Bright Loan	ny Solis (F20	) (MLRA 14	9A, 153C, 153D)	
			<i>'</i> )						
Restrictive Lay	yer (if obse	erved);						· · · · ·	
Type:									
Depth (inche	es):							Hydric Soil Presen	nt? Yes 🖲 No 🔾
Remarks:									
									i

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineati		Vaveland - Hancock Sampling Date: 14-Oct-16
Applicant/Owner: NASA	SI	tate: MS Sampling Point: Wet - 13
Investigator(s): Lars Larson, Randy Ellis	Section, Towns	ship, Range: 5 29 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (con	cave, convex, none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T	Lat.: 30° 24' 7.308"	N Long.: 89° 37' 9.843" W Datum: NAD83
ioil Map Unit Name: Su, Smithton fine sandy loam, fro		NWI classification: PSS 1/4
Are climatic/hydrologic conditions on the site typical fo		No      (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology		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 ma	p showing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🤇		ampled Area
Hydric Soil Present? Yes 🔍 No 🤇	0	
Wetland Hydrology Present? Yes 🔍 No 🤇		Wetland? Tes S No C
Remarks:		
Hydrology is marginal We are in a dry period I	ast measurable precipitaction has	been approximately 2 weeks ago,
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; chec	k all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Re	
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (	
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes O No ()	Depth (inches):	
	Depth (inches):	Wetland Hydrology Present? Yes $\odot$ No $\bigcirc$
Saturation Present? Yes No	Depth (inches):	
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspe	ctions), if available:
Remarks:		
Very little evidence of hydrology.		
		İ

			ominant		Sampling Point: Wet - 13
	Absolut		pecies? _ el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species
Pinus elliottii	10	$\checkmark$	83.3%	FACW	That are OBL, FACW, or FAC:7(A)
Magnolia virginiana			16.7%	FACW	
	•		0.0%		Total Number of Dominant Species Across All Strata: 7 (B)
			0.0%		
			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: 6 20% of Total Cover: 2.4	12	= To	tal Cove		OBL species $3 \times 1 = 3$
apling or Sapling/Shrub Stratum (Plot size: 30 m		1			FACW species 96 x 2 = 192
Disus alliattii	15		44.1%	FACIN	
			• • • •	FACW	
Magnolia virginiana			29.4%	FACW	FACU species $0 \times 4 = -0$
Liguidambar styraciflua			14.7%	FAC	UPL species $0 \times 5 = 0$
Persea palustris			2.9%	FACW	Column Totals: <u>112</u> (A) <u>234</u> (B)
Nyssa sylvatica	3.		8.8%	FAC	Prevalence Index = $B/A = 2.089$
······································	0		0.0%		
h		Щ	0.0%		Hydrophytic Vegetation Indicators:
	0	Ш.	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 17 20% of Total Cover: 6.8	34	= To	tal Cover		✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	50	<b>V</b>	96.2%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex corlacea Acer rubrum	20	П	3.8%	FAC	
		H	0.0%	TAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
					be present, unless disturbed or problematic.
cy		Н	0.0%		Definition of Verstation Strate:
	0	닏.	0.0%	r	Definition of Vegetation Strata:
	0	Ц,	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 26 20% of Total Cover: 10.4	52	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )					
					Quelles Mandu electric such discussed unique
	2	$\checkmark$	20.0%	FACW	Sapling - Woody plants, excluding woody vines,
Hypericum cistifolium			20.0%	FACW	approximately 20 ft (6 m) or more in height and less
Hypericum cistifolium Eriocaulon decangulare	3		30.0%	OBL	
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3		30.0% 50.0%		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0		30.0% 50.0% 0.0%	OBL	approximately 20 ft (6 m) or more in height and less
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0		30.0% 50.0% 0.0% 0.0%	OBL	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.
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0 0		30.0% 50.0% 0.0% 0.0%	OBL	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,
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0%	OBL	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.
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0%	OBL	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
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.
Hypericum cistifolium Eriocaulon decangulare Andropogon glomeratus	3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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
Hypericum cistifolium         Eriocaulon decangulare         Andropogon glomeratus	3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.
Hypericum cistifolium         Eriocaulon decangulare         Andropogon glomeratus         Andropogon glomeratus         9% of Total Cover:       5         20% of Total Cover:       2         200 Vine Stratum       (Plot size: 30 m)	3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.
Hypericum cistifolium         Eriocaulon decangulare         Andropogon glomeratus         Andropogon glomeratus         0% of Total Cover:       5         20% of Total Cover:       2         0% of Total Cover:       5         20% of Total Cover:       2         000 Vine Stratum (Plot size:       30 m )         Smllax rotundifolia         Context publics	3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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.
Hypericum cistifolium         Eriocaulon decangulare         Andropogon glomeratus         Andropogon glomeratus         Wo of Total Cover:       5         20% of Total Cover:       2         poody Vine Stratum       (Plot size: 30 m)	3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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.
Hypericum cistifolium         Eriocaulon decangulare         Andropogon glomeratus         Andropogon glomeratus         0% of Total Cover:       5         20% of Total Cover:       5         20% of Total Cover:       2         2000 Vine Stratum       (Plot size: 30 m))         Smilax rotundifolia	3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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.
Hypericum cistifolium         Eriocaulon decangulare         Andropogon glomeratus         O% of Total Cover:       5         20% of Total Cover:       2         coody Vine Stratum (Plot size: 30 m )         Smilax rotundifolia         Combu humifolia	3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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.
Hypericum cistifolium         Eriocaulon decangulare         Andropogon glomeratus         More and the second	3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30.0% 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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.

Profile Descr	ription: (De	scribe to	the depth	needed to (	document	t the indi	cator or o	onfirm the	absence of indicators.)	
Depth		Matrix			Re	dox Feat				
(inches)		(moist)	%	Color (	moist)	%	. Type <sup>1</sup>	Loc2	Texture	Remarks
0-4	10YR	3/1	100						Sandy Loam	
4-16	10YR	3/2	90	10YR	7/2	10	D	<u>. M</u>	Loamy Sand	
	•							· ·		
Type: C=Cond		Depletion	n. RM <b>≕Red</b> u	ced Matrix, (	CS=Covere	d or Coate	ed Sand Gr	ains ²Loca	tion: PL=Pore Lining. M=	Matrix
lydric Soil I				_					Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (A							e <b>(S8) (</b> LRR		1 cm Muck (A9)	(LRR O)
_ ``	pedon (A2)			_			(LRR S, T,	•	2 cm Muck (A10)	(LRR S)
Black Histi				_		•	1) (LRR O	ł	Reduced Vertic (	F18) (outside MLRA 150A,B)
_ · ·	Sulfide (A4)				my Gleyed	•	2)		Piedmont Floodp	lain Soils (F19) (LRR P, S, ⊤)
_	Layers (A5)				oleted Matr				Anomalous Brigh	t Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L	- /			lox Dark S	• •			Red Parent Mate	rial (TF2)
_	ky Mineral (A		, T, U)	🔄 Dep	pleted Dark	Surface (	F7)		Very Shallow Dar	k Surface (TF12)
_	sence (A8) (L				iox Depres	• • •			🗌 Other (Explain in	Remarks)
_	k (A9) (LRR I				f (F10) (LF	•				
_ ·	Below Dark S	•	1)				MLRA 151)			
-	< Surface (Al	•					(F12) (LRI			
	rie Redox (A			_			RR P, T, U)	ł		
	ck Mineral (S		, S)	Deli	ta Ochric (I	F17) (MLR	A 151)		3 Tadiestore	of hydrophytic vegetation and
_	yed Matrix (S	54)			luced Verti	c (F18) (M	ILRA 150A,	150B)		hydrology must be present,
Sandy Red	• •							lra 149A)		disturbed or problematic,
Stripped M Dark Surfa	1atrix (56) 1ce (57) (LRF	R Ρ, S, T, U	l)	And	malous Bri	ight Loamy	y Soils (F20	) (MLRA 149	9A, 153C, 153D)	
estrictive La	iyer (if obse	erved):								
Туре:									Hydric Soil Present?	Yes 💿 No 🔿
Depth (inch	ies):	·							Ayone Son Present?	
emarks:										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Wave	eland - Hancock	Sampling Date: 14-Oct-16				
Applicant/Owner: NASA	State	: MS Sampling	Point: Wet - 14				
nvestigator(s): Lars Larson, Randy Ellis	Section, Township	, Range: S 29 T	7 s R 16 W				
andform (hillslope, terrace, etc.): Terrace	Local relief (concav	e, convex, none): none	Slope: 0.0 % / 0.0°				
ubregion (LRR or MLRA): LRR T	Lat.: 30° 24' 9.792" N	Long.: 89° 37' 1.8	854" W Datum: NAD83				
oil Map Unit Name: Su, Smithton fine sandy loam, freque		* * * * * * * * * * * *	sification: PSS 1/4				
	<u> </u>						
Are climatic/hydrologic conditions on the site typical for thi		(,					
Are Vegetation , Soll , or Hydrology	significantly disturbed? A	re "Normal Circumstances	" present? Yes S No C				
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌	naturally problematic? (	If needed, explain any ans	wers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point loc	ations, transects, im	portant features, etc.				
Hydrophytic Vegetation Present? Yes 🖲 No 🔿	Is the Sam	nied Area					
Hydric Soil Present? Yes 🔿 No 🖲		Vec O No @	)				
Wetland Hydrology Present? Yes 💿 No 🔿	within a We	rtland? 100 - 110 -					
Remarks:	L .						
Slightly lower wetter area approximatley 70 feet south o	f Up - 14. Gradual transitional a	rea back toward west.					
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of 2 required)				
Primary Indicators (minimum of one required: check all	that apply)	Surface Soil	Cracks (B6)				
	atic Fauna (B13)	Sparsely Ve	Sparsely Vegetated Concave Surface (B8)				
	Deposits (B15) (LRR U)	Drainage Pa	Drainage Patterns (B10)				
	ogen Sulfide Odor (C1)	_	Moss Trim Lines (B16)				
	ized Rhizospheres along Living Roots	=	Water Table (C2)				
	ence of Reduced Iron (C4)	Crayfish Bu					
	Int Iron Reduction in Tilled Soils (C6)	_	/isible on Aerial Imagery (C9)				
	Muck Surface (C7)	_	Position (D2)				
Iron Deposits (B5) Othe Inundation Visible on Aerial Imagery (B7)	r (Explain in Remarks)	Shallow Aqu					
		FAC-Neutral					
Water-Stained Leaves (B9)		Sphagnum r	moss (D8) (LRR T, U)				
Field Observations: Surface Water Present? Yes O No O Dei	oth (inches):						
	pth (Inches):	etland Hydrology Present?	Yes 💿 No 🔿				
Saturation Present? Yes No Del	oth (inches):	counterry alongy in coche.					
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspectic	ons), if available:					
Remarks:							

			ominant Species?		Sampling Point: Wet - 14		
		e R	el.Strat.	Indicator	Dominance Test worksheet:		
(Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliottii Magnolia virginiana				FACW	That are OBL, FACW, or FAC: <u>6</u> (A)		
Magnolia virginiana			30.4%	FACW	Total Number of Dominant		
Nyssa sylvatica				FAC	Species Across All Strata: 6 (B)		
Liquidambar styracifiua			4.3%	FAC	Deveent of devicent Creation		
			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B		
· . · · · · · · · · · · · · · · · · · ·		Ц	0.0%	11.44			
· ~~	0		0.0%		Prevalence Index worksheet:		
	0	L]	0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 11.5 20% of Total Cover: 4.6	23	= To	otal Cove		OBL species 3 x 1 = 3		
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	)	_			FACW species 114 x Z = 228		
Magnolla virginiana	20	V	76.9%	FACW	FAC species $7 \times 3 = 21$		
Pinus elliottii	5		19.2%	FACW	FACU species $0 \times 4 = 0$		
Liquidambar styraciflua	1		3.8%	FAC	UPL species 0 x 5 = 0		
	0		0.0%		Column Totals: 124 (A)		
			0.0%	P + 122 - 18			
No	0		0.0%		Prevalence Index = $B/A = 2.032$		
	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
50% of Total Cover: 13 20% of Total Cover: 5.2	26	= Tc	otal Cover		✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m )	_				✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex corlacea	50	<b>~</b>	83.3%	FACW			
Ilex glabra				FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
		H	0.0%	-TACIV	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
ter e andre e andre e andre e andre e andre e andre e andre e andre e andre e andre e andre e andre e andre e a		H	0.0%		be present, unless disturbed or problematic.		
					Definition of Vegetation Strata:		
	0	Н	0.0%		Tree - Woody plants, excluding woody vines,		
		ц.,	• • • • • •		approximately 20 ft (6 m) or more in height and 3 in.		
50% of Total Cover: 30 20% of Total Cover: 12	60	= 10	otal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
lerb Stratum (Plot size: 30 m )							
Hypericum cistifolium	10		76.9%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
			76.9% 15.4%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Eriocaulon decangulare				and the second second	approximately 20 ft (6 m) or more in height and less		
2 Eriocaulon decangulare 3 Lycopodiella alopecuroides	2		15.4%	OBL	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		
2 Eriocaulon decangulare 3 Lycopodiella alopecuroides 4	2		15.4% 7.7%	OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
2, Eriocaulon decangulare 3, Lycopodiella alopecuroides 4. 5.	2 1 0 0		15.4% 7.7% 0.0%	OBL	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.		
2 Eriocaulon decangulare 3. Lycopodiella alopecuroides 4. 5.	2 1 0 0		15.4% 7.7% 0.0% 0.0%	OBL	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		
2 Eriocaulon decangulare 3. Lycopodiella alopecuroides 4. 5. 5.	2 1 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0%	OBL	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,		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4.	2 1 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0%	OBL	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		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4.	2 1 0 0 0 0 0 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0%	OBL	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		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4.	2 1 0 0 0 0 0 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4. 5. 6. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	2 1 0 0 0 0 0 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4. 5. 6. 7. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	2 1 0 0 0 0 0 0 0 0 0 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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		
2 Eriocaulon decangulare 3 Lycopodiella alopecuroides 4 5 6 7 8 9 9 1 1 2 50% of Total Cover: 6.5 20% of Total Cover: 2.6	2 1 0 0 0 0 0 0 0 0 0 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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 - Ali 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.		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4. 5. 6. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	2 1 0 0 0 0 0 0 0 0 0 0 13		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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 - Ali 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.		
Eriocaulon decangulare     Lycopodiella alopecuroides     Solution     Solution     Solution     Stratum (Plot size: 30 m )     Smilax laurifolia	2 1 0 0 0 0 0 0 0 0 0 0 13 2		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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 - Ali 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.		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4. 5. 6.5 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	2 1 0 0 0 0 0 0 0 0 0 0 13 2 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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 - Ali 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.		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4. 5. 6. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	2 1 0 0 0 0 0 0 0 0 0 0 0 13 2 0 0 0 0 0 0 0 0 0 0 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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 - Ali 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.		
2. Eriocaulon decangulare 3. Lycopodiella alopecuroides 4	2 1 0 0 0 0 0 0 0 0 0 0 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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.		
2. Eriocaulon decangulare         3. Lycopodiella alopecuroides         4.         5.         6.         7.         8.         9.         0.         1.         2.         50% of Total Cover:       6.5         20% of Total Cover:       2.6         Voody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia	2 1 0 0 0 0 0 0 0 0 0 0 0 13 2 0 0 0 0 0 0 0 0 0 0 0 0 0		15.4% 7.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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 - Ali 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.		

Profile Descri	iption: (De	scribe to	the depth	needed to d	locument	t the indic	cator or co	onfirm the	absence of indicators.)	
Depth		Matrix			Re	dox Featu			-	
(inches)	Color (		%	Color (	moist)	º/o	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/2	100						Loamy Sand	
. 4-16	10YR	4/2	,95	10YR	5/6	5	с	М	Loamy Sand	
<sup>1</sup> Type: C=Conc	entration. D	=Depletio	n. RM=Redu	ced Matrix, C	S=Covere	ed or Coate	ed Sand Gra	ains ²Loca	ation: PL=Pore Lining. M=	Matrix
Hydric Soll Ir									Indicators for Pro	biematic Hydric Soils <sup>3</sup> :
Histosol (A				Poly	value Bel	ow Surface	(SB) (LRR	S, T, U)	🗌 1 cm Muck (A9)	(LRR O)
Histic Epip				🗌 Thir	1 Dark Sur	face (S9) (	LRR S, T, I	<i>(</i> i	2 cm Muck (A10	) (LRR S)
Black Histi				🛄 Loai	my Mucky	Mineral (F	1) (LRR O)		Reduced Vertic	(F18) (outside MLRA 150A,B)
	Sulfide (A4)			🗌 Loai	my Gleyed	l Matrix (F2	2)		Piedmont Flood	blain Soils (F19) (LRR P, S, T)
Stratified L				🗌 Dep	leted Mat	rix (F3)			🗌 Anomalous Brigi	nt Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L			Red	ox Dark S	urface (F6)	)		🗌 Red Parent Mate	erial (TF2)
	y Mineral (A		, T, U)	🗌 Dep	leted Darl	c Surface (I	F7)		🗌 Very Shallow Da	rk Surface (TF12)
	ence (A8) (L			🗌 Red	ox Depres	sions (F8)			Other (Explain in	Remarks)
	: (A9) (LRR #			Mari	l (F10) (Li	RRU)				-
	elow Dark S	-	L1)	🗌 Dep	leted Och	ric (F11) (N	4lra 151)			
	Surface (A1			Iron	-Mangane	se Masses	(F12) (LRF	R O, P, T)		
	ie Redox (A		-	🗌 Umb	oric Surfac	æ (F13) (Ll	RR P, T, U)			
Sandy Muc	k Mineral (S	1) (LRR O	, S)	🗌 Delt	a Ochric (	F17) (MLR.	A 151)		3	- Charles have a faite and
Sandy Gley	ed Matrix (S	54)		🗌 Red	uced Verti	ic (F18) (M	LRA 150A,	150B)	"Indicators wetland	s of hydrophytic vegetation and hydrology must be present,
Sandy Red	ox (S5)			🗌 Pied	mont Floo	odplain Soil	s (F19) (M	lra 149a)		s disturbed or problematic.
Stripped M	atrix (S6)			🗌 Ano	malous Br	ight Loamy	/ Soils (F20	) (MLRA 14	9A, 153C, 153D)	
Dark Surfac	ce (S7) (LRR	ι Ρ, <b>S</b> , Τ, ι	l)							
Restrictive La	yer (if obse	erved);								
Type:						_			Hydric Soil Present?	Yes 🔿 No 🖲
Depth (inche	es):		S			-			nyunc son Present?	
Remarks:										
										<u> </u>

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancod	ck Sampling Date: 14-Oct-16
Applicant/Owner: NASA	State: MS	Sampling Point: Wet - 15
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S	29 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, no	one): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat:	30° 24'18.728" N Long	.: 89° 36' 51.786" W Datum: NAD83
Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes		NWI classification: PSS 1/4
Are climatic/hydrologic conditions on the site typical for this time of ye	ar? Yes No O	(If no, explain in Remarks.)
		Circumstances" present? Yes
	-	explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	ζ, γ	
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Is the Sampled Area	
Hydric Soil Present? Yes 💿 No 🔿		Yes 🖲 No 🔿
Wetland Hydrology Present? Yes   No	within a Wetland?	
Remarks: Saturated soils do not exist, nor does the presence of any other stro HYDROLOGY	ng hydrology indicators, but it h	as not rained in over 2 weeks.
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)	3)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1		Drainage Patterns (B10)
Saturation (A3)     Hydrogen Sulfide		Moss Trim Lines (B16)
	eres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Crayfish Burrows (C8)
	tion in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
		✓ Geomorphic Position (D2) Shailow Aquitará (D3)
Iron Deposits (B5) Uther (Explain in Inundation Visible on Aerial Imagery (B7)	•	<ul> <li>FAC-Neutral Test (D5)</li> </ul>
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes O No O Depth (inches):		
Water Table Present? Yes No      Depth (inches):		
	Wetland Hydro	ology Present? Yes 🖲 No 🔿
Saturation Present? (includes capillary fringe) Yes No  Depth (inches):		
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if availa	able:
Demodes		
Remarks:		
1		

			ominant pecies?		Sampling Point: Wet - 15
		e R	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30 m</u> )	% Cove		Cover	Status	Number of Dominant Species
Pinus elliottii	10		35.7%	FACW	That are OBL, FACW, or FAC:6(A)
Magnolia virginiana	15	✓	53.6%	FACW	Tetal Number of Demission
Nyssa sylvatica	3		10.7%	FAC	Total Number of Dominant Species Across All Strata: 6 (B)
	0		0.0%		
	0		0.0%		Percent of dominant Species
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B
	0		0.0%	1.0	Prevalence Index worksheet:
			0.0%		Total % Cover of Multiply by:
0% of Total Cover: 14 20% of Total Cover: 5.6		- 70	otal Cove	-	OBL species <u>6</u> x 1 = <u>6</u>
		- 10			
apling or Sapling/Shrub Stratum (Plot size: 30 m			11.000	2012/07	FACW species $84 \times 2 = 168$
Pinus elliottii	3	Ц	13.0%	FACW	FAC species $10 \times 3 = 30$
Magnolia virginiana	15		_65.2%	FACW	FACU species x 4 =
Nyssa sylvatica	5.	⊻	21.7%	FAC	UPL species 0 x 5 = 0
	0		0.0%		Column Totals: 100 (A) 204 (B)
	0		0.0%		
	0		0.0%		Prevalence Index = B/A = 2.040
	0		0.0%		Hydrophytic Vegetation Indicators:
	0	$\Box$	0.0%		
0% of Total Cover: 11.5 20% of Total Cover: 4.6		- 70	tal Cove	-	1 - Rapid Test for Hydrophytic Vegetation
	_23	= 10	cal Cove	8	✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: <u>30 m</u> )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea	40	<	95.2%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex opaca	2		4.8%	FAC	
1			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
			0.0%		be present, unless disturbed or problematic.
	0		0.0%		Definition of Vegetation Strata:
	0	Ē	0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 21 20% of Total Cover: 8.4					approximately 20 ft (6 m) or more in height and 3 in.
576 61 16tal Cover. 21 2076 61 16tal Cover. 0,4			tal Cover		
		= 10	tal Cover	r .	(7.6 cm) or larger in diameter at breast height (DBH).
rb Stratum (Plot size: 30 m )		= 10	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH),
			tal Cover	OBL.	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,
Lycopodiella alopecuroides	5	_			(7.6 cm) or larger in diameter at breast height (DBH),
Lycopodiella alopecuroides Woodwardia areolata	5	_	83.3%	OBL	(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
Lycopodiella alopecuroides Woodwardia areolata	5	_	83.3% 16.7% 0.0%	OBL	(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
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0	_	83.3% 16.7% 0.0%	OBL	(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.
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0	_	83.3% 16.7% 0.0% 0.0% 0.0%	OBL	(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.
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0 0	_	83.3% 16.7% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0 0 0 0	_	83.3% 16.7% 0.0% 0.0% 0.0% 0.0%	OBL	(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.
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0 0 0 0 0 0 0 0	_	83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> </ul>
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>
Woodwardia areolata	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella alopecuroides Woodwardia areolata	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
Lycopodielia alopecuroides         Woodwardia areolata	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella alopecuroides Woodwardia areolata % of Total Cover: 3 20% of Total Cover: 1.2 ody Vine Stratum (Plot size: 30 m )	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella alopecuroides         Woodwardia areolata         % of Total Cover:       3         20% of Total Cover:       1.2         wody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia       1	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0%	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodielia alopecuroides Woodwardia areolata % of Total Cover: 3 20% of Total Cover: 1.2 wody Vine Stratum (Plot size: 30 m)	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% <b>ctal Cover</b> 100.0% 0.0%	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella alopecuroides         Woodwardia areolata         "% of Total Cover: 3         20% of Total Cover: 1.2         cody Vine Stratum (P!ot size: 30 m )         Smilax laurifolia			83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0%	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Lycopodiella alopecuroides         Woodwardia areolata         "% of Total Cover: 3         20% of Total Cover: 1.2         xody Vine Stratum (P!ot size: 30 m )         Smilax laurifolia			83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% ctal Cover 100.0% 0.0%	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>
Lycopodiella alopecuroides         Woodwardia areolata         Woodwardwareolata         Woodwareolat			83.3% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0%	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>

#### Sampling Point: Wet - 15

Profile Descri	ption: (De	scribe to	the depth	needed to d	locument	the indic	ator or co	onfirm the	absence of indicators.)		
Depth		Matrix			Re	dox Featu	res				
(inches)	Color (		%	Color (	moist)	0/0	Type <sup>1</sup>	Loc <sup>2</sup>		arks "	
0-4	10YR	3/2	100			· · · ·			Loamy Sand		
4-12	10YR	4/2	98	10YR	6/6	2	С	M	Loamy Sand		
12-20	10YR	4/3	95	10YR	6/6	5	С	M	Loamy Sand		
					_		•				
								e			
		=Depletio	n. RM=Redu	iced Matrix, C	S=Covere	d or Coate	d Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=Matrix		
Hydric Soil In							(00) (155		Indicators for Problematic Hydr	ric Soils <sup>3</sup> :	
Histosol (A	•			_		w Surface			1 cm Muck (A9) (LRR O)		
						face (S9) (I			2 cm Muck (A10) (LRR S)		
Black Histic	• -			_		Mineral (F			Reduced Vertic (F18) (outside M	MLRA 150A,B)	
_ • •	Sulfide (A4)					Matrix (F2	)		Piedmont Floodplain Soils (F19)	) (LRR P, S, T)	
Stratified L			0		leted Matr	• •			Anomalous Bright Loamy Soils (	(F20) (MLRA 153B)	
	dies (A6) (L			_		urface (F6)			Red Parent Material (TF2)		
	y Mineral (A		, T, U)			Surface (F	7)		Very Shallow Dark Surface (TF1	.2)	
	ence (A8) (L				ox Depres				Other (Explain in Remarks)		
	(A9) (LRR P			🔄 Mari	(F10) (LR	RU)					
	elow Dark S	•	11)	🗌 Dep	leted Ochr	ic (F11) (M	ILRA 151)				
	Surface (A1				-Mangane	se Masses	(F12) (LRF	ε O, P, T)			
	ie Redox (A:			🗌 Umb	oric Surfac	e (F13) (LF	R P, T, U)				
Sandy Muc	k Mineral (S	1) (LRR O	, S)	🗌 Delt	a Ochric (f	=17) (MLRA	A 151)		<sup>3</sup> Indicators of hydrophytic vegetation and		
Sandy Gley	ed Matrix (S	4)		Red	uced Verti	c (F18) (MI	LRA 150A,	150B)	vetland hydrology mus		
Sandy Red	ox (S5)			Pied	mont Floo	dplain Soils	s (F19) (MI	RA 149A)	unless disturbed or p		
Stripped M	atrix (S6)			Anoi	malous Bri	ght Loamy	Soils (F20	) (MLRA 14	9A, 153C, 153D)		
Dark Surfac	ce (S7) (LRR	P, S, T, U	1)								
Restrictive Lay	yer (if obse	rved):									
Type:						1					
Depth (inche	es):								Hydric Soil Present? Yes 🕥	No O	
Remarks:											
Slight evidence	e of sandy	redox ar	d mottling	. However,	no soil s	aturation	to 20 inc	hes. Som	ne moisture in deeper interval, but ne	o saturation.	
Redox features	s make a v	ery smai	portion o	r soi! Coluithi	٦.						

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 14-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 16
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 28 T 7 S R 16 W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): none Slope: 1.0 % / 0.6°
Subregion (LRR or MLRA): LRR T Lat	L: 30° 24' 11.612" N Long.: 89° 36' 43.600" W Datum: NAD83
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	NWI classification: PFO 1/4 C
· · · · · · · · · · · · · · · · · · ·	
Are climatic/hydrologic conditions on the site typical for this time of	
Are Vegetation , Soil , or Hydrology signification	antly disturbed? Are "Normal Circumstances" present? Yes 🔍 No 🔾
Are Vegetation . , Soil , or Hydrology . natural	lly problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 🔍 No 🔿	Is the Sampled Area
Hydric Soil Present? Yes 💿 No 🔿	Yes (i) No (i)
Wetland Hydrology Present? Yes 💿 No 🔿	within a Wetfand?
Remarks:	
Wet area ner former home/settlement - drainage swale/gentle sk	oped terrain going back to main wetland area to the west,
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apph	A set of the set of
Surface Water (A1)	(B13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (	(B15) (LRR U)  Varianage Patterns (B10)
Saturation (A3)	ide Odor (C1) Moss Trim Lines (B16)
Water Marks (B1)	spheres along Living Roots (C3) Dry Season Water Table (C2)
	educed Iron (C4)
	eduction in Tilled Solis (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	
Cher (Explain)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No  Depth (inches	
builde water research to the bops (manage	s):
Water Table Present? Yes  No  Depth (inches	s):6 Wetland Hydrology Present? Yes 💿 No 🔿
Saturation Present? Yes O No O Depth (inches	s):
Describe Recorded Data (stream gauge, monitoring well, aerial ph	notos, previous inspections), if available:
	······
	. (ABR)
Remarks:	

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

	Dominant Enecles2				Sampling Point: Wet - 16		
	Absolute		_ Species? Rel.Strat. Indicato		1		
Tree Stratum (Plot size: <u>30 m</u> )		r (	Cover	Status	Number of Dominant Species		
Pinus elliottii	10	<ul><li>✓</li></ul>	20.8%	FACW	That are OBL, FACW, or FAC: 10 (A)		
Nyssa biflora	20		41.7%	OBL			
Magnolia virginiana	15	~	31.3%	FACW	Total Number of Dominant Species Across All Strata: 10 (B)		
Quercus nigra	3		6.3%	FAC	·····		
	-		0.0%		Percent of dominant Species		
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
· · · · · · · · · · · · · · · · · · ·	0		0.0%	2	Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 24 20% of Total Cover: 9.6	48	= To	tal Cove	-	OBL species $41 \times 1 = 41$		
apling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species66 x 2 =132		
Manual Attinue	45	✓.	62.5%	OBL	FAC species $19 \times 3 = 57$		
Myssa onora Magnolia virginiana			20.8%	FACW			
Pinus elliotti	3		12.5%	FACW	·		
(			4.2%	FACW			
Cyrllia racemifiora		H	0.0%	TACW	Column Totals: <u>126</u> (A) <u>230</u> (B)		
	0.0	H	0.0%		Prevalence Index = B/A = 1825		
· · · · · · · · · · · · · · · · · · ·					Hydrophytic Vegetation Indicators:		
		H	0.0%		Trydrophyde regetation indicators:		
Chamba Na hina na na na na na mana na	0	ш_	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 12 20% of Total Cover: 4.8	24	= To	tal Cove		✓ 2 - Dominance Test is > 50%		
Shrub Stratum (Plot size: 30 m)					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Morella cerifera	15		55.6%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Cyrilla racemifiora	10		37.0%	FACW			
Magnolla virginiana	2		7.4%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
	0		0.0%		be present, unless disturbed or problematic.		
	0				Definition of Verstation States		
			0.0%		Definition of vegetation Strata:		
			0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Totai Cover: 13.5 20% of Total Cover: 5.4	0	  = Tot			Tree - Woody plants, excluding woody vines,		
0% of Totai Cover: 13.5 20% of Total Cover: 5.4	0	_	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 Totai Cover: 13.5 20% of Total Cover: 5.4 erb Stratum (Plot size: <u>30 m</u> ) Mikania scandens	0 27		0.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Totai Cover: <u>13.5</u> 20% of Total Cover: <u>5.4</u> erb Stratum (Plot size: <u>30 m</u> ) , Mikania scandens , Typha latifolia	0 27 10	_	0.0% tal 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). Sapling - Woody plants, excluding woody vines,		
0% of Totai Cover: <u>13.5</u> 20% of Total Cover: <u>5.4</u> erb Stratum (Plot size: <u>30 m</u> ) Mikania scandens Typha latifolia	0 27 10		0.0% tal Cover 47.6%	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 Totai Cover: <u>13.5</u> 20% of Total Cover: <u>5.4</u> erb Stratum (Plot size: <u>30 m</u> ) Mikania scandens Typha latifolia Centella erecta	0 27 10 5		0.0% tal Cover 47.6% 23.8%	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 than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less		
0% of Totai Cover: <u>13.5</u> 20% of Total Cover: <u>5.4</u> erb Stratum (Plot size: <u>30 m</u> ) Mikania scandens Typha latifolia Centella erecta Juncus validus	0 27 10 5 3		0.0% tal Cover 47.6% 23.8% 14.3%	FACW OBL 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 Totai Cover: 13.5 20% of Total Cover: 5.4 erb Stratum (Plot size: 30 m) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata	$\begin{array}{c} 0\\ 27\\ 10\\ 5\\ 3\\ 2\\ 1\\ 1\end{array}$		0.0% tal Cover 47.6% 23.8% 14.3% 9.5%	FACW OBL FACW 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.		
0% of Totai Cover: <u>13.5</u> 20% of Total Cover: <u>5.4</u> erb Stratum (Plot size: <u>30 m</u> ) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata	0 27 10 5 3 2 1 0		0.0% tal Cover 47.6% 23.8% 14.3% 9.5% 4.8%	FACW OBL FACW 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		
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0% of Totai Cover: 13.5 20% of Total Cover: 5.4 erb Stratum (Plot size: 30,m) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata	0 27 10 5 3 2 1 0 0 0 0 0 0 0 0 0 0		0.0% tal Cover 47.6% 23.8% 14.3% 9.5% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL 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 Totai Cover: <u>13.5</u> 20% of Total Cover: <u>5.4</u> arb Stratum (Plot size: <u>30 m</u> ) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata 	0 27 10 5 3 2 1 0 0 0 0 0 0 0 21		0.0% tal Cover 47.6% 23.8% 14.3% 9.5% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	FACW OBL 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 3 ft (1 m) in height.		
0% of Totai Cover: 13.5 20% of Total Cover: 5.4   erb Stratum (Plot size: 30 m) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata Woodwardia areolata 0% of Total Cover: 10.5 20% of Total Cover: 4.2 pody Vine Stratum (Plot size: 30 m) Snilax laurifolia	0 27 10 5 3 2 1 0 0 0 0 0 0 21 5		0.0% tal Cover 47.6% 23.8% 14.3% 9.5% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3%	FACW OBL 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 3 ft (1 m) in height.		
0% of Totai Cover: 13.5 20% of Total Cover: 5.4 erb Stratum (Plot size: 30 m) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata 0% of Total Cover: 10.5 20% of Total Cover: 4.2 coody Vine Stratum (Plot size: 30 m) Smilax laurifolia	0 27 10 5 3 2 1 0 0 0 0 0 0 21 5		0.0% tal Cover 47.6% 23.8% 14.3% 9.5% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3% 16.7%	FACW OBL 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 3 ft (1 m) in height.		
0% of Totai Cover: 13.5 20% of Total Cover: 5.4 erb Stratum (Plot size: 30 m) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata 0% of Total Cover: 10.5 20% of Total Cover: 4.2 cody Vine Stratum (Plot size: 30 m) Smilax laurifolia Vitis rotundifolia	0 27 10 5 3 2 1 0 0 0 0 0 0 0 0 0 21 5 1 0		0.0% tal Cover 47.6% 23.8% 14.3% 9.5% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3%	FACW OBL 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 3 ft (1 m) in height.		
0% of Totai Cover: 13.5 20% of Total Cover: 5.4 erb Stratum (Plot size: 30 m) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata 0% of Total Cover: 10.5 20% of Total Cover: 4.2 cody Vine Stratum (Plot size: 30 m) Smilax laurifolia Vitis rotundifolia	0 27 10 5 3 2 1 0 0 0 0 0 0 0 0 0 21 5 1 0		0.0% tal Cover 47.6% 23.8% 14.3% 9.5% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 83.3% 16.7%	FACW OBL 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 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.		
0% of Totai Cover: 13.5 20% of Total Cover: 5.4 erb Stratum (Plot size: 30 m) Mikania scandens Typha latifolia Centella erecta Juncus validus Woodwardia areolata 	0 27 10 5 3 2 1 0 0 0 0 0 0 0 0 0 21 5 1 0		0.0% tal Cover 47.6% 23.8% 14.3% 9.5% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 16.7% 0.0%	FACW OBL 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 3 ft (1 m) in height.		

#### Sampling Point: Wet - 16

	needed to document the Indicator or confirm the	absence of Indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0-3 10YR 2/1 100	· · · · · · · · · · · · · · · · · · ·	Muck
3-16 10YR 3/1 100		/
	an and the second second second second second second second second second second second second second second se	an an an an an an an an an an an an an a
		second second second second second second second second second second second second second second second second
<sup>1</sup> Type: C=Concentration. D=Depletion. RM=Redu Hydric Soil Indicators:	ced Matrix, CS=Covered or Coated Sand Grains 2Loc	
<u> </u>		Indicators for Problematic Hydric Solis <sup>3</sup> :
	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) (cutside 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)	
	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 14	<b>19A,</b> 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)		
Restrictive Layer (if observed):		
Туре:		
Depth (inches):		Hydric Soil Present? Yes 💿 No 🔿
Remarks:		

Soil Map Unit Name:       Su, Smithton fine sande loam frequently floc         Are climatic/hydrologic conditions on the site typical for this time         Are Vegetation       , Soil         Are Vegetation       , Soil         , or Hydrology       signification         Are Vegetation       , Soil	
Hydrophytic Vegetation Present? Yes  No Hydric Soil Present? Yes  No Wetland Hydrology Present? Yes  No Remarks: Area represents a DRY Wetland - Water table has been pulled	Is the Sampled Area within a Wetland? Yes  No d down most likely by construction of man-made ditch to east and south of location. riphic postions, but soils are DRY - barely sufficient chromat qualify as wetland.
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that appendix of the second	
Field Observations:       Surface Water Present?       Yes       No       Depth (includes capillary fringe)         Water Table Present?       Yes       No       Depth (includes capillary fringe)         Saturation Present?       Yes       No       Depth (includes capillary fringe)         Describe Recorded Data (stream gauge, monitoring well, aerial	nches): Wetland Hydrology Present? Yes  No
Remarks: Maniipulated drained wetland ditch in SE AOI - near area of pre apparently.	revious silvicutural land clearing. Man made ditch has pulled down water table

VEGETATION	(Five/Four	Strata) -	Use scientific name	s of plants
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		Dominant Species?			Sampling Point: Wet - 17		
Tree Stratum (Plot size: <u>30 m</u> )	Absolut % Cove		el.Strat. Cover	Indicator Status	Dominance Test worksheet:		
Nyssa sylvatica		·	· · · ·		Number of Dominant Species		
Quercus nigra	- 15			FAC	That are OBL, FACW, or FAC: 7 (A)		
	5		19.2%	FAC	Total Number of Dominant		
	5		19.2%	FACW	Species Across All Strata: 7 (B)		
			3.8%	OBL	Demonstration of dominant for a size		
			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)		
			0.0%				
· · · · ·			0.0%		Prevalence Index worksheet:		
			0.0%		Total % Cover of Multiply by:		
50% of Total Cover: 13 20% of Total Cover: 5.2	26	= T(	otal Cove	r	OBL species 3 x 1 = 3		
apling or Sapling/Shrub Stratum (Plot size: 30 m	.)				FACW species 33 x 2 = 66		
Nyssa sylvatica	10	V	55.6%	FAC	FAC species 49 x 3 =147		
Quercus nigra		~	27.8%	FAC	FACU species $0 \times 4 = 0$		
Cyrilla racemíflora	2		11.1%	FACW	UPL species $0 \times 5 = 0$		
Liquidambar styraciflua	1		5.6%	FAC			
· · · · · · · · · · · · · · · · · · ·			0.0%		Column Totals: 85 (A) 216 (B)		
and the second			0.0%		Prevalence Index = B/A = 2.541		
	0		0.0%		Hydrophytic Vegetation Indicators:		
······································			0.0%				
					1 - Rapid Test for Hydrophytic Vegetation		
	18	= 10	otal Cove		2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m )		_			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Cyrilla racemifiora		$\checkmark$	55.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Quercus nigra	5		27.8%	FAC			
Liquidambar styraciflua	3		16.7%	FAC	<sup>1</sup> Indicators of hydric soll and wetland hydrology must		
	0		0.0%		be present, unless disturbed or problematic.		
	0		0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 9 20% of Total Cover: 3.6	18	18 = Total Cover			approximately 20 ft (6 m) or more in height and 3 in.		
erb Stratum (Plot size: 30 m )	,.				(7.6 cm) or larger in diameter at breast height (DBH).		
					<b>A F M F H H H H H H H H H H</b>		
					Sabling - Woody plants excluding woody vines		
Arundinaria tecta			88.2%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
Arundinaria tecta Woodwardia areolata	2		88.2% 11.8%	FACW OBL			
Arundinaria tecta Woodwardia areolata	2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Arundinaria tecta Woodwardia areolata	2		11.8%	OBL	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		
Arundinaria tecta Woodwardia areolata	2 0 0 0		11.8% 0.0%	OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Arundinaria tecta Woodwardia areolata	2 0 0 0		11.8% 0.0% 0.0%	OBL	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.		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0		11.8% 0.0% 0.0% 0.0%	OBL	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		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0		11.8% 0.0% 0.0% 0.0% 0.0%	OBL	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.		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0 0 0 0 0		11.8% 0.0% 0.0% 0.0% 0.0%	OBL	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		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0 0 0 0 0 0 0		11.8% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0 0 0 0 0 0 0		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0 0 0 0 0 0 0		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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.		
Arundinaria tecta Woodwardia areolata 	2 0 0 0 0 0 0 0 0 0 0 17		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	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.		
Arundinaria tecta Woodwardia areolata Woodwardia areolata 	2 0 0 0 0 0 0 0 0 0 0 17		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FAC	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.		
Arundinaria tecta Woodwardia areolata 	2 0 0 0 0 0 0 0 0 0 0 0 0 0 17 5 1		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FAC	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.		
Arundinaria tecta Woodwardia areolata Woodwardia areolata 	2 0 0 0 0 0 0 0 0 0 0 0 0 0 17 5 1		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FAC	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.		
Arundinaria tecta Woodwardia areolata	2 0 0 0 0 0 0 0 0 0 0 0 0 17		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FAC	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.		
Arundinaria tecta Woodwardia areolata Woodwardia areolata 	2 0 0 0 0 0 0 0 0 0 0 0 0 17 5 1 0 0		11.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FAC	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.		

Depth	nption: (De	Matrix	the depth	needed to document the indicator or confirm the Redox Features	e absence of Indicators.)
(inches)	Color	moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	
0-6	10YR	4/2	100		Silt Loam
6-16	10YR	6/3	100		
· . · M .					- <u>*</u>
		=Depletior	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	cation: PL=Pore Lining. M=Matrix
	ndicators:			_	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (/				Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
	edon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histi				Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)			Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L			Redox Dark Surface (F6)	Red Parent Material (TF2)
5 cm Muc	ky Mineral (A	7) (LRR P,	T, U)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
Muck Pres	ence (A8) (L	rr u)		Redox Depressions (F8)	Other (Explain in Remarks)
1 cm Mucl	(A9) (LRR I	P, T)		Mari (F10) (LRR U)	
Depleted B	Below Dark S	urface (A1	1)	Depleted Ochric (F11) (MLRA 151)	
Thick Dark	Surface (A1	2)		Iron-Manganese Masses (F12) (LRR O, P, T)	
Coast Prai	rie Redox (A	16) (MLRA	150A)	Umbric Surface (F13) (LRR P, T, U)	
Sandy Mud	k Mineral (S	1) (LRR O,	S)	Delta Ochric (F17) (MLRA 151)	
	yed Matrix (S			Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Red				Piedmont Floodplain Soils (F19) (MLRA 149A)	wetland hydrology must be present, unless disturbed or problematic,
Stripped M				Anomalous Bright Loamy Soils (F20) (MLRA 14	
	ce (S7) (LRR	P, S, T, U	)		
strictive La	yer (if obse	erved):			
Туре:					
Depth (inch	es):				Hydric Soil Present? Yes 🖲 No 🔿
marks:		•			<u>+</u> ,,
matrices a ditions only	ippear to h y display hi	ave (at o gher valu	ne time) b e colors th	een sufficiently stripped of organic matter due t an what are typiclaly seen in a wetland but low	to wet weather drainage through area, but dry weather ver chromas seemto meet the criteria.

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 18-Oct-16						
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 18						
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W						
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °						
Subregion (LRR or MLRA): LRR T Lat.:							
Soil Map Unit Name: Su, Smithton fine sandy loam, frequently flooded							
Are climatic/hydrologic conditions on the site typical for this time of ye							
	problematic? (If needed, explain any answers in Remarks.) ampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes  No							
Hydric Soil Present? Yes  No O	Is the Sampled Area						
Wetland Hydrology Present? Yes  No	within a Wetland? Yes 🖲 No 🔿						
Remarks:							
Low drainage area approximately 50 feet east of Up - 18.							
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)						
Primary Indicators (minimum of one required; check all that apply)							
Surface Water (A1)	313) Sparsely Vegetated Concave Surface (B8)						
High Water Table (A2)	15) (LRR U)  Solution of the second s						
Saturation (A3)							
	heres along Living Roots (C3)						
Sediment Deposits (B2)							
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)						
Algal Mat or Crust (B4) Thin Muck Surface							
Inon Deposits (B5)     Other (Explain in     Inundation Visible on Aerial Imagery (B7)							
✓ Water-Stained Leaves (B9)	FAC-Neutral Test (D5)						
Field Observations:	Sphagnum moss (D8) (LRR T, U)						
Surface Water Present? Yes No      Depth (inches):							
	Wetland Hydrology Present? Yes 🔍 No 🔾						
(includes capillary fringe) Yes V No V Depth (inches):							
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if available:						
Remarks:							

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

regeration (rive/rour strata) - use scientific		Dominant Species?			Sampling Point: Wet - 18			
	Absolute	e Rel.Strat. Indic		Indicator	Dominance Test worksheet:			
ree Stratum (Plot size: 30 m )	% Cover	<u> </u>		Status	Number of Dominant Species			
Nyssa biflora	15	1		OBL	That are OBL, FACW, or FAC: 7 (A)			
Nvssa sylvatica	5	✓	21.7%	FAC	Total Number of Dominant			
Pinus elliottii	2		8.7%	FACW	Species Across All Strata: 7 (B)			
Cyrilla racemifiora		$\Box$	4.3%	FACW				
	0		0.0%		Percent of dominant Species			
	D		0.0%		That Are OBL, FACW, or FAC:100 0%(A/E			
			0.0%		Prevalence Index worksheet:			
	0		0.0%		Total % Cover of Multiply by:			
0% of Total Cover: 11.5 20% of Total Cover: 4.6	23	= T(	otal Cove	r	OBL species 42 x 1 = 42			
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species $37$ , x 2 = 74			
Nyssa biflora		V	53.6%	OBL.	FAC species $6 \times 3 = 18$			
Cyrilla racemifiora	· · · ·			FACW	FACU species $0 \times 4 = 0$			
Pinus elliotti	3		10.7%	FACW	$\frac{1}{\text{UPL species}} = \frac{1}{2} \frac{1}{$			
		П	0.0%					
P			0.0%		Column Totals: 85 (A) 134 (B			
	_		0.0%	- Les - car	Prevalence Index = B/A = 1.576			
			0.0%		Hydrophytic Vegetation Indicators:			
	0		0.0%					
resserver -					1 - Rapid Test for Hydrophytic Vegetation			
0% of Total Cover: 14 20% of Total Cover: 5.6	28	= TO	= Total Cover		2 - Dominance Test is > 50%			
rub Stratum (Plot size: 30 m					✓ 3 - Prevalence Index is ≤3.0 $^1$			
Cyrilla racemiflora	10	✓	62.5%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
Persea palustris	3		18.8%	FACW				
Ilex glabra	2		12.5%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus			
Ilex opaca	1		6.3%	FAC	be present, unless disturbed or problematic.			
			0.0%		Definition of Vegetation Strata:			
	0		0.0%		Tree - Woody plants, excluding woody vines,			
0% of Totai Cover: 8 20% of Total Cover: 3.2	16 :	= To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
erb Stratum (Plot size: <u>30 m</u> )					(7.6 Gif) of larger in diameter at breast neight (DBH).			
Woodwardia areolata	10	<b>V</b>	F0 00/	0.01	Sapling - Woody plants, excluding woody vines,			
	10		58.8%	OBL	approximately 20 ft (6 m) or more in height and less			
Arundinaria tecta			29.4%	FACW	than 3 in. (7.6 cm) DBH.			
Sarracenla fiava		Ш,	11.8%	OBL	One line (Olemak) Manaka alamba ana kaliman dan sa Jawa			
••••								
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in, DBH and greater than 3.28 ft (1m) tall.			
	0		0.0%	_	than 3 in. DBH and greater than 3.28 ft (1m) tall.			
•	0		0.0% 0.0%	_	than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines,			
ч., Чалого, для доля доля и слада. Чалого и слада на просток на слада на просток	0 0 0		0.0% 0.0% 0.0%	_	than 3 in. DBH and greater than 3.28 ft (1m) tall.			
• • • • • • •	0 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0		0.0% 0.0% 0.0%		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			
	0 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0		0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: 8.5 20% of Total Cover: 3.4	0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.			
% of Total Cover: 8.5 20% of Total Cover: 3.4 pody Vine Stratum (Plot size: 30 m)	0 0 0 0 0 0 0 0 0 17 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	-	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: <u>8.5</u> 20% of Total Cover: <u>3.4</u> <b>body Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Smilax laurifolia</b>	0 0 0 0 0 0 0 0 17 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	-	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: <u>8.5</u> 20% of Total Cover: <u>3.4</u> <b>coody Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Smilax laurifolla</b>	0 0 0 0 0 0 0 0 0 17 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0%	-	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: <u>8.5</u> 20% of Total Cover: <u>3.4</u> <b>cody Vine Stratum</b> (Plot size: <u>30 m</u> ) Smilax laurifolia	0 0 0 0 0 0 0 0 17 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0%	-	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: <u>8.5</u> 20% of Total Cover: <u>3.4</u> <b>cody Vine Stratum</b> (Plot size: <u>30 m</u> ) Smilax laurifolia	0 0 0 0 0 0 0 0 0 0 17 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	-	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 0 0 0 0 0 0 0 0 0 0 17 = 1 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% 0.0% tal Cover 100.0% 0.0%	FACW	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.			

FIGHIE BESCH	ption: (De	scribe to	the depth	needed to docu	ment the ind	icator or co	onfirm the	absence of indicators.)	)
Depth		Matrix			Redox Fea			-	
(inches)	Çolor (	moist)	%	Color (moi		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/1	90	10YR	7/2 10	D	M	Loamy Sand	<b></b>
4-20	10YR	3/2	. 85	10YR	7/2 20	D	. <u>M</u>	Sandy Loarn	· · · · · · · · · · · · · · · · · · ·
	νι · ·		с						
Type: C=Conc Hydric Soll II		=Depletio	n. RM=Redu	ced Matrix, CS=C	Covered or Coa	ted Sand Gra	ains <sup>2</sup> Loca	ition: PL=Pore Lining. M=	-Matrix blematic Hydric Soils <sup>3</sup> :
Stratified L Organic Bc S cm Muck Muck Prese I cm Muck Depleted B Thick Dark Coast Prair Sandy Muc	edon (A2) 5 (A3) 5 Julfide (A4) ayers (A5) dies (A6) (L y Mineral (A ence (A8) (L (A9) (LRR I elow Dark S Surface (A1 ie Redox (A k Mineral (S red Matrix (S	7) (LRR P RR U) 2, T) urface (A: 2) 16) (MLR4 1) (LRR O	, T, U) 11) ( 150A)	Thin Dat Loamy M Loamy C Depleted Redox D Depleted Redox D Depleted Narl (F1 Depleted Iron-Mai Umbric S Delta Oc Reduced	e Below Surfac rk Surface (S9) Mucky Mineral I Sleyed Matrix ( d Matrix (F3) Iark Surface (F d Dark Surface epressions (F8 0) (LRR U) I Ochric (F11) nganese Masse Surface (F13) ( thric (F17) (ML I Vertic (F18) ( at Floodplain So	(LRR S, T, L (F1) (LRR O) F2) 6) (F7) (MLRA 151) (MLRA 151) (RR P, T, U) RA 151) MLRA 150A,	) R O, P, T) 150B)	Piedmont Floody Anomalous Brigi Red Parent Mate Very Shallow Da Other (Explain in <sup>3</sup> Indicators wetland	)) (LRR S) (F18) (outside MLRA 150A,B) plain Soils (F19) (LRR P, S, T) ht Loamy Solls (F20) (MLRA 153B) erial (TF2) irk Surface (TF12)
Stripped M Dark Surfar Restrictive Lar Type: Depth (incher	ce (S7) (LRF yer (if obse							9A, 153C, 153D) Hydric Soil Present?	Yes 🖲 No 🔾
Remarks: Depleted - stri	pped matri	ix in low	er portion o	of sample. Rec	lox concentra	ations also	enountere	.d.	

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/Co	ounty: Waveland - Hancock Sampling Date: 18-Oct-16			
Applicant/Owner: NASA	State: MS Sampling Point: Wet -19			
Investigator(s): Lars Larson, Randy Ellis Section	on, Township, Range: \$ 29 T 7 s R 16 W			
Landform (hillslope, terrace, etc.): Swale Local n	elief (concave, convex, none): none Slope: 0,0 % / 0,0 °			
Subregion (LRR or MLRA): LRR T Lat: 30° 24				
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? Are Vegetation , soil , soil , or Hydrology , significantly distu				
Are Vegetation, Soil, or Hydrology naturally problem: SUMMARY OF FINDINGS - Attach site map showing sampling				
Hydrophytic Vegetation Present? Yes  No O				
	Is the Sampled Area			
	within a Wetland? Yes 💿 No 🔿			
Wetland Hydrology Present? Yes  No O				
Remarks: Bottom area of drainage way between railbeds - this areas had been altered from being wet.	and water connection apparently disrupted, but not enough to keep it			
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)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits (B15) (LRR L	J) Drainage Patterns (B10)			
Saturation (A3)	Moss Trim Lines (B16)			
Water Marks (B1) Oxidized Rhizospheres alon				
Sediment Deposits (B2)	(C4) Crayfish Burrows (C8)			
Drift Deposits (B3)				
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)			
I Iron Deposits (B5)				
Inundation Visible on Aerial Imagery (B7)	🗹 FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)			
Field Observations:				
Surface Water Present? Yes O No O Depth (inches):				
Water Table Present? Yes O No 💿 Depth (inches):	Wetland Hydrology Present? Yes  No O			
Saturation Present? Yes O No  Depth (Inches):	Wetland Hydrology Present? Yes  No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ				
Remarks:				

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

	Dominant			Sampling Point: Wet -19			
	Absolut		pecies? . el.Strat.	Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cove	Г	Cover	Status	Number of Dominant Species		
Magnolia virginiana	10	$\checkmark$	50.0%	FACW	That are OBL, FACW, or FAC: 8 (A)		
Nyssa biflora	5		25.0%	OBL	The late to the test		
Pinus elliotti	3		15.0%	FACW	Total Number of Dominant Species Across All Strata: 8 (B)		
Acer rubrum	2		10.0%	FAC			
	D		0.0%		Percent of dominant Species		
· · · · · · · · · · · · · · · · · · ·	0		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:		
0% of Total Cover: 10 20% of Total Cover: 4	20	= To	tal Cove		OBL species40 x 1 =40		
apling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species 69 x Z = 138		
Afferent Arelateren		V	40.0%	FACW	FAC species $2 \times 3 = 6$		
			40.0%	OBL			
and the second state of the se			20.0%	FACW			
			0.0%	TACAA	Constraint Constraint Constraints		
ан сала сала сала сала сала сала сала са	-		0.0%		Column Totals: <u>111</u> (A) <u>184</u> (B)		
	and the second s		0.0%		Prevalence Index = B/A = 1.658		
-					Hydrophytic Vegetation Indicators:		
1			0.0%		Tranophytic regetation indicators.		
	0	Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 12.5 20% of Total Cover: 5	25	= To	tal Cove		✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Cyrilla racemiflora	25	$\checkmark$	67.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Magnolia virginiana	10		27.0%	FACW			
Ilex coriacea			5.4%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
· · · · · · · · · · · · · · · · · · ·			0.0%		be present, unless disturbed or problematic.		
			0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 18.5 20% of Total Cover: 7.4	_						
	37	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in.		
	37	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )	37		tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
rb Stratum (Plot size: 30 m ) Woodwardia virginica		= То	71.4%	OBL			
woodwardia virginica Woodwardia areolata	20				(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,		
woodwardia virginica Woodwardia areolata	<u>20</u> 5		71.4%	OBL	(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.		
rb Stratum (Plot size: 30 m) Woodwardla virginica Woodwardia areolata Arundinaria tecta	<u>20</u> 5		71.4% 17.9%	OBL	(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		
rb Stratum (Plot size: 30 m ) Woodwardia virginica Woodwardia areolata Arundinaria tecta	20 5 3		71.4% 17.9% 10.7%	OBL	(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.		
erb Stratum (Plot size: 30 m ) Woodwardia virginica Woodwardia areolata Arundinaria tecta	20 5 3 0 0		71.4% 17.9% 10.7% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>		
rb Stratum <sup>(Plot size: 30 m</sup> ) Woodwardia virginica Woodwardia areolata Arundinaria tecta	20 5 3 0 0		71.4% 17.9% 10.7% 0.0% 0.0%	OBL	(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		
rb Stratum <sup>(Plot size: <u>30 m</u>), Woodwardia virginica Woodwardia areolata Arundinaria tecta</sup>	20 5 3 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>		
erb Stratum (Plot size: 30 m,) Woodwardla virginica Woodwardia areolata Arundinaria tecta	20 5 3 0 0 0 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>		
erb Stratum (Plot size: 30 m) ) Woodwardia areolata Woodwardia areolata Arundinaria tecta	20 5 3 0 0 0 0 0 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>		
erb Stratum (Plot size: 30 m)) Woodwardla virginica Woodwardia areolata Arundinaria tecta	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>		
erb Stratum (Plot size: 30 m,) Woodwardia areolata Woodwardia areolata Arundinaria tecta	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>		
erb Stratum (Plot size: 30 m)) Woodwardia areolata Arundinaria tecta	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 17.9% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>		
erb Stratum (Plot size: 30 m)) Woodwardia areolata Arundinaria tecta 	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 17.9% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, iess than approximately 3 ft (1 m) in height.</li> </ul>		
erb Stratum       (Plot size: 30 m))         Woodwardla virginica         Woodwardla areolata         Arundinaria tecta         Arundinaria tecta	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 0 28		71.4% 17.9% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, iess than approximately 3 ft (1 m) in height.</li> </ul>		
erb Stratum       (Plot size: 30 m))         Woodwardla virginica         Woodwardla areolata         Arundinaria tecta         Arundinaria tecta	20 5 3 0 0 0 0 0 0 0 0 0 0 28 1		71.4% 17.9% 10.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum       (Plot size: 30 m))         Woodwardla virginica         Woodwardla areolata         Arundinaria tecta         Arundinaria tecta	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum       (Plot size: 30 m))         Woodwardla virginica         Woodwardla areolata         Arundinaria tecta         Arundinaria tecta	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 28 1 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum (Plot size: 30 m)) Woodwardia areolata Arundinaria tecta Arundinaria tecta 	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 0 28 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, iess than approximately 3 ft (1 m) in height.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
erb Stratum (Plot size: 30 m) Woodwardia virginica Woodwardia areolata Arundinaria tecta Arundinaria tecta 0% of Total Cover: 14 20% of Total Cover: 5.6	20 5 3 0 0 0 0 0 0 0 0 0 0 0 0 28 1 0 0 0		71.4% 17.9% 10.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, iess than approximately 3 ft (1 m) in height.</li> </ul>		

Profile Descr	iption: (De		the depth r	needed to c				onfirm the	absence of indicators.	)
Depth (inches)	Color (	Matrix ( moist)		Calas f		dox Feat	ures Type <sup>1</sup>	Loc <sup>2</sup>	Test	Demader
0-6	10YR	<b>moist)</b>		Color (	moist	- %	Iype	LOC <sup>2</sup>	Sandy Loam	Remarks
6-16	10YR	3/2	90	10YR	612	10		NA NA NA NA NA NA NA NA NA NA NA NA NA N		
0-10		5/2	90	IUTK	6/2	10	D	M	Sandy Loam	
			_							
		=Depletio	n. RM≂Redu	ced Matrix, (	CS=Cover	ed or Coate	ed Sand Gr	ains ²Loca	ation: PL=Pore Lining. M	=Matrix
Hydric Soil I				_					Indicators for Pro	blematic Hydric Solls <sup>3</sup> :
Histosol (A	-						e (S8) (LRR		1 cm Muck (A9)	) (LRR O)
	edon (A2)			_			(LRR S, T, I		2 cm Muck (A1	0) (LRR S)
Black Histi	• •				• •	•	1) (LRR O)	)	Reduced Vertic	(F18) (outside MLRA 150A,B)
	Sulfide (A4)					l Matrix (F	2)		Piedmont Flood	lplain Soils (F19) (LRR P, S, T)
	.ayers (A5)				leted Mat				Anomalous Brig	iht Loamy Soils (F20) (MLRA 153B)
	odies (A6) (L					urface (F6	•		Red Parent Mat	erial (TF2)
	cy Mineral (A		, T, U)			k Surface (			Very Shallow D	ark Surface (TF12)
	ence (A8) (L			Red	lox Depres	ssions (F8)			🗌 Other (Explain i	in Remarks)
	(A9) (LRR I			Mar	l (F10) (Ll	RR U)				
	Below Dark S		11)	Dep	leted Och	ric (F11) (I	MLRA 151)			
_	Surface (A1			Iron	-Mangane	ese Masses	; (F12) (LRI	R O, P, T)		
	rie Redox (A			. Uml	bric Surfac	:e (F13) (L	RR P, T, U)	)		
	ck Mineral (S		), S)	Delt	a Ochric (	F17) (MLR	A 151)		3	
Sandy Gley	yed Matrix (S	54)		Red	uced Vert	ic (F18) (M	ILRA 150A,	150B)	~Indicator wettanr	rs of hydrophytic vegetation and d hydrology must be present,
Sandy Red	ox (S5)			🗌 Pied	lmont Floe	odplain Soi	ls (F19) (M	LRA 149A)	unle	ss disturbed or problematic.
Stripped M	latrix (S6)			🗌 Ano	malous Br	ight Loam	y Soils (F20	) (MLRA 14	<b>9A, 153</b> C, 153D)	
🗌 Dark Surfa	ce (S7) (LRF	R P, S, T, I	U)							
Restrictive La	yer (if obse	erved):				<u> </u>				
Туре:						-			Hydric Soil Present?	? Yes 🖲 No 🔾
Depth (inch	es):					- 1				
Remarks:										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - I	Hancock Sampling Date: 18-Oct-16
Applicant/Owner: NASA	State: MS	Sampling Point: Wet - 21
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Rang	ge:S 29 T 7s R 16 ₩
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, conv	vex, none): Slope: 2.0 % / 1.1
Subregion (LRR or MLRA): LRR T Lat.:	30° 24' 24.006" N	Long.: 89° 37' 15.980" 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 ye		
		ormal Circumstances" present? Yes 🖲 No 🔿
	-	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa		is, transects, important reacures, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔾	Is the Sampled Ar	rea
Hydric Soil Present? Yes  No	within a Wetland?	, Yes ◉ No ◯
Wetland Hydrology Present? Yes 💿 No 🔿		
Remarks: Just downslope from railspur in North/NW part of AOI. Nice transiti	onal area from upland to ri	parian buffer above TS Creek to the south.
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)		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		✓ Drainage Patterns (B10)
Saturation (A3)	Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	neres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)	ced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	e (C7)	Geomorphic Position (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 (inches):	•	
Water Table Present? Yes O No O Depth (inches):		Hydrology Present? Yes 🖲 No 🔾
Saturation Present? Yes O No  Depth (inches):	Wetland	Hydrology Present? Yes 🔍 No 🔾
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if	available:
Remarks:		

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

	Dominant Species?				Sampling Point: Wet - 21		
	Absolut	e R	el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove	HT .	Cover	Status	Number of Dominant Species		
Pinus elliotti	5		16.1%	FACW	That are OBL, FACW, or FAC: 10 (A)		
Nyssa sylvatica	10	$\checkmark$	32.3%	FAC			
Magnolia virginiana	15	$\checkmark$	48.4%	FACW	Total Number of Dominant Species Across All Strata: 10 (B)		
Taxodium ascendens	. 1		3.2%	OBL			
- 15 P	•		0.0%		Percent of dominant Species		
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
			0.0%		Prevalence Index worksheet:		
	D		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 15.5 20% of Total Cover: 6.2	31	= To	tal Cove	r	OBL species 25 x 1 = 25		
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species70 x Z =140		
Taxodium ascendens		П	3.8%	OBL	FAC species $22 \times 3 = 66$		
Magnolia virginiana			38.5%	FACW	FACU species $0 \times 4 = 0$		
Cyrilla racemiflora	10		38.5%	FACW			
	_		19.2%	FAC			
and the second of the second o			0.0%	FAC	Column Totals: <u>117</u> (A) <u>231</u> (B)		
		H	0.0%		Prevalence Index = B/A =1.974_		
	_				Hydrophytic Vegetation Indicators:		
		H	0.0%		nyurophytic vegetation indicators.		
11		Ш,	0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 13 20% of Total Cover: 5.2	26	= To	tal Cove	r	✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Magnolla virginiana	10	✓	33.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Acer rubrum	-		16.7%	FAC			
Cyrilla racemifiora	_		16.7%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
Ilex coriacea		✓	33.3%	FACW	be present, unless disturbed or problematic.		
•• * • • • • • • • • • • • • • • • • •		Π	0.0%		Definition of Vegetation Strata:		
	C		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 15 20% of Total Cover: 6	30	= To	tal Cove	•	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: <u>30 m</u> )		_			Conling Mondy plants, evaluating woody visca		
. Woodwardia areolata			21.7%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
Woodwardia virginica	15		65.2%	OBL	than 3 in. (7.6 cm) DBH.		
Osmunda regalis	2		8.7%	OBL			
Sarracenia alabamensis	1		4.3%	OBL	Sapling/Shrub - Woody plants, excluding vines, less		
	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	0		0.0%		Shrub - Woody plants, excluding woody vines,		
· · · · · · · · · · · · · · · · · · ·	0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
	0		0.0%				
			0.0%		Herb - All herbaceous (non-woody) plants, including		
	0		0.0%		herbaceous vines, regardless of size, and woody		
•*•	0		0.0%	c	plants, except woody vines, less than approximately 3 ft (1 m) in height.		
	0		0.0%		. , .		
0% of Total Cover: 11.5 20% of Total Cover: 4.6		= To	tal Cover		Woody vine - All woody vines, regardless of height.		
oody Vine Stratum (Plot size: 30 m )				L L			
Vitis rotundifolia	2		28.6%	FAC			
Smilax laurifolia	5		71.4%	FACW			
	0		0.0%				
	0		0.0%				
	0	- 1º	0.0%		Hydrophytic		
4 **					Vegetation Present? Yes I No		

Profile Descr	iption: (De	scribe to	the depth n	eeded to d	locumen	t the indi	cator or c	onfirm the	absence of indicators.)	
Depth		Matrix		v		dox Feat				
(inches)		moist)	%	Color (	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	3/1	100						Fine Loamy Sand	
5-16	10YR	3/2	95	10YR	7/2	5	D	M	Loamy Sand	
						-	 17. 499.	-		
<sup>1</sup> Type: C=Conc	centration. D	- Depletio	n. RM=Reduc	ed Matrix, (	CS=Covere	ed or Coat	ed Sand Gr	ains ²Loca	ation: PL=Pore Lining. M=	Matrix
Hydric Soil I	ndicators:								Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (#	41)			🗌 Pol	yvalue Bel	ow Surface	e (S8) (LRR	S, T, U)	1 cm Muck (A9)	-
🗌 Histic Epip	edon (A2)			🗌 Thi	n Dark Su	face (S9)	(LRR S, T,	U)	2 cm Muck (A10)	
🗌 Black Histi	ic (A3)			Loa	my Mucky	Mineral (F	1) (LRR O	)		F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)			🗋 Loa	my Gleyed	d Matrix (F	2)		, ,	lain Soils (F19) (LRR P, S, T)
Stratified L	Layers (A5)			🗌 Dep	pleted Mat	rix (F3)			_	t Loamy Soils (F20) (MLRA 153B)
Organic Bo	odies (A6) (L	RR P, T, I	J)	🛄 Rec	iox Dark S	urface (F6	)		Red Parent Mate	
5 cm Muc	ky Mineral (A	7) (LRR P	, T, U)	🗌 Dep	pleted Dari	k Surface (	F7)		Very Shallow Dar	rk Surface (TF12)
	ence (A8) (L			🗌 Rec	lox Depres	sions (F8)			Other (Explain in	Remarks)
	k (A9) (LRR I			🗌 Mar	l (F10 <b>) (</b> LI	RR U)			_ 、,	
	Below Dark S		11)	Dep	leted Och	ric (F11) (I	MERA 151)			
	surface (A1			🗌 Iror	n-Mangane	ese Masses	; (F12) (LR	R O, P, T)		
	rie Redox (A			Um Um	bric Surfac	ce (F13) (L	RR P, T, U)	)		
	ck Mineral (S		, S)	Delt	ta Ochric (	F17) (MLR	A 151)		3 <sub>Tedicatore</sub>	of hydrophytic vegetation and
	yed Matrix (S	54)		Rec	luced Vert	ic (F18) (M	ILRA 150A,	150B)		hydrology must be present,
Sandy Red	• •					•		LRA 149A)		s disturbed or problematic.
Stripped M				🗌 And	malous Br	ight Loam	y Soils (F20	)) (MLRA 14	9A, 153C, 153D)	
Dark Surfa	ice (S7) (LRF	₹ Р, S, T, I	) (L							
Restrictive La	ıyer (if obse	erved):								
Туре:						-			Hydric Soil Present?	Yes 🖲 No 🔿
Depth (inch	es):	5 - <b>1</b>			_ · ·				mydric 3011 Present?	
Remarks:										

Project/Site: NASA - Stennis, 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 18-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 22
nvestigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W
andform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): concave Slope: 0,0 % / 0,0
ubregion (LRR or MLRA): LRR T La	nt: 30° 24' 28.866" N Long.: 89° 37' 9.203" W Datum: NAD83
oil Map Unit Name: Su, Smithton fine sandy loam, frequently floor	
· · · · · · · · · · · · · · · · · · ·	
re climatic/hydrologic conditions on the site typical for this time of	
Are Vegetation, Soil, or Hydrology signific	cantly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igcup$
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 natural	Ily problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Is the Sampled Area
Hydric Soil Present? Yes 💿 No 🔿	
Wetland Hydrology Present? Yes	within a Wetland?
Remarks:	
Bottom Area within riparian buffer zone approximately 50 feet so	puth of Up-22.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that app	DIY) Surface Soil Cracks (B6)
Surface Water (A1)	a (B13)
	(B15) (LRR U) V Drainage Patterns (B10)
	fide Odor (C1) Moss Trim Lines (B16)
	ospheres along Living Roots (C3) Dry Season Water Table (C2)
	Leduced Iron (C4) Crayfish Burrows (C8)
	keduction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         rface (C7)       Image: Comparison of Complex Position (D2)
Algal Mat or Crust (B4)     Thin Muck Sur     Iron Deposits (B5)     Other (Explain	
Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No   Depth (inche	25):
Water Table Present? Yes O No O Depth (inche	
	Wetland Hydrology Present? Yes 🔍 No 🔾
(includes capillary fringe) Yes V No V Depth (inche	
Describe Recorded Data (stream gauge, monitoring well, aerial pl	hotos, previous inspections), if available:
Remarks:	

			pecies?		Sampling Point: Wet - 22
Tree Stratum (Plot size: <u>30 m</u> )	Absolute % Cover	R		Indicator Status	Dominance Test worksheet:
Diana alle anti	_		17.9%	FACW	Number of Dominant Species
Nvssa biflora	A second se				That are OBL, FACW, or FAC: 9 (A)
Magnolia virginiana	10		35.7%	OBL	Total Number of Dominant
	10		35.7%	FACW	Species Across All Strata: 9 (B)
Acer campestre	2		7.1%	UPL	Demonst of dominant Cresies
Taxodium ascendens			3.6%	OBL	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
	- 0	Ц	0.0%		
an an an an an an an an an an an an an a		Ē	0.0%	A111	Prevalence Index worksheet:
	0	U,	0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 14 20% of Total Cover: 5.6	28	= To	tal Cove	r i	OBL species $41 \times 1 = 41$
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species $54 \times 2 = 108$
Pinus elliottil	1		5.3%	FACW	FAC species $0 \times 3 = 0$
Magnolia virginiana	10		52.6%	FACW	FACU species $0 \times 4 = 0$
Nyssa biflora	7		36.8%	OBL	UPL species $2 \times 5 = 10$
Taxodium ascendens	1		5.3%	OBL	Column Totals: _97 (A) _159 (B)
			0.0%		
	•		0.0%		Prevalence Index = $B/A = 1.639$
			C.0%		Hydrophytic Vegetation Indicators:
· · · · · · · · · · · · · · · · · · ·			0.0%		✓ 1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 9.5 20% of Total Cover: 3.8		= To	tal Cove		<ul> <li>✓ 1 • Rapia rescription Hydrophytic regeneration</li> <li>✓ 2 - Dominance Test is &gt; 50%</li> </ul>
nrub Stratum (Plot size: 30 m )					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex coriacea	15	<b>V</b>	57.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Magnolla virginiana				FACW	
	and the second se		3.8%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
· · · · · · · · · · · · · · · · · · ·	•	H	0.0%	Incer	be present, unless disturbed or problematic.
1° M	and the second s	Ξ.			Definition of Vegetation Strata:
	0	H.	0.0%	·	-
	0	= Total Cover			Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 13 20% of Total Cover: 5.2	26 =	= 10	cal Covel		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )		_			Sapling - Woody plants, excluding woody vines,
Sarracenia alabamensis		⊻.	31.8%	OBL	approximately 20 ft (6 m) or more in height and less
. Woodwardia areolata	10		45.5%	OBL	than 3 in. (7.6 cm) DBH.
Woodwardla virginica	5	$\checkmark$	22.7%	OBL	
	0		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		0.0%		Shrub - Woody plants, excluding woody vines,
•••••	0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
	0		0.0%		
	0		0.0%		Herb - All herbaceous (non-woody) plants, including
	0		0.0%		herbaceous vines, regardless of size, and woody
Manana	0	E-	0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.
	· · · · · · · · · · · · · · · · · · ·	Η.	N. 08		e a company and a company
			0.0%		Woody vine - All woody vines, regardless of height.
0% of Total Cover: 11 20% of Total Cover: 4.4	22 =	Tot	tal Cover		The state of the s
oody Vine Stratum (Plot size: 30 m )	_		100 001		
Smilax laurifolia	2	4-	100.0%	FACW	
••• 10			0.0%		
	0		0.0%		
	0		0.0%		I for days - For All -
#*************************************					Hydrophytic
Area	0		0.0%		Vegetation Yes  No

Sampling Point: Wet - 22

Profile Description: (Describe to the dep	th needed to document the	indicator or co	nfirm the	absence of indicators.)	
Depth Matrix		Features			
(inches) Color (moist) %	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4 10YR 3/1 100				Loamy Sand	
4-16 10YR 3/2 90	10YR 7/2 10	) D	M	Loamy Sand	
· · · · · · · · · · · · · · · · · · ·	an ann an		+	• • • • • • • • • • • • • • • • • • • •	
· · · · · · · · · · · · · · · · · · ·					
			400 . *** *		
				. c.	-10
<sup>1</sup> Type: C=Concentration. D=Depletion. RM=R	educed Matrix, CS=Covered or	Coated Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=!	
Hydric Soil Indicators:					lematic Hydric Soils <sup>3</sup> :
	Polyvalue Below St			1 cm Muck (A9)	
Histic Epipedon (A2)				2 cm Muck (A10)	
Black Histic (A3)	Loamy Mucky Mine				<sup>-</sup> 18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Mat				ain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F			_	t Loamy Soils (F20) (MLRA 153B)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surfac	• •		Red Parent Mater	· ,
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U)	Depleted Dark Surl			Very Shallow Dar	
1 cm Muck (A9) (LRR P, T)	Redox Depressions	. ,		Other (Explain in	Remarks)
Depleted Below Dark Surface (A11)	Mari (F10) (LRR U)				
Thick Dark Surface (A12)					
Coast Prairie Redox (A16) (MLRA 150A)	Iron-Manganese M				
Sandy Muck Mineral (S1) (LRR O, S)	Umbric Surface (F1				
Sandy Gleyed Matrix (S4)	Delta Ochric (F17)	• •	1000	<sup>3</sup> Indicators	of hydrophytic vegetation and
Sandy Redox (S5)	Piedmont Floodplai	•••			hydrology must be present, disturbed or problematic.
Stripped Matrix (S6)	Anomalous Bright I				disturbed of problematic.
Dark Surface (S7) (LRR P, S, T, U)			) (MLKA 14	5A, 135C, 135D)	
Restrictive Layer (if observed):					
Туре:					
Depth (inches):	and the state of the second second second second second second second second second second second second second			Hydric Soil Present?	Yes 🖲 No 🔿
Remarks:					
Remarks:					

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/C	ounty: Waveland - Hancock Sampling Date: 19-Oct-16				
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 23				
Investigator(s): Lars Larson, Randy Ellis Secti	on, Township, Range: S 29 T 7 s R 16 W				
Landform (hillslope, terrace, etc.): Terrace Local r	elief (concave, convex, none): concave Slope: 0.0 % / 0.0*				
······································	Y 25.915" N Long.: 89° 37' 21.222" W Datum: NAD83				
Soil Map Unit Name: Su, Smithton fine sandy loam, frequently flooded	NWI classification: PFO 1/4 C				
a bi the constant of the const					
Are climatic/hydrologic conditions on the site typical for this time of year?					
Are Vegetation . , Soil , or Hydrology significantly distu					
Are Vegetation, Soil, or Hydrology naturally problem	(				
SUMMARY OF FINDINGS - Attach site map showing sampling	g point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Is the Sampled Area				
Hydric Soil Present? Yes 🔍 No 🔿					
Wetland Hydrology Present? Yes 💿 No 🔿	within a Wetland?				
Remarks:					
Lower drain area approximately 50-50-feet east of Up-23					
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)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2) Mad Deposits (B15) (LRR C	J) Drainage Patterns (B10)				
Saturation (A3)	Moss Trim Lines (B16)				
Water Marks (B1) Sidized Rhizospheres alor	ng Living Roots (C3) Dry Season Water Table (C2)				
Sediment Deposits (B2)	(C4) Crayfish Burrows (C8)				
Drift Deposits (B3)	illed Soils (C6) Saturation VIsible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)				
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)				
Field Observations:					
Surface Water Present? Yes $\bigcirc$ No $oldsymbol{igstar}$ Depth (inches):					
Water Table Present? Yes O No O Depth (inches):					
Saturation Present? Yes No  Depth (inches):	Wetland Hydrology Present? Yes 💿 No 🔿				
(includes capillary fringe) 123 0 100 0 Depth (inclusi), Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ	ious inspections) if availables				
Describe Recorded Data (stream gauge, monitoring weil, achar protos, previ	bus inspections), a available.				
Remarks:					
Depletions observed in 4-16 inch interval. Some (very little) oxidized root ch	ianneis).				

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

			ominant pecies?		Sampling Point: Wet - 23			
	Absolute	e R	el.Strat.	Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species			
Nyssa sylvatica	10	~	37.0%	FAC	That are OBL, FACW, or FAC: 10 (A)			
Magnolia virginiana	15		55.6%	FACW	Total Number of Demisest			
Liquidambar styraciflua	2		7.4%	FAC	Total Number of Dominant Species Across All Strata: 10 (B)			
	0		0.0%					
	0		0.0%		Percent of dominant Species That Are OBL_EACW_or_EAC*100.0% (A/B			
· · · · · · · · · · · · · · · · · · ·	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B			
and the second sec			0.0%		Prevalence Index worksheet:			
	0		0.0%		Total % Cover of; Multiply by:			
50% of Total Cover: 13.5 20% of Total Cover: 5.4	27	= To	tal Cove	·	OBL species $3 \times 1 = 3$			
apling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species 67 x 2 = 134			
Manage Resident and			41.7%	EACIAL				
				FACW				
		₽.	27.8%	FAC	FACU species $0 \times 4 = 0$			
			2.8%	FACW	UPL species 0 x 5 = 0			
Cyrilla racemifiora			27.8%	FACW	Column Totals: 102 (A) 233 (B)			
A			0.0%		Prevalence Index = $B/A = 2.284$			
			0.0%					
	0		0.0%		Hydrophytic Vegetation Indicators:			
·····	. 0	$\Box_{i}$	0.0%		1 - Rapid Test for Hydrophytic Vegetation			
50% of Total Cover: 18 20% of Total Cover: 7.2	36	= To	tal Cove	r	✓ 2 - Dominance Test is > 50%			
hrub Stratum (Plot size: 30 m )					✓ 2 - Dominance rest is > 30.76 ✓ 3 - Prevalence Index is $\leq 3.0^{-1}$			
Cyrilla racemiflora	15	V	50.0%	FACW				
				- province and	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
			33.3%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus			
Ilex corlacea		Η.	16.7%	FACW	be present, unless disturbed or problematic.			
Factor of the second seco			0.0%					
	0		0.0%		Definition of Vegetation Strata:			
	0	L,	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.			
50% of Total Cover: 15 20% of Total Cover: 6								
	30	= To	tal Cove					
	30	= T0	tal Cove		(7.6 cm) or larger in diameter at breast height (DBH).			
erb Stratum (Plot size: 30 m )					(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,			
erb Stratum (Plot size: 30.m	3	= То	37.5%	FACW	(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			
erb Stratum (Plot size: 30 m ) Helianthus angustifolius Eriocaulon decangulare	3	₹ □	37.5% 12.5%	FACW	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,			
erb Stratum (Plot size: 30 m ) Helianthus angustifolius Eriocaulon decangulare Hypericum cistifolium	3 1 2		37.5% 12.5% 25.0%	FACW OBL FACW	(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.			
erb Stratum <sup>(Plot size: 30 m )</sup> Helianthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata	3 1 2 2	₹ □	37.5% 12.5% 25.0% 25.0%	FACW	(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			
erb Stratum (Plot size: 30 m ) Helianthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata	3 1 2 2 0		37.5% 12.5% 25.0% 25.0% 0.0%	FACW OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>			
erb Stratum <sup>(Plot size: 30 m)</sup> Helianthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata	3 1 2 2 0 0		37.5% 12.5% 25.0% 25.0% 0.0%	FACW OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>			
erb Stratum (Plot size: 30 m ) Helianthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata	3 1 2 2 0 0 0		37.5% 12.5% 25.0% 25.0% 0.0% 0.0%	FACW OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>			
erb Stratum (Plot size: 30 m ) Helianthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata	3 1 2 2 0 0 0 0 0		37.5% 12.5% 25.0% 0.0% 0.0% 0.0%	FACW OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> </ul>			
erb Stratum (Plot size: 30 m ) Helianthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata	3 1 2 2 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 25.0% 0.0% 0.0%	FACW OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>			
Ierb Stratum       (Plot size: 30 m	3 1 2 2 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 0.0% 0.0% 0.0%	FACW OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>			
Ierb Stratum       (Plot size: 30 m)         1. Helianthus angustifolius         2. Eriocaulon decangulare         3. Hypericum cistifolium         4. Woodwardia areolata         5.         6.         7.         9.         9.         9.	3 1 2 2 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 25.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>			
Ierb Stratum       (Plot size: 30 m)         1. Helianthus angustifolius         2. Eriocaulon decangulare         3. Hypericum cistifolium         4. Woodwardia areolata         5.         6.         7.         9.         9.         9.	3 1 2 2 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>			
Ierb Stratum       (Plot size: 30 m	3 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>			
erb Stratum       (Plot size: 30 m	3 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>			
erb Stratum (Plot size: 30 m) Hellanthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata Woodwardia areolata	3 1 2 2 0 0 0 0 0 0 0 0 0 0 8		37.5% 12.5% 25.0% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>			
erb Stratum (Plot size: 30 m) Hellanthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata Woodwardia areolata	3 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 8		37.5% 12.5% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0%	FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>			
erb Stratum (Plot size: 30 m) Helianthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata 	3 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>			
erb Stratum [Plot size: 30 m] Hellanthus angustifolius Eriocaulon decangulare Hypericum cistifolium Woodwardia areolata 	3 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>			
erb Stratum       [Plot size: 30 m]         Helianthus angustifolius         Eriocaulon decangulare         Hypericum cistifolium         Woodwardia areolata         Woodwardia areolata         Moodwardia areolata     <	3 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>			
Ierb Stratum       (Plot size: 30 m)         1. Hellanthus angustifolius         2. Eriocaulon decangulare         3. Hypericum cistifolium         4. Woodwardia areolata         5.         6.         7.         3.         9.         0.         1.         2.         50% of Total Cover:       4         20% of Total Cover:       1.6         Voody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia	3 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0		37.5% 12.5% 25.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>			

Profile Descri	iption: (De	scribe to	the depth	needed to doc	ument	t the Indic	ator or co	onfirm the	absence of indicators.	.)
Depth		Matrix		<u> </u>	Re	dox Featu	ires		-	
(inches)	Color (	moist)	%	Color (mo	ist) 👝	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR	3/2	95	10YR	6/2	5	D	М	Loamy Sand	
5-16	10YR	4/2	90	10YR	6/2	10	D	М	Loamy Sand	· · · · · ·
· · ·									· · · · · · · · · · · · · · · · · · ·	
<sup>1</sup> Type: C=Conc	entration. D	=Depletio	n. RM=Redi	ced Matrix, CS=	Covere	ed or Coate	d Sand Gra	ains ²Loci	ation: PL=Pore Lining. M	=Matrix
Hydric Soil I	ndicators:								Indicators for Pro	oblematic Hydric Soils <sup>3</sup> :
<ul> <li>Stratified I</li> <li>Organic Bo</li> <li>5 cm Muck</li> <li>Muck Press</li> <li>1 cm Muck</li> <li>Depleted E</li> <li>Thick Dark</li> <li>Coast Prair</li> <li>Sandy Muc</li> <li>Sandy Red</li> <li>Stripped M</li> </ul>	edon (A2) c (A3) Sulfide (A4) .ayers (A5) dies (A6) (L ay Mineral (A ence (A8) (L c (A9) (LRR I below Dark S Surface (A1 cie Redox (A ck Mineral (S yed Matrix (S ox (S5)	RR P, T, L V7) (LRR P RR U) P, T) Surface (A: I2) 16) (MLRA 11) (LRR O 54)	, Τ, U) 11) A 150A) 5, S)	Thin Daily Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-Mail Umbric Delta C Reduce Piedmoo	ark Sur Mucky Gleyed ed Matr Dark Si ed Dark Depres 10) (LF ed Ochi angane Surfac chric (i d Verti nt Floo	urface (F6) ( Surface (F ssions (F8) RR U) ric (F11) (M sse Masses se (F13) (LF F17) (MLRA Sc (F18) (M odplain Soils	LRR S, T, U 1) (LRR O) 1) (ILRA 151) (F12) (LRF (F12) (LRF RR P, T, U) 4 151) LRA 150A, 5 (F19) (MI	л) 2 О, Р, Т) 150B) LRA 149A)	Piedmont Flood Anomalous Brig Red Parent Mai Very Shallow D Other (Explain	0) (LRR S) : (F18) (outside MLRA 150A,B) iplain Soils (F19) (LRR P, S, T) ght Loamy Soils (F20) (MLRA 153B) terial (TF2) ark Surface (TF12)
Restrictive La Type: Depth (inch Remarks:	<b>yer (if obs</b>						i		Hydric Soil Present	? Yes 🖲 No

US Army Corps of Engineers

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion City/C	ounty: Waveland - Hancock Sampling Date: 19-Oct-16			
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 25			
Investigator(s): Lars Larson, Randy Ellis Sect	ion, Township, Range: S 29 T 7 s R 16 W			
andform (hillslope, terrace, etc.): Hillside Local r	relief (concave, convex, none): none Slope: 2.0 % / 1.1 °			
ubregion (LRR or MLRA): LRR T Lat.: 30° 24	4' 38.761" N Long.: 89° 37' 32.356" W Datum: NAD83			
ioil 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?				
Are Vegetation . , Soil , or Hydrology significantly distu	rrbed? Are "Normal Circumstances" present? Yes 🔍 No 🔾			
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showing samplin	g point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes   No	Is the Sampled Area			
Hydric Soil Present? Yes  No				
Wetland Hydrology Present? Yes $\odot$ No $\bigcirc$	within a Wetland?			
Remarks:				
drainage slough approximately 250 feet south of Turtleskin Creek access ro	ad. This is a south to north drainage feature feeding TS creek.			
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)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Mar! Deposits (B15) (LRR (				
Saturation (A3)				
Water Marks (B1) Oxidized Rhizospheres alo				
Sediment Deposits (B2)				
Drift Deposits (B3)     Recent Iron Reduction In T     Algal Mat or Crust (B4)     Thin Muck Surface (C7)				
Iron Deposits (BS)  Inundation Visible on Aerial Imagery (B7)  Other (Explain in Remarks)	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)			
Field Observations:				
Surface Water Present? Yes O No O Depth (inches):				
	Wetland Hydrology Present? Yes 💿 No 🔿			
(includes capiliary fringe) Yes V No V Depth (inches):				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	ious inspections), if available:			
Remarks:				

VEGETATION (Five/Four Strata) - Use scientific names	of plants
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			Dominant Species?		Sampling Point: Wet - 25		
		e Re	el.Strat.		Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove	_	Cover	Status	Number of Dominant Species		
Pinus elliottil	5		83.3%	FACW	That are OBL, FACW, or FAC: 7 (A)		
Magnolla virginiana			16.7%	FACW	Total New York Structure		
	0		0.0%		Total Number of Dominant Species Across All Strata: 7 (B)		
	0		0.0%		······································		
	0		0.0%		Percent of dominant Species		
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
•	0		0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by		
50% of Total Cover: 3 20% of Total Cover: 1.2	6	= To	tal Cove	r	OBL species 8 x 1 = 8		
Sapling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species <u>90</u> x 2 = <u>180</u>		
Pinus elliottii			60.0%	FACW	FAC species $3 \times 3 = 9$		
Magnolla virginiana			40.0%	FACW	FACU species $0 \times 4 = 0$		
	0	Ц.	0.0%		UPL species $0 \times 5 = 0$		
		$\square$	0.0%		Column Totals: 101 (A) 197 (B)		
			0.0%		Prevalence Index = $B/A = 1.950$		
· · · · · · · · · · · · · · · · · · ·	0	$\Box$	0.0%				
	0	$\Box$	0.0%		Hydrophytic Vegetation Indicators:		
•	0		0.0%	-	✓ 1 - Rapid Test for Hydrophytic Vegetation		
50% of Total Cover: 12.5 20% of Total Cover: 5		= To	tal Cove		<ul> <li>✓ 1 - Kaple Test for Hydrophydic Vegetation</li> <li>✓ 2 - Dominance Test is &gt; 50%</li> </ul>		
Shrub Stratum (Plot size: 30 m)				-	<b>✓</b> 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Magnolia virginiana			69.8%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex coriacea	and and a second second		•	FACW			
Liquidambar styracifiua			4.7%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Acer rubrum		$\square_{\mathbb{R}}$	2.3%	FAC			
	0	Π,	0.0%	- 42°	Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
	_	<u> </u>					
50% of Total Cover: 21.5 20% of Total Cover: 8.6	43	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
	43	= To			approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
terb Stratum (Plot size: 30 m )			tal Cover		(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,		
ierb Stratum (Plot size: 30 m ) 1. Arundinaria tecta	15	= To	tal Cover	FACW	(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		
terb Stratum ( <sup>Plot size: 30 m</sup> ) 1. Arundinaria tecta 2. Scirpus atrocinctus	15 2		60.0%	Facw Facw	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,		
lerb Stratum <sup>(Plot size: 30 m</sup> ) 1. Arundinaria tecta 2. Scirpus atrocinctus 3. Woodwardia areolata	15 2 5		60.0% 8.0% 20.0%	FACW FACW OBL	(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.		
terb Stratum <sup>(Plot size: 30 m</sup> ) 1. Arundinaria tecta 2. Scirpus atrocinctus 3. Woodwardia areolata 4. Osmunda regalis	15 2 5 1		60.0% 8.0% 20.0% 4.0%	FACW FACW OBL OBL	(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		
terb Stratum (Plot size: 30 m ) 1. Arundinaria tecta 2. Scirpus atrocinctus 3. Woodwardia areolata 4. Osmunda regalis 5. Juncus polycephalos	15 2 5 1 2		60.0% 8.0% 20.0% 4.0% 8.0%	FACW FACW OBL	(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		
terb Stratum (Plot size: 30 m ) 1. Arundinarla tecta 2. Scirpus atrocinctus 3. Woodwardia areolata 4. Osmunda regalis 5. Juncus polycephalos 6.	15 2 5 1 2 0		60.0% 8.0% 20.0% 4.0% 8.0% 0.0%	FACW FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>		
Herb Stratum (Plot size: 30 m )         1. Arundinaria tecta         2. Scirpus atrocinctus         3. Woodwardia areolata         4. Osmunda regalis         5. Juncus polycephalos         6.         7.	15 2 5 1 2 0 0		tal Cover 60.0% 8.0% 20.0% 4.0% 8.0% 0.0%	FACW FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>		
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ierb Stratum       (Plot size: 30 m       )         1. Arundinaria tecta       2         2. Scirpus atrocinctus       3         3. Woodwardia areolata       4         4. Osmunda regalis       5         5. Juncus polycephalos       6         6.       7         7.       8         9.       0         1.       2         50% of Total Cover:       12.5       20% of Total Cover:       5         Voody Vine Stratum       (Plot size: 30 m)       )         Smilax laurifolia       30 m)       )	15 2 5 1 2 0 0 0 0 0 0 0 0 0 25 2		tal Cover 60.0% 8.0% 20.0% 4.0% 8.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0%	FACW FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
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Herb Stratum       (Plot size: 30 m)         1. Arundinaria tecta         2. Scirpus atrocinctus         3. Woodwardia areolata         4. Osmunda regalis         5. Juncus polycephalos         6.         7.         8.         9.         0.         1.         2.         50% of Total Cover:       12.5         20% of Total Cover:       5         Woody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia	15 2 5 1 2 0 0 0 0 0 0 0 0 25 2 5		tal Cover 60.0% 8.0% 20.0% 4.0% 8.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 0.0% 0.0%	FACW FACW OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		

Sampling	Point:	Wet	- 25
		P B G L	- 2.4

	iption: (De	scribe to	the depth	needed to d	ocument	t the indi	cator or o	onfirm the a	absence of indicators.)	
Depth						dox Feat			-	
(inches)			%	Color (r			, Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/2	97	10YR	7/2	3	D	M	Loamy Sand	
4-16	10YR	4/2	95	10YR	7/2	5	D	М	Loamy Sand	
		=Depletion	n, RM=Redu	ced Matrix, C	5=Covere	d or Coate	ed Sand Gra	ains <sup>2</sup> Locat	tion: PL=Pore Lining. M=	Matrix
Hydric Soil I				_					Indicators for Prob	lematic Hydric Solls <sup>3</sup> :
Stratified L Grganic Bc Grganic	edon (A2) c (A3) Sulfide (A4) ayers (A5) dies (A6) (Ll ay Mineral (A ence (A8) (Ll c (A9) (LRR P kelow Dark Si Surface (A1) ie Redox (A1) k Mineral (S) red Matrix (S ox (S5)	7) (LRR P, RR U) P, T) urface (A1 2) L6) (MLRA L6) (MLRA L) (LRR O, 4)	. T, U) .1) .150A) . S)	Thin Loan Loan Depl Redo Redo Redo Redo Redo Redo Redo Redo	Dark Suri ny Mucky ny Gleyed eted Matr x Dark Si eted Dark x Depress (F10) (LR eted Ochr Mangane: ric Surface Ochric (F ced Vertic pont Floo	face (S9) ( Mineral (F Matrix (F2 ix (F3) urface (F6) Surface (F6) Surface (F8) (R U) ic (F11) (N se Masses e (F13) (LI E17) (MLR/ c (F18) (M dplain Solit	) F7) (F12) (LRF RR P, T, U) A 151) LRA 150A, s (F19) (ML	J) : O, P, T) 150B) RA 149A)	Piedmont Floodp Anomalous Brigh Red Parent Mate Very Shallow Dar Other (Explain in	) (LRR S) F18) (outside MLRA 150A,B) lain Soils (F19) (LRR P, S, T) t Loamy Soils (F20) (MLRA 153B) rial (TF2) rk Surface (TF12)
lestrictive La	yer (if obse	rved):								
Type:						-			Hudric Coll Deserts	
Depth (inche Remarks:	es):					. A			Hydric Soil Present?	Yes 🖲 No 🔿

R 16 W PPE: 0.0 % / 0.0°		
DOL 0.006 / 0.06		
pe: 0.0 % / 0.0°		
Datum: NAD83		
PFO 1/4 C		
)		
Yes 💿 No 🔿		
narks.)		
eatures, etc.		
26 V 35		
um of 2 required)		
nue Curfore (RP)		
(02)		
ial Imagery (C9)		
)		
1		
RR T, U)		
No 🔿		

		S	pecies? .		Sampling Point: Wet - 26		
	Absolute	R	el.Strat.	Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: <u>30 m</u> )	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliottii	5		22.7%	FACW	That are OBL, FACW, or FAC: 8 (A)		
Magnolia virginiana	10		45.5%	FACW	Tatal Number of Demission		
Liriodendron tulipifera	2		9.1%	FACU	Total Number of Dominant Species Across All Strata: 8 (B)		
Nyssa sylvatica	5	1	22.7%	FAC			
			0.0%		Percent of dominant Species		
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B		
المحافظ والأرامي والمراري والمراجع والمحافظ والمراجع والمراجع والمراجع والمراجع والمراجع			0.0%	17.4	Prevalence Index worksheet:		
	Đ		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 11 20% of Total Cover: 4.4		- 7-	tal Cove				
		= 10	cai cove				
pling or Sapling/Shrub Stratum (Plot size: 30 m	_)	_			FACW species 65 x 2 =130		
Nyssa sylvatica	10	⊻	50.0%	FAC	FAC species $21$ x 3 = $63$		
Magnolia virginiana	5	<	25.0%	FACW	FACU species 2 x 4 = 8		
Pinus elliottii	2		10.0%	FACW	UPL species 0 x 5 = 0		
	3		15.0%		Column Totals: 91 (A) 204 (B)		
	0		0.0%				
	•		0.0%		Prevalence Index = B/A = 2.242		
	0		0.0%	-	Hydrophytic Vegetation Indicators:		
	0		0.0%				
		<u> </u>			1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 10 20% of Total Cover: 4	20 <b>= Total Cover</b>				2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex coriacea	20	✓	55.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Cyrilla racemifiora			27.8%	FACW	_ , , , , , , , , , , , , , , , , , , ,		
		$\overline{\Box}$	2.8%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
These areas	-		13.9%	FAC	be present, unless disturbed or problematic.		
a, a constantina de la					Definition of Vegetation Strata:		
		H	0.0%		-		
	0	ш,	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) cr more in height and 3 in.		
0% of Total Cover: 18 20% of Total Cover: 7.2	36	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: _30 m)							
Arundinaria tecta	10	$\checkmark$	71.4%	FACW	Sapling - Woody plants, excluding woody vines,		
Companyin alabasanain	<u>10</u> 2			FACW	approximately 20 ft (6 m) or more in height and less		
Sarracenia alabamensis	2		14.3%	OBL			
Sarracenia alabamensis Scirpus atrocinctus	2		14.3% 7.1%	OBL FACW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica	2 1 1		14.3% 7.1% 7.1%	OBL	approximately 20 ft (6 m) or more in height and less		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica	2 1 1 0		14.3% 7.1% 7.1% 0.0%	OBL FACW	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		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica	2 1 1 0 0		14.3% 7.1% 7.1% 0.0% 0.0%	OBL FACW	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,		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica	2 1 1 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0%	OBL FACW	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.		
Scirpus atrocinctus Woodwardia virginica	2 1 1 0 0		14.3% 7.1% 7.1% 0.0% 0.0%	OBL FACW	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.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica	2 1 1 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0%	OBL FACW	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		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica	2 1 0 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0%	OBL FACW	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		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica	2 1 0 0 0 0 0 0		14.3% 7.1% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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		
Sarracenia alabamensis Scirpus abrocinctus Woodwardia virginica	2 1 0 0 0 0 0 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW	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		
Sarracenia alabamensis Scirpus abrocinctus Woodwardia virginica	2 1 0 0 0 0 0 0 0 0 0 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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		
Sarracenia alabamensis Scirpus abrocinctus Woodwardia virginica Woodwardia virginica 20% of Total Cover: 2.8	2 1 0 0 0 0 0 0 0 0 0 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica % of Total Cover: 7 20% of Total Cover: 2.8	2 1 0 0 0 0 0 0 0 0 0 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica % of Total Cover: 7 20% of Total Cover: 2.8 sody Vine Stratum (Plot size: 30 m )	2 1 0 0 0 0 0 0 0 0 0 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica % of Total Cover: 7 20% of Total Cover: 2.8 sody Vine Stratum (Plot size: 30 m )	2 1 0 0 0 0 0 0 0 0 0 0 0 14		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL FACW OBL	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.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica % of Total Cover: 7 20% of Total Cover: 2.8 pody Vine Stratum (Plot size: 30 m ) Smilax laurifolia	$ \begin{array}{c} 2 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 14 \\ \hline 2 \\ 0 \\ 0 \\ \hline 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0%	OBL FACW OBL	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.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica % of Total Cover: 7 20% of Total Cover: 2.8 Sody Vine Stratum (Plot size: 30 m ) Smilax laurifolia	2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 = 2 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0%	OBL FACW OBL	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.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica % of Total Cover: 7 20% of Total Cover: 2.8 pody Vine Stratum (Plot size: 30 m ) Smilax laurifolia	2 1 1 0 0 0 0 0 0 0 0 0 0 14 2 0 0 0 0 0 0 0 0 0 0 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0%	OBL FACW OBL	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.		
Sarracenia alabamensis Scirpus atrocinctus Woodwardia virginica Woodwardia virginica Woodwardia virginica Woodwardia virginica 20% of Total Cover: 2.8 20% of Total Cover: 2.8	2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 = 2 0 0 0		14.3% 7.1% 7.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0%	OBL FACW OBL	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.		

Sampling Point: Wet - 26

		Matrix	che departi			dox Featu			absence of indicators.)	
Depth Matrix (inches) Color (moist) %		Color (		0/0	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-4	10YR	5/2	100	ÇOIDI (	molar).		Type	EAC.	Loamy Sand	, Remarks
5-16	10YR	6/2	95	10YR	7/2	5	D	M	Loamy Sand	
5-10	IUIK	0/2			1/2					
· · · · · · · · · · · · · · · · · · ·		w.					_			
	entration. D=	Depletio	n. RM=Redu	ced Matrix. C	S=Cover	ed or Coate	d Sand Gra	ins <sup>2</sup> Local	tion: PL=Pore Lining. M=1	
lydric Soll Ir										lematic Hydric Soils <sup>3</sup> :
Histosol (A				D Poli	walue Rel	ow Surface	(S8) (I RP	S. T. U)	1 cm Muck (A9) (	-
						face (S9) (			· · · ·	
Black Histic						Mineral (F		,	2 cm Muck (A10)	
_	Sulfide (A4)					d Matrix (F2				F18) (outside MLRA 150A,B)
Stratified L					leted Mat	•	-,			ain Soils (F19) (LRR P, S, T)
	odies (A6) (LR	R P. T. I	n			urface (F6)				Loamy Soils (F20) (MLRA 153B)
_	y Mineral (A7			-		k Surface (1			Red Parent Mater	• •
	ence (A8) (LR		, , , 0,			ssions (F8)	7]		Very Shallow Dar	
_	: (A9) (LRR P,			_		• • •			Other (Explain in	Remarks)
-	elow Dark Su		11)		l (F10) (Ll		/I DA 1E13			
	Surface (A12		,			ric (F11) (M				
	ie Redox (A16	-	1504)	_		se Masses	• • •			
	k Mineral (S1			_		e (F13) (Li				
			, 5)			F17) (MLR/	-		<sup>3</sup> Indicators	of hydrophytic vegetation and
	ved Matrix (S4	0				ic (F18) (M			wetland I	hydrology must be present,
Sandy Red						odplain Soil				disturbed or problematic.
Stripped M	atrix (S6) ce (S7) (LRR I	P, S, T, l	(L	Ano	malous Br	right Loamy	r Soils (F20	) (MLRA 149	)A, 153C, 153D)	
	yer (if obser	ved):								
estrictive Lag						_				
estrictive Lay									Hydric Soil Present?	Yes 🖲 No 🔾
Туре:	es):									
Type: Depth (inche	es):			· · · · · · ·						
Type: Depth (inche	es):		<u> </u>	· · · · · · · · · · · · · · · · ·						
Type: Depth (inche	es):									
Type: Depth (inche	es):									
Type: Depth (inche	es):			<u></u>						
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Type: Depth (inche	es):									
Type: Depth (inche	es);									
Type: Depth (inche	es);									
Type: Depth (inche	es);									

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 19-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 27
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): none Slope: 1.0 % / 0.6 °
1	nt.: 30° 24' 26.188" N Long.: 89° 37' 37.076" W Datum: NAD83
· · · · · · · · · · · · · · · · · · ·	the second second second second second second second second second second second second second second second s
Soil Map Unit Name: Su, Smithton fine sandy loam, frequently floor	
Are climatic/hydrologic conditions on the site typical for this time of	
Are Vegetation, Soil, or Hydrology signific	cantly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodoldsymbol{ imes}$
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 natural	Ily problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	Is the Sampled Area
Hydric Soil Present? Yes  No O	Vac ( No (
Wetland Hydrology Present? Yes   No	within a Wetland?
Remarks:	
Head of drainage feature about 50 feet west - northwest of Up-2	27.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that app	DIV) Surface Soil Cracks (B6)
Surface Water (A1)	
	(B15) (LRR U) Irainage Patterns (B10)
	fide Odor (C1) Moss Trim Lines (B16)
	ospheres along Living Roots (C3) Dry Season Water Table (C2)
	Reduced Iron (C4) Crayfish Burrows (C8)
	Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) rface (C7) Geomorphic Position (D2)
Iron Deposits (B5)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No O Depth (inche	es):
	es): Wetland Hydrology Present? Yes 🖲 No 🔿
Saturation Present? Yes No  Depth (inche	es):
Describe Recorded Data (stream gauge, monitoring well, aerial pl	hotos, previous inspections), if available:
Remarks:	
	phic features noted in soil profile, but surface hydrological indicators are present.

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

VEGETATION (FIVE/FOUR Strata) - Use scientific		D	ominant		Sampling Point: Wet - 27		
	Absolute	e R	pecies? . el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species		
Magnolia virginiana	10		40.0%	FACW	That are OBL, FACW, or FAC: 9 (A)		
Nyssa sylvatica	10		40.0%	FAC			
Pinus elliottii	5		20.0%	FACW	Total Number of Dominant Species Across All Strata: 9 (B)		
Pinus elliottii	0		0.0%				
	-		0.0%		Percent of dominant Species		
	-		0.0%	а - ша	That Are OBL, FACW, or FAC: 100.0% (A/B)		
			0.0%		Prevalence Index worksheet:		
			0.0%				
	0		· · · · · · · · ·		Total % Cover of: Multiply by: OBL species 2 x 1 = 2		
50% of Total Cover: 12.5 20% of Total Cover: 5		= 10	tal Cove				
apling or Sapling/Shrub Stratum (Plot size: 30 m ,					FACW species $101 \times 2 = 202$		
Magnolia virginiana		⊻.	46.9%	FACW	FAC species X 3 =		
Cyrilla racemifiora		⊻	31.3%	FACW	FACU species 0 x 4 = 0		
Nyssa sylvatica	5		15.6%	FAC	UPL species 0 x 5 = 0		
Acer rubrum	2		6.3%	FAC	Column Totals: 122 (A) 261 (B)		
	0		0.0%				
	0		0.0%		Prevalence Index = B/A = 2.139		
	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 16 20% of Total Cover: 6.4	32	= To	tal Cove		<ul> <li>✓ I - Rapid Test for Hydrophydic Vegetation</li> <li>✓ 2 - Dominance Test is &gt; 50%</li> </ul>		
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq 3.0^{1}$		
	30	$\checkmark$	52.6%	FACW			
( NOR DECE) DECENT ACC 1 ( )			26.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
bda ana dia a dania ta an	. 15		17.5%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
					be present, unless disturbed or problematic.		
Ilex opaca		H	3.5%	FAC	Definition of Vagatation Strata		
			0.0%	4 · · · · · · · · · · · · · · · · · · ·	Definition of Vegetation Strata:		
	0	Ц,	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
50% of Total Cover: 28.5 20% of Total Cover: 11.4	57	= To	tal Cove		(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )							
, Arundinaria tecta	5	✓	71.4%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
Woodwardia areolata	2	$\checkmark$	28.6%	OBL	than 3 in. (7.6 cm) DBH.		
	0		0.0%				
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
· ·	0	$\Box$	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
na ana ana aon-	4.1. 47	$\overline{\Box}$	0.0%				
(4) Alexandro Carlo and Alexandro Car Alexandro Carlo and Alexandro Alexa		П	0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
		П	0.0%		approximately o to zo it (1 to o in) in height		
		Ē	0.0%		Herb - All herbaceous (non-woody) plants, including		
		Н	0.0%		herbaceous vines, regardless of size, and woody		
)	0	Η.	0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height,		
		Η.			Sit (Tiny in height,		
) 	0		0.0%		Woody vine - All woody vines, regardless of height.		
0% of Total Cover: 3.5 20% of Total Cover: 1.4	7	= To	tal Cover		woody whice All woody whice, regardless of height.		
(Plot size: 30 m )		<b></b> 1					
Smilax laurifolia	1	<u> </u>	100.0%	FACW			
		님	0.0%				
			0.0%				
× .	0		0.0%		Hydrophytic		
	0	$\Box_{}$	0.0%		Vegetation		
0% of Total Cover: 0.5 20% of Total Cover: 0.2	1 :		taj Cover		Present? Yes  No		

Sampling	Point:	Wet - 27	
		TOWN MIL,	

	thriour (ne	scribe to	the <b>dep</b> th	needed to de	ocument	t the indic	ator or co	nfirm the	absence of indicators.)	
Depth		Matrix			Re	dox Featu			×	
(inches) 0-5	Color ( 10YR	<b>moist)</b> 5/1	%	Color (n	nolst)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Loamy Sand	Remarks
5-16	10YR	5/2	95	10YR	7/2	5	C	М	Loamy Sand	
Type: C=Cond	centration. D	=Depletio	n. RM= <b>R</b> edu	iced Matrix, C	5=Cover	ed or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL≂Pore Lining. M=	-Matrix
Hydric Soil I	ndicators:								Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
Histosol (/ Histic Epip Black Histi Hydrogen Stratified ! Organic B Corganic B Muck Pres 1 cm Mucl Depleted I Thick Dark Coast Prai Sandy Muc Sandy Gle Sandy Rec Stripped M	A1) eedon (A2) c (A3) Sulfide (A4) ayers (A5) odies (A6) (L cy Mineral (A ence (A8) (L cy Mineral (A selow Dark S c Surface (A1 rie Redox (A ck Mineral (S yed Matrix (S lox (S5)	RR P, T, L (7) (LRR P RR U) P, T) Surface (A: 2) 16) (MLRA 11) (LRR O 54)	, Τ, U) 11) A 150A) I, S)	Thin Loam Loam Depl Redc Depl Redc Depl Redc Depl Redc Unb Loam Redc Redc Depl Redc Redc Redc Redc Redc Redc Redc Redc	Dark Sun ny Mucky ny Gleyen eted Mat ix Dark S eted Darh ix Depres (F10) (Ll eted Och Mangan ric Surfac o Ochric ( ixeed Vert nont Floo	urface (F6) k Surface (I ssions (F8) RR U) ric (F11) (M ese Masses ce (F13) (U F17) (MLR ic (F18) (M odplaln Soll	LRR S, T, U (1) (LRR O) (1) (LRR O) (1) (LRR O) (1) (LRR O) (1) (1) (LRP (1) (LRP)(1) (LRP (1) (LRP)(1)  J) R O, P, T) 150B) RA 149A)		(LRR O) )) (LRR S) (F18) (outside MLRA 150A,B) plain Soils (F19) (LRR P, S, T) ht Loamy Soils (F20) (MLRA 153B) erial (TF2) ark Surface (TF12)	
testrictive La	yer (if obs	erved):								
Type: Depth (inch			-			-			Hydric Soil Present?	Yes 🔍 No 🔿
Remarks:										

Landform (hillslope, terrace, etc.): Floodplain Local r	atic? (If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes  No Hydric Soil Present? Yes  No Wetland Hydrology Present? Yes  No Remarks: Lower bottom area just up from UP - 20 approximately 50 feet.	Is the Sampled Area within a Wetland? Yes () No ()
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LRR I         Saturation (A3)       Hydrogen Sulfide Odor (C1         Water Marks (B1)       Oxidized Rhizospheres alor         Sediment Deposits (B2)       Presence of Reduced Iron         Drift Deposits (B3)       Recent Iron Reduction in T         Algal Mat or Crust (B4)       Thiri Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Remarks)         Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)	I)       Image: Moss Trim Lines (B16)         ng Living Roots (C3)       Image: Dry Season Water Table (C2)         (C4)       Image: Crayfish Burrows (C8)         Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Image: Crayfish Burrows (C8)       Geomorphic Position (D2)
Field Observations:       Surface Water Present?       Yes       No       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):	Wetland Hydrology Present? Yes  No
Remarks: Lower area within a drain with plenty of secondary hydrological indicators.	

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

		Dominant			Sampling Point: Wet - 29	
	Absolute		pecies? . el.Strat.	Indicator	Dominance Test worksheet:	
ree Stratum (Plot size: 30 m)	% Cove		Cover	Status	Number of Dominant Species	
Pinus elliotti	2		11.1%	FACW	That are OBL, FACW, or FAC: 9 (A)	
Magnolia virginlana	10		55.6%	FACW		
Acer rubrum	5	$\checkmark$	27,8%	FAC	Total Number of Dominant Species Across All Strata: 9 (B)	
Nyssa bifiora	1		5.6%	OBL		
	-		0.0%		Percent of dominant Species	
			0.0%		That Are OBL, FACW, or FAC: 100.0% (AVB)	
			0.0%		Prevalence Index worksheet:	
	0		0.0%		Total % Cover of: Multiply by:	
0% of Total Cover: 9 20% of Total Cover: 3.6	18	= To	tal Cove		OBL species 13 x 1 = 13	
apling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species $55 \times 2 = 110$	
Manage Bar (destation)	-		18.5%	FACW	FAC species $15 \times 3 = 45$	
Acer rubrum	10		37.0%	FAC	FACU species $0 \times 4 = 0$	
ten in ten in ten in ten in ten in ten in ten in ten in ten in ten in ten in ten in ten in ten in ten in ten in	p		37.0%	FACW		
			7,4%	OBL	ore species x 3 =	
Nyssa biflora	0		0.0%	ODL	Column Totals: 83 (A) 168 (B)	
	0		0.0%		Prevalence Index = $B/A = 2.024$	
	0	H	0.0%		Hydrophytic Vegetation Indicators:	
			- 385.1			
	0	ш.	0.0%		1 - Rapid Test for Hydrophytic Vegetation	
0% of Total Cover: 13.5 20% of Total Cover: 5.4	27	= Total Cover			✓ 2 - Dominance Test is > 50%	
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
Magnolia virginiana	5		20.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Cyrilla racemiflora			40.0%	FACW		
Ilex corlacea	10		40.0%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus	
	•		0.0%		be present, unless disturbed or problematic.	
n na sana na sana na sana na sana na sana na sana na sana na sana na sana na sana na sana na sana na sana na s			0.0%		Definition of Vegetation Strata:	
sana ang manang ang ang ang ang ang ang ang ang an	0		0.0%		Tree - Woody plants, excluding woody vines,	
0% of Total Cover: 12.5 20% of Total Cover: 5	25	- = To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in.	
· · · · · ·					(7.6 cm) or larger in diameter at breast height (DBH).	
(Plot size: 20 m					Sapling Woody plants, evoluting woody vines	
					Sapling - Woody plants, excluding woody vines,	
. Woodwardia areolata			41.7%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	
. Woodwardia areolata . Osmunda regalis	3		25.0%	OBL		
Woodwardia areolata Osmunda regalis Arundinaria tecta	3		25.0% 16.7%	obl Facw	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3		25.0% 16.7% 16.7%	OBL	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	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3		25.0% 16.7%	obl Facw	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3 2 2		25.0% 16.7% 16.7%	obl Facw	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,	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3 2 2 0		25.0% 16.7% 16.7% 0.0%	obl Facw	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.	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3 2 2 0 0		25.0% 16.7% 16.7% 0.0% 0.0%	obl Facw	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.	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3 2 2 0 0 0		25.0% 16.7% 16.7% 0.0% 0.0% 0.0%	obl Facw	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	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3 2 2 0 0 0 0 0		25.0% 16.7% 16.7% 0.0% 0.0% 0.0%	obl Facw	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.	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3 2 2 0 0 0 0 0 0 0		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0%	obl Facw	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	
T	3 2 2 0 0 0 0 0 0 0 0		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0%	obl Facw	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	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum	3 2 2 0 0 0 0 0 0 0 0 0 0 0 0		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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	
Woodwardia areolata         Osmunda regalis         Arundinaria tecta         Dichanthelium scabriusculum	3 2 2 0 0 0 0 0 0 0 0 0 0 0 0		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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.	
Woodwardia areolata         Osmunda regalls         Arundinaria tecta         Dichanthelium scabriusculum         "Soft Total Cover:         6       20% of Total Cover:       2.4         pody Vine Stratum       (Plot size: 30 m)       )	3 2 2 0 0 0 0 0 0 0 0 0 0 12		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	OBL FACW OBL	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.	
Woodwardia areolata         Osmunda regalis         Arundinaria tecta         Dichanthelium scabriusculum         % of Total Cover:       6         20% of Total Cover:       2.4         ody Vine Stratum       (Plot size: 30 m )         Smilax laurifolia	3 2 2 0 0 0 0 0 0 0 0 0 0 0 12 1		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0%	OBL FACW OBL	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.	
Woodwardia areolata         Osmunda regalls         Arundinarla tecta         Dichanthelium scabrlusculum         % of Total Cover:         6       20% of Total Cover:       2.4         mody Vine Stratum       (Plot size: 30 m)       )	3 2 2 0 0 0 0 0 0 0 0 0 0 12 1 0		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 100.0%	OBL FACW OBL	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.	
Woodwardia areolata Osmunda regalis Arundinaria tecta Dichanthelium scabriusculum % of Total Cover: 6 20% of Total Cover: 2.4 pody Vine Stratum (Plot size: 30 m ) Smilax laurifolia	3 2 2 0 0 0 0 0 0 0 0 0 0 0 12 2 3		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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.	
Woodwardia areolata Osmunda regalls Arundinaria tecta Dichanthelium scabriusculum	3 2 2 0 0 0 0 0 0 0 0 0 0 0 12 1 0 0 0 0		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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.	
Woodwardia areolata         Osmunda regalis         Arundinaria tecta         Dichanthelium scabriusculum	3 2 2 0 0 0 0 0 0 0 0 0 0 0 12 2 3		25.0% 16.7% 16.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% 0.0% 0.0% 0.0%	OBL FACW OBL	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.	

Sampling Point: Wet - 29

Profile Descri	ption: (De		the depth	needed to doce				onfirm the	absence of indicators.)	
Depth		Matrix	~		•	ox Feat				
(inches)	Color (		%	, Color (moi			Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/2	. 95	10YR	7/2	5		r	Loamy Sand	
4-16	10YR	4/2	90	10YR	7/2	10	D	м	Loamy Sand	
Type: C=Conc Hydric Soil Ir Histosol (A	dicators:	=Depletio	n. RM=Redu				ed Sand Gra e (S8) (LRR		ation: PL=Pore Lining. M= Indicators for Prol	blematic Hydric Soils <sup>3</sup> :
Histic Epipe	edon (A2)			_			(LRR S, T, I			
Black Histic Hydrogen 3 Hydrogen 3 Stratified L Organic Bo 5 cm Muck Muck Prese	: (A3) Sulfide (A4)	7) (LRR P RR U)	-	Loamy	Mucky I Gleyed d Matri: Dark Su d Dark Depress	Mineral (F Matrix (F x (F3) rface (F6 Surface ( sions (F8)	-1) (LRR O) 2) ) F7)	-	Piedmont Flood Anomalous Brig Red Parent Mate	(F18) (outside MLRA 150A,B) olain Soils (F19) (LRR P, S, T) Int Loamy Soils (F20) (MLRA 153B) erial (TF2) rk Surface (TF12)
<ul> <li>Thick Dark</li> <li>Coast Prair</li> <li>Sandy Muc</li> <li>Sandy Gley</li> <li>Sandy Rede</li> <li>Stripped Ma</li> </ul>		2) 16) (MLRA 1) (LRR O 54)	( 150A) (, S)	Iron-Ma	nganes Surface chric (F d Vertic nt Flood	e Masses (F13) (L 17) (MLR (F18) (M Iplain Soi	ILRA 150A, Is (F19) (M	150B) LRA 149A)	wetland	s of hydrophytic vegetation and hydrology must be present, s disturbed or problematic.
Restrictive Lay	yer (if obse	erved):								
Depth (inche	es):					54			Hydric Soil Present?	Yes 🔍 No 🔾
Remarks: lepletions thro	ughout soi	il profile.								

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/C	ounty: Waveland - Hancock Sampling Date: 21-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 30
	on, Township, Range: S 31 T 7 s R 16 W
	elief (concave, convex, none): none Slope: 0.0 % / 0.0°
and a second second second second second second second second second second second second second second second	
and the state of and the	4' 20.526" N Long.: 89° 37' 41.438" W Datum: NAD83
coil Map Unit Name: Su, Smithton fine sandy loam, frequently flooded	NWI dassification: PFO 1/4 C
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes 💿 No 🔿 (If no, explain in Remarks.)
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 significantly distu	rbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🗍 naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing samplin	g point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	To the Completing
Hydric Soil Present? Yes  No	Is the Sampled Area
Wetland Hydrology Present? Yes  No O	within a Wetland? Yes 🔍 NO 🖯
Remarks: Lower portion of riparian flood zone within 100 feet north of Turtleskin Cre	ek.
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
Saturation (A3)	
Water Marks (B1) State And And And And And And And And And And	
Sediment Deposits (B2)	
Drift Deposits (B3)	
Algal Mat or Crust (B4)	Geomorphic Position (D2)
I Iron Deposits (B5) Uther (Explain in 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 O No O Depth (Inches):	
Water Table Present? Yes O No 💿 Depth (inches):	Wetland Hydrology Present? Yes  No O
Saturation Present? Yes No  Depth (inches):	Wetland Hydrology Present? Yes 🔍 No 🔾
Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	ious inspections), if available:
Bescher Recorded bata (Stream gauge, monitoring work densi photos) pro-	
	·····
Remarks:	

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

VEGETATION (FIVE/Four strata) - use sciencing	Dominant			Sampling Point: Wet - 30			
		Species? Absolute Rel.Strat. Indici			or Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m)	% Cove	<b>r</b> !	Cover	Status	Number of Dominant Species		
Pinus elliotti	2	$\Box_{i}$	13.3%	FACW	That are OBL, FACW, or FAC: 8 (A)		
Nyssa bifiora	8	Z.	53.3%	OBL	Total Number of Dominant		
Magnolia virginiana	5	<	33.3%	FACW	Species Across All Strata: 8 (B)		
	0		0.0%				
	0	$\Box$	0.0%		Percent of dominant Species That Are OBL_EACW or EAC: 100.0% (A/B)		
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
	0		0.0%		Prevalence Index worksheet:		
			0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 7.5 20% of Total Cover: 3		= To	tal Cover	г	OBL species $16 \times 1 = 16$		
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species $54 \times 2 = 108$		
Pinus elliottii		Π	14.3%	FACW	FAC species 12 x 3 = 36		
Nyssa biflora			35.7%	OBL	FACU species $0 \times 4 = 0$		
Acer rubrum			35.7%	FAC			
Cyrilla racemifiora	_		14.3%	FACW			
	0	П	0.0%	Inch	Column Totals: 82 (A) 160 (B)		
	0	H	0.0%		Prevalence Index = B/A = 1.951		
			0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%	<i>επ</i>			
		ш,			1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 7 20% of Total Cover: 2.8	14	= To	tal Cover	r -	✓ 2 - Dominance Test is > 50%		
nrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Pinus elliottii	5	$\Box$	11.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Cyrilla racemiflora	20		47.6%	FACW			
Magnolia virginiana	10		23.8%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
Acer rubrum	-		11.9%	FAC	be present, unless disturbed or problematic.		
Morella cerifera			4.8%	FAC	Definition of Vegetation Strata:		
and the second	0	$\Box$	0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 21 20% of Total Cover: 8.4	42	= To	tal Cover	r	approximately 20 ft (6 m) or more in height and 3 in.		
······································					(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )					Sapling - Woody plants, excluding woody vines,		
Andropogon glomeratus			27.3%	FACW	approximately 20 ft (6 m) or more in height and less		
Arundinaria tecta			45.5%	FACW	than 3 in. (7.6 cm) DBH.		
Woodwardia areolata	2		18.2%	OBL			
Scirpus expansus	4				Sapling/Shrub - Woody plants, excluding vines, les		
	1	□.	9.1%	OBL			
	0		9.1% 0.0%	OBL	than 3 in. DBH and greater than 3.28 ft (1m) tall.		
N	0 0			OBL	than 3 in. DBH and greater than 3.28 ft (1m) tail. Shrub - Woody plants, excluding woody vines,		
• • • • • • • • • • • • • • • • • • •	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
۲	0 0 0		0.0% 0.0%	OBL	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 _0 _0		0.0% 0.0% 0.0%	OBL	than 3 in. DBH and greater than 3.28 ft (1m) tail. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including		
	0 0 0 0		0.0% 0.0% 0.0% 0.0%	OBL	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 0 0 0		0.0% 0.0% 0.0% 0.0%	<u>OBL</u>	than 3 in. DBH and greater than 3.28 ft (1m) tail. 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 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%	OBL	than 3 in. DBH and greater than 3.28 ft (1m) tail. 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 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: <u>5.5</u> 20% of Total Cover: <u>2.2</u>	0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail. 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: 5.5 20% of Total Cover: 2.2 Dody Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 11		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover		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: <u>5.5</u> 20% of Total Cover: <u>2.2</u> <b>pody Vine Stratum</b> (Plot size: <u>30 m</u> )	0 0 0 0 0 0 0 0 11		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover		than 3 in. DBH and greater than 3.28 ft (1m) tail. 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: <u>5.5</u> 20% of Total Cover: <u>2.2</u> oody Vine Stratum (Plot size: <u>30 m</u> )			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% <b>0.0%</b> <b>tal Cover</b> 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail. 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: <u>5.5</u> 20% of Total Cover: <u>2.2</u> oody Vine Stratum (Plot size: <u>30 m</u> )	0 0 0 0 0 0 0 0 0 11 2 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% <b>tal Cover</b> 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail. 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: <u>5.5</u> 20% of Total Cover: <u>2.2</u> 7000 Vine Stratum (Plot size: <u>30 m</u> )	0 0 0 0 0 0 0 0 0 11 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% <b>tal Cover</b> 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail. 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: <u>5.5</u> 20% of Total Cover: <u>2.2</u> Toody Vine Stratum (Plot size: <u>30 m</u> )	0 0 0 0 0 0 0 0 0 11 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% <b>tal Cover</b> 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail. 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.		

Sampling	Point:	Wet -	30

	ncedeu lo Q		dox Feat			absence of indicators.)			
Depth (inches) Col	Matrix or (moist)	9/0	Color (		%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4 10Y		100							
4-14 10Y	× 4/2	98	10YR	7/2	2	D	M	Silty Clay Loam	- 11
14-24 10Y		95	10YR	7/2	5	D	м	Silty Clay Loam	
	-0				-			r: 28 *****	
	97		c .• 76	·····		_			
				1				· · · · ·	· · · · · · · · · · · · · · · · · · ·
Type: C=Concentratio		n. RM=Redu	iced Matrix, C	S=Cover	ed or Coate	ed Sand Gra	ains <sup>2</sup> Loca <sup>-</sup>	tion: PL=Pore Lining. M=M	atrix
Hydric Soil Indicato	rs:		<u> </u>			(22) (122	<b>a -</b> 10		matic Hydric Soils <sup>3</sup> :
Histosol (A1)	21					: (58) (LRR (LRR S, T, I		1 cm Muck (A9) (L	-
Black Histic (A3)	-/					(LRR S, T, 1 1) (LRR O)		2 cm Muck (A10) (	
Hydrogen Sulfide (	A4)		_		d Matrix (F.		,		.8) (outside MLRA 150A,B) in Soils (F19) (LRR P, S, T)
Stratified Layers (A	•			leted Mat	-	-,			Loamy Soils (F19) (LRK P, S, T)
Organic Bodies (Af		U)	· · ·		iurface (F6)	)		Red Parent Materia	
5 cm Mucky Miner	al (A7) (LRR F	ν, Τ, U)			k Surface (			Very Shallow Dark	• •
Muck Presence (A&			Red	ox Depres	ssions (F8)			Other (Explain in F	
1 cm Muck (A9) (L			_	l (F10) (L	-				·
Depleted Below Da	-	11)				MLRA 151)			
Thick Dark Surface Const Durivia Darks		A 150A)				(F12) (LRF			
Coast Prairie Redo						RR P, T, U)	ŀ		
Sandy Gleyed Matr		<i>'</i> , 3)			(F17) (MLR	a 151) ILRA 150A,	150B)	<sup>3</sup> Indicators o	f hydrophytic vegetation and
Sandy Redox (S5)	(• .)						LRA 149A)	wetland hy unless o	/drology must be present, listurbed or problematic.
Stripped Matrix (Se	5)							9A, 153C, 153D)	
Dark Surface (S7)	(LRR P, S, T,	U)							
Restrictive Layer (if o	bserved):								
Туре:					-				
Depth (inches):			· · · · ·	··· , · · ·				Hydric Soil Present?	Yes 🔍 No 🔾
Remarks:									
xidized root channe	ls are also o	bserved in	soil profile.						

roject/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 21-Oct-16
pplicant/Owner: NASA	State: MS Sampling Point: Wet - 31
westigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 16 W
andform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0
ibregion (LRR or MLRA): LRR T Lat.	: 30° 24' 0.830" N Long.: 89° 37' 22.350" W Datum: NAD83
il Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: N/A
re climatic/hydrologic conditions on the site typical for this time of y	
Are Vegetation 📋 , Soil 🔄 , or Hydrology 📃 significat	ntly disturbed? Are "Normal Circumstances" present? Yes 🔍 No 🔾
Are Vegetation 🔄 , Soil 🦲 , or Hydrology 📋 naturally	y problematic? (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 🔿	Is the Sampled Area
Hydric Soil Present? Yes 💿 No 🔿	Vec () No ()
Wetland Hydrology Present? Yes	within a Wetland?
Remarks:	
Wet plot approximately 500 feet south of E-W Logging Road throu	ugh center portion of AOI.
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)	(B13)
High Water Table (A2) Marl Deposits (B	B15) (LRR U) Drainage Patterns (B10)
Saturation (A3)	
	spheres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	
	duction in: Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)     Thin Muck Surfa       Iron Deposits (B5)     Other (Explain in	
Iron Deposits (B5) Other (Explain in Inundation Visible on Aerial Imagery (B7)	in Remarks)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes O No O Depth (inches)	):
Cohurtius Deservition and the second se	Wetland Hydrology Present? Yes 🔍 No 🔾
Saturation Present? Yes O No O Depth (inches)	):
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:
Remarks:	
No strong primary hydrology indicators present except for some mi	inor occurrences of oxidized root channels.
······································	
10	

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Version 2.0

			ominant pecies?		Sampling Point: Wet - 31
		e Ri	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species
Pinus elliottii	15		75.0%	FACW	That are OBL, FACW, or FAC: 6 (A)
Nyssa sylvatica	3		15.0%	FAC	Total Number of Dominant
Magnolia virginiana	2	Ц	10.0%	FACW	Species Across All Strata: 6 (B)
	0	Ĺ,	0.0%		
	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC; 100.0% (A/B
	0		0.0%		That are OBL, FACW, OF FAC. 100.010
n an	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of Multiply by:
50% of Total Cover: 10 20% of Total Cover: 4	20	= To	tal Cove		OBL species 20 x 1 = 20
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species94 x 2 =188
Dinus alliatell	15	✓	55,6%	FACW	FAC species $10 \times 3 = 30$
Magnolia virginiana	10		37.0%	FACW	
Nyssa sylvatica	2		7.4%	FAC	
			· · · · · · ·	TAC	UPL SPECIES X J -
	0		0.0%		Column Totals: 124 (A) 238 (B)
	•		0.0%		Prevalence Index = B/A = 1.919
			0.0%		Hydrophytic Vegetation Indicators:
	0	<u> </u>	0.0%		nyarophyde vegetation multators:
·	0_	$\Box$	0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 13.5 20% of Total Cover: 5.4	27	= To	tal Cover	•	✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	40		72.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
			18.2%	FACW	
		H	9.1%	FAC	<sup>1</sup> Indicators of hydric soll and wetland hydrology mus
· · · · · · · · · · · · · · · · · · ·		H		- FAC	be present, unless disturbed or problematic.
			0.0%		Definition of Vegetation Strates
		2	0.0%		Definition of Vegetation Strata:
		Ц.	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in,
50% of Total Cover: 27.5 20% of Total Cover: 11	55	= 10	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 30 m )		_			Sapling - Woody plants, excluding woody vines,
1. Lycopodiella alopecuroides		✓	75.0%	OBL	approximately 20 ft (6 m) or more in height and less
2 Dichanthelium scabriusculum	5				than 3 in. (7.6 cm) DBH.
			25.0%	OBL	
3	0		25.0% 0.0%	OBL	
				OBL	Sapling/Shrub - Woody plants, excluding vines, less
4	0		0.0%	OBL	
4 5	0 0 0		0.0% 0.0%	OBL	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
4 5 6	0 0 0		0.0% 0.0% 0.0%	OBL	Sapling/Shrub - Woody plants, excluding vines, less
4 5 6 7	0 0 0 0		0.0% 0.0% 0.0% 0.0%	OBL	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,
4 5 6 7 8	0 0 0 0		0.0% 0.0% 0.0% 0.0%	OBL	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
4 5 6 7 8 9	0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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
456 677 88 9 0.	0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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
45677	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%	OBL	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
456777.	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%		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.
4.         5.         6.         7.         8.         9.         0.         1.         2.         50% of Total Cover:         10         20% of Total Cover:         4	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%		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
4. 5. 6. 7. 8. 9. 0. 1. 2. 50% of Total Cover: 10 20% of Total Cover: 4 Woody Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 20		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
4. 5. 6. 7. 8. 9. 0. 1. 2. 50% of Total Cover: 10 20% of Total Cover: 4 Woody Vine Stratum (Plot size: 30 m ) Smilax laurifolia	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%		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.
4. 5. 6. 7. 8. 9. 0. 1. 2. 50% of Total Cover: <u>10</u> 20% of Total Cover: <u>4</u> Voody Vine Stratum (Plot size: <u>30 m</u> ) Smilax laurifolia	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 20		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
4. 5. 6. 7. 8. 9. 0. 1. 2. 50% of Total Cover: 10 20% of Total Cover: 4 Woody Vine Stratum (Plot size: 30 m ) Smilax laurifolia	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 20		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 20 2 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
67	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 20 2 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
4	0 0 0 0 0 0 0 0 0 0 0 0 20 20 20 20 20 2		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.

Profile Descri	ption: (De	scribe to	the depth n	eeded to d	locumen	t the indi	cator or co	onfirm the	absence of indicators.	)	
Depth		Matrix				dox Feat	ures	·.	5 S S		
(inches)	Color (			Color (		%	Type <sup>1</sup>		Texture	Remarks	
0-4	10YR	3/2		10YR	6/2	.3	D	M	Loamy Sand		
	10YR	4/2	95	10YR	6/2	5	D	Μ	Loamy Sand		
				k	r.,	_				••••• 1	
	and t					_		·	personal i m vi rv		
		2									
				<u></u>							
Type: C=Conc		=Depletio	n. RM <b>=Red</b> uc	ed Matrix, C	S=Covere	ed or Coat	ed Sand Gr	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=		
Hydric Soil Ir				-					Indicators for Pro	blematic Hydric Solis <sup>3</sup> :	
Histosol (A	-						e (S8) (LRR		1 cm Muck (A9)	) (LRR O)	
Histic Epipe				_			(LRR S, T, I		2 cm Muck (A10	0) (LRR S)	
Black Histic						•	=1) (LRR O)	)	Reduced Vertic	(F18) (outside MLRA 150A,B)	
_	Sulfide (A4)			_	· ·	d Matrix (F	2)		Piedmont Flood	plain Soils (F19) (LRR P, S, T)	
Stratified L					leted Mat				Anomalous Brig	ht Loamy Soils (F20) (MLRA 153B)	
_ `	dies (A6) (L		-			Surface (F6			Red Parent Mat	erial (TF2)	
<u> </u>	y Mineral (A		,Τ,U)	Dep	leted Dar	k Surface (	(F <b>7</b> )		Very Shallow Da	ark Surface (TF12)	
_	ence (A8) (L			Red	iox Depre	ssions (F8)			🗌 Other (Explain i	in Remarks)	
1 cm Muck	(A9) (LRR F	P, T)		Mar	l (F10) (Li	rr U)					
Depleted B	elow Dark S	Surface (A:	11)	🗌 Dep	leted Och	ric (F11) (	MLRA 151)				
Thick Dark	Surface (A1	.2)		🗌 Iron	-Mangane	ese Masses	s (F12) (LRI	R O, P <b>, T</b> )			
Coast Prair	ie Redox (A	16) (MLRA	4 150A)	🗌 Umt	bric Surfa	ce (F13) (L	.RR P, T, U)	)			
Sandy Muc	k Mineral (S	1) (LRR O	, S)	Delt	a Ochric (	(F17) (MLR	A 151)		3		
Sandy Gley	ed Matrix (S	54)		🗌 Red	uced Vert	ic (F18) (M	ILRA 150A,	150B)		s of hydrophytic vegetation and hydrology must be present,	
Sandy Red	ox (S5)			Pied	imont Flo	odplain Soi	ls (F19) (M	LRA 149A)		ss disturbed or problematic.	
Stripped Ma	atrix (S6)			🗌 Ало	malous Br	right Loam	y Soils (F20	) (MLRA 14	9A, 153C, 153D)		
Dark Surfac	ce (S7) (LRR	ε Ρ, S, T, I	J)								
Restrictive La	yer (if obse	erved):	-								
Туре:											
Depth (inche	=s);					24			Hydric Soil Present?	r Yes 🖲 No 🔿	
		• • • • • •								······································	
Remarks:											

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/	County: Waveland - Hancock Sampling Date: 21-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 32
Investigator(s): Lars Larson, Randy Ellis Sec	tion, Township, Range: S 31 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Terrace Local	relief (concave, convex, none): flat Slope: 1.0 % / 0.6 °
Subregion (LRR or MLRA): LRR T Lat.: 30° 2	23' 58.663" N Long.: 89° 37' 27.288" W Datum: NAD83
Soil Map Unit Name: HIB, Harleston fine sandy loam, 2 to 5 percent slopes	NWI classification: PSS 1/4
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes 🖲 No 🔿 (If no, explain in Remarks.)
Are Vegetation , Soll , or Hydrology significantly dist	
Are Vegetation , Soll , or Hydrology naturally problem	
SUMMARY OF FINDINGS - Attach site map showing samplin	ig point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔾	Is the Sampled Area
Hydric Soil Present? Yes 💿 No 🔿	
Wetland Hydrology Present? Yes 💿 No 🔿	within a Wetland?
Remarks:	
Approximately 300 feet south of wet 31 - transitional area closer to main	logging 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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR	
Saturation (A3)	C1) Moss Trim Lines (B16)
Water Marks (B1) State of the Analysis (B1) Water Marks (B1)	ong Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	n (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remark	s) 🗌 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 O No 💿 Depth (inches):	
Water Table Present? Yes O No 💿 Depth (inches);	
Saturation Present? Yes O No O Depth (inches):	Wetland Hydrology Present? Yes 💿 No 🔿
(includes capitally thinge)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
slight evidence of oxidized root channels on living roots	

VEGETATION (	(Five/Fou	r Strata) -	Use scientific names of	plants
--------------	-----------	-------------	-------------------------	--------

			ominant		Sampling Point: Wet - 32		
	Absolute		pecies? . el.Strat.	Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species		
Nyssa sylvatica	20	✓	57.1%	FAC	That are OBL, FACW, or FAC: 8 (A)		
Magnolia virginiana	10	✓	28,6%	FACW			
Pinus elliotti	5		14,3%	FACW	Total Number of Dominant Species Across All Strata; 8 (B)		
			0.0%				
a congo			0.0%		Percent of dominant Species		
1	0		0.0%		That Are OBL, FACW, or FAC: 100 0% (A/B)		
		$\overline{\Box}$	0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 17.5 20% of Total Cover: 7		= T/	tal Cove	-	OBL species 20 x 1 = 20		
		- 10					
apling or Sapling/Shrub Stratum (Plot size: 30 m							
Nyssa sylvatica			40.5%	FAC	FAC species $37 \times 3 = 111$		
Magnolia virginiana	20		54.1%	FACW	FACU species $0 \times 4 = 0$		
Pinus elliottii	2		5.4%	FACW	UPL species $0 \times 5 = 0$		
	0		0.0%		Column Totals: 144 (A) 305 (B)		
			0.0%		Prevalence Index = B/A = 2.118		
			0.0%				
	0.,	Ц.	0.0%		Hydrophytic Vegetation Indicators:		
1.11 Per	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 18.5 20% of Total Cover: 7.4	37	= To	tal Cove	r	✓ 2 - Dominance Test Is > 50%		
rrub Stratum (Plot size: 30 m )					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
	30	✓	63.8%	FACW			
					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Ilex glabra	10		21.3%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
Ilex vomitoria	2	Н	4.3%	FAC	be present, unless disturbed or problematic.		
Magnolla virginiana	. 5		10.6%	FACW	Definition of Mandation Strates		
			0.0%		Definition of Vegetation Strata:		
x x-	0	Ц	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Total Cover: 23.5 20% of Total Cover: 9.4	47	= To	tal Cove		(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m )							
Lycopodiełla alopecuroides	15	$\checkmark$	68.2%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
Sarracenia alabamensis	5		22.7%	OBL	than 3 in, (7.6 cm) DBH.		
Hypericum cistifolium	2		9.1%	FACW			
	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
· · · · · · · · · · · · · · · · · · ·	0	$\Box$	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	0		0.0%		Ol b Marshaulanta anala firmana da da a		
•	0		0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Ne status and status	_		0.0%				
	- 0				Herb - All herbaceous (non-woody) plants, including		
	0		0.0%				
· · · · · · · · · · · · · · · · · · ·	0		0.0%		herbaceous vines, regardless of size, and woody		
	- <u>0</u> 0		0.0%		plants, except woody vines, less than approximately		
•	0		0.0% 0.0%				
•	0 0 0 0		0.0% 0.0% 0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.		
•	0 0 0 0		0.0% 0.0%		plants, except woody vines, less than approximately		
0% of Total Cover: 11 20% of Total Cover: 4.4	0 0 0 0		0.0% 0.0% 0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.		
0% of Total Cover: 11 20% of Total Cover: 4.4	0 0 0 0	= To	0.0% 0.0% 0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.		
0% of Total Cover: <u>11</u> 20% of Total Cover: <u>4.4</u> <b>oody Vine Stratum</b> (Plot size: <u>30 m</u> )	0 0 0 0 22		0.0% 0.0% 0.0% tal Cover		plants, except woody vines, less than approximately 3 ft (1 m) in height.		
D% of Total Cover: <u>11</u> 20% of Total Cover: <u>4.4</u> <b>body Vine Stratum</b> (Plot size: <u>30 m</u> ) <b>Smilax iaurifolia</b>	0 0 0 22 3		0.0% 0.0% 0.0% tal Cover		plants, except woody vines, less than approximately 3 ft (1 m) in height.		
0% of Total Cover: <u>11</u> 20% of Total Cover: <u>4.4</u> <b>oody Vine Stratum</b> (Plot size: <u>30 m</u> )	0 0 0 0 22 3 0		0.0% 0.0% 0.0% tal Cover 100.0% 0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.		
0% of Total Cover: <u>11</u> 20% of Total Cover: <u>4.4</u> oody Vine Stratum (Plot size: <u>30 m</u> ) Smilax laurifolia	0 0 0 22 3 0 0 0 0		0.0% 0.0% <b>tal Cover</b> 100.0% 0.0% 0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.		
0% of Total Cover: <u>11</u> 20% of Total Cover: <u>4.4</u> <b>Coody Vine Stratum</b> (Plot size: <u>30 m</u> ) Smilax laurifolia	0 0 0 22 3 0 0 0 0 0 0		0.0% 0.0% 0.0% ttal Cover 100.0% 0.0% 0.0%	FACW	plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.		

Sampling Point: Wet - 32

	ption: (De		the depth	ieeded to doc				omirm the	absence of indicators.)			
Depth (inchor)	Calas	Matrix	%	Color (ma		dex Feat	Type <sup>1</sup>	Loc <sup>2</sup>	oc² Texture Remarks			
(inches) 0-5	10YR	(moist) 3/2	98	10YR	6/2	2	C	M	Sandy Loam	Nçindi Nə		
				w					66 m	· · · · · ·		
5-16	10YR	4/2	95	10YR	6/2	5	C	M	Sandy Loam			
			· · · · · · · · · · · · · · · · · · ·									
Type: C=Conc Hydric Soil In		)=Depletio	n. RM=Redu	ced Matrix, CS=	Covere	ed or Coate	ed Sand Gr	ains <sup>2</sup> Loca	tion: PL=Pore Lining. M=			
Histosol (A				Dohani	ua Pak	ou Surface	e (S8) (LRR	S T II)		blematic Hydric Soils <sup>3</sup> :		
Histosof (A									1 cm Muck (A9)			
Black Histi							(LRR S, T, I		2 cm Muck (A10			
	• •			_			=1) (LRR O)	1		(F18) (outside MLRA 150A,B)		
	Sulfide (A4)			_	-	Matrix (F	2)			plain Soils (F19) (LRR P, S, T)		
Stratified L		DD 0 T 1	n			rix (F3)				nt Loamy Soils (F20) (MLRA 153B)		
	odies (A6) (l		-	_		unface (F6			Red Parent Mate			
	y Mineral (#		, I, U)			c Surface (			Very Shallow Dark Surface (TF12)			
-	ence (AB) (L			_	•	sions (F8)	I		Other (Explain ir	n Remarks)		
	(A9) (LRR			Mari (F								
- '	elow Dark S		11)				MLRA 151)					
_	Surface (A:	-		Iron-M	angane	ese Masses	s (F12) (LRi	R O, P, T)				
_	ie Redox (A			Umbric	Surfac	e (F13) (L	RR P, T, U	)				
Sandy Muc	k Mineral (S	51) (LRR O	), S)	📙 Deita C	)chric (	F17) (MLR	A 151)		3 To di entre a	s of hydrophytic vegetation and		
Sandy Gley	/ed Matrix (	S4)		Reduce	d Verti	ic (F18) (M	1LRA 150A,	150B)		hydrology must be present,		
Sandy Red	ox (55)			🗌 Piedmo	nt Floc	dplain Soi	ls (F19) (M	lra 149a)	unles	s disturbed or problematic.		
Stripped M	atrix (S6)			🗌 Anoma	lous Br	ight Loam	y Soils (F20	) (MLRA 14	9A, 153C, 153D)			
_ Dark Surfa	ce (S7) (LRI	R P, S, T, I	U)									
estrictive La	yer (if obs	erved):								<u></u>		
Туре:		_			-	_						
Depth (inch	es):				_	- 1			Hydric Soil Present?	Yes 🔍 No 🔿		
emarks:												
ght redox co	ncentratio	ons with (	Dxidized ro	ot channels.								

Landform (hillslope, terrace, etc.):       Terrace       L         Subregion (LRR or MLRA):       LRR T       Lat.:       3         Soil Map Unit Name:       Su, Smithton fine sandy loam, frequently flooded         Are climatic/hydrologic conditions on the site typical for this time of year         Are Vegetation       , Soil       , or Hydrology       significantly         Are Vegetation       , Soil       , or Hydrology       naturally pro         SUMMARY OF FINDINGS - Attach site map showing same	disturbed? Are "Normal Circumstances" present? Yes $$ No $\bigcirc$ No $\bigcirc$ belematic? (If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present?       Yes ●       No ○         Hydric Soil Present?       Yes ●       No ○         Wetland Hydrology Present?       Yes ●       No ○         Remarks:       Transect #2 +/- 1000 feet south of logging road in central part of AC	Is the Sampled Area within a Wetland? Yes  No O
Sediment Deposits (B2)	(LRR U)       Image Patterns (B10)         lor (C1)       Image Patterns (B10)         lor (C1)       Image Patterns (B16)         es along Living Roots (C3)       Dry Season Water Table (C2)         d Iron (C4)       Image Crayfish Burrows (C8)         on in Tilled Solls (C6)       Saturation Visible on Aerial Imagery (C9)         C7)       Image Composition (D2)
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):         Cincludes capillary fringe)       Yes       No       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos,	10 Wetland Hydrology Present? Yes () No ()
Remarks:	

			ominant pecies? _		Sampling Point: Wet - 33
		e R	el.Strat.	Indicator	Dominance Test worksheet:
Free Stratum (Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species
Pinus elliottil	5		14.3%	FACW	That are OBL, FACW, or FAC: (A)
Nyssa biflora	20	⊻	57.1%	OBL	Total Number of Dominant
Taxodium ascendens	5		14.3%	OBL	Total Number of Dominant Species Across All Strata: 7 (B)
Magnolia virginiana	5		14.3%	FACW	
	. 0		0.0%		Percent of dominant Species That Are OBL_EACW_or EAC: 100.0% (A/B)
,	0		0.0%		That Are OBL, FACW, or FAC:100.0%(A/B)
	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 17.5 20% of Total Cover: 7	35	= To	tal Cover		OBL species 51 x 1 = 51
pling or Sapling/Shrub Stratum _ (Plot size: 30 m	)				FACW species 74 x 2 = 148
Marine Million	20	✓	58.8%	OBL	FAC species $0$ x 3 = $0$
Nyssa omora Magnolla virginiana	10		29.4%	FACW	FACU species $0 \times 4 = 0$
Pinus elliottil			8.8%	FACW	
		П	2.9%	OBL	
· · · · · · · · · · · · · · · · · · ·		Б	0.0%	ODL	Column Totals: 125 (A) 199 (B)
	0	H	0.0%		Prevalence Index = B/A = <u>1 592</u>
		H	0.0%		Hydrophytic Vegetation Indicators:
		H	• •	12 U V	
		Ч	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 17 20% of Total Cover: 6.8	34	= To	tal Cover	1	✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Magnolia virginiana	15	$\checkmark$	50.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Cyrilla racemifiora	10		33.3%	FACW	
Ilex coriacea	5		16.7%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
	0		0.0%		be present, unless disturbed or problematic.
	0		0.0%	C 1997 1 1	Definition of Vegetation Strata:
and the second second second second second second second second second second second second second second second	0	Ē	0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 15 20% of Total Cover: 6	14 C C	- To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in.
		- 10			(7.6 cm) or larger in diameter at breast height (DBH).
rb Stratum (Plot size:)		_			Sapling - Woody plants, excluding woody vines,
Arundinaria tecta	20	<ul><li>✓</li></ul>	80.0%	FACW	approximately 20 ft (6 m) or more in height and less
Woodwardia virginica			20.0%	OBL	than 3 in. (7.6 cm) DBH.
	5				
	0		0.0%		
	0				Sapling/Shrub - Woody plants, excluding vines, less
	0		0.0%		
	0 0 0		0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0 0 0		0.0% 0.0% 0.0%		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 0 0		0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		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
	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 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%		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: 12.5 20% of Total Cover: 5	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%		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
% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u>	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%		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.
% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> ody Vine Stratum (Plot size: 30 m)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 25		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
% of Total Cover: <u>12.5</u> 20% of Total Cover: <u>5</u> body Vine Stratum (Plot size: <u>30 m</u> ) Smllax laurifolia			0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
)% of Total Cover: 12.5 20% of Total Cover: 5 pody Vine Stratum (Plot size: 30 m ) Smilax laurifolia	0 0 0 0 0 0 0 0 0 0 0 25 1 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
% of Total Cover: 12.5 20% of Total Cover: 5 ody Vine Stratum (Plot size: 30 m ) Smllax laurifolia	0 0 0 0 0 0 0 0 0 0 0 0 25 1 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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: 12.5 20% of Total Cover: 5 cody Vine Stratum (Plot size: 30 m ) Smllax laurifolia	0 0 0 0 0 0 0 0 0 0 0 0 25 1 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.
0% of Total Cover: 12.5 20% of Total Cover: 5 oody Vine Stratum (Plot size: 30 m) Smilax laurifolia	0 0 0 0 0 0 0 0 0 0 0 0 0 25 1 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% 0.0% 0.0%		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.

Profile Descr	iption: (De	scribe to	the depth	needed to d	ocument	the indic	ator or co	onfirm the	absence of indicators.)	
Depth	·· · ·	Matrix			Re	dox Featu	ires	<u>.</u>		
(inches)		moist)	٥/٩	Color (	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/1	100						Sandy Clay Loam	
4-16	10YR	3/2	95	10YR	5/6	5	C.	M	Silty Clay Loam	
						·				
<sup>1</sup> Type: C=Cond	centration. D	=Depletio	n. RM=Redu	ced Matrix, C	S=Covere	d or Coate	d Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining, M=	Matrix
Hydric Soil I	ndicators:						-		Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (/	A1)			🗹 Poly	value Belo	w Surface	(S8) (LRR	S, T, U)	1 cm Muck (A9)	
🗌 Histic Epip	edon (A2)			🗌 Thir	Dark Sur	face (S9) (	LRR S, T, I	J)	2 cm Muck (A10)	
🗌 Black Histi	ic (A3)			🗌 Loai	my Mucky	Mineral (F	1) (LRR O)			F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)			🗌 Loai	my Gleyed	Matrix (F:	2)		_	lain Soils (F19) (LRR P, S, T)
Stratified I	Layers (A5)			🗌 Dep	leted Matr	ix (F3)			-	t Loamy Soils (F20) (MLRA 153B)
Organic B	odies (A6) (L	RR P, T, L	J)	Red	ox Dark S	urface (F6)	)		Red Parent Mater	
5 cm Mucl	ky Mineral (A	7) (LRR P	, T, U)	🗌 Dep	leted Dark	Surface (	F7)		Very Shallow Dar	
Muck Pres	ence (A8) (L	.RR U)		Red	ox Depres	sions (F8)			Other (Explain in	
📃 1 cm Mucl	k (A9) (LRR I	P, T)		🗌 Mar	l (F10) (LF	R U)				,
Depleted I	Below Dark S	Surface (A:	11)	🗌 Dep	leted Ochr	ric (F11) (M	MLRA 151)			
Thick Dark	Surface (Al	12)		🗌 Iron	-Mangane	se Masses	(F12) (LRF	R O, P, T)		
🗌 Coast Prai	rie Redox (A	16) (MLRA	150A)	🗌 Uml	oric Surfac	e (F13) (L	RR P, T, U)			
Sandy Mue	ck Mineral (S	1) (LRR O	, S)	🗌 Delt	a Ochric (I	F17) (MLR	A 151)		3	
Sandy Gle	yed Matrix (S	54)		🗌 Red	uced Verti	c (F18) (M	LRA 150A,	150B)	"Indicators wetland	of hydrophytic vegetation and hydrology must be present,
Sandy Rec	lox (S5)			🗌 Pied	mont Floo	dplain Soil	ls (F19) (M	LRA 149A)		disturbed or problematic.
Stripped M	latrix (S6)			🗌 Ano	malous Bri	ight Loamy	y Soils (F20	) (MLRA 14	9A, 153C, 153D)	
Dark Surfa	ace (S7) (LRF	R P, S, T, I	I)							
Restrictive La	yer (if obs	erved):								
Туре:						-			Hydric Soil Present?	Yes 💿 No 🔿
Depth (inch	les):									
Remarks:										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 24-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 34
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 S R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
	at.: 30° 24' 2,713" N Long.: 89° 37' 1,660" W Datum: NAD83
	and the second second second second second second second second second second second second second second second
Soil Map Unit Name: Su, Smithton fine sandy loam, frequently floo	
Are climatic/hydrologic conditions on the site typical for this time o	
Are Vegetation, Soll, or Hydrology signifi	īcantly disturbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation 🗌 , Soil 🛄 , or Hydrology 🔲 natura	ally problematic? (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 🔿	Is the Sampled Area
Hydric Soil Present? Yes 💿 No 🔿	
Wetland Hydrology Present? Yes   No	within a Wetland?
Remarks:	
Flat area that transitions from distinct upland to a wetland withi	in 100-feet.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that ap	ply) Surface Soil Cracks (B6)
Surface Water (A1)	
	(B15) (LRR U) Drainage Patterns (B10)
	Jifide Odor (C1)
	zospheres along Living Roots (C3) Dry Season Water Table (C2)
	Reduced Iron (C4) Crayfish Burrows (C8)
Drift Deposits (B3)     Recent Iron F     Algal Mat or Crust (B4)     Thin Muck Su	Reduction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         urface (C7)       Geomorphic Position (D2)
	in in 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 O No O Depth (inch	nes):
Water Table Present? Yes O No O Depth (inch	
	Wetland Hydrology Present? Tes $\odot$ NO $\smile$
(includes capillary fringe) Yes V No V Depth (inch	nes):
Describe Recorded Data (stream gauge, monitoring well, aerial p	photos, previous inspections), if available:
Remarks:	

VEGETATION	(Five/Four	Strata) -	Use scientific names of	plants
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	Dominant Species?				Sampling Point: Wet - 34		
		e Rel.Strat. Indicat			Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliottii Magnolia virginiana			75.0%	FACW	That are OBL, FACW, or FAC: (A)		
Magnolia virginiana	10		25.0%	FACW	Total Number of Dominant		
	0		0.0%	···· <b>x</b>	Species Across All Strata:		
19.A.			0.0%		Percent of dominant Species		
		<u> </u>	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)		
			0.0%				
			0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of Multiply by:		
0% of Total Cover: 20 20% of Total Cover: 8	40	= To	tal Cove		OBL species 5 x 1 = 5		
apling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species <u>121</u> x 2 = <u>242</u>		
Pinus elliottii		V	75.0%	FACW	FAC species $0 \times 3 = 0$		
Magnolia virginiana	5 .		25.0%	FACW	FACU species $0 \times 4 = 0$		
	0		0.0%		UPL species 0 x 5 = 0		
	0		0.0%		Column Totals: 126 (A) 247 (B)		
	0		0.0%				
d	0	$\Box$	0.0%		Prevalence Index = B/A = <u>1.960</u>		
No.	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 10 20% of Total Cover: 4	20	= То	tal Cover		$\checkmark$ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					✓ $x = \text{Definition for a set is } > 30 \text{ //}$ ✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
	60		100.0%	EACW			
Ilex coriacea			0.0%	FACW _	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
					<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
		Н	0.0%		be present, unless disturbed or problematic.		
			0.0%	·	Definition of Vegetation Strata:		
2 <b>10</b> 1		H	0.0%	15N	Tree - Woody plants, excluding woody vines,		
	0	ш.	0.0%	1.2	approximately 20 ft (6 m) or more in height and 3 in.		
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	60	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
	60	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
rb Stratum (Plot size: _30 m)	τ	= Та	tal Cover	OBL	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,		
rb Stratum (Piot size: _30 m) , Sarracenia alabamensis	τ				(7.6 cm) or larger in diameter at breast height (DBH).		
rb Stratum (Plot size: _30 m) , Sarracenia alabamensis , Lycopodiella alopecuroides	<u>3</u> 2		60.0%	OBL	(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		
rb Stratum (Plot size: _30 m) Sarracenia alabamensis Lycopodiella alopecuroides	<u>3</u> 2		60.0% 40.0%	OBL	(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		
erb Stratum (Plot size: _30 m) . Sarracenia alabamensis . Lycopodiella alopecuroides	3 2 0		60.0% 40.0% 0.0%	OBL	(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.		
erb Stratum (Plot size: _30 m) . Sarracenia alabamensis . Lycopodiella alopecuroides	3 2 0 0 0		60.0% 40.0% 0.0% 0.0%	OBL	(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.		
erb Stratum (Plot size: _30 m) Sarracenia alabamensis Lycopodiella alopecuroides	3 2 0 0 0 0		60.0% 40.0% 0.0% 0.0%	OBL	(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		
erb Stratum (Plot size: _30 m) Sarracenia alabamensis Lycopodiella alopecuroides	3 2 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>		
erb Stratum (Plot size: _30 m) . Sarracenia alabamensis . Lycopodiella alopecuroides	3 2 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>		
erb Stratum (Plot size: _30 m) . Sarracenia alabamensis . Lycopodiella alopecuroides	3 2 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>		
erb Stratum (Plot size: _30 m) . Sarracenia alabamensis . Lycopodiella alopecuroides	3 2 0 0 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>		
erb Stratum (Plot size: _30 m) . Sarracenia alabamensis . Lycopodiella alopecuroides	3 2 0 0 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>		
erb Stratum (Plot size:30 m) . Sarracenia alabamensis . Lycopodiella alopecuroides	3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>		
erb Stratum (Plot size: _30 m) . Sarracenia alabamensis . Lycopodiella alopecuroides	3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
arb Stratum       (Plot size: _30 m)         Sarracenia alabamensis         Lycopodiella alopecuroides         Lycopodiella alopecuroides	3 2 0 0 0 0 0 0 0 0 0 0 0 0 5		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
Prb Stratum       (Piot size: _30 m)         Sarracenia alabamensis         Lycopodielia alopecuroides         Lycopodielia alopecuroides         Wo of Total Cover:       2.5         20% of Total Cover:       1			60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
arb Stratum       (Plot size: _30 m)         Sarracenia alabamensis         Lycopodiella alopecuroides         Lycopodiella alopecuroides	3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum (Plot size: _30 m) Sarracenia alabamensis Lycopodiella alopecuroides 	3 2 0 0 0 0 0 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		
erb Stratum (Plot size: _30 m) Sarracenia alabamensis Lycopodiella alopecuroides 	3 2 0 0 0 0 0 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
erb Stratum (Plot size: _30 m) Sarracenia alabamensis Lycopodiella alopecuroides 	3 2 0 0 0 0 0 0 0 0 0 0 0 0 0		60.0% 40.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>		

Sampling	Point:	Wet - 34

Profile Descri	ption: (De	scribe to	the <b>depth</b>	needed to	document	the indic	ator or co	onfirm the	absence of indicators.)	
Depth	. ,	Matrix Redox Features			No					
(inches)	Color (	moist)	0/p	Color	(moist)	%	Type 1	Loc2	Texture	Remarks
0-3	10YR	3/2	100				_		Şilt Loam	
3-16	10YR	4/2	97	10YR	6/6	3	C	М	Silt Loam	
•					·					
1 Type: C=Conc	entration. D	=Depletio	n. RM=Redu		, CS=Covere	ed or Coate	d Sand Gra	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=	Matrix
Hydric Soil II						-			Indicators for Brok	ematic Hydric Soils <sup>3</sup> :
Stratified L Organic Bc S cm Muck Muck Press 1 cm Muck Depleted B Thick Dark Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped M	edon (A2) 5 (A3) 5 Julfide (A4) ayers (A5) dies (A6) (L y Mineral (A ence (A8) (L (A9) (LRR F elow Dark S Surface (A1 ie Redox (A1 ie Redox (A1 k Mineral (S red Matrix (S ox (S5)	7) (LRR P RR U) 2, T) urface (A: 2) 16) (MLR/ 1) (LRR O 34)	, Τ, U) 11) A 150A) , S)	<ul> <li>Thi</li> <li>Loz</li> <li>Loz</li> <li>De</li> <li>Red</li> <li>De</li> <li>Red</li> <li>De</li> <li>Iro</li> <li>Um</li> <li>De</li> <li>Red</li> <li>Pe</li> <li>Red</li> <li>Pe</li> <li>Red</li> <li>Pe</li> <li>Pie</li> </ul>	in Dark Sur amy Mucky amy Gleyec pleted Matr dox Dark S pleted Dark dox Depres rl (F1D) (LF pleted Ochi n-Mangane ibric Surfac ta Ochric (i duced Verti dmont Floc	urface (F6) sourface (I sourface (I sourface (I sourface (F1) ric (F11) (N se Masses the (F13) (LI F17) (MLR) ic (F18) (M odplain Soil	LIRR S, T, U 1) (LRR O) 2) 4LRA 151) (F12) (LRI (F12) (LRI (F12) (LRI RR P, T, U) A 151) LRA 150A, s (F19) (M	J) 150B) LRA 149A)		(LRR O) ) (LRR S) F18) (outside MLRA 150A,B) Iain Soils (F19) (LRR P, S, T) It Loamy Soils (F20) (MLRA 153B) rial (TF2) rk Surface (TF12)
Restrictive La	yer (if obse	rved):								an Alabaana
Depth (inch	as):								Hydric Soil Present?	Yes 🔍 No 🔿
Remarks:										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - H	lancock Sampling Date: 24-Oct-16			
Applicant/Owner: NASA	State: MS	Sampling Point: Wet - 35			
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range	e: S 29 T 7 s R 16 W			
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, conv				
F					
	and the second second second second second second second second second second second second second second second	a month of a second and a second second second second second second second second second second second second s			
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 ye	ear? Yes 🖲 No 🔿	(			
Are Vegetation, Soil, or Hydrology significan	tly disturbed? Are "No	rmal Circumstances" present? Yes 🖲 No 🔿			
Are Vegetation 📋 , Soil 🗌 , or Hydrology 🗌 naturally	problematic? (If need	led, explain any answers In Remarks.)			
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point locations	s, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes  No	To the Sampled Ar				
Hydric Soil Present? Yes   No	Is the Sampled Are				
Wetland Hydrology Present? Yes  No O	within a Wetland?				
Remarks:					
Transitional zone into wet area after heavy pine overstory back to t	the north. Small drain near	this plot.			
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)	13)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits (B:		🗹 Drainage Patterns (B10)			
Saturation (A3)		Moss Trim Lines (B16)			
	heres along Living Roots (C3)	Dry Season Water Table (C2)			
Sediment Deposits (B2)		Crayfish Burrows (C8)			
	uction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Muck Surfac		Geomorphic Position (D2)			
Iron Deposits (B5) Uron Deposits (B5) Other (Explain in Induction 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: Surface Water Present? Yes No  Depth (inches):					
		Hydrology Present? Yes 🔍 No 🔿			
Saturation Present? Yes No  Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if	available:			
Remarks:					

Dominant Species?				Sampling Point: Wet - 35		
Absolute	R		Indicator	Dominance Test worksheet:		
% Cover	ſ		Status	Number of Dominant Species		
15		45.5%	FACW	That are OBL, FACW, or FAC: 8 (A)		
10		30.3%	OBL			
5		15.2%	FACW	Total Number of Dominant Species Across All Strata: 8		
2		6.1%	OBL			
1		3.0%	FAC	Percent of dominant Species That Are OBL_EACW_or_EAC: 100.0% (A/B)		
0		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:		
33	= To	otal Cove	r	OBL species 37 x 1 = 37		
				FACW species 108 x 2 = 216		
		40 00%	EACAN	FAC species $1 \times 3 = 3$		
		a .	· ·			
			TACW			
	Н	• • • •		ort species x 3 =		
	Н	· · · ·		Column Totals: <u>146</u> (A) <u>256</u> (B)		
	H		· · · · ·	Prevalence Index = B/A = 1.753		
				Hydrophytic Vegetation Indicators:		
., .	吕	r • • • • • • • •		nyurophytic vegetation indicators:		
		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
25	= Tc	stal Cove	r	✓ 2 - Dominance Test is > 50%		
				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
30	$\checkmark$	56.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
10	$\overline{\Box}$			<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
				be present, unless disturbed or problematic.		
			1000	Definition of Vegetation Strata:		
	Н	St. N		Tree - Woody plants, excluding woody vines,		
en en en en en en en en en en en en en e			क्षां क्रम्स 	approximately 20 ft (6 m) or more in height and 3 in.		
	- 10			(7.6 cm) or larger in diameter at breast height (DBH).		
				Casling Mandy plants evaluating woods since		
15		60.0%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
10		10 00/	OBL	than 3 in. (7.6 cm) DBH.		
		40.0%	000			
0		40.0%	,			
0				Sapling/Shrub - Woody plants, excluding vines, less		
		0.0%				
0		0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.		
0 0 0		0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less		
0		0.0% 0.0% 0.0% 0.0%		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 0 0 0		0.0% 0.0% 0.0% 0.0%		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		
0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.		
		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 25 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 25 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 0 25 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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 0 0 0 0 0 0 0 0 25 =		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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.		
$ \begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 25 \\ 10 \\ 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%		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.		
$ \begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 25 \\ 10 \\ 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%		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.		
	% Cover           15           10           5           2           -1           0           30           10           10           30           0           0           15	Absolute       R         15       ✓         15       ✓         10       ✓         5       □         2       □         10       ✓         2       □         10       ✓         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         0       □         30       ✓         10       □         30       □         0       □         33       = Tc         30       □         0       □         33       = Tc         30       □         0       □         53       = Tc         15       ✓	Absolute % Cover       Rel.Strat. Cover         15       ✓       45.5%         10       ✓       30.3%         5       15.2%       2         2       6.1%       30.3%         2       6.1%       1         3.0%       0       0.0%         0       0.0%       0         0       0.0%       0         0       0.0%       0         10       ✓       40.0%         15       ✓       60.0%         0       0.0%       0         0       0.0%       0         0       0.0%       0         0       0.0%       0         0       0.0%       0         0       0.0%       0         10       18.9%       10         10       18.9%       0       0.0%         0       0.0%       0       0.0%         3       5.7%       0       0.0%         53       = Total Coves       15         15       ✓       60.0%	Absolute       Rel.Strat.       Indicator         15       ✓       45.5%       FACW         10       ✓       30.3%       OBL         5       15.2%       FACW         2       6.1%       OBL         1       3.0%       FAC         0       0.0%       OBL         10       ✓       40.0%       FACW         0       0.0%       FACW         0       0.0%       OBL         15       ✓       60.0%       FACW         0       0.0%       OBL       OBL         25       = Total Cover       3       S.7%       FACW         10       18.9%       FACW       OBL       OBL         30       S.7%       FACW       OBL       OBL       OBL         31       S.7%       FACW       OBL       OBL       OBL         32       S.7% <td< td=""></td<>		

Profile Descri	ption: (De	scribe to	the depth n	eeded to docum	ent the indi	cator or co	onfirm the	absence of indicators.)			
Depth		Matrix			<b>Redox Feat</b>			2			
(inches)	Color (	moist)	0⁄0	Color (moist	) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-4	10YR	3/2				• F		Silt Loam			
4-16	10YR	4/2	98	10YR 6/	2 20	D	M	Silt Loam			
							·	······			
		=Depletior	n. RM <b>=Re</b> duc	ed Matrix, CS=Co	vered or Coat	ed Sand Gri	ains <sup>2</sup> Loca	ation: PL=Pore Lining, M=	Matrix		
Hydric Soil In				_				Indicators for Prob	ematic Hydric Soils <sup>3</sup> :		
Histosol (A	•				Below Surface			1 cm Muck (A9)	(LRR O)		
Histic Epipe	• •			Thin Dark	Surface (S9)	(LRR S, T, I	U)	2 cm Muck (A10)	) (LRR S)		
Black Histic				🗌 Loamy Mu	cky Mineral (I	F1) (LRR O)	I	🛄 Reduced Vertic (	F18) (outside MLRA 150A,B)		
Hydrogen 9				Loamy Gle	yed Matrix (F	2)		Piedmont Floodp	lain Soils (F19) (LRR P, S, T)		
Stratified L				Depleted I	Aatrix (F3)			🗌 Anomaious Brigh	t Loamy Soils (F20) (MLRA 153B)		
Organic Bo	dies (A6) (L	.RR P, T, U	)	Redox Da	k Surface (F6	)		Red Parent Mate	rial (TF2)		
5 cm Muck	y Mineral (A	7) (LRR P,	T, U)	Depleted I	Dark Surface (	(F7)		Very Shallow Da	rk Surface (TF12)		
Muck Prese	ence (A8) (L	rr U)		Redox De	pressions (F8)			Other (Explain in			
🔲 1 cm Muck	(A9) (LRR I	P, T)		Marl (F10)	(LRR U)			<u> </u>	,		
Depleted B	elow Dark S	Surface (A1	.1)	Depleted (	Ochric (F11) (	MLRA 151)					
Thick Dark	Surface (A1	.2)		Iron-Mang	anese Masses	s (F12) (LRI	R O, P, T)				
🗌 Coast Prair	ie Redox (A	16) (MLRA	150A)	Umbric Su	rface (F13) (L	RR P, T, U)	)				
Sandy Muc	k Mineral (S	1) (LRR O,	S)	Delta Ochi	ic (F17) (MLR	A 151)		-			
Sandy Gley	ed Matrix (S	54)			ertic (F18) (M		150B)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland bydrology must be present			
Sandy Rede	ox (S5)			<u> </u>	Floodplain Soi		-	wetland hydrology must be present, unless disturbed or problematic.			
Stripped Ma	atrix (S6)							9A, 153C, 153D)			
Dark Surfac	ce (57) (LRF	R Ρ, S, T, L	))			, (					
Restrictive Lay	yer (if obse	erved):									
Туре:				_				Hydric Soil Present?	Yes 💿 No 🔿		
Depth (inche	es):							Hyunc Soll Presents			
Remarks:											

0 Acre Wetland Delineatiion	City/County: Waveland - Hand	ock Sampling Date: 24-Oct-16			
	State: MS	Sampling Point: Wet - 36			
dy Ellis	Section, Township, Range: 1	5 29 T 7 s R 16 W			
: Terrace	Local relief (concave, convex,	none): flat Slope: 0.0 % / 0.0 °			
a no transmistry and the statement of the					
A CONTRACTOR AND A CONTRA	an an an an an an an an an an a	a contract of the second second second second second second second second second second second second second se			
ton fine sandy loam, 2 to 5 percent		NWI dassification: PFO 1/4 C			
s on the site typical for this time of y	rear? Yes 🔍 No 🔾	(If no, explain in Remarks.)			
, or Hydrology 🗌 significa	ntly disturbed? Are "Norma	ll Circumstances" present? Yes 🖲 No 🔿			
, or Hydrology 📃 naturally	problematic? (If needed,	explain any answers in Remarks.)			
- Attach site map showing s	ampling point locations, t	ransects, important features, etc.			
t? Yes 🖲 No 🔿	Is the Sampled Area				
Yes 💿 No 🔿		Yes 🖲 No 🔿			
Yes 🖲 No 🔿	within a Wetland?				
of Up - 36 slight transition into lov	ver area.	· · · · · · · · · · · · · · · · · · ·			
		Secondary Indicators (minimum of 2 required)			
	)	Surface Soil Cracks (B6)			
		Sparsely Vegetated Concave Surface (B8)			
Marl Deposits (E	15) (LRR U)	✓ Drainage Patterns (B10)			
Hydrogen Sulfid	e Odor (C1)	Moss Trim Lines (B16)			
Oxidized Rhizos	pheres along Living Roots (C3)	Dry Season Water Table (C2)			
		Crayfish Burrows (C8)			
		Saturation Visible on Aerial Imagery (C9)			
_		Geomorphic Position (D2)			
	n Remarks)	Shallow Aquitard (D3)			
lagery (B7)		✓ FAC-Neutral Test (D5)			
		Sphagnum moss (D8) (LRR T, U)			
s No 🔍 Depth (inches)					
p (,	Wetland Hyp	irology Present? Yes $oldsymbol{igstar}$ No $igodol{igstar}$			
s 🔿 No 🔍 🛛 Depth (inches)					
m gauge, monitoring well, aerial pho	tos, previous inspections), if ava				
	dy Ellis Terrace TLat: toon fine sandy loam, 2 to 5 percent is on the site typical for this time of y , or Hydrology significa , or Hydrology naturally - Attach site map showing s t? Yes No Yes No Yes No Yes No of Up - 36 slight transition into low dof Up - 36 slight transition into low Aquatic Fauna (I Marl Deposits (E Hydrogen Sulfid Oxidized Rhizos; Presence of Red Recent Iron Red Thin Muck Surfa Other (Explain is hagery (B7) S No Depth (inches) S No Depth (inches)	State:       MS         dy Ellis       Section, Township, Range:         treat:       30° 24' 5.679" N         too fine sandy loam, 2 to 5 percent slopes         is on the site typical for this time of year?       Yes Image: Yes No         , or Hydrology       significantly disturbed?       Are "Normal"         , or Hydrology       naturally problematic?       (If needed,         .       .       Attach site map showing sampling point locations, to         t?       Yes Image: No       Is the Sampled Area         Yes Image: Y			

EGETATION (FIVE/FOUL Strata) - Ose scientific		Dominant Species?			Sampling Point: Wet - 36		
	Absolute	e R	el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove		Cover	Status	Number of Dominant Species		
Pinus elliottii	10	<b>V</b>	40.0%	FACW	That are OBL, FACW, or FAC: 7 (A)		
Nyssa biflora	10	<b>V</b>	40.0%	OBL	Total Number of Dominant		
Magnolia virginiana	5	~	20.0%	FACW	Total Number of Dominant Species Across All Strata: 7 (B)		
	0		0.0%				
	0		0.0%		Percent of dominant Species That Are OBL_EACW, or EAC: 100.0% (A/B)		
	D		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
	0		0.0%		Prevalence Index worksheet:		
	0	П	0.0%		Total % Cover of: Multiply by:		
0% of Total Cover: 12.5 20% of Total Cover: 5	25	= To	tal Cove		OBL species 28 x 1 = 28		
2.2 M 2 M 2					FACW species <u>57</u> x 2 = <u>114</u>		
apling or Sapling/Shrub Stratum (Plot size: 30 m	_'						
Pinus elliotti			35.7%	FACW	FAC species $0 \times 3 = 0$		
Nyssa biflora			53.6%	OBL	FACU species $0 \times 4 = 0$		
Magnolia virginiana	2		7.1%	FACW	UPL species 0 x 5 = 0		
Cyrilla racemiflora	1		3.6%	FACW	Column Totals: 85 (A) 142 (B)		
	0		0.0%		Prevalence Index = B/A = 1 671		
	0		0.0%				
	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 14 20% of Total Cover: 5.6	28	= To	stal Cove				
					✓ 2 - Dominance Test is > 50%		
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex coriacea		, ⊾		FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Magnolia virginiana	10	<	37.0%	FACW			
Cyrilla racemiflora	2	$\Box$	7.4%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
	0		0.0%		be present unless disturbed of problematic.		
	0		0.0%		Definition of Vegetation Strata:		
	0		0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 13.5 20% of Total Cover: 5.4	27	= To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in.		
erb Stratum (Plot size: 30 m )					(7.6 cm) or larger in diameter at breast height (DBH).		
	1.1		-		Sapling - Woody plants, excluding woody vines,		
Sarracenia alabamensis			66.7%	OBL	approximately 20 ft (6 m) or more in height and less		
Lycopodiella alopecuroides	1	Ш,	33.3%	OBL	than 3 in. (7.6 cm) DBH.		
	0	Ш,	0.0%				
	C		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.		
	0		0.0%		than 5 m. DDH and greater than 5.20 m (m) tail.		
vw	0		0.0%		Shrub - Woody plants, excluding woody vines,		
•	0	$\Box$	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.		
			0.0%				
	0		0.0%		Herb - All herbaceous (non-woody) plants, including		
	0		0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately		
· · · · · · · · · · · · · · · · · · ·	-		0.0%		3 ft (1 m) in height.		
	0		0.0%	1-11-1-1			
					Woody vine - All woody vines, regardless of height.		
0% of Total Cover: 1.5 20% of Total Cover: 0.6	3	= 10	tal Cove		, , <u>,</u> , <u>,</u>		
oody Vine Stratum (Plot size: 30 m )							
	2		100.0%	FACW			
Smllax laurifolia	•		0.0%				
Smilax laurifolia	0						
	. <u> </u>		0.0%				
	0		0.0%				
	0		0.0%		Hydrophytic		
	0 0 0				Hydrophytic Vegetation Present? Yes O No O		

Profile Descu	iption: (De	scribe to	the depth	needed to d	locument	t the indi	cator or co	onfirm the	absence of indicators.)	
Depth	· · · · · · · · · · · · · · · · · · ·	Matrix				dox Feat				
(inches) 0-3	Color (	moist) 3/2	<b>%</b> 100	Color (		%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Silt Loam	, , , Remarks
3-16	10YR	4/2	95	10YR	6/6	5	с	м	Silt Loam	
	TOIK							- 11 - 11 - 11	5	
						-				
<sup>1</sup> Type: C=Con Hydric Soll I		=Depletio	n. RM <b>=Red</b> u	iced Matrix, C	S=Covere	ed or Coate	ed Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=	
Histosol (/ Histic Epip Black Hist Hydrogen Stratified I Organic B Stratified I Organic B Stratified I Organic B Stripeleted I Thick Darl Coast Prai Sandy Mu Sandy Gle Stripped N	A1) pedon (A2) ic (A3) Sulfide (A4) Layers (A5) odies (A6) (L ky Mineral (A sence (A8) (L k (A9) (LRR I Below Dark S k Surface (A1 rie Redox (A ck Mineral (S yed Matrix (S Jox (S5)	7) (LRR P RR U) 2, T) Surface (A 2) 16) (MLR/ 1) (LRR C 34)	, Τ, U) 11) A 150A) ), S)	Thir Loa Loa Loa Dep Red Dep Red Mar Dep Unn Unn Deft Red Piec	n Dark Sui my Mucky my Gleyed oleted Mat lox Dark S oleted Dark lox Depres l (F10) (Li vleted Och n-Mangane bric Surfac ta Ochric ( luced Vert dmont Floo	face (S9) ( Mineral (F Matrix (F3) urface (F6) k Surface ( ssions (F8) RR U) ric (F11) (( sse Masses te (F13) (L F17) (MLR ic (F18) (M odplain Soi	) (F7) s (F12) (1R1 RR P, T, U) (A 151) 11RA 150A, Is (F19) (M	U) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1		)) (LRR S) (F18) (outside MLRA 150A,B) plain Soils (F19) (LRR P, S, T) ht Loamy Soils (F20) (MLRA 153B) erial (TF2) ark Surface (TF12)
Restrictive La Type: Depth (inch Remarks:	ayer (if obs								Hydric Soil Present?	Yes  No

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Har	ncock Sampling Date: 24-Oct-16			
Applicant/Owner: NASA	State: MS	Sampling Point: Wet - 37			
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range:				
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex	and a second second second second second second second second second second second second second second second			
		ong.: 89° 36' 55.679" W Datum: NAD83			
Soll Map Unit Name: Su, Smithton fine sandy loam, frequently floode		NWI classification: PFO 1/4 C			
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 significant	ntly disturbed? Are "Norm	nal Circumstances" present? Yes 🔍 No 🔿			
Are Vegetation , Soil , or Hydrology anaturally	problematic? (If needed	d, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showing s					
Hydrophytic Vegetation Present? Yes  No O		_			
Hydric Soil Present? Yes  No	Is the Sampled Area	Yes 🖲 No 🔿			
Wetland Hydrology Present? Yes  No O	within a Wetland?	tes © NO ⊂			
Remarks:					
Low drainage area - part of the overall main NE-SW trending drain	age way conveying surface wa	ter through the central to southern part of AOI.			
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)	313)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits (B	15) (LRR V)	🗹 Drainage Patterns (B10)			
Saturation (A3)		Moss Trim Lines (B16)			
i 📙 Water Marks (B1) 🗹 Oxidized Rhizosp	heres along Living Roots (C3)	Dry Season Water Table (C2)			
Sediment Deposits (B2)	uced Iron (C4)	Crayfish Burrows (C8)			
	uction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)			
Aigai Mat or Crust (B4)	ce (C7)	Geomorphic Position (D2)			
I Iron Deposits (B5) Other (Explain in	Remarks)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)			
Field Observations: Surface Water Present? Yes No  Depth (inches):					
Water Table Present? Yes No O Depth (inches)	Wetland Hy	ydrology Present? Yes 🖲 No 🔿			
Saturation Present? (includes capillary fringe) Yes  No Depth (inches):	12				
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if av	vailable:			
Remarks:					
		1			

			ominant		Sampling Point: Wet - 37		
	Absolute	e R		Indicator	Dominance Test worksheet:		
(Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species		
Pinus elilottii	10	$\checkmark$	34.5%	FACW	That are OBL, FACW, or FAC: 8. (A)		
Nyssa biflora	15	✓	51.7%	OBL	Tabl Mushan of Descional		
Taxodium ascendens	3		10.3%	OBL	Total Number of Dominant Species Across All Strata: 8 (B)		
Magnolia virginiana	1		3.4%	FACW			
	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: 100.0% (A/B		
			0.0%		Prevalence Index worksheet:		
	0		0.0%	-	Total % Cover of: Multiply by:		
0% of Total Cover: 14.5 20% of Total Cover: 5.8	29	= Тс	tal Cove	Г.	OBL species 39 x 1 = 39		
apling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species $66 \times 2 = 132$		
Pinus elliottii			14.3%	FACW	FAC species $0 \times 3 = 0$		
AL	3		47.6%	OBL			
(c) The second s Second second sec			33.3%				
Magnolia virginiana				FACW	ore species		
Taxodium ascendens			4.8%	OBL	Column Totals: 105 (A) 171 (B)		
	0		0.0%		Prevalence Index = B/A = 1.629		
			0.0%		Hydrophytic Vegetation Indicators:		
			0.0%	••	Tydrophytic vegetation indicators.		
	. 0	Ц	0.0%		✓ 1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 10.5 20% of Total Cover: 4.2	21	= Total Cover			✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
Ilex corlacea	20	✓	60.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Cyrilla racemiflora			30.3%	FACW			
Magnolia virginiana			9.1%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus		
	0		0.0%		be present, unless disturbed or problematic.		
	3.5		0.0%		Definition of Vegetation Strata:		
and the second second second second second second second second second second second second second second second	0	H	0.0%	e	Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 16.5 20% of Total Cover: 6.6		- 70	tal Cove		approximately 20 ft (6 m) or more in height and 3 in.		
		- 10			(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: 30 m)							
. Woodwardia areolata				_	Sanling - Woody plants, evoluting woody vines		
	5		25.0%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
	5 10		25.0% 50.0%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Arundinaria tecta				-	approximately 20 ft (6 m) or more in height and less		
Arundinaria tecta Sarracenia alabamensis	<u>10</u> 2		50.0%	FACW	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		
Arundinaria tecta . Sarracenia alabamensis . Carex lurida	10		50.0% 10.0%	FACW OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1		50.0% 10.0% 5.0%	FACW OBL OBL	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.		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0		50.0% 10.0% 5.0% 10.0%	FACW OBL OBL	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		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0		50.0% 10.0% 5.0% 10.0% 0.0%	FACW OBL OBL	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,		
Arundinarla tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0%	FACW OBL OBL	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		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0%	FACW OBL OBL	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		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL OBL	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		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL OBL	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.		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL OBL	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.		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL OBL	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.		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 20		50.0% 10.0% 5.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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.		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum 	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 20		50.0% 10.0% 5.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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.		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum 	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 10.0% 5.0% 10.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0%	FACW OBL OBL	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.		
Arundinaria tecta Sarracenia alabamensis Carex lurida Dichanthelium scabriusculum Ok of Total Cover: 10 20% of Total Cover: 4 Cody Vine Stratum (Plot size: 30 m) Smilax laurifolia	10 2 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0		50.0% 10.0% 5.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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.		
Arundinaria tecta         Sarracenia alabamensis         Carex lurida         Dichanthelium scabriusculum         Dichanthelium scabriusculum         O         1         2         3         3         3         4         3         5         5         6         6         7         3         6         6         7         3         6         6         7         3         6         7         6         7         6         7         7         8         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9	10 2 1 2 0 0 0 0 0 0 0 0 0 0 20 20 20 20		50.0% 10.0% 5.0% 10.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0% 0.0%	FACW OBL OBL FACW	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.		

Profile Descr	iption: (De	scribe to	the depth	needed to	document	the India	cator or co	onfirm the	absence of Indicators.)	
Depth	1	Matrix			Rec	lox Feat				
(inches)		moist)	%	Color	(moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Sandy Claudearr	Remarks
0-5	10YR	2/1	100				_		Sandy Clay Loam	
5-20	10YR	3/1	97	10YR	7/1	3	D	. M	Silty Clay Loam	
- BRAND - MANA MARAN	. na n vz									
		=Depletio	n. RM <b>=Red</b> u	ced Matrix,	CS=Covere	d or Coate	ed Sand Gra	iins <sup>2</sup> Loca	tion: PL=Pore Lining. M=	
Hydric Soli I				<b></b>					Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (A					lyvalue Belo				1 cm Muck (A9)	(LRR O)
Histic Epip					in Dark Surf				2 cm Muck (A10)	) (LRR S)
Black Histi					amy Mucky				Reduced Vertic (	F18) (outside MLRA 150A,B)
	Sulfide (A4)				amy Gleyed		2)			lain Soils (F19) (LRR P, S, T)
_	ayers (A5)				pleted Matri					t Loamy Soils (F20) (MLRA 153B)
_	odies (A6) (L				dox Dark Su	• •			Red Parent Mate	
_	y Mineral (A		, 1, 0)		pleted Dark				Very Shallow Da	'k Surface (TF12)
	ence (A8) (L				dox Depres				Other (Explain in	Remarks)
_	t (A9) (LRR I	-	11)	_	rl (F10) (LR					
	elow Dark S		11)		pleted Ochr					
	Surface (A1				n-Mangane:					
_	ie Redox (A				bric Surface					
	k Mineral (S		, 5)		lta Ochric (F				<sup>3</sup> Indicators	of hydrophytic vegetation and
	ved Matrix (S	54)			duced Vertic		-	-	wetland	hydrology must be present,
Sandy Red					dmont Floo			-		s disturbed or problematic.
Stripped M Dark Surfa	atrix (S6) ce (S7) (LRF	ι Ρ, <b>S, T,</b> ι	J)		omaious Bri	ght Loam	y Soils (F20	) (MLRA 149	9 <b>A,</b> 153C, 153D)	
estrictive La	yer (if obse	erved):							<u> </u>	
Туре:		_				-			Hydric Soil Present?	Yes 💿 No 🔿
Depth (inch	es):								Ayaric Soli Present?	
Remarks:										
										\$1. 

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - H	lancock Sampling Date: 24-Oct-16			
Applicant/Owner: NASA	State: MS	Sampling Point: Wet - 38			
investigator(s): Lars Larson, Randy Ellis	Section, Township, Range	e:S 32 T 7 s R 16 W			
andform (hillstope, terrace, etc.): Floodplain	Local relief (concave, conve	ex, none): none Slope: 0.0 % / 0.0			
Subregion (LRR or MLRA): LRR T	Lat.: 30° 23' 54.543" N	Long.: 89° 37' 1.688" W Datum: NAD83			
coil Map Unit Name: Su, Smithton fine sandy loam, frequently f	e 1 p. q. 1	NWI classification: PFO 1/4 C			
	0 0				
Are climatic/hydrologic conditions on the site typical for this tim					
Are Vegetation, Soil, or Hydrologysign	nificantly disturbed? Are "Nor	rmal Circumstances" present? Yes 🔍 No 🔾			
Are Vegetation, Soil, or Hydrology nat	urally problematic? (If need	led, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showi	ng sampling point location	s, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes   No	Is the Sampled Are	83			
Hydric Soil Present? Yes   No					
Wetland Hydrology Present? Yes   No	within a Wetland?				
Remarks: Low drainage area approximately 200 feet West of Up - 38.	<u> </u>				
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)			
Primary Indicators (minimum of one required; check all that		Surface Soil Cracks (B6)			
	iuna (B13)	Sparsely Vegetated Concave Surface (B8)			
	sits (B15) (LRR U)	Drainage Patterns (B10)			
	Sulfide Odor (C1) Rhizospheres along Living Roots (C3)	<ul> <li>✓ Moss Trim Lines (B16)</li> <li>□ Dry Season Water Table (C2)</li> </ul>			
	of Reduced Iron (C4)	Dry Season Water Table (C2)     Crayfish Burrows (C8)			
	n Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)			
	Surface (C7)	Geomorphic Position (D2)			
	plain in Remarks)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	·	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)			
Field Observations:					
Surface Water Present? Yes 🔿 No 💿 Depth (ii	nches):				
Water Table Present? Yes 🔿 No 🏵 Depth (ii	nches):				
Saturation Present? Ves  No  Depth (in	nches): 12 Wetland	Hydrology Present? Yes 🖲 No 🔾			
(includes capillary fringe) 103 0 100 0 Depth (in Describe Recorded Data (stream gauge, monitoring well, aeria		available			
Describe Recorded Data (scearin gauge, monitoring weil, acris	i protos, previous inspections), il				
	<u> </u>				
Remarks:					
	· · · · · · · · · · · · · · · · · · ·				

			ominant		Sampling Point: Wet - 38
	Absolute	R	pecies? . el.Strat.	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species
Pinus elliottii	10		34.5%	FACW	That are OBL, FACW, or FAC: 8 (A)
Nyssa bifiora	10		34.5%	OBL	Tatel Number of Demisert
Taxodium ascendens	5		17.2%	OBL	Total Number of Dominant Species Across All Strata: 8 (B)
Magnolia virginiana	3		10.3%	FACW	
Acer rubrum	1		3.4%	FAC	Percent of dominant Species That Are OBL_EACW_or_EAC: 100.0% (A/B)
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
	-	$\Box$	0,0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 14.5 20% of Total Cover: 5.8	29	= To	tal Cove	Г	OBL species $41 \times 1 = 41$
pling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species 79 x 2 = 158
	10	$\checkmark$	35,7%	FACW	FAC species 16 x 3 =48
a contract of the second second second second second second second second second second second second second se			17.9%	FACW	
			28.6%	OBL	
Taxodium ascendens Acer rubrum	8 5		17.9%	FAC	
	0		0.0%	TAC	Column Totals: <u>136</u> (A) <u>247</u> (B)
	0	H			Prevalence Index = B/A = 1.816
	0		0.0%		Hydrophytic Vegetation Indicators:
	-	H	0.0%		
	0	Ц,	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 14 20% of Total Cover: 5.6	28	= To	tal Cove	r	2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 $^{1}$
Ilex glabra	30	✓	62.5%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Morella cerifera			20.8%	FAC	
Magnolia virginiana			10.4%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
Taxodium ascendens		$\square$	6.3%	OBL	be present, unless disturbed or problematic.
		П	0.0%		Definition of Vegetation Strata:
and the state of the state of the state of the state of the state of the state of the state of the state of the	0	П	0.0%	. (* ) <b></b> (* )	Tree - Woody plants, excluding woody vines,
0% of Total Cover: 24 20% of Total Cover: 9.6	48	- To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in.
·	48	- To	tal Cove		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
rb Stratum (Plot size: 30 m )	48	_			(7.6 cm) or larger in diameter at breast height (DBH).
rb Stratum (Plot size: 30 m ) Arundinaria tecta			35.7%	FACW	
rb Stratum (Plot size: 30 m ) , Arundinarla tecta , Sarracenia alabamensis		_			(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,
rb Stratum (Plot size: 30 m ) , Arundinarla tecta , Sarracenia alabamensis	10		35.7%	FACW	(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.
erb Stratum (Plot size: 30 m ) Arundinaria tecta Sarracenia alabamensis Dichanthelium scabriusculum Hypericum cistifolium	10 3 2 3		35.7% 10.7% 7.1% 10.7%	FACW OBL OBL FACW	(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
erb Stratum (Plot size: 30 m ) Arundinaria tecta Sarracenia alabamensis Dichanthelium scabriusculum Hypericum cistifolium	10 3 2		<b>35.7%</b> 10.7% 7.1%	FACW OBL OBL	(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.
erb Stratum (Plot size: 30 m ) Arundinaria tecta Sarracenia alabamensis Dichanthelium scabriusculum Hypericum cistifolium Lycopodiella alopecuroides	10 3 2 3		35.7% 10.7% 7.1% 10.7%	FACW OBL OBL FACW	(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
rb Stratum (Plot size: 30 m ) Arundinaria tecta Sarracenia alabamensis Dichanthellum scabriusculum Hypericum cistifolium Lycopodiella alopecuroides	10 3 2 3 10 0		35.7% 10.7% 7.1% 10.7% 35.7%	FACW OBL OBL FACW	(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.
rb Stratum (Plot size: 30 m ) Arundinaria tecta Sarracenia alabamensis Dichanthelium scabriusculum Hypericum cistifolium Lycopodiella alopecuroides	10 3 2 3 10 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0%	FACW OBL OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> </ul>
erb Stratum (Plot size: 30 m ) Arundinaria tecta Sarracenia alabamensis Dichanthelium scabriusculum Hypericum cistifolium Lycopodiella alopecuroides	10 3 2 3 10 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0%	FACW OBL OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>
erb Stratum (Plot size: 30 m) Arundinaria tecta Sarracenia alabamensis Dichanthellum scabriusculum Hypericum cistifollum Lycopodiella alopecuroides	10 3 2 3 10 0 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0%	FACW OBL OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>
erb Stratum (Plot size: 30 m ) Arundinarla tecta Sarracenia alabamensis Dichanthellum scabriusculum Hypericum cistifollum Lycopodiella alopecuroides	10 3 2 3 10 0 0 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0%	FACW OBL OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including</li> </ul>
erb Stratum (Plot size: 30 m) Arundinaria tecta Sarracenia alabamensis Dichanthelium scabriusculum Hypericum cistifolium Lycopodiella alopecuroides	10 3 2 3 10 0 0 0 0 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
erb Stratum (Plot size: 30 m) Arundinaria tecta Sarracenia alabamensis Dichanthellum scabriusculum Hypericum cistifollum Lycopodiella alopecuroides	10 3 2 3 10 0 0 0 0 0 0 0 0 0 0 0 0 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
erb Stratum (Plot size: 30 m) Arundinarla tecta Sarracenia alabamensis Dichanthelium scabriusculum Hypericum cistifoilum Lycopodiella alopecuroides U% of Total Cover: 14 20% of Total Cover: 5.6	10 3 2 3 10 0 0 0 0 0 0 0 0 0 0 0 0 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
rb Stratum (Plot size: 30 m) Arundinaria tecta Sarracenia alabamensis Dichanthellum scabriusculum Hypericum cistifolium Lycopodiella alopecuroides % of Total Cover: 14 20% of Total Cover: 5.6 ody Vine Stratum (Plot size: 30 m)	10 3 2 3 10 0 0 0 0 0 0 0 0 0 28		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
with Stratum (Plot size: 30 m)         Arundinaria tecta         Sarracenia alabamensis         Dichanthellum scabriusculum         Hypericum cistifolium         Lycopodiella alopecuroides         % of Total Cover: 14 20% of Total Cover: 5.6         wody Vine Stratum (Plot size: 30 m)	10 3 2 3 10 0 0 0 0 0 0 0 0 0 0 28		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0%	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
with Stratum (Plot size: 30 m)         Arundinaria tecta         Sarracenia alabamensis         Dichanthellum scabriusculum         Hypericum cistifolium         Lycopodiella alopecuroides         % of Total Cover: 14 20% of Total Cover: 5.6         wody Vine Stratum (Plot size: 30 m)	10 3 2 3 10 0 0 0 0 0 0 0 0 0 0 28		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
erb Stratum       (Plot size: 30 m)         Arundinaria tecta	10 3 2 3 10 0 0 0 0 0 0 0 0 0 0 0 0 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0%	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
erb Stratum       (Plot size: 30 m)         Arundinarla tecta	10 3 2 3 10 0 0 0 0 0 0 0 0 0 0 0 0 0		35.7% 10.7% 7.1% 10.7% 35.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 100.0% 0.0%	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>
erb Stratum (Plot size: 30 m) Arundinaria tecta Sarracenia alabamensis Dichanthelium scabriusculum Hypericum cistifolium Lycopodiella alopecuroides Uyo of Total Cover: 14 20% of Total Cover: 5.6 oody Vine Stratum (Plot size: 30 m) Smilax laurifolia	10 3 2 3 10 0 0 0 0 0 0 0 0 0 0 0 0 0		35.7% 10.7% 7.1% 35.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover	FACW OBL FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>

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Profile Descr	iption: (De	scribe to	the depth	needed to d	documen	t the indi	cator or co	onfirm the	absence of indicators.	)
Depth		Matrix			Re	dox Feat				
(inches)		moist)	0/0	Color (	moist)	%	., Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/2	100			N			Silt Loam	A
4-16	10YR	4/2	97	10YR	7/1	3	D	M	Silt Loam	
- <sup>1</sup> Type: C≠Conc	centration. D	=Depletio	n. RM=Redu	uced Matrix, (	S=Covere	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	ation: PL=Pore Lining. Ma	=Matrix
Hydric Soil I	ndicators:									blematic Hydric Soils <sup>3</sup> :
<ul> <li>Stratified I</li> <li>Organic Bc</li> <li>5 cm Muci</li> <li>5 cm Muck</li> <li>Muck Press</li> <li>1 cm Muck</li> <li>Depleted E</li> <li>Thick Dark</li> <li>Coast Prain</li> <li>Sandy Muc</li> <li>Sandy Gley</li> <li>Sandy Red</li> <li>Stripped M</li> </ul>	edon (A2) ic (A3) Sulfide (A4) Layers (A5) odies (A6) (L cy Mineral (A ence (A8) (L c (A9) (LRR F Below Dark S c Surface (A1 rie Redox (A: ck Mineral (S yed Matrix (S lox (S5)	7) (LRR P RR U) 2, T) Jurface (A1 2) 16) (MLRA 1) (LRR O 64)	, Τ, U) 11) ( 150A) , S)	This Loa Loa Loa Dep Red Red Mar Dep Iror Umi Delt Red Piec	n Dark Sur my Mucky my Gleyed oleted Mat fox Dark S oleted Dark fox Depres I (F10) (LI oleted Och h-Mangane bric Surfac ca Ochric ( luced Verti Imont Floc	rface (S9) ( Mineral (F Matrix (F3) urface (F6) sourface (F6) sourface (F8) RR U) ric (F11) (I see Masses re (F13) (L F17) (MLR ric (F18) (M	) F7) (F12) (LRR RR P, T, U) A 151) (LRA 150A, Is (F19) (ML	1) 2 O, P, T) 150B) RA 149A)	Piedmont Flood Anomalous Brig Red Parent Mat Very Shallow Da Other (Explain b <sup>3</sup> Indicator wetland	0) (LRR S) (F18) (outside MLRA 150A,B)  plain Soils (F19) (LRR P, S, T)  ht Loarny Soils (F20) (MLRA 153B)  erial (TF2) ark Surface (TF12)
Restrictive La	<b>yer (if obse</b> es):					_			Hydric Soil Presenti	7 Yes
Remarks: depleted matri				in soil prof	ile.					

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion City/Co	unty: Waveland - Hancock Sampling Date: 24-Oct-16				
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 39				
Investigator(s): Lars Larson, Randy Ellis Section	n, Township, Range: S 32 T 7 s R 16 W				
Landform (hillslope, terrace, etc.): Floodplain Local re	lief (concave, convex, none): none Slope: 0.0 % / 0.0 °				
Subregion (LRR or MLRA); LRR T Lat: 30° 23'	· · · · · · · · · · · · · · · · · · ·				
Soil Map Unit Name: Su, Smithton fine sandy loam, frequently flooded	and the second second second second second second second second second second second second second second second				
	NWI classification:     PFO 1/4 C       Yes          No          (If no. explain in Remarks.)				
Are climatic/hydrologic conditions on the site typical for this time of year?					
Are Vegetation, Soil, or Hydrology significantly distur	bed? Are "Normal Circumstances" present? Yes 🖲 No 🔿				
Are Vegetation , Soil , or Hydrology naturally problema	······································				
SUMMARY OF FINDINGS - Attach site map showing sampling	point locations, transects, important reatures, etc.				
Hydrophytic Vegetation Present? Yes $ullet$ No $igodoldsymbol{ imes}$	Is the Sampled Area				
Hydric Soil Present? Yes 💿 No 🔿	within a Wetland? Yes  No				
Wetland Hydrology Present? Yes  No O					
Remarks:					
generally normal conditions except that Keller Road (old logging road) has s to flow through area. Water in turn backs up to abnormally high levies to th					
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)	Moss Trim Lines (B16)				
Water Marks (B1)	g Living Roots (C3) Dry Season Water Table (C2)				
Sediment Deposits (B2)	C4) Crayfish Burrows (C8)				
Drift Deposits (B3)	led Soils (C6) Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)				
Iron Deposits (B5)	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 O No 💿 Depth (inches):					
Water Table Present? Yes O No 💿 Depth (inches):					
Saturation Present? Yes  No Depth (inches): 9	Wetland Hydrology Present? Yes 🖲 No 🔿				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previo	bus inspections), if available:				
Remarks:					
( Contrartor )					

			ominant		Sampling Point: Wet - 39
	Absolute		pecies? . el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 m )	% Cove	_	Cover	Status	Number of Dominant Species
Pinus elliottii	10	✓	27.0%	FACW	That are OBL, FACW, or FAC:6 (A)
Nyssa biflora Magnolla virginiana	20	✓	54.1%	OBL	Total Number of Dominant
Magnolia 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: 100.0% (A/B
· · · · · · · · · · · · · · · · · · ·	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 18.5 20% of Total Cover: 7.4	37	= To	tal Cove	г.	OBL species $26 \times 1 = 26$
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	1				FACW species 70 x 2 = 140
0			50.0%	FACW	FAC species $5 \times 3 = 15$
			10.0%	FACW	
			25.0%	OBL	
					UPL species $0 \times 5 = 0$
Acer rubrum	···· 3		15.0%	FAC	Column Totals: 101 (A) 181 (B)
			0.0%	<u>1</u>	Prevalence Index = B/A = 1.792
		H	0.0%		Hydrophytic Vegetation Indicators:
	0	H	0.0%		Hydrophyde vegetation Indicators:
	0	Ш	0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 10 20% of Total Cover: 4	20	= To	tal Cove		✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>
Ilex glabra	20	~	90.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Cyrllia racemifiora			9.1%	FACW	
	5. mt	$\Box$	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
	0	H	0.0%		be present, unless disturbed or problematic.
	*	Η			Definition of Vegetation Strata:
		H,	0.0%	6. m/ -	-
	0	ш,	0.0%	P	Tree - Woody plants, excluding woody vines,
		-			approximately 20 ft (6 m) or more in height and 3 in.
	22	= To	tal Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
4	22	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
lerb Stratum (Plot size: 30 m )		= To		FACW	(7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,
erb Stratum (Plot size: <u>30 m</u> )					(7.6 cm) or larger in diameter at breast height (DBH).
lerb Stratum (Plot size: <u>30 m</u> ) 1. Arundinaria tecta 2. Scirpus expansus	20		95.2%	FACW	(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
erb Stratum <sup>(Plot</sup> size: <u>30 m</u> )   Arundinaria tecta 2. Scirpus expansus 3.	20		95.2% 4.8% 0.0%	FACW	(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
terb Stratum <sup>(Plot size: <u>30 m</u>) 1. Arundinaria tecta 2. Scirpus expansus 3.</sup>	20 1 0		95.2% 4.8% 0.0% 0.0%	FACW	(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.
terb Stratum <sup>(Plot size: <u>30 m</u>) 1. Arundinaria tecta 2. Scirpus expansus 3. 4. 5.</sup>	20 1 0 0		95.2% 4.8% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>
lerb Stratum <sup>(Plot size: <u>30 m</u>) 1. Arundinaria tecta 2. Scirpus expansus 3. 4. 5.</sup>	20 1 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>
lerb Stratum <sup>(Plot</sup> size: <u>30 m</u> ) 1. Arundinaria tecta 2. Scirpus expansus 3. 4. 5. 6. 7.	20 1 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> </ul>
lerb Stratum <sup>(Plot size: <u>30 m</u>) 1. Arundinaria tecta 2. Scirpus expansus 3. 4. 5. 5. 6. 7. 8.</sup>	20 1 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines,</li> </ul>
lerb Stratum <sup>(Plot size: <u>30 m</u>) 1. Arundinaria tecta 2. Scirpus expansus 3. 4. 5. 5. 6. 7. 7. 8.</sup>	20 1 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>
Herb Stratum         (Plot size: 30 m )           1. Arundinaria tecta	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
Herb Stratum         (Plot size: 30 m )           1. Arundinaria tecta         )           2. Scirpus expansus         )           3	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> </ul>
Herb Stratum         (Plot size: 30 m )           1. Arundinaria tecta	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Herb Stratum         (Plot size: 30 m )           1. Arundinaria tecta	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately</li> </ul>
Herb Stratum         (Plot size: 30 m)           1. Arundinaria tecta	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Ierb Stratum       (Plot size: 30 m       )         1. Arundinaria tecta       2. Scirpus expansus         3.	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
lerb Stratum       (Plot size: 30 m)         1. Arundinaria tecta         2. Scirpus expansus         3.         4.         5.         5.         6.         7.         8.         9.	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
ierb Stratum       (Plot size: 30 m)         1. Arundinaria tecta         2. Scirpus expansus         3.         4.         5.         6.         7.         3.         9.         1.         2.         50% of Total Cover:       10.5         20% of Total Cover:       4.2         Yoody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
terb Stratum       (Plot size: 30 m)         1. Arundinaria tecta         2. Scirpus expansus         3.         4.         5.         6.         7.         3.         9.         0.         1.         2.         50% of Total Cover:       10.5         20% of Total Cover:       4.2         Yoody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> </ul>
Herb Stratum       (Plot size: 30 m)         1. Arundinaria tecta         2. Scirpus expansus         3.         4.         5.         6.         7.         8.         9.         0.         1.         2.         50% of Total Cover:       10.5         20% of Total Cover:       4.2         Voody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>
Herb Stratum       (Plot size: 30 m)         1. Arundinaria tecta       2. Scirpus expansus         3	20 1 0 0 0 0 0 0 0 0 0 0 0 0 0		95.2% 4.8% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> <li>Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>

#### Sampling Point: Wet - 39

	iption: (De		the depth	needed to a	locumen	t the indi	cator or co	onfirm the	absence of indicators.)	
Depth			dox Feat							
(inches) 0-8	Lolor ( 10YR	moist) 3/1	100	Color (	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Sandy Clay Loam	Remarks
				101/0	614	-			a second a second second	· · · · · · · · · · · · · · · · · · ·
8-18	10YR	5/3	95	10YR	6/1	5	D		Sandy Clay Loam	
										• • • • • • • • • • • • • • • • • • •
Type: C=Conc	eritration, D	=Depletio	n RM=Redu	red Matrix (		ad or Costs	ad Sand Gr		ition: PL≂Pore Lining. M=N	latriv
Hydric Soll I		bopicity								ematic Hydric Soils <sup>3</sup> :
Stratified L Organic Bc S cm Muck Muck Press Huck Depleted E Thick Dark Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped M	edon (A2) c (A3) Sulfide (A4) ayers (A5) dies (A6) (L y Mineral (A ence (A8) (L (A9) (LRR F elow Dark S Surface (A1 ie Redox (A: k Mineral (S red Matrix (S cx (S5) atrix (S6)	7) (LRR P, RR U) ?, T) urface (A1 2) 16) (MLRA 1) (LRR O, 4)	, T, U) 11) ( 150A) , S)	Thir Loa Loa Loa Dep Red Dep Red Dep Red Unt Loa Red Dep Red Dep Red Ped Ped	n Dark Sui my Mucky my Gleyed Jeted Mab Jox Dark S Jeted Dark Jox Deprese I (F10) (LI Jeted Och -Mangane Dric Surfac a Ochric ( uced Verti mont Floc	face (S9) ( r Mineral (F f Matrix (F2 rix (F3) urface (F6) & Surface (F ssions (F8) RR U) ric (F11) (N sse Masses re (F13) (LI F17) (MLR ic (F18) (M odplain Soil	) F7) (F12) (LRF RR P, T, U) A 151) LRA 150A, s (F19) (Mi	J) t O, P, T) 150B) RA 149A)	Piedmont Floodpli Anomalous Bright Red Parent Mater Very Shallow Dark Other (Explain in	(LRR S) 18) (outside MLRA 150A,B) ain Soils (F19) (LRR P, S, T) Loarny Soils (F20) (MLRA 153B) al (TF2) : Surface (TF12)
testrictive La	:e (S7) (LRR <b>yer (if obse</b>									
Depth (inche	es):					-			Hydric Soil Present?	Yes  No O
Remarks:										

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion City/Co	Dunty: Waveland - Hancock Sampling Date: 25-Oct-16				
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 40				
Investigator(s): Lars Larson, Randy Ellis Section	on, Township, Range: S 32 T 7 5 R 16 W				
Landform (hillslope, terrace, etc.): Floodplain Local re	elief (concave, convex, none): none Slope: 0.0 % / 0.0 °				
Subregion (LRR or MLRA): LRR T Lat.: 30° 23	' 43.163" N Long.: 89° 36' 49.831" W Datum: NAD83				
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	a www.winiman. A construction of a second second second second second second second second second second second				
	Yes No No (If no, explain in Remarks.)				
Are climatic/hydrologic conditions on the site typical for this time of year?					
Are Vegetation, Soil, or Hydrology significantly distur	rbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿				
Are Vegetation, Soil, or Hydrology naturally problems	atic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing sampling	point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes 💿 No 🔿	Is the Sampled Area				
Hydric Soil Present? Yes 💿 No 🔿					
Wetland Hydrology Present? Yes 💿 No 🔿	within a Wetland?				
Remarks:					
Bottom drainage area approximately 50-feet north of UKP - 40. Water come that restrict water flow to the south.	es through this area but appears to be impacted by road and small culvert				
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)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	I) Drainage Patterns (B10)				
Saturation (A3)					
Water Marks (B1) Oxidized Rhizospheres alon					
Sediment Deposits (B2)					
Drift Deposits (B3)					
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)				
Iron Deposits (B5) Other (Explain in 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 O No O Depth (inches):					
Water Table Present? Yes O No 🔍 Depth (inches):	Wetland Hydrology Present? Yes 💿 No 🔿				
Saturation Present? Yes O No O Depth (inches):	Wetland Hydrology Present? Yes • No ·				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ	ous inspections), if available:				
Remarks:					

				Sampling Point: Wet - 40
				Dominance Test worksheet:
				Number of Dominant Species
		7		That are OBL, FACW, or FAC:(A)
		· · · · · ·		Total Number of Dominant
				Species Across All Strata: 7 (B)
			FAL	Percent of dominant Species
	-		·	That Are OBL, FACW, or FAC: 100.0% (A/B)
		·* · ·		
	2		4	Prevalence Index worksheet:
		1		Total % Cover of: Multiply by:
and the local division in the second	= 1	otal Cove	r	OBL species 43 x 1 = 43
)				FACW species $1 \times 2 = 2$
10	V	41.7%	OBL	FAC species X 3 =
10	✓	41.7%	FAC	FACU species 0 x 4 = 0
3		12.5%	FAC	UPL species $0 \times 5 = 0$
		4.2%	FAC	
		0.0%	-	Column Totals: 81 (A) 156 (B)
		0.0%		Prevalence Index = $B/A = 1.926$
	Г	0.0%		Hydrophytic Vegetation Indicators:
-	_			1 - Rapid Test for Hydrophytic Vegetation
24	= 1	otal Cove	r .	✓ 2 - Dominance Test is > 50%
				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	<b>~</b>	41.7%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5	✓	41.7%	FAC	
1		8.3%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
		8.3%	FAC	be present, unless disturbed or problematic.
0		0.0%		Definition of Vegetation Strata:
00		0.0%		-
0		w		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0	 = T:	0.0%		Tree - Woody plants, excluding woody vines,
0 12		0.0% Dtal 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).
0 12 10		0.0% otal Cover 76.9%	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
0 12 10 3		0.0% otal Cover 76.9% 23.1%		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,
0 12 10 3 0		0.0% otal Cover 76.9%	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.
0 12 10 3		0.0% otal Cover 76.9% 23.1% 0.0% 0.0%	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
0 12 10 3 0		0.0% otal Cover 76.9% 23.1% 0.0%	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.
0 12 10 3 0 0		0.0% otal Cover 76.9% 23.1% 0.0% 0.0%	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 12 10 3 0 0 0		0.0% otal Cover 76.9% 23.1% 0.0% 0.0% 0.0%	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
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0 12 10 3 0 0 0 0 0 0 0 0 0		0.0% otal Cover 23.1% 0.0% 0.0% 0.0% 0.0%	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
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0 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0		0.0% otal Cover 23.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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
0 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% otal Cover 76.9% 23.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% otal Cover 23.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	OBL 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 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% otal Cover 76.9% 23.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL 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 3 ft (1 m) in height.
0 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 13		0.0% otal Cover 76.9% 23.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL 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 3 ft (1 m) in height.
0 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 13		0.0% otal Cover 76.9% 23.1% 0.0%	OBL 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 3 ft (1 m) in height.
0 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 13		0.0% otal Cover 76.9% 23.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL 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 3 ft (1 m) in height.
0 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 13		0.0% otal Cover 76.9% 23.1% 0.0%	OBL 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 3 ft (1 m) in height.
0 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 13 2 1		0.0% otal Cover 76.9% 23.1% 0.0%	OBL 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 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
0 12 10 3 0 0 0 0 0 0 0 0 0 0 0 0 13 2 1 0		0.0% otal Cover 76.9% 23.1% 0.0%	OBL 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 3 ft (1 m) in height.
	% Cove           20           5           3           1           0           24	Absolute       I         % Cover       20       ✓         20       ✓       5        3      3      3	% Cover         Cover           20 $\checkmark$ 69.0%           5         17.2%           3         10.3%           1         3.4%           0         0.0%           0         0.0%           0         0.0%           0         0.0%           0         0.0%           0         0.0%           0         0.0%           10 $\checkmark$ 10 $\checkmark$ 10 $\checkmark$ 10 $\checkmark$ 10 $\checkmark$ 10 $\checkmark$ 10 $\checkmark$ 10 $\checkmark$ 10 $\checkmark$ 10 $\checkmark$ 1         4.2%           0         0.0%           0         0.0%           0         0.0%           24         = Total Cover           5 $\checkmark$ 41.7%           1         8.3%	Species?           Absolute         Rel.Strat. Cover         Indicator Status           20 $\checkmark$ 69.0%         OBL           5         17.2%         FAC           3         10.3%         FAC           1         3.4%         FAC           0         0.0%         O           10 $\checkmark$ 41.7%         FAC           3         12.5%         FAC           1         4.2%         FAC           0         0.0%         O           1         4.2%         FAC           1         4.2%         FAC           1         0.0%         O           0         0.0%         O           1         0.0%         O           24         = Total Cover           5 $\checkmark$ 41.7%         FAC           1         8.3%         FAC

Profile Desci	ription: (De	scribe to	the depth	needed to do	cument	the indic	cator or o	onfirm the	absence of indicators.)		
Depth Matrix					dox Featu			-			
(inches)		(moist)	%	Color (m		0/0	Type <sup>1</sup>		Texture	Remarks	
0-4	10YR	3/1	98	10YR	7/2	2	D	M	Silt Loam		
4-18	10YR	4/2	90	10YR	7/2	10	D	M	Silt Loam	<b>.</b>	
an . Kuj					_				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
P'8 .											
VDe: C=Con	centration. D	)=Depletio	n, RM=Redu	ced Matrix. CS:	=Covere	d or Coate	ed Sand Gr	ains <sup>2</sup> Loca	<b>tion:</b> PL=Pore Lining. M=	Matrix	
lydric Soll I										plematic Hydric Soils <sup>3</sup> :	
Histosol (/	A1)				ilue Belo	w Surface	(S8) (LRR	S. T. U)	1 cm Muck (A9)	-	
] Histic Epip	bedon (A2)						LRR S, T,	_	2 cm Muck (A9)		
Black Hist	ic (A3)						1) (LRR O)		<u> </u>	(F18) (outside MLRA 150A,B)	
Hydrogen	Sulfide (A4)					Matrix (F2			_		
Stratified !	Layers (A5)				ed Matr	•				plain Soils (F19) (LRR P, S, T)	
Organic B	odies (A6) (L	RR P, T, U	Ŋ			urface (F6)	1			t Loamy Soils (F20) (MLRA 153B)	
-	ky Mineral (A		-			: Surface (I			Red Parent Mate		
	ence (A8) (L		, , -,			sions (F8)	/)			rk Surface (TF12)	
-	k (A9) (LRR				=10) (LR	• • •			🔄 Other (Explain in	Remarks)	
-	Below Dark S		[1]			-	4 04 1541				
	Conface (A)	-	,				1LRA 151)				
~	rie Redox (A		1504)		-		(F12) (LRI				
-	ck Mineral (S						RR P, T, ₽)	)			
			, 3)			=17) (MLR/			<sup>3</sup> Indicators	of hydrophytic vegetation and	
	yed Matrix (S	54}					LRA 150A,		wetland	hydrology must be present,	
Sandy Red						•		LRA 149A)		s disturbed or problematic.	
Stripped M				Anoma	lous Bri	ght Loamy	Soils (F20	) (MLRA 149	9A, 153C, 153D)		
_ Dark Surfa	ice (S7) (LRF	R Ρ, S, Τ, Ι	1)								
strictive La	ıyer (if obsi	erved):			_						
Type:					_	-			Hydric Soil Present?	Yes 🔍 No 🔿	
Depth (inch	es):			221		1			myune son riesene:		
emarks:											
					_						

Landform (hillslope, terrace, etc.): Floodplain Local rel	State:       MS       Sampling Point:       Wet - 41         n, Township, Range:       S 32       T 7 s       R 16 W         lief (concave, convex, none):       none       Slope:       0.0 % /       0.0*         46.616" N       Long.:       89° 36' 57.298" W       Datum:       NAD83         WII classification:       PFO 1/4 B         Yes       No       (If no, explain in Remarks.)         wed?       Are "Normal Circumstances" present?       Yes       No       Other         tic?       (If needed, explain any answers in Remarks.)       No       Other       Other
Hydric Soil Present? Yes 🔍 No 🔾	Is the Sampled Area within a Wetland? Yes () No ()
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Marl Deposits (B15) (LRR U)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Ø Oxidized Rhizospheres along         Sediment Deposits (B2)       Presence of Reduced Iron (C         Drift Deposits (B3)       Recent Iron Reduction in Tille         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Other (Explain in Remarke)	Image: Woss Trim Lines (B16)         Living Roots (C3)         Dry Season Water Table (C2)         4)         Crayfish Burrows (C8)         ed Soils (C6)         Saturation Visible on Aerial Imagery (C9)         Image: Woss C6         Imag
Inundation Visible on Aerial Imagery (B7)     Water-Stained Leaves (B9)  Field Observations: Surface Water Present? Yes No  Depth (inches):	Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)
Water Table Present?       Yes       No       Depth (inches):         Saturation Present? (includes capillary fringe)       Yes       No       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previou	Wetland Hydrology Present? Yes  No Us inspections), if available:
Remarks:	

1

	Jentine names of		ominant		Sampling Point: Wet - 41		
	Absolute	R	pecies? . el.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 m )	% Cove	r	Cover	Status	Number of Dominant Species		
Pinus elliottii	5	$\checkmark$	21.7%	FACW	That are OBL, FACW, or FAC:9_ (A)		
Nyssa biflora	10	$\checkmark$	43.5%	OBL			
Magnolia virginiana	5	✓	21.7%	FACW	Total Number of Dominant Species Across All Strata: 9 (B)		
Acer rubrum	2		8.7%	FAC			
Cyrilla racemifiora	1		4.3%	FACW	Percent of dominant Species		
	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (AVB		
	•		0.0%	•••••	Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
- 50% of Total Cover: 11.5 20% of Total Cover: 4.6	23	= Tr	tal Cove		OBL species $26 \times 1 = 26$		
Sapling or Sapling/Shrub Stratum (Plot size: 30 m							
Pinus elliottii Cyrilla racemiflora			16.7%	FACW	FAC species $\frac{8}{24} \times 3 = \frac{24}{2}$		
			33.3%	FACW	FACU species $0 \times 4 = 0$		
Acer rubrum			16.7%	FAC	UPL species 0 x 5 = 0		
Nyssa bifiora			33.3%	OBL	Column Totals: 100 (A) 182 (B)		
			0.0%		Prevalence Index = $B/A = 1.820$		
t the state of th	0		0.0%				
· · · · ·	0	$\Box$	0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		✓ 1 - Rapid Test for Hydrophytic Vegetation		
50% of Total Cover: 15 20% of Total Cover: 6	30	= To	tal Cove		✓ 2 - Dominance Test is > 50%		
Shrub Stratum (Plot size: _30 m)					✓ 2 - Boinnance Test is > 50 %		
	25	<b>V</b>	67 CM	FACILI			
Magnalia vindulana	-		67.6%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Magnolia virginiana		H	13.5%	FACW	1 Yndianten of budais and national budaalaan wys		
Cyrilia racemifiora Ilex vomitoria	-	Η.	13.5%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic,		
Ilex vomitoria	<b>1</b>		2.7%	FAC			
Persea palustris	1	Ц.	2.7%	FACW	Definition of Vegetation Strata:		
	0	Ц,	0.0%	65*	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
50% of Total Cover: 18.5 20% of Total Cover: 7.4	37	= To	tal Cove		(7.6 cm) or larger in diameter at breast height (DBH).		
lerb Stratum (Plot size: <u>30 m</u> )							
	2		22.2%	OBL	Sapling - Woody plants, excluding woody vines,		
Sarracenia alabamensis	-		22.2%		approximately 20 ft (6 m) or more in height and less		
1. Sarracenia alabamensis 2. Arundinaria tecta	3		33.3%	FACW			
, Sarracenia alabamensis 2. Arundinaria tecta 3. Dichanthelium scabriusculum	3 2		33.3% 22.2%	FACW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Sarracenia alabamensis 2. Arundinaria tecta 3. Dichanthelium scabriusculum 4. Scirpus expansus	3 2 1		33.3% 22.2% 11.1%	FACW OBL OBL	approximately 20 ft (6 m) or more in height and less		
Sarracenia alabamensis         Arundinaria tecta         Dichanthellum scabriusculum         Scirpus expansus         Osmunda regalis	3 2 1 1		33.3% 22.2% 11.1% 11.1%	FACW	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.		
Sarracenia alabamensis         Arundinaria tecta         Dichanthellum scabriusculum         Scirpus expansus         Osmunda regalis	3 2 1 1 0		33.3% 22.2% 11.1% 11.1% 0.0%	FACW OBL OBL	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,		
1 Sarracenia alabamensis 2. Arundinaria tecta 3. Dichanthelium scabriusculum 4. Scirpus expansus 5. Osmunda regalis 6.	3 2 1 1 0 0		33.3% 22,2% 11,1% 11.1% 0.0% 0.0%	FACW OBL OBL	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.		
Sarracenia alabamensis         Arundinaria tecta         Dichanthellum scabriusculum         Scirpus expansus         Osmunda regalis         Sarracenia alabamensis	3 2 1 1 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0%	FACW OBL OBL	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.		
Sarracenia alabamensis         Arundinaria tecta         Dichanthellum scabriusculum         Scirpus expansus         Osmunda regalis         Sarracenia alabamensis	3 2 1 1 0 0 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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		
1. Sarracenia alabamensis         2. Arundinaria tecta         3. Dichanthellum scabriusculum         4. Scirpus expansus         5. Osmunda regalis         6.         7.         8.         9.         0.	3 2 1 0 0 0 0 0 0		33.3% 22,2% 11,1% 11.1% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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		
1. Sarracenia alabamensis         2. Arundinaria tecta         3. Dichanthelium scabriusculum         4. Scirpus expansus         5. Osmunda regalis         6.         7.         8.         9.         1.	3 2 1 0 0 0 0 0 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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		
1       Sarracenia alabamensis         2.       Arundinaria tecta         3.       Dichanthellum scabriusculum         4.       Scirpus expansus         5.       Osmunda regalis         6.	3 2 1 0 0 0 0 0 0		33.3% 22,2% 11,1% 11.1% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL	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.		
1. Sarracenia alabamensis         2. Arundinaria tecta         3. Dichanthellum scabriusculum         4. Scirpus expansus         5. Osmunda regalis         6.         7.         8.         9.         1.         1.         2.	3 2 1 0 0 0 0 0 0 0 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0%	FACW OBL OBL OBL	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		
1. Sarracenia alabamensis         2. Arundinaria tecta         3. Dichanthellum scabriusculum         4. Scirpus expansus         5. Osmunda regalis         6.         7.         3.         9.         1.         2.         50% of Total Cover:       4.5         20% of Total Cover:       1.8	3 2 1 0 0 0 0 0 0 0 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL OBL OBL	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.		
1. Sarracenia alabamensis         2. Arundinaria tecta         3. Dichanthellum scabriusculum         4. Scirpus expansus         5. Osmunda regalis         5. Osmunda regalis         6.         7.         8.         9.	3 2 1 0 0 0 0 0 0 0 0 9		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL OBL OBL	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.		
Sarracenia alabamensis         Arundinaria tecta         Dichanthellum scabriusculum         Scirpus expansus         Osmunda regalis         Osmunda regalis         Sarracenia alabamensis         Scirpus expansus         Osmunda regalis         Sarracenia alabamensis         Scirpus expansus         Osmunda regalis         Sarracenia alabamensis         Sarracenia expansus	3 2 1 1 0 0 0 0 0 0 0 0 9 5		33.3% 22.2% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	FACW OBL OBL OBL	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.		
Sarracenia alabamensis         Arundinaria tecta         Dichanthellum scabriusculum         Scirpus expansus         Osmunda regalis         Scirpus expansus         Osmunda regalis         Osmunda regalis         Scirpus expansus         Osmunda regalis         Scirpus expansus         Osmunda regalis         Scirpus expansus         Osmunda regalis         Scirpus expansus         Scirpus expansus <td>3 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td></td> <td>33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0</td> <td>FACW OBL OBL OBL</td> <td>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.</td>	3 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL OBL OBL	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.		
1. Sarracenia alabamensis         2. Arundinaria tecta         3. Dichanthellum scabriusculum         4. Scirpus expansus         5. Osmunda regalis         6.         7.         8.         9.         1.         2.         50% of Total Cover:       4.5         2.         50% of Total Cover:       1.8         Yoody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia	3 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL OBL OBL	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.		
1       Sarracenia alabamensis         2.       Arundinaria tecta         3.       Dichanthellum scabriusculum         4.       Scirpus expansus         5.       Osmunda regalis         6.       7         7.       8         9.       0.         1.       2.         50% of Total Cover:       4.5         20% of Total Cover:       1.8         Voody Vine Stratum       (Plot size: 30 m))         Smilax laurifolia       1.8	3 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL OBL OBL	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.		
3. Dichanthellum scabriusculum         4. Scirpus expansus         5. Osmunda regalis         6.         7.         8.         9.         0.         1.         2.         50% of Total Cover:       4.5         20% of Total Cover:       1.8         Woody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia	3 2 1 0 0 0 0 0 0 0 0 0 0 0 0 9 9 1 0 0 0 0		33.3% 22.2% 11.1% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACW OBL OBL OBL	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.		

Sampling Point: Wet - 41

	ption: (De		the depth	needed to docu	ment the indi	cator or c	onfirm the	absence of indicators.)	
Depth		Matrix			Redox Feat				
(inches)	Color (		0/0	Color (mois	t) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR	3/1	100					Very Fine Loamy Sand	
4-18	10YR	3/2	95	10YR 0	5/2 5	D	M	Loamy Sand	
									-
Type: C=Conce Hydric Soil In		=Depletior	n. RM <b>≃Redu</b>	ced Matrix, CS=C	overed or Coat	ed Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=N	
<ul> <li>Histosol (A:</li> <li>Histic Epipe</li> <li>Black Histic</li> <li>Hydrogen S</li> <li>Stratified La</li> <li>Organic Boo</li> <li>5 cm Muck</li> <li>Muck Prese</li> <li>1 cm Muck</li> <li>Depleted Bac</li> <li>Thick Dark S</li> <li>Coast Prairie</li> <li>Sandy Muck</li> <li>Sandy Redo</li> <li>Stripped Ma</li> <li>Dark Surface</li> </ul>	don (A2) (A3) (A3) (A3) (A4) (A4) (A4) (A4) (A5) (A5) (A4) (A4) (A5) (A7) (A7) (A7) (A7) (A7) (A7) (A7) (A7	7) (LRR P, RR U) P, T) urface (A1 2) L6) (MLRA 1) (LRR O, 4)	T, U) 1) 150A) S)	Thin Dar Loamy M Loamy G Depleted Redox D Depleted Redox D Marl (F10 Depleted Iron-Mar Umbric S Delta Ocl Reduced Piedmont	e Below Surface k Surface (S9) jucky Mineral (f leyed Matrix (F3) ark Surface (F6 Dark Surface (F6 Dark Surface (F8) )) (LRR U) Ochric (F11) (l ganese Masses urface (F13) (L rric (F17) (MLR Vertic (F18) (M Floodplain Soi us Bright Loamy	(LRR S, T, I =1) (LRR O) 2) ) F7) MLRA 151) ; (F12) (LRF RR P, T, U) A 151) ILRA 150A, Is (F19) (Mi	J) R O, P, T) 150B) RA 149A)		(LRR S) 18) (outside MLRA 150A,B) ain Soils (F19) (LRR P, S, T) Loamy Soils (F20) (MLRA 153B) al (TF2) : Surface (TF12)
estrictive Lay	er (if obse	rved);							
Depth (inches	s):	_						Hydric Soil Present?	Yes 🔍 No 🔿
Remarks:									

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County:	Waveland - Hancock	Sampling Date:	25-Oct-16	
Applicant/Owner: NASA	5	itate: MS Sa	ampling Point: Wet - 43		
nvestigator(s): Lars Larson, Randy Ellis	Section, Towr	nship, Range: S 32	T7s R	16 W	
andform (hillslope, terrace, etc.): Floodplain	Local relief (cor	ncave, convex, none):	flat Slope:	0.0 % / 0.0°	
Subregion (LRR or MLRA): LRR T	Lat.: 30° 23' 52.457	" N Long.: 89°	° 37' 18.611" W	Datum: NAD83	
oil Map Unit Name: Smithton - escambia	-		WI classification: PFO 1	* • • • *	
	Voc	00			
Are climatic/hydrologic conditions on the site typical for thi		(	explain in Remarks.)	• No O	
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circum	stances" present?		
Are Vegetation , Soil , or Hydrology	naturally problematic?	(If needed, explain	any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point	locations, transec	ts, important featur	es, etc.	
Hydrophytic Vegetation Present? Yes   No	Te the (	Fampled Area			
Hydric Soil Present? Yes   No		Sampled Area	No O		
Wetland Hydrology Present? Yes	within	a Wetland? Tes 🙂			
Remarks:					
Low drainage area approximately 250-feet east of the b	lack top road in the SW part	of the AOI.			
		·			
HYDROLOGY				·	
Wetland Hydrology Indicators:		Second	dary Indicators (minimum of 2	required)	
Primary Indicators (minimum of one required; check all	that apply)		rface Soil Cracks (B6)		
Surface Water (A1)	atic Fauna (B13)	🛄 Spa	arsely Vegetated Concave Sur	face (B8)	
High Water Table (A2)	Deposits (B15) (LRR U)	Drainage Patterns (B10)			
Saturation (A3)	rogen Sulfide Odor (C1)	Mo	ess Trim Lines (B16)		
Water Marks (B1)	lized Rhizospheres along Living F	Roots (C3) 🗌 Dry	y Season Water Table (C2)		
	ence of Reduced Iron (C4)	Cra	ayfish Burrows (C8)		
	ent Iron Reduction in Tilled Soils		turation Visible on Aerial Imag	ery (C9)	
	Muck Surface (C7)	_	omorphic Position (D2)		
	er (Explain in Remarks)	<u> </u>	allow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		_	C-Neutral Test (D5)		
Water-Stained Leaves (B9)		Spt	hagnum moss (D8) (LRR T, U)	)	
Field Observations: Surface Water Present? Yes O No 💿 De					
	pth (inches);				
Water Table Present? Yes 🔿 No 🏵 De	pth (inches):	Wetland Hydrology P	resent? Yes 🖲 No	0	
Saturation Present? Yes O No O De	pth (inches):			,	
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous insp	ections), if available:	· · · ·		
Deservice					
Remarks:					

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Version 2.0

			inant cies?		Sampling Point: Wet - 43
ree Stratum (Plot size: 30 m )	Absolute % Cover	Rel		Indicator Status	Dominance Test worksheet:
Pinus elilotti	10		30,3%	FACW	Number of Dominant Species That are OBL, FACW, or FAC:6(A)
Nyssa biflora	15		45.5%	OBL	
	5		15.2%	FAC	Total Number of Dominant
andre and an an anna an an anna an anna. Tha an abhan anna adhan			9.1%	OBL	Species Across All Strata:6 (B)
The Transition of the State of		-	0.0%	ODE	Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)
· · · · · · · · · · · · · · · · · · ·			0.0%		m
n na na na na na na na na na na na na na					Prevalence Index worksheet:
· · · · · · · · · · · · · · · · · · ·	0	10.00	0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 16.5 20% of Total Cover: 6.6	. 33	= Tota	al Covei		OBL species33 x 1 =33
pling or Sapling/Shrub Stratum (Plot size: 30 m	,)	_			FACW species $29 \times 2 = 58$
Pinus elliotti	3		14.3%	FACW	FAC species $10 \times 3 = 30$
Taxodium ascendens	10	V_4	47.6%	OBL	FACU species $0 \times 4 = 0$
Nyssa bifiora			23.8%	OBL	UPL species $0 \times 5 = 0$
Cyrilla racemiflora	3		14.3%	FACW	Column Totals: 72 (A) 121 (B)
	0		0.0%		
	0		0.0%		Prevalence Index = B/A =1.681
	0		0.0%		Hydrophytic Vegetation Indicators:
	0	_	0.0%		
					1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 10.5 20% of Total Cover: 4.2	21 =	= Tota	l Cover		✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 $^1$
Cyrilla racemifiora	_ 10	<b>V</b> _ 5	58.8%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Moreila cerifera	5	2	29.4%	FAC	
Magnolia virginiana	_ 2		11,8%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	0		0.0%		be present, unless disturbed or problematic.
			C.0%		Definition of Vegetation Strata:
20., · · · · · · ·	0		0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 8.5 20% of Total Cover: 3.4			l Cover		approximately 20 ft (6 m) or more in height and 3 in.
rb Stratum (Plot size: 30 m)		- 1000			(7.6 cm) or larger in diameter at breast height (DBH).
	7		00.0%	FACIAL	Sapling - Woody plants, excluding woody vines,
				FACW	approximately 20 ft (6 m) or more in height and less
	0		0.0%		than 3 in. (7.6 cm) DBH.
	0		0.0%		Carling/Charle Microby starts such disputies loss
n a sa ka an an an an an an an an an an an an an	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0		0.0%		
	0		0.0%		Shrub - Woody plants, excluding woody vines,
a na sana a sa			0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
· · · · · · · · · · · · · · · · · · ·	0		0.0%		
	0	$\Box_{}$	0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
And the second second second second second second second second second second second second second second second			0.0%		plants, except woody vines, less than approximately
· · · · · · · · · · · · · · · · · · ·	0		0.0%		3 ft (1 m) in height.
	0		0.0%	04	
% of Tota! Cover: 0.5 20% of Total Cover: 0.2	1 =	= Total	l Cover		Woody vine - All woody vines, regardless of height.
pody Vine Stratum (Plot size: 30 m )					
1. T.	0		0.0%		
·	0		0.0%		
			0.0%		
B			0.0%		
	0		0.0%		Hydrophytic
					Vegetation Present? Yes  No
0% of Total Cover: 0 20% of Total Cover: 0	0 =	= iotal	Cover		

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

	th needed to document the indicator or confirm the	absence of indicators.)
Depth Matrix (inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	- Texture Remarks
0-5 10YR 3/1		Very Fine Loamy Sand
5-16 10YR 3/2	•••	Sandy Clay Loam
		• • • • • • • • • • • • • • • • • • •
vne: C=Concentration. D=Depletion. RM=R	educed Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix
iydric Soil Indicators:		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)	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 (AB) (LRR U)	Redox Depressions (F8)	
] 1 cm Muck (A9) (LRR P, ∓)	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)	
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)	
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 151)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Redox (S5)		wetland hydrology must be present,
Stripped Matrix (S6)	Piedmont Floodplain Soils (F19) (MLRA 149A)	unless disturbed or problematic.
Dark Surface (S7) (LRR P, S, T, U)	Anomalous Bright Loamy Soils (F20) (MLRA 14	(UCC, 153C, 153C)
estrictive Layer (if observed):		
Туре:		
Depth (inches):		Hydric Soll Present? Yes 💿 No 🔿
temarks:		

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion City/County	y: Waveland - Hancock Sampling Date: 27-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 47
Investigator(s): Lars Larson, Randy Ellis Section, T	Township, Range: S 31 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Hillside Local relief	(concave, convex, none): flat Slope: 2.0 % / 1.1
	210" N Long.: 89° 37' 43.444" W Datum: NAD83
HAR I DE LE HAR DE LE HAR DE LE HAR DE LE HAR DE LE HAR DE LE HAR DE LE HAR DE LE HAR DE LE HAR DE LE HAR DE L	
Soil Map Unit Name: Su, Smithton fine sandy loam, frequently flooded	NWI classification: PSS 1/4 Yes No O (If no, explain in Remarks.)
Are Vegetation, Soll, or Hydrology significantly disturbed	i? Are "Normal Circumstances" present? Yes 🔍 No 🔾
Are Vegetation 🗌 , Soll 📋 , or Hydrology 🔲 naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling po	oint locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	the Sampled Area
Hydric Soil Present? Yes 💿 No 🔿	
Wetland Hydrology Present? Yes  No O	thin a Wetland? Tes O NO O
Remarks:	
Sideslope of low relief hillside drainage feature that transitions down into more of	of a wet area below. Plot is approximately 500-600- feet east of Trent
Lot (Main NASA site) 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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Liv	ring Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	Crayfish Burrows (C8)
Drift Deposits (B3)	
Algal Mat or Crust (B4)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Water Table Present? Yes No  Depth (inches):	── Wetland Hydrology Present? Yes
Saturation Present? Yes No  Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous	inspections), if available:
Remarks:	
No real strong hydrology, but a few secondary indicators.	
i	

		_ Sr	pecies?		Sampling Point: Wet - 47
Tree Stratum (Plot size: 30 m)	Absolute % Cover		el.Strat. Cover	Indicator Status	
Pinus elilotti	15		51.7%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 10 (A)
Nyssa sylvatica	10		34.5%	FAC	
Liquidambar styraciflua	2	Π	6.9%	FAC	Total Number of Dominant
	4		3.4%	FAC	Species Across All Strata: 10 (B)
Magnolia virginiana	1	H	3.4%	FACW	Percent of dominant Species
	-		0.0%	IACIV	That Are OBL, FACW, or FAC:100.0% (A/B
			0.0%	414	Prevalence Index worksheet:
		E.	0.0%		
	·		· · · · · ·		Total % Cover of: Multiply by:
0% of Total Cover: 14.5 20% of Total Cover: 5.8	29	= 10	tal Cove	r	OBL species <u>10</u> x 1 = <u>10</u>
pling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species $43 \times 2 = 86$
Pinus elliotti	10		47.6%	FACW	FAC species 56 x 3 = 168
Magnolia virginiana		⊻.	23.8%	FACW	FACU species $0 \times 4 = 0$
Nyssa sylvatica	5	⊻.	23.8%	FAC	UPL species 0 x 5 = 0
Morella certifera	1	Ц.	4.8%	FAC	Column Totals: 109 (A) 264 (B
	0	Ц.	0.0%		Prevalence Index = B/A = 2.422
			0.0%		· · · · · · · · · · · · · · · · · · ·
	0		0.0%		Hydrophytic Vegetation Indicators:
	0	$\Box_{-}$	0.0%		1 - Rapid Test for Hydrophytic Vegetation
% of Total Cover: 10.5 20% of Total Cover: 4.2	21	= To	tal Cove	г	$\checkmark$ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq 3.0^{1}$
	75	✓	52.1%	FAC	
		<ul> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	20.8%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Moralla confere	• • •				<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
Morella cerifera			20.8%	FAC	be present, unless disturbed or problematic.
Ilex opaca	2	Η.	4.2%	FAC	Definition of Vegetation Strates
Persea palustris		H	2.1%	FACW	Definition of Vegetation Strata:
	0,	Ц.	0.0%	a z	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 24 20% of Total Cover: 9.6	48 =	= Tol	tal Cove		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: _30 m)					
Osmunda regalis	5	✓	50.0%	QBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Woodwardia areolata			30.0%	OBL	than 3 in. (7.6 cm) DBH.
Sagittaria lancifolia	1		10.0%	OBL	, ,
Dichanthelium scabriusculum	1		10.0%	OBL	Sapling/Shrub - Woody plants, excluding vines, less
	0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
			0.0%		Shrub - Woody plants, excluding woody vines,
έτα μετά τη τη αποτώστη του του πολογού. Γιατικό το του από το παρατικό το το από το του πολογιού του του πολογιού του του πολογιού του του πολογιού του			0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
i pristo i la anti una marte e nome i la marte i nome e anti anti anti anti anti anti anti anti	0		0.0%	-	
	1		0.0%	-	Herb - All herbaceous (non-woody) plants, including
· · · · · · · · · · · · · · · · · · ·	0		0.0%		herbaceous vines, regardless of size, and woody
			0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.
		Π,	0.0%	* W-7448 7	
					Woody vine - All woody vines, regardless of height.
	10 =	= 10	tal Cover		
cody Vine Stratum (Plot size: 30 m )			100.007	ENCH	
Smilax laurifolla			100.0%	FACW	
-			0.0%		
μ			0.0%		
			0.0%		Hydrophytic
	0		0.0%		Vesstation
9% of Totai Cover: 0.5 20% of Total Cover: 0.2	1 =	Tot	al Cover		Present? Yes  No

Profile Descr	iption: (De	scribe to	the depth	needed to docur	nent the Indi	cator or co	onfirm the	absence of indicators.	)
Depth		Matrix			Redox Feat			(e)	
(inches)		moist)	0/0	Coler (mois	t). %	Type 1	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR	3/2	100					Sandy Loam	
6-16	10YR	4/2	95	10YR 6	/6 5		M	Sandy Loam	
						1			
		=Depletio	n. RM=Redu	uced Matrix, CS=Co	overed or Coat	ed Sand Gri	ains <sup>2</sup> Loca	ation: PL=Pore Lining, M	
Hydric Soil I					Delaw C. C.	. (00) (10)	с <b>т</b>	_	blematic Hydric Solls <sup>3</sup> :
Histosoi (A					Below Surface			1 cm Muck (A9)	
Black Histi					CSurface (S9)			2 cm Muck (A10	
	Sulfide (A4)				ucky Mineral (I		1		(F18) (outside MLRA 150A,B)
_	avers (A5)			_	leyed Matrix (F	-2)		_	plain Soils (F19) (LRR P, S, T)
	odies (A6) (L	RRPTI	n		Matrix (F3) ark Surface (F6				ht Loamy Soils (F20) (MLRA 153B)
	y Mineral (A				Dark Surface (Fe			Red Parent Mat	
	ence (A8) (L		,,,~,		pressions (F8)				ark Surface (TF12)
	(A9) (LRR F			_	) (LRR U)	,		Other (Explain i	n Remarks)
	Below Dark S		l1)		Ochric (F11) (	MLRA 151)			
Thick Dark	Surface (A1	.2)			ganese Masses	•			
Coast Prair	rie Redox (A	16) (MLRA	150A)	_	- urface (F13) (L				
🗌 Sandy Muc	k Mineral (S	1) (LRR O	, S)	🗌 Delta Och	nic (F17) (MLF	VA 151)		3	
Sandy Gley	yed Matrix (S	54)		Reduced	Vertic (F18) (N	1LRA 150A,	150B)		s of hydrophytic vegetation and hydrology must be present,
Sandy Red	ox (S5)			Piedmont	Floodplain So	ils (F19) (M	LRA 149A)	unle	ss disturbed or problematic.
Stripped M	iatrix (S6)			🗌 Anomalou	us Bright Loam	y Soils (F20	) (MLRA 14	9A, 153C, 153D)	
Dark Surfa	ce (S7) (LRR	ι Ρ, S, T, l	))						
Restrictive La	yer (if obse	erved):							
Туре:								Hydric Soll Present?	Yes 💿 No 🔿
Depth (inch	es):				· · · · ·			nyunc son Presenti	
Remarks:									

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation City/C	County: Waveland - Hancock Sampling Date: 26-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Wet - 52
Investigator(s): Lars Larson, Randy Ellis Sect	tion, Township, Range: S 21 T 7 S R 16 W
Landform (hillslope, terrace, etc.): Terrace Local	relief (concave, convex, none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat.: 30° 2	
Soil Map Unit Name: HIA, Harleston fine sandy loam, 0 to 2 percent slopes	NWI dassification: N/A
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 dist	urbed? Are "Normal Circumstances" present? Yes 🖲 No 🔿
Are Vegetation . , Soil , or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing samplin	g point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	Is the Sampled Area
Hydric Soil Present? Yes  No	Vor () No ()
Wetland Hydrology Present? Yes  No O	within a Wetland?
Remarks:	
Area is approximately 250 feet east of Up - 52.	
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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR	U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C	1) Moss Trim Lines (B16)
Water Marks (B1) State of Cxidized Rhizospheres alo	ong Living Roots (C3) 🛛 🗌 Dry Season Water Table (C2)
Sediment Deposits (B2)	(C4) Crayfish Burrows (C8)
Drift Deposits (B3)	
Algal Mat or Crust (B4)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in 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 O No O Depth (inches):	
Water Table Present? Yes O No 💿 Depth (inches):	Wetland Hydrology Present? Yes  No
Saturation Present? Yes No  Depth (Inches):	Wetland Hydrology Present? Yes ( No U
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre-	vious inspections), if available:
Remarks:	
Barely have hydrology, Slight evidence of oxidized rhizospheres.	
service marker interiogy in signic endence of ondized mizospheres.	
	10

	Dominant Species?				Sampling Point: Wet - 52		
	Absolute	e Re	el.Strat.	Indicator	Dominance Test worksheet:		
ree Stratum (Plot size: 30 m )	% Cove	-	Cover	Status	Number of Dominant Species		
Pinus elliotti	15		42.9%	FACW	That are OBL, FACW, or FAC: 7 (A)		
Magnolia virginiana	10		28.6%	FACW	F 2		
Nyssa sylvatica	10	V	28.6%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)		
	0		0.0%				
	0		0.0%		Percent of dominant Species		
		Ē	0.0%		That Are OBL, FACW, or FAC:100.0% (A/B		
	0		0.0%		Prevalence Index worksheet:		
······································			0.0%				
	·· · · ·				Total % Cover of: Multiply by		
0% of Total Cover: 17.5 20% of Total Cover: 7		= 10	tal Cove	ſ	OBL species 0 x 1 = 0		
apling or Sapling/Shrub Stratum (Plot size: 30 m	.)	_			FACW species 104 x 2 =208		
Pinus elilottii	5	Ш.	15.6%	FACW	FAC species $22 \times 3 = 66$		
Nyssa sylvatica	10		31.3%	FAC	FACU species $0 \times 4 = 0$		
Magnolia virginiana	15		46.9%	FACW	UPL species 0 x 5 = 0		
Acer rubrum	2		6.3%	FAC	Column Totals: 126 (A) 274 (B)		
			0.0%				
	0		0.0%		Prevalence Index = B/A = 2.175		
			0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%	··			
• • •	· · · · ·	2			1 - Rapid Test for Hydrophytic Vegetation		
0% of Total Cover: 16 20% of Total Cover: 6.4	32	= To	tal Cover		✓ 2 - Dominance Test is > 50%		
wub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex coriacea	50	$\checkmark$	94.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Cyrilla racemifiora		$\square$	5.7%	FACW			
· · · · · · ·	0		0.0%		<sup>2</sup> Indicators of hydric soil and wetland hydrology mus		
			0.0%		be present, unless disturbed or problematic.		
					Definition of Vegetation Strata:		
(		H	0.0%	1	-		
· · · · · · · · · · · · · · · · · · ·	0	1.0	0.0%	·	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.		
0% of Total Cover: 26.5 20% of Total Cover: 10.6	53	= Tα					
			tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
erb Stratum (Plot size: <u>30 m</u> )			tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).		
	5	_			Sapling - Woody plants, excluding woody vines,		
Ilex coriacea	•		100.0%		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
Ilex coriacea	0	_	100.0% 0.0%		Sapling - Woody plants, excluding woody vines,		
Ilex coriacea	0	_	100.0% 0.0% 0.0%		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Ilex coriacea	0	_	100.0% 0.0% 0.0%		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		
Ilex coriacea	0 0 0 0	_	100.0% 0.0% 0.0% 0.0%		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
, Ilex coriacea	0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0%		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,		
Ilex coriacea	0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0%		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.		
Tlex coriacea	0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0%		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.		
, Ilex coriacea	0 0 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
Ilex coriacea	0 0 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		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		
, Ilex coriacea	0 0 0 0 0 0 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0		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		
Ilex coriacea	0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0		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		
, Ilex coriacea			100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	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		
Tlex coriacea			100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	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.		
Tlex coriacea	0 0 0 0 0 0 0 0 0 0 0 0 0 0 5		100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	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.		
Tlex coriacea         % of Total Cover:       2.5         20% of Total Cover:       1         xody Vine Stratum       (Plot size: 30 m)         Smilax laurifolia       )			100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	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.		
. Ilex coriacea			100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	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.		
Ilex corlacea			100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	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.		
D% of Total Cover: 2.5 20% of Total Cover: 1 cody Vine Stratum (Plot size: 30 m ) Smilax laurifolia			100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	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.		
Ilex corlacea			100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	FACW	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.		

#### Sampling Point: Wet - 52

Profile Descr	iption: (De	scribe to	the depth	needed to doo	umen	t the indic	ator or co	onfirm the	absence of indicators.)		
Depth	њ	Matrix	- K			dox Featu					
(inches) 0-4	Color ( 10YR	moist) 3/2	% 100	Color (me	oist)	%	Type 1	Loc <sup>2</sup>	Loamy Sand		
4-12	10YR	4/2	97	10YR	6/6	3	D	M	Loamy Sand		
12-24	10YR	5/2	97	10YR	6/6	3	D	M	Loamy Sand		
							······				
		=Depletio	n, RM=Redi	uced Matrix, CS=	=Covere	ed or Coate	ed Sand Gra	ains ²Loca	ation: PL=Pore Lining. M=Matrix		
Hydric Soli I				_					Indicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol (A	•						(S8) (LRR		1 cm Muck (A9) (LRR O)		
Histic Epip				🔄 Thin D	ark Sur	face (S9) (	LRR S, T, I	J)	2 cm Muck (A10) (LRR S)		
Black Histi						•	1) (LRR O)	ł	Reduced Vertic (F18) (outside MLRA 150A,B)		
	Sulfide (A4)			Loamy	Gleyed	l Matrix (F	2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Stratified L				L Deplet	ed Mat	rix (F3)			🗌 Anomalous Bright Loamy Soils (F20) (MLRA 153B)		
	odies (A6) (L			_		urface (F6)			Red Parent Material (TF2)		
_	y Mineral (A		, T, U)			c Surface (			Very Shallow Dark Surface (TF12)		
	ence (AB) (L					sions (F8)			Other (Explain in Remarks)		
_	(A9) (LRR F			`	-10) (Li						
	elow Dark S		11)	Deplet	ed Och	ric (F11) ( <b>f</b>	MLRA 151)				
	Surface (A1			∐ Iron-M	angane	se Masses	(F12) (LR	R O, P, T)			
	ie Redox (A:			Umbrid	: Surfac	e (F13) (L	RR P, T, U)	)			
	k Mineral (S	•••	, S)	🗌 Delta (	)chric (	F17) (MLR	A 151)		<sup>3</sup> Indicators of hydrophytic vegetation and		
Sandy Gley	ed Matrix (S	54)		🗌 Reduc	ed Verti	ic (F18) (M	LRA 150A,	150B)	wetland hydrology must be present,		
Sandy Red				🗌 Piedm	ont Floc	dplain Soil	s (F19) (M	lra 149a)			
Stripped M	atrix (S6)			🗌 Anoma	lous Br	ight Loamy	/ Soils (F20	) (MLRA 14	49A, 153C, 153D)		
Dark Surfa	ce (S7) (LRR	ι Ρ, S, Τ, Ι	))								
Restrictive La	yer (if obse	erved):									
						-			Hydric Soil Present? Yes 💿 No 🔿		
Depth (inch	es):		• . <u> </u>								
Remarks:											

Project/Site:       NASA - Stennis; 1,100 Acre Wetland Delineatiion         Applicant/Owner:       NASA         Investigator(s):       Lars Larson, Randy Ellis         Landform (hillslope, terrace, etc.):       Terrace         Subregion (LRR or MLRA):       LRR T       Lat         Soil Map Unit Name:       At, Atmore silt loam, 0 to 2 percent slopes	City/County:       Waveland - Hancock       Sampling Date:       31-Oct-16         State:       MS       Sampling Point:       Wet - 53         Section, Township, Range:       S 21       T       7 s       R       16 W         Local relief (concave, convex, none):       none       Slope:       0.0 % /       0.0 °         t.:       30° 25' 2.254" N       Long.:       89° 36' 14.733" W       Datum:       NAD83         NWI classification:       N/A
Are climatic/hydrologic conditions on the site typical for this time of Are Vegetation , Soil , or Hydrology signific Are Vegetation , Soil , or Hydrology natural SUMMARY OF FINDINGS - Attach site map showing	
area.	Is the Sampled Area within a Wetland? Yes  No O dary and fence small wet area approximately 500 feet north of the toe of the landfill
Saturation (A3)       Hydrogen Sulfi         Water Marks (B1)       Oxidized Rhizo         Sediment Deposits (B2)       Presence of Re	a (B13)       Sparsely Vegetated Concave Surface (B8)         (B15) (LRR U)       Image Patterns (B10)         fide Odor (C1)       Image Patterns (B16)         ospheres along Living Roots (C3)       Dry Season Water Table (C2)         educed Iron (C4)       Crayfish Burrows (C8)         seduction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         rface (C7)       Image Comprise Position (D2)
Field Observations:       Yes       No       Depth (inchest cases)         Surface Water Present?       Yes       No       Depth (inchest cases)         Water Table Present?       Yes       No       Depth (inchest cases)         Saturation Present? (includes capillary fringe)       Yes       No       Depth (inchest cases)         Describe Recorded Data (stream gauge, monitoring well, aerial photon)       Depth (inchest cases)       No       No	es): Wetland Hydrology Present? Yes  No
Remarks: No strong redoximorphic indicators in soil.	

		Dominant			Sampling Point: Wet - 53		
	Absolute	Species? e Rel.Strat. 1		Indicator Status	Dominance Test worksheet: Number of Dominant Species		
Tree Stratum (Plot size: <u>30 m</u> )		r	Cover				
Pinus elliottii	10		27.8%	FACW	That are OBL, FACW, or FAC: (A)		
Nyssa sylvatica	15	V	41.7%	FAC			
Magnolia virginiana	10	V	27.8%	FACW	Total Number of Dominant Species Across Ali Strata: 7 (B)		
Taxodium ascendens	1		2.8%	OBL			
non a cara a cara a cara a cara a cara a cara a cara a cara a cara a cara a cara a cara a cara a cara a cara a			0.0%	••	Percent of dominant Species		
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
· · · · · · · · · · · · · · · · · · ·	and a summer of		0.0%		Prevalence Index worksheet:		
	0		0.0%		Total % Cover of: Multiply by:		
50% of Total Cover: 18 20% of Total Cover: 7.2		= IC	otal Cove				
apling or Sapling/Shrub Stratum (Plot size: 30 m	)	_			FACW species $67 \times 2 = 134$		
Pinus elliottii	1		6.3%	FACW	FAC species $25 \times 3 = 75$		
Nyssa sylvatica	10	✓	62.5%	FAC	FACU species $0 \times 4 = 0$		
Magnolla virginiana	5		31.3%	FACW	UPL species 0 x 5 = 0		
	0		0.0%		Column Totals: 96 (A) 213 (B)		
	0		0.0%				
	0		0.0%		Prevalence Index = B/A = 2.219		
	0		0.0%		Hydrophytic Vegetation Indicators:		
	0		0.0%		🗌 🖌 Dewid Tech for Underskadie Verstation		
0% of Total Cover: 8 20% of Total Cover: 3.2	16				1 - Rapid Test for Hydrophytic Vegetation		
	10	= Total Cover			✓ 2 - Dominance Test is > 50%		
hrub Stratum (Plot size: 30 m )					$\checkmark$ 3 - Prevalence Index is $\leq$ 3.0 <sup>1</sup>		
Ilex coriacea	30		75.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Cyrilla racemiflora	10		25.0%	FACW			
	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.		
	0		0.0%		be present, unless disturbed or problematic.		
			0.0%		Definition of Vegetation Strata:		
			0.0%		Tree - Woody plants, excluding woody vines,		
0% of Total Cover: 20 20% of Total Cover: 8	40 = Total Cover			approximately 20 ft (6 m) or more in height and 3 in.			
14 · · ·					(7.6 cm) or larger in diameter at breast height (DBH).		
		_		i	Sapling - Woody plants, excluding woody vines.		
Juncus polycephalos	(m		33.3%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less		
Juncus polycephalos			33.3% 33.3%	OBL			
, Juncus polycephalos Sarracenia alabamensis					approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1		33.3%	OBL	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		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1		33.3% 33.3%	OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 1 0		33.3% 33.3% 0.0%	OBL	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.		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 1 0 0		33.3% 33.3% 0.0% 0.0%	OBL	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		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare			33.3% 33.3% 0.0% 0.0% 0.0%	OBL	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,		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare			33.3% 33.3% 0.0% 0.0% 0.0%	OBL	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		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare			33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0%	OBL	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		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL OBL	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.		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL OBL	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		
Juncus polycephalos Sarracenia alabamensis Eriocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL OBL	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.		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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.		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare			33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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.		
			33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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.		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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.		
Sarracenia alabamensis Erlocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	<ul> <li>approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</li> <li>Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.</li> <li>Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</li> <li>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.</li> <li>Woody vine - All woody vines, regardless of height.</li> <li>Woody vine - All woody vines, regardless of height.</li> </ul>		
Juncus polycephalos Sarracenia alabamensis Erlocaulon decangulare	1 0 0 0 0 0 0 0 0 0 0 0 0 0		33.3% 33.3% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	OBL	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.		

Sampling Point: Wet - 53

Profile Descr	Matrix			needed to document the indicator or confirm the				absence of indicators.)	
Depth				Redox Features Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>			Loc <sup>2</sup>	Texture	Remarks
(inches)	10YR	3/1	98	Color (moi 10YR	st) %. 6/2 2	D	LOC	Sandy Loam	Kemarks
		· · ·						Sandy Loam	
4-16	10YR	4/2	98	10YR	6/2 20	D	<u>M</u>	Sandy Loain	
		-							
Type: C=Conc	entration. D	=Depletio	n. RM= <b>R</b> edu	ced Matrix, CS=(	Covered or Coat	ed Sand Gr	ains <sup>2</sup> Loca	ation: PL=Pore Lining, M=	Matrix
Hydric Soli I	ndicators:							Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
Histosol (A	A1)			Polyvalu	e Below Surfac	e (S8) (LRR	(S, T, U)	1 cm Muck (A9)	=
🗌 Histic Epip	edon (A2)			_	rk Surface (S9)			2 cm Muck (A3)	
Black Histi	c (A3)				Mucky Mineral (				(F18) (outside MLRA 150A,B)
Hydrogen	Sulfide (A4)				Gleyed Matrix (F				plain Soils (F19) (LRR P, S, T)
Stratified 1	ayers (A5)				d Matrix (F3)	-			ht Loamy Soils (F20) (MLRA 153B)
Organic Bo	odies (A6) (L	.RR P, T, U	J)		Dark Surface (F6	5)		Red Parent Mate	, , , , , ,
5 cm Muck	xy Mineral (A	7) (LRR P	, T, U)		d Dark Surface			Very Shallow Dark Surface (TF12)	
Muck Pres	ence (A8) (L	RR U)		Redox D	Depressions (F8)	)		Other (Explain in Remarks)	
1 cm Muck	(A9) (LRR I	P, T)		Marl (F1	.0) (LRR U)				r Kenidi Kay
Depleted E	Below Dark S	Surface (A	11)	_	d Ochric (F11) (	MLRA 151)			
Thick Dark	Surface (A1	12)		Iron-Ma	nganese Masse	s (F12) (LRi	R Ö, P, T)		
Coast Prair	rie Redox (A	.16) (MLRA	A 150A)		Surface (F13) (I				
Sandy Muc	k Mineral (S	1) (LRR O	, S)		chric (F17) (MLF		,	_	
_	, ed Matrix (S				d Vertic (F18) (N		150B)		s of hydrophytic vegetation and
Sandy Red					nt Floodplain So		-		hydrology must be present, s disturbed or problematic.
Stripped M					-			<b>9A,</b> 153C, 153D)	
	ce (S7) (LRF	R Р, S, T, I	L)		nus ongrit courr	iy oona (i ze	) (ne) ( + 1.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
estrictive La	yer (if obse	erved):							
Туре:								Indeie Cell Dessent2	N (9) N ()
Depth (inch	es):							Hydric Soil Present?	Yes 🖲 No 🔿
lemarks:									