Project number: 60721840

Common Name	Scientific Name	Habitat Description	Likelihood of Occurrence	Federal Status	State Status
		Reptiles			•
Blue-tailed Mole Skink	Plestiodon egregius lividus	Bluetail mole skinks need loose sand for burrowing, so they inhabit sandhill and xeric hammocks, oak and sand pine scrubs, and turkey oak barrens in Florida.	Low	T	FT
Eastern Indigo Snake	Drymarchon couperi	Scrub, sandhill, wet prairies, and mangrove swamps, and needs large tracts of land to persist. This species spends winters in gopher tortoise (<i>Gopherus polyphemus</i>) burrows in sandy uplands and forages in more hydric habitats in the northern part of the range.	Low	Т	FT
Florida Sand Skink	Neoseps reynoldsi	Sand skinks (Neoseps reynoldsi) and bluetail mole skinks (Eumeces egregius lividus) are found in interior peninsular Florida. Both species are most commonly associated with habitat dominated by xeric vegetation such as oak-dominated scrub, turkey oak barrens, high pine, and xeric hammocks. Skinks typically occur in habitats that contain a mosaic of open sandy patches interspersed with forbs, shrubs and trees.	Low	T	FT
	•	Plants		1	'
Florida Bonamia	Bonamia grandiflora	Occurs in Florida scrub habitat on deep, dry, white sand in clearings among sand pines (Pinus clausa) and other scrub flora.	Low	Т	E
Pygmy Fringe Ttree	Chionanthus pygmaeus	Generally found on xeric white and yellow sand of scrub, sandhill, and xeric hammocks found at the southern end of the Central Florida Ridge.	Low	E	E
Pigeon Wings	Clitoria fragrans	Undisturbed clearings of xeric sandhill and scrub communities on well-drained upland soils.	Low	Т	-
Short-leaved Rosemary	Conradina brevifolia	White sands of sand pine-oak scrub	Low	E	-
Scrub Mint	Dicerandra frutescens	Habitat is scrub and sandhills.	Low	E	-

Project number: 60721840

Common Name	Scientific Name	Habitat Description	Likelihood of Occurrence	Federal Status	State Status
Scrub Buckwheat	Eriogonum floridanum	Dry pinelands, sandhills, and scrub (longleaf pine-turkey oak, scrub oaks). More commonly found in transition habitats between scrub and high pine and in turkey oak barrens.		Т	E
Highlands Scrub Hypericum	Hypericum cumulicola	Patches of open, nutrient-poor sand within oak and rosemary scrub.	Low	E	-
Scrub Blazingstar	Liatris ohlingerae	Openings in oak-rosemary scrub, sand pine scrub.	Low	Е	-
Britton's Beargrass	Nolina brittoniana	Deep, fine-textured, well-drained sands of sand pine-evergreen oak scrub or longleaf pine-turkey oak sandhill.	Low	E	E
Paper Nailwort	Paronychia chartacea	Sand scrub of ancient dunes, in pure, white sand clearings or blowouts.	Low	Т	E
Lewton's Polygala	Polygala lewtonii	Sandhills characterized by longleaf pine and low scrub oaks, including low turkey oak woods, and transitional sandhill/scrub habitats that are fire maintained. This species occasionally inhabits powerline clearings or new roadsides.	Low	E	E
Florida jointweed	Polygonella basiramia	Restricted to bare patches within sand pine-evergreen oak scrub vegetation.	Low	Е	E
Sandlace	Polygonella myriophylla	Sand pine scrub and ancient sand dunes.	Low	Е	-
Florida Willow	Salix floridana	Wet mucky soils in bottomland forests, floodplains, hydric hammocks, swamps, edges of spring-runs, and streams.	Low	UR	E
Carter's warea	Warea carteri	Known from sandy clearings in several open, pine-dominated ecosystems including sand scrub, sandhills, and pine rockland within scattered overstories of pines (sand, longleaf, or slash pine) and scrub oaks.	Low	Е	E

Common Name	Scientific Name	Habitat Description	Likelihood of Occurrence	Federal Status	State Status
Florida Ziziphus	Ziziphus celata	Restricted to yellow sands in xeric upland habitats: sandhills and Florida scrub including pasturelands.	Low	E	-
		Insects			
Monarch Butterfly	Danaus plexippus	Early successional habitat that contains milkweed species (<i>Asclepias</i> ssp.)	Moderate	С	-

Federal Status:

Endangered (E), Any species which is in danger of extinction throughout all or a significant portion of its range, is protected by the take prohibitions of Section 9 under the ESA.

Threatened (T), Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range, is protected by the take prohibitions of Section 9, consistent with any protective regulations finalized under section 4(d) of the ESA.

Candidate (C), Any species for which the USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities, is not protected by the take prohibitions of Section 9 of the ESA.

Under Review (UR), Any species which is currently under review for protection under the ESA.

4.2 USFWS Consultation Areas

An evaluation was completed to identify the potential occurrence of any federal or state listed protected species and associated critical habitats which have the potential to occur within the study area. This review identified that the study area is located within the USFWS consultation area for six protected species listed in **Table 5** below. Based on a review of the habitat types within the study area and the consultation areas identified by the USFWS, species-specific surveys were not required as suitable habitat to support these species was not present within the study area. The project is anticipated to have no effect on these species.

Table 5: USFWS Consultation Area Species

Common Name	Scientific Name	Protection Status (USFWS)
Bluetail Mole Skink	Eumeces egregius lividus	Threatened
Crested Caracara	Caracara cheriway	Threatened
Everglades Snail Kite	Rostrhamus sociabilis plumbeus	Endangered
Florida Grasshopper Sparrow	Ammodramus savannarum floridanus	Endangered
Florida Scrub Jay	Aphelocoma coerulescens	Threatened
Florida Sand Skink	Neoseps reynoldsi	Threatened

4.3 State Listed Species

The desktop evaluation identified 19 additional state protected species with the potential to occur in the study area. This includes one mammal, six birds, one reptile, one amphibian, and 10 plants (**Table 6**).

The FWC has the authority to regulate and manage the species, listed in Rule 68A-27.0031, Florida Administrative Code (F.A.C.). State-protected species are identified in the Florida Endangered and Threatened Species List (Rule 68A-27.003, F.A.C.) or the Species of Special Concern list (Rule 68A-27.005, F.A.C.). Additionally, the State lists of plants, which are designated Endangered, Threatened, and Commercially Exploited, are administered and maintained by the Florida Department of Agriculture and Consumer Services (DOACS) via Chapter 5B-40, F.A.C.

Table 6: State Listed Species

Common Name	Scientific Name	Habitat	Likelihood of Occurrence	State Status			
		Mammals					
Florida black bear	Ursus americanus floridanus	Black bears prefer habitats with dense understories such as forested wetlands and uplands but will use a variety of habitats depending on the season.	Low	CR			
	Birds						
American Kestrel	Falco sparverius paulus	American kestrels nest in cavities that they do not excavate. Instead, they must depend on woodpeckers and natural processes to create holes in trees. Kestrels nest predominantly in dead but standing longleaf pine trees, called snags, usually in the abandoned cavities of pileated woodpeckers. The Southeastern American kestrel's habitat in Florida includes open woodlands, sandhill, and fire-maintained savannah pine habitats.	Moderate	ST			
Florida Sandhill Crane	Antigone canadensis pratensis	Sandhill crane nests are built by both mates with grass, moss, and sticks.	High	ST			
Florida Burrowing Owl	Athene cunicularia floridana	Burrowing owls inhabit open prairies in Florida that have very little understory vegetation. The drainage of wetlands, although detrimental to many organisms, increases the areas of habitat for the burrowing owl. The range of the burrowing owl is throughout the peninsular of Florida in patches and localized areas.	Moderate	ST			
Roseate Spoonbill	Platalea ajaja	Mangrove islands and occasionally dredge- spoil islands are the preferred nesting habitat for the species. In Florida, the species is found in Florida Bay, Tampa Bay, and Brevard County.	High	ST			
Little Blue Heron	Egretta caerulea	Little blue herons inhabit fresh, salt, and brackish water environments in Florida including swamps, estuaries, ponds, lakes, and rivers.	High	ST			
Reddish Egret	Egretta rufescens	Reddish egrets inhabit coastal areas, mainly on estuaries near mangroves, and lagoons, but they can also be found on dredge spoiled islands.	Low	ST			
Tricolored Heron	Egretta tricolor	Tricolored herons inhabit fresh and saltwater marshes, estuaries, mangrove swamps, lagoons, and river deltas.	High	ST			

Project number: 60721840

Common Name	Scientific Name	Habitat	Likelihood of Occurrence	State Status
	-	Reptiles		-
Gopher Tortoise	Gopherus polyphemus	Gopher tortoises are long- lived reptiles that occupy upland habitat throughout Florida including forests, pastures, and yards. They dig deep burrows for shelter and forage on low- growing plants. Gopher tortoises share these burrows with more than 350 other species and are therefore referred to as a keystone species.	Low	ST
		Amphibians		
Gopher Frog	Lithobates capito	Upland habitats such as longleaf pine, xeric oak, and sandhills but they can also be found in upland pine forest, scrub, xeric hammock, mesic and scrubby flatwoods, dry prairie, and mixed hardwood-pine communities.	Low	DL
		Plants		
Many-flowered Grass-pink	Calopogon multiflorus	Can be found in dry to moist flatwoods with wiregrass, longleaf pine, and saw palmetto. Its habitat also includes mesic pine savannahs on flat or gently sloping terrain.	Low	Т
Chapman's sedge	Carex chapmanii	A tussock-forming species. Wet, sandy, acidic soils, sometimes over limestone, under deciduous or mixed deciduous-evergreen forests, hammocks.	Low	Т
Sand Butterfly Pea	Centrosema arenicola	Open areas in slash pine- turkey oak sandhills and scrubby flatwoods.	Low	E
Ashe's Savory	Clinopodium ashei	Most commonly found in openings in sand pine scrub, but also can be found in disturbed areas such as fire lanes, road shoulders, and abandoned fields.	Low	Т
Cutthroatgrass	Coleataenia abscissa	Grows only on moisture- receiving seepy slopes on the sandy eastern and	Low	E

Project number: 60721840

	western slopes of the Lake Wales Ridge.	
	G	



			Likelihood of	
Common Name	Scientific Name	Habitat	Occurrence	State Status
Nodding Pinweed	Lechea cernua	Always found in deep sands, usually ancient dunes, on which the most common forest is a mixture of evergreen scrub oaks.	Low	Т
Florida Spiny-pod	Matelea floridana	Upland hardwood forests, with laurel oak, red oak, pignut or mockernut hickory, spruce, pine, and southern magnolia. A variety of wooded habitats from fairly moist woods, such as those in limesink areas, to dry, open oak-hickory or oak-hickory-pine upland forests.	Low	E
Celestial Lily	Nemastylis floridana	Low sunny areas in wet flatwoods, swamp, and marsh borders. Also, in wet, grassy, sandy peat clearings in slash pine-saw palmetto vegetation, and cabbage palm hammocks.	Low	E
Florida Beargrass	Nolina atopocarpa	Wet pine flatwoods; deeply rooted in black, sandy-peaty high hydroperiod soil; fire tolerant and probably fire dependent.	Low	Т
Redmargin Zephyrlily	Zephyranthes simpsonii	Found on black, highly organic sands of wet pine flatwoods, meadows, pastures, roadsides, and glade borders.	Low	Т

State Status

ST, State population listed as Threatened by the FWC

DL, Delisted

CR, Conservation Rule 68A-4.009, F.A.C.

Plants

E, Endangered

T, Threatened

4.4 Migratory Bird Treaty Act

The MBTA requires the protection of migratory birds by prohibiting take of birds, feathers, eggs, and nests. Actions must be taken to avoid or minimize impacts to migratory birds and to prevent or abate the detrimental alteration of the environment for the benefit of migratory birds under the terms of a valid permit issued pursuant to Federal regulations by the USFWS. Typically, if active nests of bird species protected by the MBTA are identified, the USFWS recommends avoiding tree clearing or nest removal until at least the peak of the nesting season (generally March through August) has passed or until the nest is abandoned.

There are lakes, wetlands, canals, and undeveloped forested areas which provide suitable habitat for many species protected under the MBTA. **Table 7** below provides a list of the migratory birds with the potential to utilize the study area and their associated breeding season period as shown in the USFWS IPaC Report. These periods are critical for migratory bird reproduction.

Table 7: Migratory Bird Species

Common Name Scientific Name	Status Federal, State	Breeding Season*
American Kestrel, Falco sparverius paulus	State-designated threatened	Apr 1 to Aug 31
Bald Eagle Haliaeetus leucocephalus	Delisted, BGEPA	Sep 1 to Jul 31
Black Skimmer Rynchops niger	Not listed	May 20 to Sep 15
Chimney Swift Chaetura pelagica	Not listed	Mar 15 to Aug 25
Great Blue Heron Ardea herodias occidentalis	Not listed	Jan 1 to Dec 31
King Rail Rallus elegans	Not listed	May 1 to Sep 5
Lesser Yellowlegs Tringa flavipes	Not listed	Breeds elsewhere
Magnificent Frigatebird Fregata magnificens	Not listed	Oct 1 to Apr 30
Painted Bunting Passerina ciris	Not listed	Apr 25 to Aug 15
Red-headed Woodpecker Melanerpes erythrocephalus	Not listed	May 10 to Sep 10
Swallow-tailed Kite Elanoides forficatus	Not listed	Mar 10 to Jun 30

^{*}Breeding Seasons were provided by the IPaC located in Appendix E. IPaC

4.5 Bald Eagle and Golden Eagle Protection Act

The BGEPA (16 U.S.C. 668-668c) was enacted in 1940, which prohibits, except under certain specified conditions, the take, possession, and commerce of bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*), including their parts (i.e., feathers), nests, or eggs. The BGEPA defines "take" of an eagle as to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb," and further defines "disturb" as "to agitate or bother a bald or golden eagle to a degree that causes or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior," (50 CFR 22.6). The act includes protections for previously used nests during any time when the eagles are not present if as a result of human-induced alterations, upon the eagle's return, such alterations disturb the eagle to such a level that interferes with or interrupts its normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

Bald eagles were observed flying overhead and perched at multiple locations throughout the study area. The large open-water lakes within the study area provide suitable habitat for bald eagles. Drones were used to inspect an area where an eagle was observed perched. However, eagle nests were not observed during the survey. The FWC Eagle Nest Locator online database was utilized to identify any recorded bald eagles nesting nearby. Two known bald eagle nests were identified within one mile of the study area with the closest nest located approximately 0.75 miles to the northwest (**Figure 7**). Based on the field survey and review of bald eagle nesting data, the proposed project is anticipated to have no effect to the bald eagle. Additional details are provided in **Table 8** below:

Table 8: Bald and Golden Eagle Protection Act

Common Name	Status	Habitat	Species
Scientific Name	Fed, State		Presence/Absence
Bald Eagle, Haliaeetus leucocephalus	BGEPA	Rivers, lakes, marshes, estuaries, reservoirs, and some seacoasts, and the surrounding forested areas; tall trees; can be found in drier areas further from the water, including farmland and urban and suburban habitat.	Present

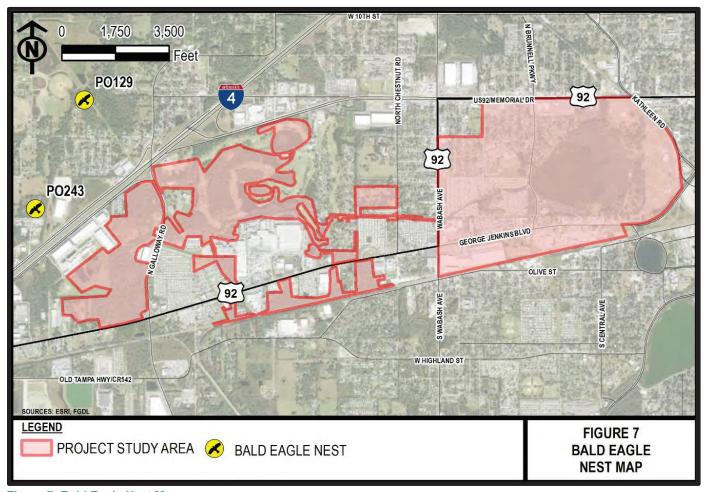


Figure 7: Bald Eagle Nest Map

5. Field Investigation Findings

5.1 Wetlands

A total of 18 wetlands (including three wetland "islands") were found to exist (**Figure 8 – Wetland Delineation**). **Table 9** below provides a summary of the wetlands identified including the feature name, feature type, FLUCFCS classification and NWI classification. Wetland Determination Data Form – Atlantic and Gulf Coastal Plain Region forms were completed in the field and utilized to document the characteristics of each wetland. The Wetland Data Forms are provided within **Appendix B**. Detailed descriptions of each wetland identifying dominant vegetation, soil conditions and hydrologic indicators are provided within **Appendix F**.

Project number: 60721840

Table 9: Wetlands Identified and Delineated

ID/Name	Feature Type	FLUCFCS Code	NWI Code
W01	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3Cd
W02	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3Cd
W03	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3Cd
W04	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C
W05	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C
W06	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C
W07	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3E
W08	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3E
W09	Herbaceous Wetland	640 (Vegetated Non-Forested Wetlands)	PEM1D
W10	Herbaceous Wetland	640 (Vegetated Non-Forested Wetlands)	PEM1D
W11	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1E
W12	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C
W13	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3Ch
W14	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C
W15	Forested Wetland	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C
I01	Wetland Island	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C
102	Wetland Island	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C
103	Wetland Island	615 (Stream and Lake Swamps (Bottomland))	PFO1/3C

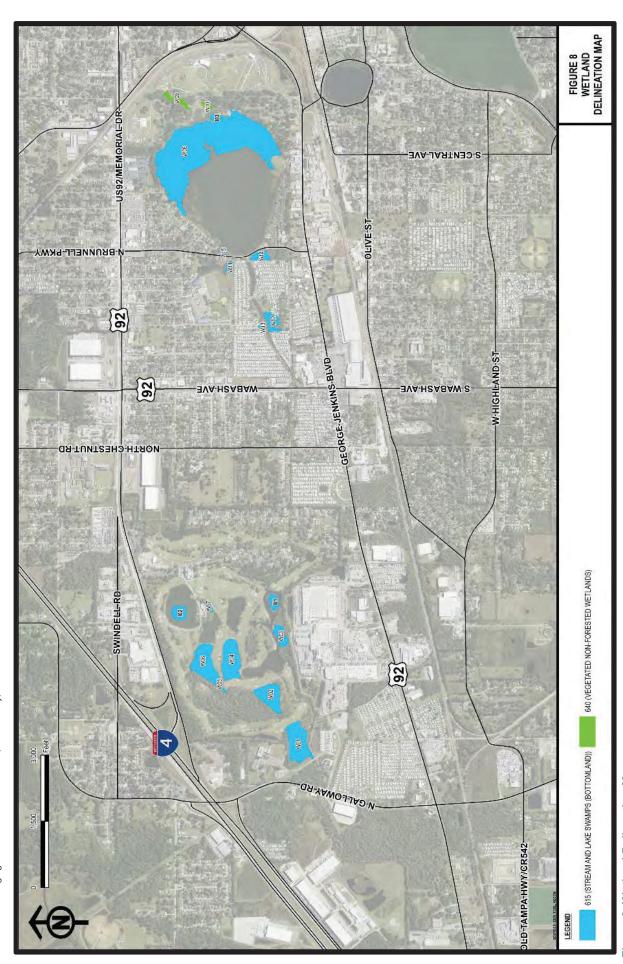


Figure 8: Wetland Delineation Map

23

5.2 Surface Waters

A total of four channelized watercourses (canals), 12 lakes, 33 stormwater retention/detentions features, and four wet ditches were found (**Figure 9 – Surface Water Delineation**). **Table 10** below provides a summary of the surface waters including the feature name, feature type, FLUCFCS classification and NWI classification. Detailed descriptions of each surface water identifying dominant vegetation, soil conditions and hydrologic indicators, as relevant, are provided within **Appendix G**.

Project number: 60721840

Table 10: Surface Waters Identified and Delineated

Name	Feature Type	FLUCFCS Code	NWI Code
C01	Canal	510 (Streams and Waterways)	R2UBHx
C02	Canal	510 (Streams and Waterways)	R2UBFx
C03	Canal	510 (Streams and Waterways)	R2UBHx
C04	Canal	510 (Streams and Waterways)	R2UBFx
L01-L08	Lake	530 (Reservoirs)	PUBHx
L09	Lake	520 (Lakes)	L1UBH
L10	Lake	520 (Lakes)	PUBHx
L11-L12	Lake	530 (Reservoirs)	PUBHx
DP01-DP33	Stormwater Retention/Detention	530 (Reservoirs)	PUB/AB/EM/SS/FO x/h
D01-D04	Wet Ditches	510 (Streams and Waterways)	PUB/EMx

Project number: 60721840

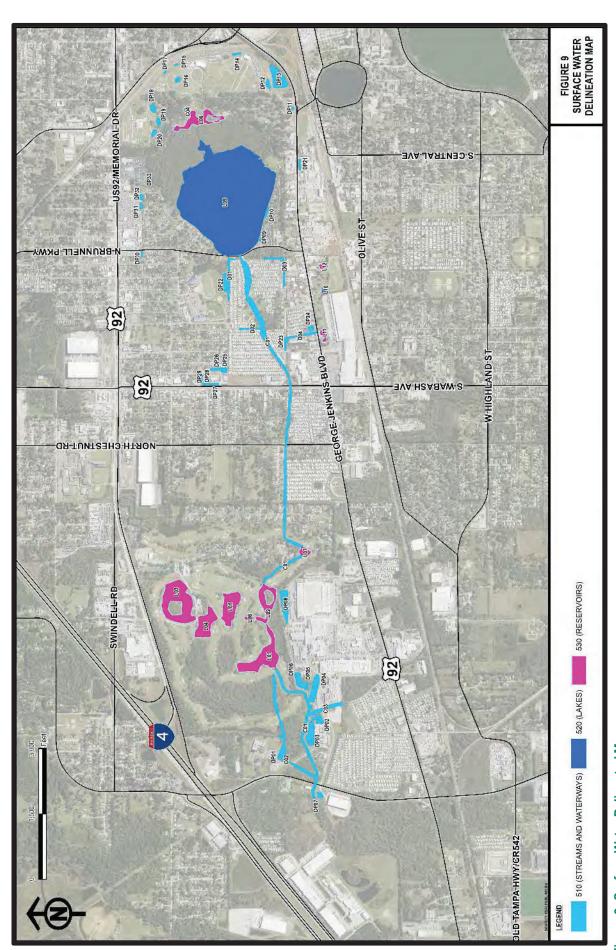


Figure 9: Surface Water Delineated Map

5.3 Upland Communities

The majority of the upland communities within the study area have been altered by man. These areas included urban development with various man-made structures, paving (parking lots, streets, sidewalk, etc.), and landscaping. The undeveloped upland communities identified within the study area include Improved Pasture, and Hardwood - Conifer Mixed (**Figure 5**). The developed upland communities include Residential, Commercial and Services, Industrial, Institutional, Recreational, and Transportation. Brief descriptions of the natural upland areas are provided below:

Project number: 60721840

Crop and Pastureland: 210. This area was a fenced pasture actively utilized for grazing cattle. It was comprised of closely cropped grasses with individual trees and stands of trees comprised of live oak (Quercus virginiana), water oak (*Quercus nigra*), laurel oak (*Quercus laurifolia*), slash pine (*Pinus elliottii*), and camphortree (*Camphora officinarum*).

Mixed Hardwoods: 434. Non-wetland forested communities in which no single species is dominant in the canopy. Common tree species consisted of live oak (*Quercus virginiana*), water oak (*Quercus nigra*), laurel oak (*Quercus laurifolia*), American elm (*Ulmus americana*), sugarberry (*Celtis laevigata*), cabbage palm (*Sabal palmetto*), camphortree (*Camphora officinarum*), and slash pine (*Pinus elliotti*). Other common species included Brazilian pepper (*Schinus terebinthifolia*), muscadine (*Vitis rotundifolia*). eastern poison ivy (*Toxicodendron radicans*), golden rain tree (*Koelreuteria elegans*), air-potato (*Dioscorea bulbifera*), white mulberry (*Morus alba*), peppervine (*Nekemias arborea*), wax myrtle (*Morella cerifera*), red maple (*Acer rubrum*), paper mulberry (*Broussonetia papyrifera*), sword fern (*Nephrolepis* sp.), wild coffee (*Psychotria nervosa*), and Chinese tallowtree (*Triadica sebifera*).

5.4 Listed Species Observed

AECOM field teams conducted surveys for protected wildlife and plants occurring within the study from March 18-21, 2024. The focus of this assessment was to document any direct or indirect observations of federal and state-listed species and associated suitable habitat. **Table 11** below provides a summary of the protected species observed within the study area and its associated protection status/agency.

Protected plants species were not identified within the study area during the survey. The majority of protected plant species identified with a potential to exist are upland sandhill/scrub species. Scrub habitat was not identified within the study area validating the lack of presence for protected plant species.

Table 11: Listed Species Observed

Common Name	Scientific Name	Protection Status	Protection Agency or Regulation
Wood Stork	Mycteria americana	Threatened	USFWS
Florida Sandhill Crane	Antigone canadensis pratensis	Threatened	FWC
Roseate Spoonbill	Platalea ajaja	Threatened	FWC
Little Blue Heron	Egretta caerulea	Threatened	FWC
Tricolored Heron	Egretta tricolor	Threatened	FWC
Bald Eagle	Haliaeetus leucocephalus	Not listed	BGEPA, 16 U.S.C. 668-668d
Great Blue Heron	Ardea herodias occidentalis	Not listed	MBTA, 16 U.S.C. 703-711
Swallow-tailed kite	Elanoides forficatus	Not listed	MBTA, 16 U.S.C. 703-711
Lesser yellowlegs	Tringa flavipes	Not listed	MBTA, 16 U.S.C. 703-711

Project number: 60721840

Two wading bird rookeries were identified within the study area (**Table 12**). A wood stork rookery was identified on Island I-02 within the northern-most lake on the Lone Palm Golf Club property (Lake George) (approximate coordinates: Lat. 28.051041, Long. -82.005847). This rookery has been documented by the USFWS as active since 2003. Hundreds of wood storks were observed nesting within this protected island along with many other species of wading birds including roseate spoonbill, white ibis, and others. The total number of nests is estimated to be approximately between 40-60. A great blue heron rookery was identified on Island I-01 within the southern-most lake within the Lone Palm Golf Club property (Lake Charels) (approximate coordinates: Lat. 28.045193, Long. -82.004635). Please see **Figure 10** showing the locations of the two observed wading bird rookeries.

Table 12: Bird Rookeries Observed

Species Nesting	Location	Lat	Long
Wood Stork, Roseate Spoonbill	I-02 (Lake George)	28.051041	-82.005847
Great Blue Heron	I-01	28.045193	-82.004635



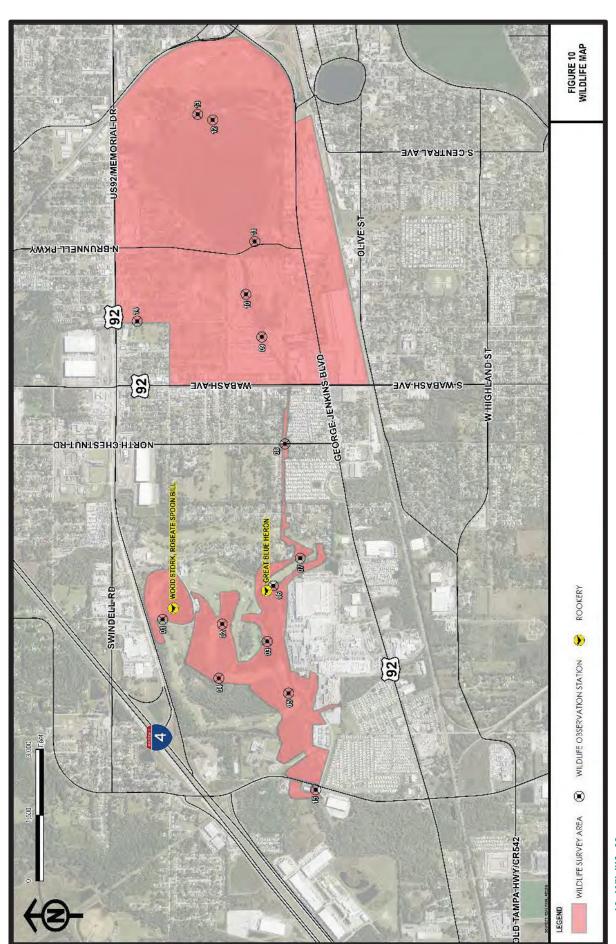


Figure 10: Wildlife Map

28

6. Conclusions and Recommendations

This BA Report prepared by AECOM for the Lake Bonnet Drainage Basin Flood Hazard and Debris Mitigation Project in the City of Lakeland, Florida, aimed to identify wetlands and surface waters, evaluate habitat suitability for protected species, characterize habitats, and provide data for minimizing environmental impacts during the design phase of the project.

Project number: 60721840

A total of 18 wetlands, four channelized watercourses, 12 lakes, 33 stormwater features, and four wet ditches were identified, delineated, and characterized within the study area (**Section 6.1-6.2**, **Tables 9 and 10**). Impacts on wetlands and surface waters will require authorization from relevant agencies, with specific requirements to be determined once the preferred project alternative is selected.

The evaluation for federal and state listed species revealed the presence of nine protected species observed during field surveys (**Section 6.4**, **Table 11**). Two wading bird rookeries were identified within the study area. A wood stork rookery was identified on Island I-02 within the northern-most lake on the Lone Palm Golf Club property (Lake George) (approximate coordinates: Lat. 28.051041, Long. -82.005847). This rookery has been documented by the USFWS as active since 2003. Hundreds of wood storks were observed nesting within this protected island along with many other species of wading birds including roseate spoonbill, white ibis, and others. The total number of nests is estimated to be approximately between 40-60. A great blue heron rookery was identified on Island I-01 within the southern-most lake within the Lone Palm Golf Club property (Lake Charels) (approximate coordinates: Lat. 28.045193, Long. -82.004635). Potential impacts to protected species will be addressed during the design and permitting phase of the project through agency coordination/consultation efforts.

6.1 Anticipated Permitting Requirements

At this time the preferred alternative for this project has not been selected. A Feasibility Study is currently underway, which will be followed by a NEPA Study to select the preferred design alternative. Once the preferred alternative has been selected, a final review of permitting requirements will be completed.

Based on limited information available at the time this report was developed, it can be assumed that impacts to wetlands will occur in the form of dredging and filling. The following environmental permit-related regulations apply to the project:

Clean Water Act, Section 404 and 401. Section 404 of the Clean Water Act (CWA) requires authorization from the USACE for the discharge of dredged or fill material into any Waters of the U.S., including wetlands. As such, the CWA would generally apply to actions that result in temporary or permanent impacts to wetlands and surface waters.

Section 404(b)(1) *Guidelines for Specification of Disposal Sites for Dredged or Fill Material*, outlines the criteria used to evaluate discharges of dredged or fill material into Waters of the U.S., including wetlands, under Section 404 of the CWA. A fundamental principle of Section 404(b)(1) states dredged or fill material should not be discharged into wetlands and other waters unless it can be demonstrated that the discharge will not have unacceptable adverse impacts on those waters. Section 404(b)(1) also requires the following determinations: (1) the project is the least environmentally damaging practicable alternative, (2) the project will not cause or contribute to the violation of applicable state or federal laws, such as water quality standards or the ESA, (3) the project will not result in significant degradation of Waters of the U.S, and (4) any appropriate and practicable steps have been taken to minimize the adverse impacts of the project on wetlands.

Under Section 401 of the CWA, a federal agency may not issue a permit or license to conduct any activity that may result in any discharge into Waters if the U.S. unless a Section 401 Water Quality Certification (WQC) is issued, or certification is waived. In Florida, WQC is accomplished through the State's permitting process, described below.

The Endangered Species Act of 1973. The ESA, as amended (16 U.S. Code [U.S.C.] 1532 et. seq.), provides designation and protection of endangered and threatened species and their critical habitat. An endangered species is a species in danger of extinction throughout all, or a significant portion, of its range. A threatened species will likely become endangered within the foreseeable future throughout all, or a significant portion, of its range. Critical habitat as defined by the ESA is a specific geographic area with physical and/or biological features that are essential for the conservation of endangered and threatened species and may require special management considerations or protection. If a project has the potential to affect a federally listed species, or their habitat, consultation with USFWS will be required prior to permit approval.

Section 7(a)(2) of the ESA requires federal agencies to ensure that any action authorized is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. The USACE will typically initiate informal or formal consultation with USFWS, as needed to obtain concurrence of ESA effect determinations. The extent of impacts to protected species or their habitat will determine whether the consultation can be accomplished through the informal process or will require formal consultation.

Project number: 60721840

Section 106 of the National Historic Preservation Act of 1966. Section 106 of the National Historic Preservation Act of 1966 requires federal agencies to consider the impacts of their undertakings on historic properties and archeological resources. The Florida State Historic Preservation Office (SHPO), through the Florida Division of Historical Resources (FDHR), is the state agency that identifies and protects historic buildings, districts, structures, and archaeological sites in the state of Florida. Consultation with SHPO will occur during the USACE and state permitting process.

Southwest Florida Water Management District (SWFWMD). The State of Florida (Florida) also regulates impacts to surface waters, wetlands, and state-listed threatened or endangered species.

The SWFWMD regulates environmental resources, habitat, and state-listed species within State Waters Under Chapter 62-330, F.A.C. and Part IV of Chapter 373, F.S., The Environmental Resource Permitting (ERP) Program regulates activities in, on or over surface waters or wetlands, as well as any activity involving the alteration of surface water flows. The SWFWMD will review direct, secondary, and cumulative project impacts. Any impacts to natural resources that cannot be eliminated, or reduced to the greatest extent practicable, will require mitigation. Application to the SWFWMD is made through the submittal of the Statewide Environmental Resource Permit (SWERP) application and can be done electronically. Typically, the application is accompanied by a narrative similar to that prepared for the federal permit that includes details associated with the identification of resources within the project area, elimination and reduction of impacts, quantification of unavoidable impacts, compensatory mitigation, and best management practices to minimize impacts during construction as needed. Under the State's process, activities in wetlands or surface waters also triggers consultation with the FDHR.

City of Lakeland. The City of Lakeland regulates impacts to upland trees per Chapter 38-1, Environment (Code 1960, § 26.06). These laws are intended to preserve the city's natural beauty and maintain a healthy environment. A Tree Removal Permit is required to cut down any tree over 5 inches in diameter including diseased, damaged, or standing dead trees known as snags. The City of Lakeland also has special protection for trees of specific species, age and size known as heritage trees. These trees include:

- Live Oaks: Valued for their longevity and broad-spreading crowns
- Southern Magnolias: Provide shade and beauty with their large, fragrant white flowers and glossy green leaves
- Bald Cypresses: Known for their unique water-loving nature and importance to local ecosystems
- Eastern Red Cedars: Provide important habitats for wildlife and serve as windbreaks with their dense, evergreen foliage

A Tree Removal Permit may be required from the City of Lakeland. Once a preferred alternative is selected, impacts to upland trees will be quantified and a determination will be made if a tree removal permit is needed.

6.2 Limitations

The information presented is based on observations and technical information available on the dates of the desktop and on-site field surveys. This report is for general planning purposes only. The limits of any on-site wetlands/surface waters can only be determined and verified through field delineation and must be reviewed by the pertinent regulatory agencies. The wildlife surveys conducted within the study area do not preclude the potential for any additional listed species not listed herein from inhabiting the site in the future.

AECOM Technical Services, Inc. 110 East Broward Blvd, Suite 700 Fort Lauderdale, FL 33301



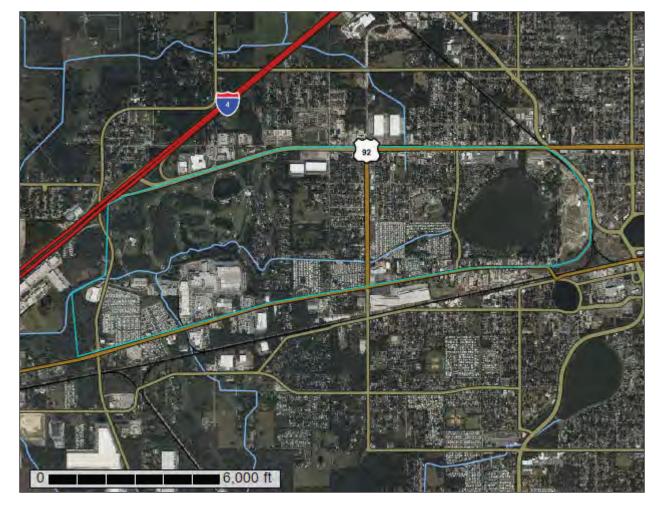
APPENDIX A: WEB SOIL SURVEY REPORT



VRCS

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Polk County, Florida



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map	9
Legend	
Map Unit Legend	11
Map Unit Descriptions	12
Polk County, Florida	14
7—Pomona fine sand	14
13—Samsula muck, frequently ponded, 0 to 1 percent slopes	16
14—Sparr sand, 0 to 5 percent slopes	19
15—Tavares fine sand, 0 to 5 percent slopes	20
16—Urban land, 0 to 2 percent slopes	22
17—Smyrna and Myakka fine sands	25
21—Immokalee sand	
23—Ona-Ona, wet, fine sand, 0 to 2 percent slopes	31
25—Placid and Myakka fine sands, depressional	34
27—Kendrick fine sand, 0 to 5 percent slopes	
31—Adamsville fine sand, 0 to 2 percent slopes	
32—Kaliga muck, frequently ponded, 0 to 1 percent slopes	
35—Hontoon muck, frequently ponded, 0 to 1 percent slopes	42
42—Felda fine sand	
47—Zolfo fine sand, 0 to 2 percent slopes	46
49—Adamsville-Urban land complex	
51—Pomona-Urban land complex	
53—Myakka-Immokolee-Urban land complex	
54—Pomello-Urban land complex	
55—Sparr-Urban land complex, 0 to 5 percent slopes	
59—Arents-Urban land complex, 0 to 5 percent slopes	
60—Arents, sandy	
61—Arents, organic substratum-Urban land complex	
63—Tavares-Urban land complex	
99—Water	65
Pafarancas	67

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

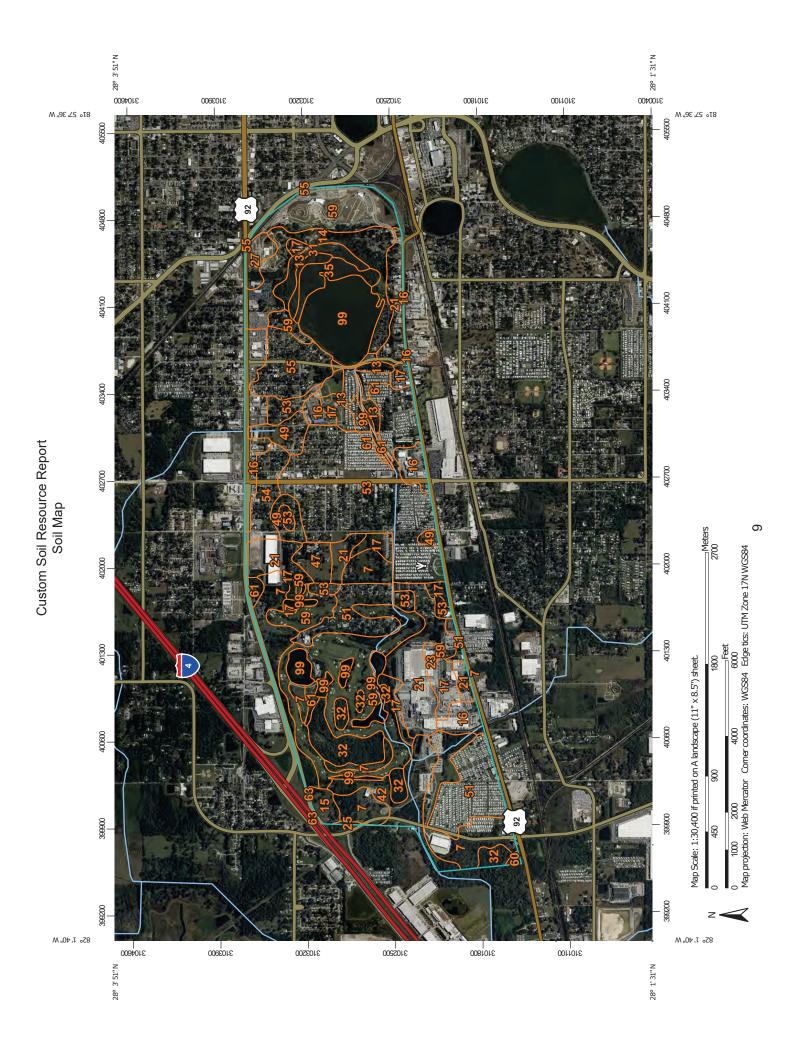
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



MAP LEGEND

Special Line Features Streams and Canals Interstate Highways Very Stony Spot Major Roads Local Roads Stony Spot US Routes Spoil Area Wet Spot Other Rails Nater Features **Fransportation** W ŧ Soil Map Unit Polygons Area of Interest (AOI) Soil Map Unit Points Soil Map Unit Lines Closed Depression Special Point Features **Gravelly Spot Borrow Pit** Clay Spot **Gravel Pit** Area of Interest (AOI) Blowout Landfill 9 Soils

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Polk County, Florida Survey Area Data: Version 21, Sep 6, 2023 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Aerial Photography

Marsh or swamp

Lava Flow

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot Sandy Spot

3ackground

Date(s) aerial images were photographed: Jan 6, 2022—Mar 21,

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Map Unit Legend

Man Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Map Unit Symbol	· ·		
7	Pomona fine sand	189.0	10.0%
13	Samsula muck, frequently ponded, 0 to 1 percent slopes	34.8	1.9%
14	Sparr sand, 0 to 5 percent slopes	90.2	4.8%
15	Tavares fine sand, 0 to 5 percent slopes	12.8	0.7%
16	Urban land, 0 to 2 percent slopes	94.3	5.0%
17	Smyrna and Myakka fine sands	72.8	3.9%
21	Immokalee sand	167.4	8.9%
23	Ona-Ona, wet, fine sand, 0 to 2 percent slopes	1.3	0.1%
25	Placid and Myakka fine sands, depressional	1.2	0.1%
27	Kendrick fine sand, 0 to 5 percent slopes	17.7	0.9%
31	Adamsville fine sand, 0 to 2 percent slopes	21.6	1.1%
32	Kaliga muck, frequently ponded, 0 to 1 percent slopes	67.9	3.6%
35	Hontoon muck, frequently ponded, 0 to 1 percent slopes	26.1	1.4%
42	Felda fine sand	61.4	3.3%
47	Zolfo fine sand, 0 to 2 percent slopes	19.6	1.0%
49	Adamsville-Urban land complex	41.5	2.2%
51	Pomona-Urban land complex	127.3	6.8%
53	Myakka-Immokolee-Urban land complex	302.7	16.1%
54	Pomello-Urban land complex	38.1	2.0%
55	Sparr-Urban land complex, 0 to 5 percent slopes	62.0	3.3%
59	Arents-Urban land complex, 0 to 5 percent slopes	263.3	14.0%
60	Arents, sandy	2.1	0.1%
61	Arents, organic substratum- Urban land complex	35.2	1.9%
63	Tavares-Urban land complex	0.7	0.0%
99	Water	131.2	7.0%
Totals for Area of Interest		1,882.2	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas

Custom Soil Resource Report

shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Polk County, Florida

7—Pomona fine sand

Map Unit Setting

National map unit symbol: 1jttq Elevation: 20 to 120 feet

Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Pomona, non-hydric, and similar soils: 70 percent Pomona, hydric, and similar soils: 20 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pomona, Non-hydric

Setting

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 21 inches: sand
Bh - 21 to 26 inches: fine sand
E' - 26 to 48 inches: fine sand
Ptg - 48 to 73 inches: fine sand

Btg - 48 to 73 inches: fine sandy loam Cg - 73 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.20 to 1.98 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Custom Soil Resource Report

Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Description of Pomona, Hydric

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand E - 6 to 21 inches: sand Bh - 21 to 26 inches: fine sand E' - 26 to 48 inches: fine sand

Btg - 48 to 73 inches: fine sandy loam Cg - 73 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.20 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: Yes

Minor Components

Myakka

Percent of map unit: 4 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Custom Soil Resource Report

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Smyrna, non-hydric

Percent of map unit: 3 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Wauchula, non-hydric

Percent of map unit: 3 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY130FL - Sandy over Loamy Flatwoods and Hammocks *Other vegetative classification:* Sandy over loamy soils on flats of hydric or mesic

lowlands (G154XB241FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

13—Samsula muck, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2tzw9

Elevation: 0 to 250 feet

Mean annual precipitation: 44 to 63 inches Mean annual air temperature: 68 to 77 degrees F

Frost-free period: 335 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Samsula and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Samsula

Setting

Landform: Depressions on marine terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Herbaceous organic material over sandy marine deposits

Typical profile

Oa1 - 0 to 24 inches: muck Oa2 - 24 to 32 inches: muck Cg1 - 32 to 35 inches: sand Cg2 - 35 to 44 inches: sand Cg3 - 44 to 80 inches: sand

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very high (about 13.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: A/D

Ecological site: R155XY100FL - Organic Freshwater Isolated Marshes and

Swamps

Forage suitability group: Organic soils in depressions and on flood plains

(G155XB645FL)

Other vegetative classification: Organic soils in depressions and on flood plains

(G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)

Hydric soil rating: Yes

Minor Components

Myakka

Percent of map unit: 3 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Linear, concave

Across-slope shape: Linear, concave

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps *Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in

depressions (G155XB145FL), Freshwater Marshes and Ponds

(R155XY010FL) Hydric soil rating: Yes

Kaliga

Percent of map unit: 3 percent

Landform: Depressions on flatwoods on marine terraces Landform position (three-dimensional): Tread, dip, talf

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

Ecological site: R155XY100FL - Organic Freshwater Isolated Marshes and

Swamps

Other vegetative classification: Organic soils in depressions and on flood plains (G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL) Hydric soil rating: Yes

Basinger

Percent of map unit: 3 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave, linear Across-slope shape: Concave, linear

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps *Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL) Hydric soil rating: Yes

Anclote

Percent of map unit: 2 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Convex, concave Across-slope shape: Linear, concave

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps Other vegetative classification: Sandy soils on stream terraces, flood plains, or in

depressions (G155XB145FL)

Hydric soil rating: Yes

Floridana

Percent of map unit: 2 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave, linear Across-slope shape: Concave, linear

Ecological site: R155XY080FL - Sandy over Loamy Freshwater Isolated Marshes

and Swamps

Other vegetative classification: Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL), Freshwater Marshes and Ponds

(R155XY010FL)

Hydric soil rating: Yes

Sanibel

Percent of map unit: 2 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Linear, concave Across-slope shape: Concave

Ecological site: R155XY100FL - Organic Freshwater Isolated Marshes and

Swamps

Other vegetative classification: Organic soils in depressions and on flood plains

(G155XB645FL) Hydric soil rating: Yes

14—Sparr sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2w0q9

Elevation: 40 to 150 feet

Mean annual precipitation: 44 to 56 inches Mean annual air temperature: 68 to 77 degrees F

Frost-free period: 290 to 365 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Sparr and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sparr

Setting

Landform: Knolls on marine terraces, rises on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Interfluve, tread, rise

Down-slope shape: Linear, convex Across-slope shape: Convex, linear

Parent material: Sandy marine deposits and/or loamy marine deposits

Typical profile

A - 0 to 8 inches: sand E - 8 to 57 inches: sand

Bt - 57 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 1.98 in/hr)

Depth to water table: About 18 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: A/D

Forage suitability group: Sandy soils on rises and knolls of mesic uplands

(G154XB131FL)

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL), Upland Hardwood Hammock (R154XY008FL)

Hydric soil rating: No

Minor Components

Tavares

Percent of map unit: 5 percent

Landform: Flats on marine terraces, knolls on marine terraces, ridges on marine

terraces

Landform position (two-dimensional): Backslope, shoulder Landform position (three-dimensional): Base slope, interfluve

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)

Hydric soil rating: No

Apopka

Percent of map unit: 5 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, interfluve, tread

Down-slope shape: Linear, convex Across-slope shape: Convex. linear

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL), Upland

Hardwood Hammock (R154XY008FL)

Hydric soil rating: No

Candler

Percent of map unit: 5 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, interfluve, tread

Down-slope shape: Convex Across-slope shape: Convex

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands

(G154XB111FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)

Hydric soil rating: No

15—Tavares fine sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2w0pz

Elevation: 30 to 160 feet

Mean annual precipitation: 44 to 56 inches Mean annual air temperature: 68 to 75 degrees F

Frost-free period: 290 to 365 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Tavares and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tavares

Setting

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Interfluve, side slope, tread, rise

Down-slope shape: Convex, linear Across-slope shape: Linear

Parent material: Eolian or sandy marine deposits

Typical profile

A - 0 to 5 inches: fine sand C - 5 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 19.98 in/hr)

Depth to water table: About 42 to 60 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Forage suitability group: Sandy soils on rises, knolls, and ridges of mesic uplands

(G154XB121FL)

Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL), Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL)

Hydric soil rating: No

Minor Components

Candler

Percent of map unit: 5 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve, tread

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex, concave

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands

(G154XB111FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)

Hydric soil rating: No

Apopka

Percent of map unit: 4 percent

Landform: Ridges on marine terraces, knolls on marine terraces Landform position (two-dimensional): Summit, shoulder, footslope Landform position (three-dimensional): Crest, side slope, nose slope

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands

(G154XB111FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)

Hydric soil rating: No

Zolfo

Percent of map unit: 3 percent

Landform: Knolls on marine terraces, rises on marine terraces

Landform position (three-dimensional): Interfluve, rise

Down-slope shape: Convex, linear

Across-slope shape: Linear

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands

(G155XB131FL), North Florida Flatwoods (R154XY004FL)

Hydric soil rating: No

Narcoossee

Percent of map unit: 3 percent

Landform: Knolls on marine terraces, rises on marine terraces

Landform position (three-dimensional): Interfluve, rise

Down-slope shape: Linear, convex

Across-slope shape: Linear

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands

(G155XB131FL), Upland Hardwood Hammock (R154XY008FL)

Hydric soil rating: No

16—Urban land, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2x9fc

Elevation: 0 to 200 feet

Mean annual precipitation: 40 to 68 inches Mean annual air temperature: 68 to 79 degrees F

Frost-free period: 345 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform: Flatwoods on marine terraces, rises on marine terraces, knolls on marine terraces, ridges on marine terraces, hills on marine terraces

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Interfluve, side slope, riser, talf, rise

Down-slope shape: Linear, convex

Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Forage suitability group: Forage suitability group not assigned (G155XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G155XB999FL)

Hydric soil rating: Unranked

Minor Components

Matlacha

Percent of map unit: 3 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Tread, talf

Down-slope shape: Convex, linear

Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned

(G155XB999FL) Hydric soil rating: No

St. augustine

Percent of map unit: 3 percent Landform: Marine terraces

Landform position (three-dimensional): Tread, rise

Down-slope shape: Linear Across-slope shape: Convex

Other vegetative classification: Forage suitability group not assigned

(G155XB999FL) Hydric soil rating: No

Immokalee

Percent of map unit: 1 percent

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Riser, talf

Down-slope shape: Linear Across-slope shape: Linear

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: No

Adamsville

Percent of map unit: 1 percent

Landform: Knolls on marine terraces, rises on marine terraces

Landform position (three-dimensional): Tread, rise

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G155XB131FL), Upland Hardwood Hammock (R155XY008FL) Hydric soil rating: No

Paola

Percent of map unit: 1 percent

Landform: Knolls on marine terraces, ridges on marine terraces Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Side slope, interfluve, riser

Down-slope shape: Convex, linear

Across-slope shape: Linear

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands

(G155XB111FL), Sand Pine Scrub (R155XY001FL)

Hydric soil rating: No

Myakka

Percent of map unit: 1 percent

Landform: Drainageways on flatwoods on marine terraces Landform position (three-dimensional): Tread, talf, dip

Down-slope shape: Linear

Across-slope shape: Linear, concave

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: No

Pomello

Percent of map unit: 1 percent

Landform: Knolls on marine terraces, ridges on marine terraces Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Side slope, interfluve, riser

Down-slope shape: Convex, linear

Across-slope shape: Linear

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands

(G155XB131FL), Sand Pine Scrub (R155XY001FL)

Hydric soil rating: No

Apopka

Percent of map unit: 1 percent

Landform: Ridges on marine terraces, hills on marine terraces Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Interfluve, side slope, riser

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands

(G155XB111FL), Longleaf Pine-Turkey Oak Hills (R155XY002FL)

Hydric soil rating: No

Cypress lake

Percent of map unit: 1 percent

Landform: Drainageways on marine terraces, flats on marine terraces

Landform position (three-dimensional): Tread, dip, talf

Down-slope shape: Linear, convex Across-slope shape: Concave, linear

Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic

lowlands (G155XB241FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: Yes

Eaugallie

Percent of map unit: 1 percent

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Tread, talf

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy

soils on flats of mesic or hydric lowlands (G155XB141FL)

Hydric soil rating: No

Brynwood

Percent of map unit: 1 percent

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Tread, talf

Down-slope shape: Linear Across-slope shape: Linear

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: Yes

17—Smyrna and Myakka fine sands

Map Unit Setting

National map unit symbol: 1jtv1 Elevation: 20 to 260 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Smyrna, non-hydric, and similar soils: 41 percent

Myakka and similar soils: 39 percent

Smyrna, hydric, and similar soils: 15 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Smyrna, Non-hydric

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand E - 4 to 12 inches: fine sand Bh - 12 to 25 inches: fine sand

E' - 25 to 42 inches: fine sand B'h - 42 to 48 inches: fine sand C - 48 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 5.95 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks *Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Description of Myakka

Setting

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: fine sand E - 7 to 25 inches: fine sand Bh - 25 to 36 inches: fine sand C - 36 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 5.95 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks *Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Description of Smyrna, Hydric

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand E - 4 to 12 inches: fine sand Bh - 12 to 25 inches: fine sand E' - 25 to 42 inches: fine sand B'h - 42 to 48 inches: fine sand C - 48 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 5.95 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks Forage suitability group: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: Yes

Minor Components

Basinger

Percent of map unit: 2 percent

Landform: Drainageways on marine terraces Landform position (three-dimensional): Dip

Down-slope shape: Linear Across-slope shape: Concave

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps *Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), Slough (R154XY011FL)

Hydric soil rating: Yes

Pomona, non-hydric

Percent of map unit: 1 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Ona, non-hydric

Percent of map unit: 1 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Immokalee, non-hydric

Percent of map unit: 1 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

21—Immokalee sand

Map Unit Setting

National map unit symbol: 1jtv4

Elevation: 50 to 260 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Immokalee, non-hydric, and similar soils: 75 percent Immokalee, hydric, and similar soils: 10 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Immokalee, Non-hydric

Setting

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: sand E - 7 to 39 inches: sand Bh - 39 to 58 inches: sand E' - 58 to 66 inches: sand B'h - 66 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 1.98 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks *Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Description of Immokalee, Hydric

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: sand E - 7 to 39 inches: sand Bh - 39 to 58 inches: sand E' - 58 to 66 inches: sand B'h - 66 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks Forage suitability group: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: Yes

Minor Components

Basinger

Percent of map unit: 5 percent

Landform: Drainageways on marine terraces Landform position (three-dimensional): Dip

Down-slope shape: Linear Across-slope shape: Concave

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), Slough (R154XY011FL)

Hydric soil rating: Yes

Smyrna, non-hydric

Percent of map unit: 5 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Myakka

Percent of map unit: 5 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

23—Ona-Ona, wet, fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2w4gx

Elevation: 10 to 130 feet

Mean annual precipitation: 46 to 56 inches Mean annual air temperature: 66 to 77 degrees F

Frost-free period: 325 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Ona and similar soils: 75 percent Ona, wet, and similar soils: 12 percent

Minor components: 13 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ona

Setting

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 9 inches: fine sand Bh - 9 to 16 inches: fine sand C - 16 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 1.98 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: B/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks *Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL) Hydric soil rating: No

Description of Ona, Wet

Settina

Landform: Sloughs on marine terraces
Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 9 inches: fine sand Bh - 9 to 16 inches: fine sand C - 16 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 1.98 in/hr)

Depth to water table: About 0 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: B/D

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and

Swamps

Forage suitability group: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL) *Hydric soil rating:* Yes

Minor Components

Myakka

Percent of map unit: 5 percent

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Tread, talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: No

Basinger, hydric

Percent of map unit: 4 percent

Landform: Drainageways on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave, linear Across-slope shape: Concave, linear

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), Slough (R155XY011FL)

Hydric soil rating: Yes

Immokalee

Percent of map unit: 4 percent

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Tread, talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: No

25—Placid and Myakka fine sands, depressional

Map Unit Setting

National map unit symbol: 1jtv8

Elevation: 20 to 250 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Placid, depressional, and similar soils: 60 percent Myakka, depressional, and similar soils: 30 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Placid, Depressional

Setting

Landform: Depressions on marine terraces Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Sandy marine deposits

Typical profile

A - 0 to 18 inches: fine sand Cg - 18 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Moderate (about 6.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: A/D

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and

Swamps

Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL)

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Freshwater Marshes and Ponds

(R154XY010FL) Hydric soil rating: Yes

Description of Myakka, Depressional

Setting

Landform: Depressions on marine terraces Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Sandy marine deposits

Typical profile

A - 0 to 3 inches: fine sand E - 3 to 25 inches: fine sand Bh - 25 to 35 inches: fine sand Cg - 35 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 5.95 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: A/D

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and

Swamps

Forage suitability group: Sandy soils on stream terraces, flood plains, or in

depressions (G154XB145FL)

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in

depressions (G154XB145FL), Freshwater Marshes and Ponds

(R154XY010FL) Hydric soil rating: Yes

Minor Components

Basinger, depressional

Percent of map unit: 3 percent

Landform: Depressions on marine terraces Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Freshwater Marshes and Ponds (R154XY010FL)

Hydric soil rating: Yes

Ona, hydric

Percent of map unit: 3 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: Yes

St. johns, hydric

Percent of map unit: 2 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), Cutthroat Seeps (R154XY007FL)

Hydric soil rating: Yes

Pomona, hydric

Percent of map unit: 2 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: Yes

27—Kendrick fine sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2v17l

Elevation: 30 to 300 feet

Mean annual precipitation: 44 to 56 inches Mean annual air temperature: 68 to 75 degrees F

Frost-free period: 300 to 365 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Kendrick and similar soils: 80 percent Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kendrick

Setting

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits over loamy marine deposits

Typical profile

A - 0 to 7 inches: fine sand E - 7 to 28 inches: fine sand

Bt - 28 to 73 inches: sandy clay loam BC - 73 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: A

Forage suitability group: Sandy over loamy soils on knolls and ridges of mesic

uplands (G154XB211FL)

Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL), Upland Hardwood Hammock (R154XY008FL)

Hydric soil rating: No

Minor Components

Candler

Percent of map unit: 7 percent

Landform: Ridges on marine terraces, knolls on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Interfluve, side slope

Down-slope shape: Convex Across-slope shape: Convex

Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL),

Sandy soils on ridges and dunes of xeric uplands (G155XB111FL)

Hydric soil rating: No

Micanopy

Percent of map unit: 5 percent Landform: Rises on marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Loamy and clayey soils on flats and rises of mesic

lowlands (G154XB331FL)

Hydric soil rating: No

Nobleton

Percent of map unit: 4 percent Landform: Rises on marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Sandy over loamy soils on rises and knolls of

mesic uplands (G154XB231FL)

Hydric soil rating: No

Blichton

Percent of map unit: 4 percent

Landform: Ridges on marine terraces, knolls on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, interfluve

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Sandy over loamy, loamy, or clayey soils on flats

and rises of hydric uplands (G154XB441FL)

Hydric soil rating: No

31—Adamsville fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2r8h8

Elevation: 10 to 100 feet

Mean annual precipitation: 47 to 56 inches Mean annual air temperature: 68 to 75 degrees F

Frost-free period: 290 to 365 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Adamsville and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Adamsville

Setting

Landform: Flats on marine terraces, rises on marine terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

Ap - 0 to 7 inches: fine sand C1 - 7 to 20 inches: fine sand C2 - 20 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 19.98 in/hr)

Depth to water table: About 18 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: A/D

Forage suitability group: Sandy soils on rises and knolls of mesic uplands (G154XB131FL), Sandy soils on rises and knolls of mesic uplands (G155XB131FL)

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL), South Florida Flatwoods (R154XY003FL), Upland Hardwood Hammock (R155XY008FL), Sandy soils on rises and knolls of mesic uplands (G155XB131FL)

Hydric soil rating: No

Minor Components

Myakka

Percent of map unit: 3 percent

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Tread, talf

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: No

Basinger

Percent of map unit: 2 percent

Landform: Drainageways

Landform position (three-dimensional): Dip, talf

Down-slope shape: Concave, linear Across-slope shape: Concave, convex

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), Slough (R155XY011FL)

Hydric soil rating: Yes

32—Kaliga muck, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2tzx5

Elevation: 0 to 130 feet

Mean annual precipitation: 44 to 55 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Kaliga and similar soils: 80 percent Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kaliga

Setting

Landform: Depressions on flatwoods on marine terraces Landform position (three-dimensional): Tread, dip, talf

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

Parent material: Herbaceous organic material over loamy marine deposits

Typical profile

Oa - 0 to 25 inches: muck

C1 - 25 to 35 inches: fine sandy loam C2 - 35 to 60 inches: sandy clay loam C3 - 60 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr) Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very high (about 15.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: C/D

Forage suitability group: Organic soils in depressions and on flood plains

(G155XB645FL)

Other vegetative classification: Organic soils in depressions and on flood plains

(G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)

Hydric soil rating: Yes

Minor Components

Samsula

Percent of map unit: 5 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave Across-slope shape: Concave

Other vegetative classification: Organic soils in depressions and on flood plains

(G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)

Hydric soil rating: Yes

Tequesta

Percent of map unit: 4 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Concave

Other vegetative classification: Organic soils in depressions and on flood plains

(G156AC645FL), Freshwater Marshes and Ponds (R156BY010FL)

Hydric soil rating: Yes

Chobee

Percent of map unit: 4 percent

Landform: Depressions on flatwoods on marine terraces Landform position (three-dimensional): Tread, talf, dip

Down-slope shape: Linear, concave Across-slope shape: Concave, linear

Other vegetative classification: Organic soils in depressions and on flood plains

(G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)

Hydric soil rating: Yes

Felda

Percent of map unit: 4 percent

Landform: Depressions on marine terraces, flatwoods on marine terraces

Landform position (three-dimensional): Tread, dip, talf

Down-slope shape: Linear

Across-slope shape: Concave, linear

Other vegetative classification: Slough (R155XY011FL), Sandy over loamy soils

on flats of hydric or mesic lowlands (G155XB241FL)

Hydric soil rating: Yes

Placid

Percent of map unit: 3 percent

Landform: Drainageways on marine terraces, depressions on marine terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave Across-slope shape: Concave

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in

depressions (G155XB145FL), Freshwater Marshes and Ponds

(R155XY010FL) Hydric soil rating: Yes

35—Hontoon muck, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2vbpg

Elevation: 0 to 250 feet

Mean annual precipitation: 43 to 63 inches Mean annual air temperature: 68 to 77 degrees F

Frost-free period: 300 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Hontoon and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hontoon

Setting

Landform: Depressions on marine terraces Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Herbaceous organic material

Typical profile

Oa - 0 to 75 inches: muck
AC - 75 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very high (about 23.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: A/D

Forage suitability group: Organic soils in depressions and on flood plains

(G154XB645FL)

Other vegetative classification: Organic soils in depressions and on flood plains

(G154XB645FL), Freshwater Marshes and Ponds (R154XY010FL)

Hydric soil rating: Yes

Minor Components

Samsula

Percent of map unit: 5 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave Across-slope shape: Concave

Other vegetative classification: Organic soils in depressions and on flood plains

(G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)

Hydric soil rating: Yes

Hontoon, drained

Percent of map unit: 5 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave Across-slope shape: Concave

Other vegetative classification: Organic soils in depressions and on flood plains

(G154XB645FL), Freshwater Marshes and Ponds (R154XY010FL)

Hydric soil rating: Yes

Placid

Percent of map unit: 3 percent

Landform: Drainageways on marine terraces, depressions on marine terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave Across-slope shape: Concave

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in

depressions (G155XB145FL), Freshwater Marshes and Ponds

(R155XY010FL) Hydric soil rating: Yes

Basinger

Percent of map unit: 2 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave, linear Across-slope shape: Concave, linear

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL) Hydric soil rating: Yes

42—Felda fine sand

Map Unit Setting

National map unit symbol: 1jtvs Elevation: 20 to 200 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Felda and similar soils: 80 percent Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Felda

Setting

Landform: Drainageways on marine terraces Landform position (three-dimensional): Dip

Down-slope shape: Linear Across-slope shape: Concave

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: fine sand Eg - 5 to 22 inches: fine sand

Btg - 22 to 50 inches: sandy clay loam Cg - 50 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 5.95 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: A/D

Ecological site: R155XY080FL - Sandy over Loamy Freshwater Isolated Marshes and Swamps

Forage suitability group: Sandy over loamy soils on flats of hydric or mesic lowlands (G154XB241FL)

Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic

lowlands (G154XB241FL), Slough (R154XY011FL)

Hydric soil rating: Yes

Minor Components

Floridana, depressional

Percent of map unit: 5 percent

Landform: Depressions on marine terraces Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Ecological site: R155XY080FL - Sandy over Loamy Freshwater Isolated Marshes

and Swamps

Other vegetative classification: Sandy over loamy soils on stream terraces, flood plains, or in depressions (G154XB245FL), Freshwater Marshes and Ponds (R154XY010FL)

Hydric soil rating: Yes

Malabar

Percent of map unit: 5 percent

Landform: Flats on marine terraces, drainageways on marine terraces

Landform position (three-dimensional): Talf, dip

Down-slope shape: Linear Across-slope shape: Concave

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), Slough (R154XY011FL)

Hydric soil rating: Yes

Oldsmar, non-hydric

Percent of map unit: 5 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G154XB141FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Bradenton, hydric

Percent of map unit: 5 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F155XY140FL - Loamy and Clayey Hardwood Hammocks

Other vegetative classification: Loamy and clayey soils on flats of hydric or mesic lowlands (G154XB341FL), Upland Hardwood Hammock (R154XY008FL)

Hydric soil rating: Yes

47—Zolfo fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2w0q1

Elevation: 30 to 160 feet

Mean annual precipitation: 44 to 56 inches
Mean annual air temperature: 68 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Zolfo and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Zolfo

Setting

Landform: Flatwoods on marine terraces, rises on marine terraces

Landform position (two-dimensional): Summit Landform position (three-dimensional): Tread, rise

Down-slope shape: Linear, convex

Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 5 inches: fine sand E - 5 to 59 inches: fine sand Bh - 59 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 18 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: A

Forage suitability group: Sandy soils on rises and knolls of mesic uplands

(G155XB131FL)

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G155XB131FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: No

Minor Components

Myakka

Percent of map unit: 5 percent

Landform: Drainageways on flatwoods on marine terraces Landform position (three-dimensional): Tread, talf, dip

Down-slope shape: Linear

Across-slope shape: Linear, concave

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: No

Millhopper

Percent of map unit: 4 percent

Landform: Flatwoods on marine terraces, rises on marine terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread, talf, rise

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic

uplands (G155XB121FL)

Hydric soil rating: No

Tavares

Percent of map unit: 4 percent

Landform: Flatwoods on marine terraces, knolls on marine terraces, rises on marine terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve, side slope, tread, rise

Down-slope shape: Convex, linear Across-slope shape: Linear, convex

Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G155XB121FL), Longleaf Pine-Turkey Oak Hills (R155XY002FL),

Sand Pine Scrub (R155XY001FL)

Hydric soil rating: No

Malabar

Percent of map unit: 2 percent Landform: — error in exists on —

Landform position (three-dimensional): Tread, talf, dip

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands

(G155XB141FL), Slough (R155XY011FL)

Hydric soil rating: Yes

49—Adamsville-Urban land complex

Map Unit Setting

National map unit symbol: 1jtvz Elevation: 10 to 120 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Adamsville and similar soils: 60 percent

Urban land: 30 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Adamsville

Setting

Landform: Flats on marine terraces, rises on marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 6 inches: fine sand C - 6 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 19.98 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: A

Ecological site: F155XY150FL - Sandy Upland Mesic Flatwoods and Hammocks

on Rises and Knolls

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: No

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Ecological site: F155XY150FL - Sandy Upland Mesic Flatwoods and Hammocks

on Rises and Knolls

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

Minor Components

Satellite

Percent of map unit: 5 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: R155XY180FL - Sandy Scrub on Rises, Ridges, and Knolls of

Mesic Uplands

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL), Sand Pine Scrub (R154XY001FL)

Hydric soil rating: No

Tavares

Percent of map unit: 5 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: R155XY180FL - Sandy Scrub on Rises, Ridges, and Knolls of

Mesic Uplands

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)

Hydric soil rating: No

51—Pomona-Urban land complex

Map Unit Setting

National map unit symbol: 1jtw1

Elevation: 20 to 120 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Pomona, non-hydric, and similar soils: 45 percent

Urban land: 30 percent

Pomona, hydric, and similar soils: 10 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pomona, Non-hydric

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand E - 6 to 21 inches: sand

Bh - 21 to 26 inches: loamy fine sand

E' - 26 to 48 inches: fine sand

Btg - 48 to 73 inches: fine sandy loam Cg - 73 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.20 to 1.98 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: No

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

Description of Pomona, Hydric

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand E - 6 to 21 inches: sand

Bh - 21 to 26 inches: loamy fine sand

E' - 26 to 48 inches: fine sand

Btg - 48 to 73 inches: fine sandy loam Cg - 73 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.20 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: Yes

Minor Components

Myakka

Percent of map unit: 5 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks Other vegetative classification: Forage suitability group not assigned (G154XB999FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Immokalee

Percent of map unit: 5 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks *Other vegetative classification:* Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: No

Wauchula, non-hydric

Percent of map unit: 5 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY130FL - Sandy over Loamy Flatwoods and Hammocks

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

53—Myakka-Immokolee-Urban land complex

Map Unit Setting

National map unit symbol: 1jtw2

Elevation: 20 to 210 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Myakka, non-hydric, and similar soils: 30 percent

Urban land: 25 percent

Immokalee and similar soils: 25 percent Myakka, hydric, and similar soils: 10 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Myakka, Non-hydric

Setting

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: fine sand E - 7 to 25 inches: fine sand Bh - 25 to 36 inches: fine sand C - 36 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 5.95 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: No

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

Description of Immokalee

Setting

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: sand E - 7 to 39 inches: sand Bh - 39 to 58 inches: sand E' - 58 to 66 inches: sand B'h - 66 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 1.98 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: No

Description of Myakka, Hydric

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: fine sand E - 7 to 25 inches: fine sand Bh - 25 to 36 inches: fine sand C - 36 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 5.95 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: Yes

Minor Components

Ona, non-hydric

Percent of map unit: 3 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex

Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks Other vegetative classification: Forage suitability group not assigned (G154XB999FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

Basinger

Percent of map unit: 3 percent

Landform: Drainageways on marine terraces Landform position (three-dimensional): Dip

Down-slope shape: Linear Across-slope shape: Concave

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks *Other vegetative classification:* Forage suitability group not assigned

(G154XB999FL), Slough (R154XY011FL)

Hydric soil rating: Yes

Pomello

Percent of map unit: 2 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluve, rise

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY150FL - Sandy Upland Mesic Flatwoods and Hammocks

on Rises and Knolls

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands

(G154XB131FL), Sand Pine Scrub (R154XY001FL)

Hydric soil rating: No

Pomona, non-hydric

Percent of map unit: 2 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks Other vegetative classification: Forage suitability group not assigned (G154XB999FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

54—Pomello-Urban land complex

Map Unit Setting

National map unit symbol: 1jtw3

Elevation: 10 to 180 feet

Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Pomello and similar soils: 55 percent

Urban land: 30 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pomello

Setting

Landform: Flats on marine terraces, rises on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 5 inches: fine sand E - 5 to 48 inches: fine sand Bh - 48 to 63 inches: fine sand BC - 63 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95

in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: No

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

Minor Components

Immokalee, non-hydric

Percent of map unit: 5 percent

Landform: Flatwoods on marine terraces Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), South Florida Flatwoods (R154XY003FL)

Hydric soil rating: No

St. johns, hydric

Percent of map unit: 5 percent Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL), Cutthroat Seeps (R154XY007FL)

Hydric soil rating: Yes

Satellite

Percent of map unit: 5 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL), Sand Pine Scrub (R154XY001FL)

Hydric soil rating: No

55—Sparr-Urban land complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1jtw4

Elevation: 20 to 150 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Sparr and similar soils: 50 percent

Urban land: 35 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sparr

Setting

Landform: Flats on marine terraces, rises on marine terraces

Landform position (three-dimensional): Interfluve, rise

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 8 inches: sand E - 8 to 57 inches: sand

Bt - 57 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 1.98 in/hr)

Depth to water table: About 18 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: A/D

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: No

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

Minor Components

Millhopper

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Upland Hardwood Hammock (R154XY008FL)

Hydric soil rating: No

Apopka

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces Landform position (three-dimensional): Interfluve, side slope

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)

Hydric soil rating: No

Candler

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Convex

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)

Hydric soil rating: No

Tavares

Percent of map unit: 3 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)

Hydric soil rating: No

59—Arents-Urban land complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1jtw7

Elevation: 50 to 210 feet

Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Arents and similar soils: 55 percent

Urban land: 45 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arents

Setting

Landform: Rises on marine terraces

Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Altered marine deposits

Typical profile

C - 0 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 19.98 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: No

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

60—Arents, sandy

Map Unit Setting

National map unit symbol: 1jtw8

Elevation: 80 to 230 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Arents, sandy, and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arents, Sandy

Setting

Landform: Rises on marine terraces

Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Altered marine deposits

Typical profile

AC - 0 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 to

50.02 in/hr)

Depth to water table: About 24 to 48 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: A

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: No

61—Arents, organic substratum-Urban land complex

Map Unit Setting

National map unit symbol: 1jtw9

Elevation: 50 to 180 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Arents, organic substratum, and similar soils: 51 percent

Urban land: 49 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arents, Organic Substratum

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy dredge spoils over organic material over sandy marine

deposits

Typical profile

C - 0 to 30 inches: sand Oa - 30 to 65 inches: muck Cg - 65 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 19.98 in/hr)

Depth to water table: About 24 to 36 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very high (about 13.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: No

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

63—Tavares-Urban land complex

Map Unit Setting

National map unit symbol: 1jtwc

Elevation: 20 to 120 feet

Mean annual precipitation: 46 to 54 inches Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Tavares and similar soils: 75 percent

Urban land: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tavares

Setting

Landform: Rises on marine terraces, flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Eolian or sandy marine deposits

Typical profile

A - 0 to 8 inches: fine sand C - 8 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95

to 50.02 in/hr)

Depth to water table: About 42 to 72 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL) Hydric soil rating: No

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

99—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Interpretive groups

Land capability classification (irrigated): None specified

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned

(G154XB999FL)

Hydric soil rating: Unranked

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2 053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2 053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2 053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX B: USACE WETLAND DATA FORMS

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: Sampling Point: WO Applicant/Owner: Investigator(s): Section, Township, Range: _ Landform (hillslope, terrace, etc.): ____ Local relief (concave, convex, none): Slope (%): ___ Long: -82.014010 Subregion (LRR or MLRA): _____ Soil Map Unit Name: NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) Are Vegetation _____, Soil _____, 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 showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) ___ Surface Water (A1) __ Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) __ High Water Table (A2) ___ Marl Deposits (B15) (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-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: **Surface Water Present?** Depth (inches): Water Table Present? Depth (inches): Saturation Present? No ____ Depth (inches): _____ Wetland Hydrology Present? Yes _ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: NO hydrology indicators observed.

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

Sampling Point: WOI-U

Tree Stratum (Plot size: 30)	% Cover	Species	Status	Number of Dominant Species	
1. Quercus Virginana	60	7		That Are OBL, FACW, or FAC:	(A)
2. CINNIMOMUM Camphorata	20			Total Number of Designed	
3. Sabal palmetto	15		FAC	Total Number of Dominant Species Across All Strata:	(B)
4.					
5.			1-14-5	Percent of Dominant Species	(A (D)
				That Are OBL, FACW, or FAC:	(A/B)
6.		- Total Co		Prevalence Index worksheet:	
500/-51-1-1				Total % Cover of: Mul	tiply by:
50% of total cover:	20% of	total cover	·	OBL species x 1 = _	
Sapling Stratum (Plot size:	40	V		FACW species x 2 = _	
1. CIANIMON UM Compharate				FAC species x 3 =	
				FACU species x 4 = _	
3.	100000	_		UPL species x 5 =	
4,					
5,				Column Totals: (A) _	(D)
6				Prevalence Index = B/A =	
		= Total Co	ver	Hydrophytic Vegetation Indicators:	
50% of total cover:				1 - Rapid Test for Hydrophytic Ve	getation
Shrub Stratum (Plot size:)				2 - Dominance Test is >50%	geration
1. Sambucus canadensis			FACW	3 - Prevalence Index is ≤3.01	
2.					1 (=-1-:-)
				Problematic Hydrophytic Vegetation	on (Explain)
3.					
4				Indicators of hydric soil and wetland h	
5				be present, unless disturbed or proble	
6				Definitions of Five Vegetation Strata	a:
		= Total Co		Tree - Woody plants, excluding woody	y vines,
50% of total cover:	20% of	total cover	:	approximately 20 ft (6 m) or more in he	
Herb Stratum (Plot size:)	110		<u></u>	(7.6 cm) or larger in diameter at breast	t height (DBH).
1. Nephrolepis sp.	40		MAC	Sapling - Woody plants, excluding wo	ody vines,
2. Vrena lobata	20		FAC	approximately 20 ft (6 m) or more in he	eight and less
3. Hyptis alata (cander Vertic.)	10		NL	than 3 in. (7.6 cm) DBH,	
2. Vrena labata 3. Hyptis alata (cander Vertic.) 4.				Shrub - Woody plants, excluding woo	dy vines,
5.				approximately 3 to 20 ft (1 to 6 m) in h	eight.
6.				Herb – All herbaceous (non-woody) pl	ants including
		1 12		herbaceous vines, regardless of size,	
7	-			plants, except woody vines, less than	approximately
8	-			3 ft (1 m) in height,	
9,				Woody vine - All woody vines, regard	lless of height.
10					
11,					
		= Total Co	ver		
50% of total cover:	20% of	total cover			
Woody Vine Stratum (Plot size:)	90. 9550		N	- 12 1	
1. Vitis votunditolia	15		-AC		
2.					
3.				38.0	
A.					
5		Teles C		Hydrophytic	
- - <u> </u>		= Total Co		Vegetation Present? Yes No	
EOO/ of total acutar	20% of	total cover	1	1	
50% of total cover:			2.5		

	m the absence of indicators.)
Depth Matrix Redox Features Color (moist) % Color (moist) % Type Loc²	- Tantura B. I
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Texture Remarks Fine Sand
8-18 10YR 4/2 100	finesand
8 16 10 IN 1/2 100	Thesano
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T,	U) 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) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (LRR P, S, T) Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	Other (Explain in Remarks)
Depleted Below Bark Surface (A11) Depleted Octific (F11) (MERA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, F	P, T) ³ Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 1 Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (ML	
Dark Surface (S7) (LRR P, S, T, U)	NA 143A, 133C, 133D)
Restrictive Layer (if observed):	
adjoi fii opodi todi.	
Туре;	
Type: Depth (inches):	Hydric Soil Present? Yes No
Type; Depth (inches): Remarks:	Hydric Soil Present? Yes No
Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type:	
Type: Depth (inches): Remarks:	
Type:	
Type: Depth (Inches): Remarks: 18" Soil pit excavated NO hydric soils indicators	
Type: Depth (Inches): Remarks: 18" Soil pit excavated NO hydric soils indicators	
Type: Depth (Inches): Remarks: 18" Soil pit excavated NO hydric soils indicators	abserved.
Type: Depth (Inches): Remarks: 18" Soil pit excavated NO hydric soils indicators	
Type: Depth (Inches): Remarks: 18" Soil pit excavated NO hydric soils indicators	abserved.
Type: Depth (Inches): Remarks: 18" Soil pit excavated NO hydric soils indicators	abserved.
Type: Depth (Inches): Remarks: 18" Soil pit excavated NO hydric soils indicators	abserved.
Type: Depth (inches): Remarks: NO hydric soils indicators	abserved.

Project/Site: Lake B	DETERMINATION DATA F			4-15-2
. 10,000 0.101	0.17	City/County:		Sampling Date:
Applicant/Owner:			State:	Sampling Point: WOL-V
Investigator(s):		Section, Township, Ra		
Landform (hillslope, terrace, etc.):	DW 10403	Local relief (concave, o	convex, none):	1at Slope (%): 0-2
Subregion (LRR or MLRA):	Lat: 28	.043398	_ong: < 82,01	4133 Datum:
Soil Map Unit Name:		119/		ssification:
		-0.Y V		
Are climatic / hydrologic conditions or			(1111)	· ·
Are Vegetation, Soil,	or Hydrology significantly	disturbed? Are "	Normal Circumstant	ces" present? Yes No
Are Vegetation, Soil,	or Hydrology naturally pro	blematic? (If ne	eded, explain any a	nswers in Remarks.)
SUMMARY OF FINDINGS -	Attach site map showing	sampling point le	ocations, trans	ects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No	is the Sampled within a Wetlar		No
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary I	ndicators (minimum of two required)
Primary Indicators (minimum of one	is required; check all that apply)			Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13	1)		y Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15)	-		e Patterns (B10)
Saturation (A3)	Hydrogen Sulfide O		_	rim Lines (B16)
Water Marks (B1)		eres along Living Roots		ason Water Table (C2)
Sediment Deposits (B2)	Presence of Reduce			Burrows (C8)
Drift Deposits (B3)		ion in Tilled Soils (C6)		on Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface	(C7)		rphic Position (D2)
Iron Deposits (B5)	Other (Explain in Re	emarks)	Shallow	Aquitard (D3)
Inundation Visible on Aerial Ima	gery (B7)		FAC-Ne	eutral Test (D5)
Water-Stained Leaves (B9)			Sphagn	um moss (D8) (LRR T, U)
Field Observations:				
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present? Yes (includes capillary fringe)			tland Hydrology Pi	resent? Yes No
Describe Recorded Data (stream ga	uge, monitoring well, aerial photo	s, previous inspections), if available:	
Remarks:				
	*			

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

Sampling Point: WOI-W

241	Absolute Domir	ant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover Spec		Number of Dominant Species
1. Quercus laurifolia	50 Y	FACW	That Are OBL, FACW, or FAC:(A)
2. Cettis laevigata	20 >	FACW	Total Number of Dominant
3. Ulmis american	25 4	FACW	Species Across Ali Strata: (B)
4	1565 - 195	and the second	9886=534 c=0m.
5.			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6.			
	= Total	Cover	Prevalence Index worksheet:
50% of total cover:	20% of total co	over:	Total % Cover of: Multiply by:
Sapling Stratum (Plot size:)			OBL species x1 =
1. ACITUBRUM	15	FAC	FACW species x 2 =
2. Sambucus camadensis	15	ACW	FAC species x 3 =
3. CInnamomin camphorate	10	UPL	FACU species x 4 =
4.			UPL species x 5 =
5			Column Totals: (A) (B)
6.			
0	= Total	Cover	Prevalence Index = B/A =
EDDY - FACILITY			Hydrophytic Vegetation Indicators:
50% of total cover:	ZU% OF TOTAL CO	Ner:	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:) 1. Sambucus Cayradensis	15	HAVI.	2 - Dominance Test is >50%
		- I TOW	3 - Prevalence Index is ≤3.01
2. Celtis lacuigata		_ FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3			50,200 - 50,000
4			Indicators of hydric soil and wetland hydrology must
5		1111	be present, unless disturbed or problematic.
6	11/14/6		Definitions of Five Vegetation Strata:
	= Total	Cover	Tree – Woody plants, excluding woody vines,
50% of total cover:	20% of total co	ver:	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size:)		10.50	(7.6 cm) or larger in diameter at breast height (DBH).
1. Colocasa esculenta	15	FAUN	Sapling – Woody plants, excluding woody vines,
2. Candea verticillata	10	NI	approximately 20 ft (6 m) or more in height and less
3. Nephrelenis Sp.	2.5	FAC	than 3 in. (7.6 cm) DBH.
4. Pychotnia nervosa	25	FAC	Shrub – Woody plants, excluding woody vines,
	~	17/	approximately 3 to 20 ft (1 to 6 m) in height.
5			and the second s
6			Herb – Ali herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody
7	· — — —		plants, except woody vines, less than approximately
8		n	3 ft (1 m) in height.
9.			Woody vine - All woody vines, regardless of height.
10.	7	10	, with a stary times regardless of neight.
11,			
	= Total	Cover	
50% of total cover:	20% of total co	ver:	
Woody Vine Stratum (Plot size:)		,	
1. Vitis votunditolia		_ FAC	
2. 7			i i
3.		— —	
1			
T			
J		0	Hydrophytic
	= Total		Vegetation Present? Yes No
50% of total cover:		ver:	
Remarks: (If observed, list morphological adaptations bel	ow).		

Profile Description: (Describe to the depth needed to document the indicator or confirm	n the absence of indicators.)
Depth Matrix Redox Features	,
(inches) Color (moist) % Color (moist) % Type Loc2	Texture Remarks
0-6 7.5YR 2.5/1 100	Gifty sand
	time sand
10-18 104R4/1 60 7.5YR2,5/1 40	Fine Sand
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, I	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)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	22-25-5
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P,	T) Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B))
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14	49A)
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLF	RA 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)	
Restrictive Layer (if observed):	
Type:	
Type:	Hudrig Coll Branget? Van Na
Depth (inches):	Hydric Soll Present? Yes No
	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soli Present? Yes No
Depth (inches):	Hydric Soli Present? Yes No
Depth (inches):	Hydric Soli Present? Yes No
Depth (inches):	Hydric Soli Present? Yes No
Depth (inches):	Hydric Soli Present? Yes No
Depth (inches):	Hydric Soli Present? Yes No
Depth (inches):	Hydric Soli Present? Yes No
Depth (inches):	Hydric Soli Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No

Lake Bonnet
WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site:	2-U		City/0	County:		_ Sampling Date: SAPR
applicant/Owner:					State:	_ Sampling Point: WO2
nvestigator(s):			Secti			
andform (hillslope, terrace, e	etc.):		Local	relief (concave, convex,	none):	Slope (%):
ubregion (LRR or MLRA):			Lat:	Long:		Datum:
oil Map Unit Name:				-		fication:
re climatic / hydrologic condi	itions on the	site typical for	this time of year?			
						present? Yes No
re Vegetation, Soil _						vers in Remarks.)
UMMARY OF FINDING	GS - Atta	ich site ma	p showing san	npling point location	ons, transect	ts, important features, et
Hydrophytic Vegetation Pres	sent?	Yes	No	Is the Sampled Area		
Hydric Soil Present?			No	within a Wetland?	Voc	No
Wetland Hydrology Present?	?	Yes		Within a Welland?	195	NO
YDROLOGY	III - PAIN IN	4				
Wetland Hydrology Indicat						cators (minimum of two required
Primary Indicators (minimum	of one is rec				Surface So	
Surface Water (A1)			ntic Fauna (B13)			egetated Concave Surface (B8)
High Water Table (A2) Saturation (A3)			Deposits (B15) (LR ogen Sulfide Odor (· ·		atterns (B10)
Water Marks (B1)				along Living Roots (C3)		Lines (B16) n Water Table (C2)
Sediment Deposits (B2)	West - Lat		ence of Reduced Iro		_	rrows (C8)
Drift Deposits (B3)		Rece	ent Iron Reduction in	Tilled Soils (C6)		Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Thin	Muck Surface (C7)		Geomorphi	c Position (D2)
Iron Deposits (B5)		_	r (Explain in Remar	ks)	Shallow Aq	uitard (D3)
Inundation Visible on Ae Water-Stained Leaves (I		(B7)				al Test (D5) moss (D8) (LRR T, U)
Field Observations:						
Surface Water Present?	Yes	_ No	Depth (inches):			
Water Table Present?	Yes	No	Depth (inches):			
Saturation Present? includes capillary fringe)	Yes	No	Depth (inches):	Wetland I	lydrology Prese	ent? Yes No
Describe Recorded Data (str	ream gauge,	monitoring we	ell, aerial photos, pre	evious inspections), if ava	ilable:	
		<u> </u>				
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						

VEGETATION (Five Strata) – Use scientific names of plants.

rampling Point: Wa2- (

3/1	Absolute Dominant Indicate	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	% Cover Species? Status	7 Number of Dominant Species
1. Quercus Virginiana		That Are OBL, FACW, or FAC:(A)
2		Total Number of Dominant
3		Species Across All Strata: (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: (A/B)
6.		Prevalence Index worksheet:
	= Total Cover	
50% of total cover	: 20% of total cover:	Total % Cover of: Multiply by:
Sapling Stratum (Plot size:)	1	OBL species x 1 =
1. CINDOMOMUM Camphor	ala 45 NI	' FACW species x 2 =
2. Sabal palm	20 FAC	FAC species x 3 =
3.		FACU species x 4 =
4.		UPL species x 5 =
		Column Totals: (A) (B)
5		
6		Prevalence Index = B/A =
	= Total Cover	Hydrophytic Vegetation Indicators:
	20% of total cover:	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:)	O- UT	2 - Dominance Test is >50%
1. CIMEMONNIN Cample	<u>25</u>	3 - Prevalence Index is ≤3.01
2		Problematic Hydrophytic Vegetation ¹ (Explain)
3		THE STATE OF THE S
4.		Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
6.		Definitions of Five Vegetation Strata:
0.	= Total Cover	_ Dominions of the Vogotation Charles
5004 of total agree	20% of total cover:	Tree – Woody plants, excluding woody vines,
	20% of 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:) 1. PS YCHOTNA NCWNOSA	20 FA	
	20 1/1	Sapling – Woody plants, excluding woody vines,
2. Texicodendran radican		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3.		_ India o in (1.5 on) 5511.
4		Shrub - Woody plants, excluding woody vines,
5		approximately 3 to 20 ft (1 to 6 m) in height.
6		Herb - All herbaceous (non-woody) plants, including
7.		herbaceous vines, regardless of size, and woody
8.		plants, except woody vines, less than approximately
	THE RESERVE TO SERVE THE RESERVE TO SERVE THE RESERVE	_ 3 ft (1 m) in height.
9		Woody vine - All woody vines, regardless of height.
10		
11		
	= Total Cover	
50% of total cover	: 20% of total cover;	-
Woody Vine Stratum (Plot size:) a= FAC	
1. Vitis votund italium	10	- 1
2	<u> </u>	_
3.		
4		
5.		Hudronbutto
	= Total Cover	- Hydrophytic Vegetation
5004 of total amore	: 20% of total cover:	Present? Yes No
		-
Remarks: (if observed, list morphological adaptation	181	
NO OBLA FAEW SP	acres present	
	/	

1	II 1		

Sampling Point: WO2 - U

I I TOME Description. (F		sened to document	the indicator or confirm	the absence of indicators.)	
Depth	Matrix	Redox Fea		9.47	
(inches) Color (M Type Loc2	Texture Remarks	_
0-10 104K		YR 3/1 10		fine sand	
10-14 JOYR	4/1 60 10	YR 3/1 4	6	fine saw	
14-18 10YR	7/1 80 10	YR 4/1 2	0	finesand	1.110.27
					
	, D=Depletion, RM=Red			² Location: PL=Pore Lining, M=Matrix.	
I	(Applicable to all LRR	•	•	Indicators for Problematic Hydric Solis ³ :	
Histosol (A1)			Surface (S8) (LRR S, T, U	. —	
Histic Epipedon (A2	_	 Thin Dark Surface Loamy Mucky Min 		2 cm Muck (A10) (LRR S)	OA D\
Hydrogen Sulfide (A	.4)	Loamy Gleyed Ma		Reduced Vertic (F18) (outside MLRA 15 Piedmont Floodplain Soils (F19) (LRR P,	
Stratified Layers (A		_ Depleted Matrix (F		Anomalous Bright Loamy Soils (F20)	0, 1,
Organic Bodies (A6		Redox Dark Surfac	ce (F6)	(MLRA 153B)	
5 cm Mucky Minera	• • • • • • •	_ Depleted Dark Sur		Red Parent Material (TF2)	
Muck Presence (A8		_ Redox Depression		Very Shallow Dark Surface (TF12)	
1 cm Muck (A9) (LF Depleted Below Dai	le Ounte en (Add)	_ Marl (F10) (LRR U _ Depleted Ochric (F	•	Other (Explain in Remarks)	
Thick Dark Surface		- '	lasses (F12) (LRR O, P,	T) 3Indicators of hydrophytic vegetation and	d
	(A16) (MLRA 150A)	_ Umbric Surface (F	. , , , , ,	wetland hydrology must be present.	u
Sandy Mucky Miner				unless disturbed or problematic.	
Sandy Gleyed Matri	x (S4)	Reduced Vertic (F	18) (MLRA 150A, 150B)	·	
Sandy Redox (S5)	_		in Soils (F19) (MLRA 14		
Stripped Matrix (S6)		_ Anomalous Bright	Loamy Soils (F20) (MLR /	A 149A, 153C, 153D)	
	RR P, S, T, U)			· · · · · · · · · · · · · · · · · · ·	
Restrictive Layer (if ob					
Restrictive Layer (if ob				Hydric Soil Present? Yes No.	
Restrictive Layer (if ob Type: Depth (inches):				Hydric Soil Present? Yes No	
Restrictive Layer (if ob				Hydric Soll Present? Yes No	
Restrictive Layer (if ob Type: Depth (inches):	served):				
Restrictive Layer (if ob Type: Depth (inches):	served):	501	indicati		
Restrictive Layer (if ob Type: Depth (inches):	served):	- 50il	indicato	Hydric Soil Present? Yes No V	
Restrictive Layer (if ob Type: Depth (inches):	served):	Soil	indicato		
Restrictive Layer (if ob Type:	served):	Soil	indicato		
Restrictive Layer (if ob Type:	served):	Soil	indicato		
Restrictive Layer (if ob Type:	served):	50il	indicate		
Restrictive Layer (if ob Type:	served):	- 50il	indicato		
Restrictive Layer (if ob Type:	hydric	Soil	indicato		
Restrictive Layer (if ob Type: Depth (inches):	hydric	Soil	indicato		
Restrictive Layer (if ob Type:	hydric	50il	indicato		
Restrictive Layer (if ob Type: Depth (inches):	hydric	Soil	indicato		
Restrictive Layer (if ob Type: Depth (inches):	hydric				
Restrictive Layer (if ob Type:	hydric		indicato		
Restrictive Layer (if ob Type: Depth (inches):	hydric				
Restrictive Layer (if ob Type: Depth (inches):	hydric				
Restrictive Layer (if ob Type: Depth (inches):	hydric				
Restrictive Layer (if ob Type: Depth (inches):	hydric				
Restrictive Layer (if ob Type: Depth (inches):	hydric				
Restrictive Layer (if ob Type: Depth (inches):	hydric				

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: City/County: Applicant/Owner; State: _____ Sampling Point: Investigator(s): _____ Section, Township, Range: _ Landform (hillslope, terrace, etc.); ______ Local relief (concave, convex, none): _____ Slope (%): _ Subregion (LRR or MLRA): Lat: __ Long: __ Soil Map Unit Name: __ _ NWI classification: __ Are climatic / hydrologic conditions on the site typical for this time of year? Yes ______ No ____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes. No Is the Sampled Area Hydric Soil Present? No within a Wetland? Wetland Hydrology Present? No Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) __ Aquatic Fauna (B13) ___ Sparsely Vegetated Concave Surface (B8) _ High Water Table (A2) Marl Deposits (B15) (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) Other (Explain in Remarks) _ Iron Deposits (B5) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Shallow roat systems FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Yes ____ No ___ Depth (inches): Yes ____ No ____ Depth (inches); ____ Water Table Present? Saturation Present? Wetland Hydrology Present? Yes_ __ No ___ __ Depth (inches): ___ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks Welland area crossed by large dranage ditch

VEGETATION (Five Strata) – Use scientific names of plants.

ling Point WOZ-U

Tree Stratum (Plot size: 30)	Absolute Dominant Indicato % Cover Species? Status	
1. Quercus lauritolia	75% Y FAC	
2		Total Number of Dominant
3.		Species Across All Strata: (B)
5		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6		Prevalence Index worksheet:
	= Total Cover	Total % Cover of: Multiply by:
	20% of total cover:	OBL species x 1 =
Sapling Stratum (Plot size:) 1. (QUENCUS launifolia	25 FACI	FACW species x 2 =
		FAC species x 3 =
2		FACU species x 4 =
4		UPL species x 5 =
5		Column Totals: (A) (B)
6		Prevalence Index = B/A =
	= Total Cover	Hydrophytic Vegetation Indicators:
	20% of total cover:	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:)	22 541	/ 2 - Dominance Test is >50%
1. Sabal palm		
		Problematic Hydrophytic Vegetation ¹ (Explain)
3		gu grafiell (i i i i i i i i i i i i i i i i i i
4		 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		Definitions of Five Vegetation Strata:
S	= Total Cover	
50% of total cover:	20% of total 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).
1. Toxicodondron radicans	10 FAC	Sapling - Woody plants, excluding woody vines,
2. Atmpelapsis arborea		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
4		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
56		Herb – All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.		
10		Woody vine – All woody vines, regardless of height.
11.		
	= Total Cover	
	20% of total cover:	
Woody Vine Stratum (Plot size:	5 FAI	
1. Vitis rotunditalia		
2		-
3		· · · · · · · · · · · · · · · · · · ·
4 5.		-
J ₄	= Total Cover	- Hydrophytic Vegetation
50% of total cover:		Present? Yes No

Sampling Point: WO2 - W

Depth Matrix Redox Features	m the absence of Indicators.)
(inches) Color (moist) % Color (moist) % Type Loc ²	Texture Remarks
0-9 104R 2/1 50 2.54 5/1 60	fine saw
9-18 254 104R 5/2 100	fine samp)
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, I	
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5) Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U)	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) ³ Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B))
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14	•
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLR	RA 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)	
Restrictive Layer (if observed):	
Туре:	Hudda Call Danasata Van
Type:	Hydric Soil Present? Yes No
Туре:	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No

Project/Site: Cake Box	Vivo	City/County:		Sampling Date:	400 2
pplicant/Owner:			State:	Sampling Point:	4-16-
		Section, Township			
andform (hillslope, terrace, etc.):		Local relief (conca	ve, convex, none):	Slop	oe (%): 900
andform (hillslope, terrace, etc.): subregion (LRR or MLRA): soil Map Unit Name:	Lat: _	28.044467	Long: -82 · C	108981 Da	tum;
oil Map Unit Name:			NWI	classification:	
re climatic / hydrologic conditions on the					
re Vegetation, Soil, or Hy					No.
re Vegetation, Soil, or Hy					
			* * * * * * * * * * * * * * * * * * * *	answers in Remarks.)	
UMMARY OF FINDINGS Atta	ach site map sho	wing sampling poi	nt locations, trar	sects, important fo	eatures, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sam within a W		es No	
Remarks:					
VDBOLOCY					huft.
YDROLOGY	IVINIDAMI		01		
Vetland Hydrology Indicators:	anticode about all that			y Indicators (minimum of	two required)
Primary Indicators (minimum of one is re				ce Soil Cracks (B6)	0
Surface Water (A1) High Water Table (A2)	Aquatic Fau	ts (B15) (LRR U)		sely Vegetated Concave age Patterns (B10)	Surrace (B6)
Saturation (A3)		ulfide Odor (C1)		Trim Lines (B16)	
Water Marks (B1)		izospheres along Living F		Season Water Table (C2)	
Sediment Deposits (B2)		Reduced Iron (C4)		ish Burrows (C8)	
Drift Deposits (B3)		Reduction in Tilled Soils (-	ation Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)	Thin Muck S			norphic Position (D2)	
Iron Deposits (B5)		in in Remarks)		ow Aquitard (D3)	
Inundation Visible on Aerial Imagery				Neutral Test (D5)	
Water-Stained Leaves (B9)	oteromesantus			gnum moss (D8) (LRR T	, U)
ield Observations:	/				•
Surface Water Present? Yes	No Depth (i	inches):			
Vater Table Present? Yes	_ No _/_ Depth (i	inches):			
Saturation Present? Yesincludes capillary fringe)	No Depth (inches):	Wetland Hydrology	Present? Yes	No V
Describe Recorded Data (stream gauge,	monitoring well, aeria	l photos, previous inspec	tions), if available:		
Remarks:					
Remarks:					
Remarks:					
demarks:		brije a			
Remarks:		armaterrake De Granderrake			
Remarks:		br G			
Remarks		br G			
Remarks					
Remarks					
Remarks:		artio ido7			

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

Sampling Point: W03-U

Tree Stratum (Plot size: 30)	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
1. (XUEICUS, MIGRA	50 PAC	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. Pinus elliottii		Total Number of Dominant
3.		Species Across All Strata: (B)
5.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6.	T-1-10	Prevalence Index worksheet:
50% of total power:	= Total Cover 20% of total cover:	Total % Cover of: Multiply by:
Onellan Otentran (Diet einer		OBL species x 1 =
1. CIMAMOMOM COIM Ployele 2. Sepal polymell	15 1794	FACW species x 2 =
2 Schal polnette	-20 FAC	FAC species x 3 =
		FACU species x 4 =
4.		UPL species x 5 =
5.		Column Totals: (A) (B)
6.		Prevalence Index = B/A =
	= Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of total cover:	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:)	10 001	2 - Dominance Test is >50%
1. CInhamonum	10 OPL	3 - Prevalence Index is ≤3.01
2.		Problematic Hydrophytic Vegetation¹ (Explain)
3.		y married and the second of the second
4.		Indicators of hydric soll and wetland hydrology must
5		be present, unless disturbed or problematic.
6.		Definitions of Five Vegetation Strata:
50% of total cover:	= Total Cover 20% of total cover:	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size:	40 FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2		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		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
6,		Herb – All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, and woody
8.		plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.		
10		Woody vine - All woody vines, regardless of height.
11.	on profit	
	= Total Cover	
50% of total cover:	20% of total cover;	
Woody Vine Stratum (Plot size:)	20 Facu	to de
1. Smilay auriculata	20 Facto	
2.		
3.		
4		
5.		Hydrophytic
	= Total Cover	Vegetation Present? Yes No
E 001 - F1 -1-1	20% of total cover:	LIGGGIRT I G2 NO

Sampling Point	1	11	6	ત્	ı .
Sampling Point	:	V	U	ノ	U

SOIL

	to document the indicator or confirm	the absence of indicators.)
Depth Matrix (inches) Color (moist) % Color (Redox Features moist) % Type¹ Loc²	Tenhura
0-6 5YR 5/1 100	moist) % Type' Loc ²	Five Sand
6-18 548 4/1 100		Finesand
518 111 100		Places
		
1		
Type: C=Concentration, D=Depletion, RM=Reduced Hydric Soil Indicators: (Applicable to all LRRs, uni		² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solis ³ :
	yvalue Below Surface (S8) (LRR S, T, U)	-
	n Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
	nmy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	amy Gleyed Matrix (F2) Dieted Matrix (F3)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
	dox Dark Surface (F6)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) De	oleted Dark Surface (F7)	Red Parent Material (TF2)
	dox Depressions (F8)	Very Shallow Dark Surface (TF12)
	rl (F10) (LRR U) Dieted Ochric (F11) (MLRA 151)	Other (Explain in Remarks)
Thick Dark Surface (A12) Iron	-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and
	bric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
	ta Ochric (F17) (MLRA 151) duced Vertic (F18) (MLRA 150A, 150B)	unless disturbed or problematic
	dmont Floodplain Soils (F19) (MLRA 149	A)
Stripped Matrix (S6) And	omalous 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:		
	sail indicat	715<
110 6100		
NO hydric	3011 (10100	
NO hydric	3011 (10100	
NO hydric	9011 VV 313 0	
NO hydric	3011 (1010)	
NO hydric	<i>3011</i> (<i>1</i> 0)	
NO hydric	3011 (1010)	
NO hydric	<i>3011</i> (<i>1</i> 0 0 0	
NO hydric		

Project/Site: Lake Born	net	City/County:	Polk		Sampling Date: WØ3 -
Applicant/Owner:	NC UP LEEWELD LATER	St. V	8	State: FL	_ Sampling Point: LG APR
investigator(s):	ARDE	Section, Tow			
andform (hillslope, terrace, etc.):					
Subregion (LRR or MLRA):					
Soil Map Unit Name:					ification:
Are climatic / hydrologic conditions on the		-f0 V 1-			
Are Vegetation, Soil, or Hy					"present? Yes No
Are Vegetation, Soil, or Hy	/drology natural!	y problematic?	(If needed, e.	xplain any ans	wers in Remarks.)
SUMMARY OF FINDINGS - Att	ach site map show	ing sampling	point locatio	ns, transec	ts, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Yes No No Yes No No	is the	Sampled Area a Wetland?	Yes	No
Wetland area i	risected;	by larg	e dute	4 MAY MAY	Sind Perform
TYDROLOGY	humanicus I				
Wetland Hydrology Indicators:				Secondary Indi	cators (minimum of two required)
Primary Indicators (minimum of one is re	quired; check all that ap	ply)		Surface So	
Surface Water (A1)	Aquatic Fauna	(B13)		Sparsely V	egetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits ((B15) (LRR U)		Drainage F	
Saturation (A3)	Hydrogen Sulfi	ide Odor (C1)		Moss Trim	
Water Marks (B1)	Oxidized Rhizo	ospheres along Liv	ing Roots (C3)	Dry-Seaso	n Water Table (C2)
Sediment Deposits (B2)	Presence of Re			Crayfish B	urrows (C8)
Drift Deposits (B3)		eduction in Tilled S			Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surf				ic Position (D2)
Iron Deposits (B5)	Other (Explain	in Remarks)	· ·	-	quitard (D3)
Inundation Visible on Aerial Imagery	(87)		/	FAC-Neutr	
Water-Stained Leaves (B9) Field Observations:				Spnagnum	moss (D8) (LRR T, U)
	No X Depth (inc	hae)			
	_ No Depth (inc				
Saturation Present? Yes			Wetland H	drology Pres	ent? Yes X No
(includes capillary fringe)	100				entr res 7 NO
Describe Recorded Data (stream gauge,	monitoring well, aerial p	hotos, previous in	spections), if avail	able:	
Remarks: IAAOT MACIA	/	K -	1	,	A 4 -
100% FACU	Spp +3	D5 1	1 that	terra	elte Da
					The state of the s

/EGETATION (Five Strata) – Use scientific na			I - P - I	Sampling Point:
1. Quercus laurifulia		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. Celtis laevigata	25	V	FACIL	That Are OBL, FACW, or FAC: (A)
3.	0.1		111-00	Total Number of Dominant Species Across All Strata: (B)
4				Species Across Air Strata.
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6	70			Prevalence index worksheet:
50% of total cover: 37.	E 2004 -	= Total Cov	/er	Total % Cover of: Multiply by:
	<u> </u>	total cover		OBL species x 1 =
Sapling Stratum (Plot size:) 1. Quereus Jauritalia	15	/	FACW	FACW species x 2 =
1. COUTEUS JAOTHORA	10		1//-	FAC species x 3 =
2	•			FACU species x 4 =
3				UPL species x 5 =
4 5				Column Totals: (A) (B)
6				Prevalence Index = B/A =
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover: 7	5 20% of	total cover	3_	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:)	1	/	Mari	2 - Dominance Test is >50%
1. Quercus laurifolia	15		FACW	3 - Prevalence Index Is ≤3.0 ¹
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3	- —			
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6	15			Definitions of Five Vegetation Strata:
50% of total cover: 7		= Total Cov		Tree - Woody plants, excluding woody vines,
	20% 01	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:) 1. <u>Cyclosorus interruptus</u>	85	./	FACW	
2.			1/1CW	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
3				than 3 in. (7.6 cm) DBH.
4.				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5,				
6.				Herb - All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine - All woody vines, regardless of height.
10,				
11,	25	Tatal O		
50% of total cover: <u>42</u>	5200/ =#	= Total Cov	「江	The second section
	20% Of	Utal cover		The second second
Woody Vine Stratum (Plot size:)				
2				
2				
3				
5.				Hartan batta
¥8	·	Total Cov	er	Hydrophytic Vegetation
50% of total cover:				Present? Yes No

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

0	m to the	
Sampling	Point:	

	rm the absence	or maicators.)
Depth Matrix Redox Features	623	
(inches) Color (moist) % Color (moist) % Type ¹ Loc ²	Texture	Remarks
0-8 10 YR 2/1 100	sand	
8-16 10 YR 2/1 100	fine	organic-cortes
	Sandy	STORIC CODE
16-718 10 YR 2/1	muck	
		-
		10.0
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	2,	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	*Location:	PL=Pore Lining, M=Matrix.
·		for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T		fuck (A9) (LRR O)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U)	2 cm N	fuck (A10) (LRR S)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)	Reduc	ed Vertic (F18) (outside MLRA 150A, E
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)		ont Floodplain Soils (F19) (LRR P, S, T
Stratified Layers (A5) Depleted Matrix (F3)		lous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)		RA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)		arent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)		hallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U)		Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)		
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, I	P. T) ³ indic	ators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)		and hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)		ess disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B		sa diatorbed or problematic,
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA		
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (ML		452D)
Dark Surface (S7) (LRR P, S, T, U)	NA 143A, 133C,	155D)
Restrictive Layer (if observed):	T	
Type:		
Depth (inches):	Hydric Soil	Present? Yes X No
Remarks		
11 1 1		
Water descented		
Wetterd was bisected by		
Wettard area bisected by		
Wetland were bisected by		
Wettard area bisected by		
Wetland were bisected by		
Wettard was bisected by		
Wettard were bisected by		
Wetland was bisected by		
Wettard was bisected by		
Wettard were bisected by		
Wetland was bisected by		
Wettard was bisected by		
Wettard were bisected by		
Wetland was bisected by		
Wettard were bisected by		
Wetland was bisected by		
Wettand was bisected by		
Wetland was bisected by		
Wettand area bisected by		
Wettand was bisected by		
Wettand was bisected by		
Wetland were bisected by		
Wettand was bisected by		
Wettand was bisected by		

	City/	County:		_ Sampling Date:
oplicant/Owner:			State:	_ Sampling Point: WOU
vestigator(s):				
andform (hillslope, terrace, etc.):	Loca	al relief (concave, convex,	none):	Slope (%):
ubregion (LRR or MLRA):				
oil Map Unit Name:				fication:
e climatic / hydrologic conditions on the site typical fo				
e Vegetation, Soil, or Hydrology				
e Vegetation, Soil, or Hydrology				vers in Remarks.)
UMMARY OF FINDINGS - Attach site m	ap showing sar	mpling point location	ns, transec	ts, important features, e
Hydrophytic Vegetation Present? Yes	No	1		12
Hydric Soil Present? Yes		Is the Sampled Area	7.	./
Vetland Hydrology Present? Yes	No	within a Wetland?	Yes	No
Remarks:	7	VIII.		
1010				
Oplano				
The state of the s				
			- 850	
/DROLOGY				
/etland Hydrology Indicators:			Secondary Indi	cators (minimum of two required
rimary Indicators (minimum of one is required; check	all that apply)		Surface So	il Cracks (B6)
Surface Water (A1) Aqu	atic Fauna (B13)			egetated Concave Surface (B8)
High Water Table (A2) Mar	1 Deposits (B15) (LR	R U)	Drainage F	atterns (B10)
Saturation (A3) Hyd	Irogen Sulfide Odor ((C1)	Moss Trim	Lines (B16)
Water Marks (B1) Oxid	dized Rhizospheres	along Living Roots (C3)	Dry-Seaso	n Water Table (C2)
	sence of Reduced Iro	on (C4)	Crayfish B	ırrows (C8)
	ent Iron Reduction in		Saturation	Visible on Aerial Imagery (C9)
	Muck Surface (C7)		Geomorph	ic Position (D2)
	er (Explain in Remar	·ks)	Shallow Ac	uitard (D3)
_ Inundation Visible on Aerial Imagery (B7)				al Test (D5)
Water-Stained Leaves (B9)			Sphagnum	moss (D8) (LRR T, U)
ield Observations.				
/				
surface Water Present? Yes No	Depth (inches):			
Vurface Water Present? Ves No	Depth (inches):			×
urface Water Present? Yes No Vater Table Present? Yes No Vaturation Present? Yes No Vaturation Present?			lydrology Pres	ent? Yes No
Vater Table Present? Vater Table Present? Vaturation Present? Includes capillary fringe) Yes No	Depth (inches):	Wetland H		ent? Yes No
Vater Table Present? Vater Table Present? Vaturation Present? Includes capillary fringe) Yes No	Depth (inches):	Wetland H		ent? Yes No
urface Water Present? Vater Table Present? Atturation Present? Includes capillary fringe) Ves No	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
urface Water Present? /ater Table Present? aturation Present? ncludes capillary fringe) escribe Recorded Data (stream gauge, monitoring w	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
urface Water Present? /ater Table Present? aturation Present? ncludes capillary fringe) escribe Recorded Data (stream gauge, monitoring w	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
urface Water Present? /ater Table Present? aturation Present? ncludes capillary fringe) escribe Recorded Data (stream gauge, monitoring w	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
urface Water Present? /ater Table Present? aturation Present? ncludes capillary fringe) escribe Recorded Data (stream gauge, monitoring w	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
urface Water Present? Vater Table Present? Atturation Present? Includes capillary fringe) Ves No	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
Vater Table Present? Yes No Saturation Present? Yes No No Secribe Recorded Data (stream gauge, monitoring w	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
Surface Water Present? Vater Table Present? Saturation Present? Social Present? Saturation Present? Social Present? Soc	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
Surface Water Present? Vater Table Present? Saturation Present? Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring w	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No
Variace Water Present? Vater Table Present? Vater Table Present? Ves No	Depth (inches): Depth (inches): rell, aerial photos, pre	Wetland H		ent? Yes No

EGETATION (Five Strata) – Use scientific nar		1000			Sampling Point: _	
Total Clark and (DLA sings)		Dominant		Dominance Test workship	eet:	
[ree Stratum (Plot size:)		Species?	-	Number of Dominant Spec		(4)
				That Are OBL, FACW, or F	AC:	(A)
				Total Number of Dominant		
				Species Across All Strata:		(B)
				Percent of Dominant Spec	ies	
				That Are OBL, FACW, or F		(A/E
		= Total Cov	er	Prevalence Index worksh		
50% of total cover:	20% of	total cover		Total % Cover of:		
apling Stratum (Plot size:)				OBL species	x1=	
				FACW species	x 2 =	
				FAC species	x 3 =	
				FACU species	x 4 =	<u> </u>
				UPL species	x 5 =	
				Column Totals:		
				Column Totals.	_ (//	,5
				Prevalence Index =	B/A =	
		= Total Cov		Hydrophytic Vegetation I	ndicators:	
50% of total cover:	20% of	total cover:		1 - Rapid Test for Hyd		on
hrub Stratum (Plot size:)				2 - Dominance Test is	>50%	
				3 - Prevalence Index is		
				Problematic Hydrophy		volein)
				Problematic Hydrophry	ne vegetation (E	лрівін)
				10 10 1		
				Indicators of hydric soil and be present, unless disturbe		
·				Definitions of Five Veget		
•				Delinitions of rive veget	alium Strata.	
X		= Total Cov		Tree - Woody plants, excl		
50% of total cover:	20% of	total cover:		approximately 20 ft (6 m) of (7.6 cm) or larger in diame		
erb Stratum (Plot size: 30)	15		TEAR	(7.0 cm) or larger in diame	ter at breast neigi	it (DBH).
Stenotaphrum secondatum	00		FAC	Sapling - Woody plants, e	xcluding woody v	ines,
Dichandra carolinansis	25		MC	approximately 20 ft (6 m) of	or more in height a	and less
		2 2 2 2		than 3 in. (7.6 cm) DBH.		
				Shrub - Woody plants, ex		es,
pur in appearance of the				approximately 3 to 20 ft (1	to 6 m) in height.	
				Herb – All herbaceous (no	n-woody) plants i	ncludina
			- 114	herbaceous vines, regardle		
			9.11	plants, except woody vines	, less than approx	ximately
The state of the s				3 ft (1 m) in height,		
				Woody vine - All woody v	ines, regardless o	of height.
0						
1						
50% of total cover:	20% of	total cover:				
Voody Vine Stratum (Plot size:)						
·				Hydrophytic		
	=	Total Cov	ег	Vegetation Present? Yes	No X	
50% of total cover:						

~	[]	ш	

Profile Description: (Describe to the depth needed to document the indicator or conf	firm the absence of Indicators.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type ¹ Loc ²	Texture Remarks
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) — Polyvalue Below Surface (S8) (LRR S, 1	
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)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	Other (Explain in Remarks)
Thirds Deets Overfered (A40)	D. T. Sindingham of hydronic time and time and
Inick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	P, T) 3Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA	
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (M	
Dark Surface (S7) (LRR P, S, T, U)	
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed):	
Dark Surface (S7) (LRR P, S, T, U)	
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type:	
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches):	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches):	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks: NO Soil Pit, nearest uplant	Hydric Soil Present? Yes No

Project/Site: Lake Bonney	City/Coun	ty:		_ Sampling Date:
Applicant/Owner:			State:	_ Sampling Point: WO4 -
Investigator(s):		ownship, Range:		
Landform (hillslope, terrace, etc.):	Local relie	ef (concave, convex,	none):	Slope (%): 0 -
Landform (hillslope, terrace, etc.): L Subregion (LRR or MLRA): L	at 28.047	420 Long: -	-82.00	9029 Datum:
Soil Map Unit Name:			NWI classi	
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes	No	(If no, explain in	
Are Vegetation, Soil, or Hydrologys				present? Yes No
Are Vegetation, Soil, or Hydrology n				vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampli	ng point location	ns, transec	ts, important features, etc
Hydrophytic Vegetation Present? Yes No	0			/
	ls ls	the Sampled Area		
	o wi	thin a Wetland?	Yes	No
Remarks:				19
0001(200-0				
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indi	cators (minimum of two required)
Primary Indicators (minimum of one is required; check all t	that apply)		Surface So	il Cracks (B6)
Surface Water (A1) Aquatic	Fauna (B13)		Sparsely V	egetated Concave Surface (B8)
	posits (B15) (LRR U)		Drainage F	atterns (B10)
	en Sulfide Odor (C1)		Moss Trim	Lines (B16)
	d Rhizospheres along		_	n Water Table (C2)
	e of Reduced Iron (C	*		urrows (C8)
	Iron Reduction in Tille	ed Soils (C6)		Visible on Aerial Imagery (C9)
	ck Surface (C7) Explain in Remarks)			ic Position (D2)
Inundation Visible on Aerial Imagery (B7)	-Apiairi in Nemarks)			juitard (D3) al Test (D5)
Water-Stained Leaves (B9)				moss (D8) (LRR T, U)
Field Observations:			Opilugilalii	11035 (50) (21111 1, 0)
Surface Water Present? YesNo/ Dep	oth (inches):			
Water Table Present? Yes V No Dep	oth (inches): 9-1	nces		
	oth (inches): at Su	Face Wetland H	lydrology Pres	ent? Yes No
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, a	aeriai priotos, previou	s inspections), if ava	liable:	
Remarks:				
Tromano.				
Water tabe is	a II		- 50	- 0
water table 15		below	Suffi	4(6
y. €				

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

Sampling Point: WO4-W

That Are OBL, FACW, or FAC: (A) A LITTUS AMERICANE Solver of total cover: Sanino Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Shrub Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Shrub Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Shrub Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Shrub Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Shrub Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Shrub Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Shrub Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Shrub Stratum (Plot size: 1. AMANOLIA O COMPANIA Solver of total cover: Solver of total cove	Tree Stratum (Plot size: 30)		Dominant Indicator Species? Status FACU/	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
5.	2. Acer whowth	15	FAC	Total Number of Dominant
Total Cover 20% of total cover 20% of total cover 20% of total cover 20% of total cover 30% of total cover 20% of total cover 30% of total cover 20% of total c	5.	10	FA-C	
Saulino Stratum (Plot size: Saulino Stratum (Plot size:	6.			Prevalence Index worksheet:
Sapling Stratum (Plot size: 1. MANNIX V(MINIX X 1. Should Stratum (Plot size: 2. Should Stratum (Plot size: 3. Should Stratum (Plot size: 3. Should Stratum (Plot size: 3. Should Stratum (Plot size: 4. Should Stratum (Plot size: 50% of total cover: 20% of total cover: 3. Should Stratum (Plot size: 4. Should stratum (Plot size: 50% of total cover: 20% of total cover: 3. Fred Stratum (Plot size: 4. Should stratum (Plot size: 50% of total cover: 20% of total cover: 3. Fred Stratum (Plot size: 4. Should stratum (Plot size: 50% of total cover: 20% of total cover: 20% of total cover: 20% of total cover: 20% of total cover: 3. Fred Stratum (Plot size: 4. Should stratum (Plot size: 50% of total cover: 20% of total cover: 3. Fred Stratum (Plot size: 4. Should stratum (Plot size: 50% of total cover: 20% of total cover: 3. Fred Cava punctatum 4. Should stratum (Plot size: 3. Fred Cava punctatum 4. Should stratum (Plot size: 3. Sapling a Woody plants, excluding woody vines, approximately 20 (ft in 6 m) in height. 4. Should stratum (Plot size: 3. Sapling a Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 4. Should stratum (Plot size: 3. Sapling a Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 4. Woody vine All woody vines, regardless of size, and woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 4. Woody vine All woody vines, regardless of height. 5. Should stratum (Plot size: 5. Should stratum (Plot size: 6. Should stratum (Plot size: 7. Should stratum (Plot size: 8. Should stratum (Plot size: 9. Should str	50% of total cover			Total % Cover of: Multiply by:
1. MAGNOLIK JURGINAMA 2. Secretary 1. Secret	and the same of th			OBL species x 1 =
FACU species X 4 = UPI, species X 5 = Colum Totals: (A) (B) Prevalence index = BIA = Hydrophytic Vegetation Indicators: 1. On the stretum (Plot size: 1. On the species Description of total cover: 20% of total cover: 3. Prevalence index is \$3.0' 2. Ceythal without a countain is a province index is \$3.0' 2. Ceythal without a countain is a province index is \$3.0' 3. Problematic Hydrophytic Vegetation (Explain) 4. Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 5. Definitions of Five Vegetation Strata: Tree — Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7 cm) or larger in diameter at breast height (DBH). 5. Definitions of Five Vegetation Strata: Tree — Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7,6 cm) or larger in diameter at breast height (DBH). 5. Saururus Ceonus SSS DBC DBC STRUCK SSI Shrub — Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 4. Shrub — Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 5. Shrub — Woody vines, less than approximately 3 ft (m) in height. 6. Herb — All woody vines, regardless of size, and woody plants, except woody vines, regardless of height. 7. Shrub — Woody vines, regardless of height. 8. Shrub — Woody vines, regardless of height. 9. Woody vine Stratum (Plot size: 1. Tree — Woody vines, regardless of height. 9. Woody vine Stratum (Plot size: 2. Woody vine Stratum (Plot size: 3. Hydrophytic Vegetation Vice Vice Vegetation Vice Vegetation Vice Vice Vegetation Vice Vice Vegetation Vice Vice Vice Vice Vice Vegetation Vice Vice Vice Vice Vice Vice Vice Vice	1 MARNO 16 VITAIN INMA	45	FACW	FACW species x 2 =
### Stratum (Plot size:	2	- 1		FAC species x 3 =
4. Shrub Stratum (Plot size:				FACU species x 4 =
5. Column Totals: (A) (B) Prevalence Index = B/A =				UPL species x 5 =
Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 20% of total cover 20% of				Column Totals: (A) (B)
Total Cover				Prevalence Index = B/A =
Shrub Stratum (Plot size:		=	Total Cover	
Shratum (Plot size:	50% of total cover:	20% of to	otal cover:	
3 - Prevalence Index is \$3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) 4	Shrub Stratum (Plot size:)	00	Macil	
Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.	1. Quercus lauritaia	d0_	FACW	
Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.	2. Cephalanthus occidentalis 3.	15	OB.C	
Definitions of Five Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 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). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (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. Woody vine Stratum (Plot size:) Total Cover	4			
Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Saprourus census punctatum Fig. 1. Shrub - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or BBH. Shrub - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or BBH. Shrub - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or BBH. Shrub - Woody plants, excluding woody vines, approximately 3 ft (1 to 6 m) in height. Herb - All herbaceous (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. Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or BH. Shrub - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or BH. Shrub - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or BH. Woody vine - All woody vines, regardless of size, and woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or mor				Definitions of Five Vegetation Strata:
Solid of total cover:	Ethnol e I 18 e			Tran Woody plants, evaluding woody vines
Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 30 ft (1 to 6 m) in height. Herb – All herbaceous (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 Stratum (Plot size:	50% of total cover:	20% of to	otal cover:	
2. Saururus cennus 3. Persecula yunctatum 4. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (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. Total Cover Woody Vine Stratum (Plot size:) Description of total cover:	Herb Stratum (Plot size:		11 - 11	(7.6 cm) or larger in diameter at breast height (DBH).
2. Saururus cennus 3. Persecula yunctatum 4. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (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. Total Cover Woody Vine Stratum (Plot size:) Description of total cover:	1. Colocasia esculentus	35	FACW	Santing – Woody plants, excluding woody vines
### A Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. ### Brub - All herbaceous (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 Stratum (Plot size:		25	OBL	approximately 20 ft (6 m) or more in height and less
5	3. Persecarea punctatum		OBL	than 3 in. (7.6 cm) DBH.
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. Total Cover 20% of total cover: Woody Vine Stratum (Plot size: 2. 3. 4. 5. —————————————————————————————	5.			
8	6	V -	-	Herb All herbaceous (non-woody) plants, including
9	7 8			plants, except woody vines, less than approximately
Total Cover				
50% of total cover:				
Woody Vine Stratum (Plot size:) 1.		=	Total Cover	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1.	50% of total cover:	20% of to	otal cover:	
2				the section of a course to the
4	1. None			
4	2			
= Total Cover Vegetation Vos	3			
= Total Cover Vegetation Vos	4			
Procent2 Voc A No	5			
50% of total cover: 20% of total cover:				
	50% of total cover:	20% of to	otal cover:	1 10 Soliti

Sampling Point: W04-W

						the absence		*	
Depth	Matrix			x Features	. 2				
(inches)	Color (moist)	<u>%</u>	Color (moist)	% Type¹	Loc ²	Texture		Remarks Vet	
0-10	TOTA OUT	100				MUCK		peq	
				10			2011	2.11 107	
¹ Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked Sand Gra	ins.	² Location:	PL=Pore	Lining, M=Matrix	
	Indicators: (Applic				2			lematic Hydric S	
Histosol	(A1)		Polyvalue Be	low Surface (S8) (LI	RR S, T, U			_	
Histic Ep	pipedon (A2)			ırface (S9) (LRR S, 1) (LRR S)	
Black Hi			Loamy Muck	y Mineral (F1) (LRR	O)			(F18) (outside M	LRA 150A,B)
	n Sulfide (A4)			ed Matrix (F2)				plain Soils (F19) (
	l Layers (A5)		Depleted Ma					ht Loamy Soils (F	20)
	Bodies (A6) (LRR P		Redox Dark	` '		•	RA 153B)		
	icky Mineral (A7) (LF esence (A8) (LRR U		Depleted Da	rk Surface (F7)		_		erial (TF2)	,
	ick (A9) (LRR D	′	Mari (F10) (L	` '				ark Surface (TF12 n Remarks)	7
	Below Dark Surface	e (A11)		hric (F11) (MLRA 15	1)	Other	(Explain ii	i Nemarks)	
	ark Surface (A12)	` '		ese Masses (F12) (L		T) ³ India	cators of h	ydrophytic vegeta	ition and
Coast Pr	airie Redox (A16) (N	ILRA 150A)	Umbric Surfa	ce (F13) (LRR P, T,	U)			ology must be pre	
	lucky Mineral (S1) (L	.RR O, S)		(F17) (MLRA 151)				bed or problemati	
	lleyed Matrix (S4)			tic (F18) (MLRA 15 0					
	edox (S5)			odplain Soils (F19) (
	Matrix (S6) face (S7) (LRR P, S	T 10	Anomalous E	Bright Loamy Soils (F	20) (MLR/	A 149A, 153C	, 153D)		
	lace (S/) (LKK P, S	, 1, 0)							
Restrictive L	aver (if observed):				-				
	_ayer (if observed):								
Туре:						Hudria Sail	Drocont?	yes V	No
Type: Depth (inc						Hydric Soil	Present?	Yes V	No
Туре:	ches):					127		182-	No
Type: Depth (inc	ches):		<u></u>	100 ()(K	0~	127		182-	No
Type: Depth (inc			501/5,	muck	fre	127		182-	No
Type: Depth (inc	ches):		<u></u>	muck	fre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	mulk	Bre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	muck	fre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	MUCK	fre	127		182-	No
Type: Depth (inc	ches):		<u>_</u> Soi\5,	MUCK	Bre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	muck	Bre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	mulk	Bre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soils,	MUCK	Bre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	MUCK	Pre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	MUCK	gre	127		182-	No
Type: Depth (inc	ches):		<u></u>	MUCK	Bre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	muck	Bre	127		182-	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	MUCK	Bre	127		182	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	MUCK	Bre	127		182	No
Type: Depth (inc	ches):		<u>-</u> Soils,	MUCK	Pre	127		182	No
Type: Depth (inc	ches):		<u>-</u> Soils,	MUCK	Bre	127		182	No
Type: Depth (inc	ches):		<u>-</u> Soils,	MUCK	Pre	127		182	No
Type: Depth (inc	ches):		<u>-</u> Soi\5,	MUCK	Pre	127		182	No
Type: Depth (inc	ches):		<u>-</u> Soils,	MUCK	Bre	127		182	No

Project/Site: Cake Bo	nnet	City/County:		Sampling Date:
Applicant/Owner:			State:	Sampling Point: W05
nvestigator(s):			, Range:	
.andform (hillslope, terrace, etc.):		Local relief (conca	ve, convex, none):	Slope (%): _O -
.andform (hillslope, terrace, etc.): Subregion (LRR or MLRA):	Lat:	28.04883	3 Long: -82.0	060 8 Datum:
Soil Map Unit Name:				sification:
Are climatic / hydrologic conditions on the	site typical for this tim	e of year? Yes		
Are Vegetation, Soil, or Hy				
Are Vegetation, Soil, or Hy			If needed, explain any ans	
SUMMARY OF FINDINGS - Att	ach site map sho	wing sampling poi	nt locations, transe	cts, important features, etc
Hydrophytic Vegetation Present?	Yes No			
Hydric Soil Present?	Yes No	is the Sain		
Wetland Hydrology Present?	Yes No		etland? Yes _	No
Remarks:	Tibuser -			
Upland		10 Thu		
WILLIAM BIRELY, THE ALLES				
IYDROLOGY	Amamaia			
Wetland Hydrology Indicators:				licators (minimum of two required)
Primary Indicators (minimum of one is re			Surface S	oil Cracks (B6)
Surface Water (A1)	Aquatic Faur			Vegetated Concave Surface (B8)
High Water Table (A2)		s (B15) (LRR U)	Drainage	Patterns (B10)
Saturation (A3)		ulfide Odor (C1)		n Lines (B16)
Water Marks (B1)			oots (C3) Dry-Seas	
Sediment Deposits (B2)		Reduced Iron (C4)		Burrows (C8)
Drift Deposits (B3)		Reduction in Tilled Soils (-	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck S			nic Position (D2)
Iron Deposits (B5)		in in Remarks)		quitard (D3)
Inundation Visible on Aerial Imagery	(B7)			ral Test (D5)
Water-Stained Leaves (B9)	en igil bene		Sphagnur	n moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes	No Depth (i	nehne):		
Water Table Present? Yes	No Depth (i			
Saturation Present? Yes			Wetland Hydrology Pres	ont2 Voc
(includes capillary fringe)				sent? res No
Describe Recorded Data (stream gauge,	monitoring well, aeria	photos, previous inspect	ions), if available:	
Remarks:		HWOLIGHT IN	1 / 2 = -	101
Darta Point	is w/i	n upland	(aised di	It (dad.
Date		•		

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: WO5-U

	Absolute Dominant Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:) 1	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
2		Total Number of Dominant Species Across All Strata:	(B)
5.		Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/E
6.		December of the state of the st	- 6
	= Total Cover	Prevalence Index worksheet:	
50% of total cover:	20% of total cover:	Total % Cover of: Multiply	
Sapling Stratum (Plot size:)		OBL species x 1 =	
		FACW species x 2 =	
		FAC species x 3 =	
		FACU species x 4 =	<u> </u>
		UPL species x 5 =	
		Column Totals: (A)	(B
•		D 1	
	= Total Cover	Prevalence Index = B/A =	_
	20% of total cover:	Hydrophytic Vegetation Indicators:	ion
Shrub Stratum (Plot size:)	2070 01 10001 00001	1 - Rapid Test for Hydrophytic Vegetat	ion
		2 - Dominance Test is >50%	
*		3 - Prevalence Index is ≤3.01	
		Problematic Hydrophytic Vegetation ¹ (Explain)
3			
		¹ Indicators of hydric soil and wetland hydro be present, unless disturbed or problemation	logy must
j			1
5,		Definitions of Five Vegetation Strata:	
1 1 21 1 (21 1 1	= Total Cover 20% of total cover;	Tree – Woody plants, excluding woody vine approximately 20 ft (6 m) or more in height (7.6 cm) or larger in diameter at breast height	and 3 in.
Urina lobata	20	Sapling – Woody plants, excluding woody approximately 20 ft (6 m) or more in height than 3 in. (7.6 cm) DBH.	
S		Shrub – Woody plants, excluding woody vi approximately 3 to 20 ft (1 to 6 m) in height	
*		Herb - All herbaceous (non-woody) plants	, including
3		herbaceous vines, regardless of size, and viplants, except woody vines, less than approach (1 m) in height.	
0		Woody vine - All woody vines, regardless	of height.
]1,			
	= Total Cover		
50% of total cover:	20% of total cover:	, was a get a	
Voody Vine Stratum (Plot size:)			
5.		Unidada butta	
't	- Total Cover	Hydrophytic Vegetation	
	= Total Cover		/
	20% of total cover:	Present? Yes No	

~	~	L B	ш	

Sampling Point: WOK-U

Profile Des	cription: (Describe to	the depth needed to	document the	indicator or confirm	the absence of ir	ndicators.)
Depth	Matrix		Redox Feature			
(inches)	Color (moist)	% Color (moi	<u>st) %</u>	Type ¹ Loc ²	Texture	Remarks
						·
l ———						
¹Type: C=C	oncentration, D=Deplet	ion, RM=Reduced Mat	rix, MS=Masker	d Sand Grains.	² Location: PL=	Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicab	le to all LRRs, unless	otherwise not	ed.)		Problematic Hydric Solls ³ :
Histoso	(A1)	Polyval	ue Below Surfa	ce (S8) (LRR S, T, U) 1 cm Muck	(A9) (LRR O)
Histic E	pipedon (A2)) (LRR S, T, U)		(A10) (LRR S)
Black H	istic (A3)	Loamy	Mucky Mineral	(F1) (LRR O)		ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)	Loamy	Gleyed Matrix	(F2)		loodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		ed Matrix (F3)			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P, T		Dark Surface (f	F6)	(MLRA 1	53B)
	ucky Mineral (A7) (LRR	P, T, U) Deplete	ed Dark Surface	(F7)		Material (TF2)
	resence (A8) (LRR U)		Depressions (F	8)	Very Shallo	w Dark Surface (TF12)
	ick (A9) (LRR P, T)		10) (LRR U)		Other (Expl	ain in Remarks)
	d Below Dark Surface (ed Ochric (F11)			
	ark Surface (A12)			es (F12) (LRR O, P,		of hydrophytic vegetation and
	rairie Redox (A16) (ML	RA 150A) Umbric	Surface (F13)			hydrology must be present,
	Mucky Mineral (S1) (LR		chric (F17) (ML		unless d	isturbed or problematic.
1	Gleyed Matrix (S4)			MLRA 150A, 150B)		
	Redox (S5)			oils (F19) (MLRA 149		
	Matrix (S6)	Anomai	ous Bright Loai	my Soils (F20) (MLRA	A 149A, 153C, 153	D)
	rface (S7) (LRR P, S, 1 Layer (If observed):	i, uj			= = = = :	
	Layer (II observed):					
Type:						
Depth (in	ches):				Hydric Soil Pres	ent? Yes No
Remarks:						
<	wastrat	e of	oleva	ted Gar	Judy Co	on sists of
	Ubstrat			ted Gar		
\sim	vixe r	reat (X	ot	Sand	+ Vari	00) 5176
15	me stone	rock fra	gneut	5		
'		V *				
-						"
						A second

Project/Site: Lake (50NV	c	ity/County:		Sampling Date: 4-16
Applicant/Owner:			State:	Sampling Point: WOJ
	s			
.andform (hillslope, terrace, etc.):	and through a same	ocal relief (concave, conve	x. none):	Slope (%): O-
andform (hillslope, terrace, etc.): Subregion (LRR or MLRA):	Lat: 28.0	148772 Long:	~82.010	775 Datum:
Soil Map Unit Name:			NWI classifica	
Are climatic / hydrologic conditions on the s	ite typical for this time of year	r? Yes No		
are Vegetation, Soil, or Hyd				
are Vegetation, Soil, or Hyd			, explain any answers	
SUMMARY OF FINDINGS - Atta	ch site map showing s	sampling point locat	ions, transects,	important features, et
Hydric Soil Present?	Yes No	Is the Sampled Area within a Wetland?	Yes	
uetland	Water 197	190 ²	1 (2 - 2) k (**)	
YDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of two required)
Primary Indicators (minimum of one is req	uired; check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vege	tated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) ((LRR U)	Drainage Patte	erns (B10)
Saturation (A3)	Hydrogen Sulfide Od	. ,	Moss Trim Line	es (B16)
Water Marks (B1)		es along Living Roots (C3)	Dry-Season W	ater Table (C2)
Sediment Deposits (B2)	Presence of Reduced	, ,	Crayfish Burro	
Drift Deposits (B3)	Recent Iron Reductio			ble on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C		Geomorphic P	
Iron Deposits (B5) Inundation Visible on Aerial Imagery (Other (Explain in Rer	narks)	Shallow Aquita	
Water-Stained Leaves (B9)			FAC-Neutral T	est (D5) ss (D8) (LRR T, U)
Field Observations:			Spriagrium mo	SS (DO) (LRR 1, U)
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present? Yes		Wetland	Hydrology Present	Yes V No
(includes capillary fringe) Describe Recorded Data (stream gauge, n	nonitoring well, aerial photos,	previous inspections), if a	vailable:	
Remarks:				
		2 Mary - Charles		

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: W05-W

ree Stratum (Plot size:)	% Cover Spe	ciae? Statue		
NUCLOS INDITION	60	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	(A
Acer rubrum	38	FAC		TE LEED
			Total Number of Dominant Species Across All Strata:	(B
			Beauty of Deminent Species	
			Percent of Dominant Species That Are OBL, FACW, or FAC:	(A
	= Tota	al Cover	Prevalence Index worksheet:	-1
50% of total co	over: 20% of total	cover:		ply by:
pling Stratum (Plot size:)	FACIL	OBL species x 1 = FACW species x 2 =	
Querrus lauritolia	25	FACW	FAC species x 3 =	
			FACU species x 4 =	
			UPL species x5 =	
			Column Totals: (A)	
			Countil Totals (A)	 '
			Prevalence Index = B/A =	
	= Tota		Hydrophytic Vegetation Indicators:	LIII
50% of total c	over: 20% of total	cover:	1 - Rapid Test for Hydrophytic Vege	etation
rub Stratum (Plot size:)			2 - Dominance Test is >50%	
None			3 - Prevalence Index is ≤3.01	
			Problematic Hydrophytic Vegetation	n¹ (Explain)
			Indicators of hydric soil and wetland hy	
			be present, unless disturbed or problem	natic.
		[Definitions of Five Vegetation Strata:	araine .
	= Tota	al Cover	Tree - Woody plants, excluding woody	vines
50% of total co	over: 20% of total	cover:	approximately 20 ft (6 m) or more in hei	ght and 3 in.
erb Stratum (Plot size:)	, –	A en c	(7.6 cm) or larger in diameter at breast i	height (DBH)
SQUNUNUS CENNUS	65	OBL	Sapling - Woody plants, excluding woo	ody vines,
		OT 25	approximately 20 ft (6 m) or more in hei	
THE SECOND			than 3 in. (7.6 cm) DBH.	
			Shrub - Woody plants, excluding wood	
			approximately 3 to 20 ft (1 to 6 m) in hei	ight
		I	approximately 5 to 20 ft (1 to 5 fff) in her	igin.
		I	Herb - All herbaceous (non-woody) pla	Jan 198
		I	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u>	nts, includin nd woody
		I	Herb - All herbaceous (non-woody) pla	nts, including
		I	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately
		I	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ap	nts, including nd woody pproximately
		I	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, includin nd woody pproximately
		I	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately
	= Tota	al Cover	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately
50% of total c	= Tota	al Cover	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately
50% of total c	= Tota	al Cover	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately
50% of total coody Vine Stratum (Plot size:	= Tota	al Cover	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately
50% of total coody Vine Stratum (Plot size:	= Tota	al Cover	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately
50% of total coody Vine Stratum (Plot size:	= Tota	al Cover	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately
oody Vine Stratum (Plot size;	= Tota	al Cover	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height. Woody vine – All woody vines, regardle	nts, including nd woody pproximately
50% of total coody Vine Stratum (Plot size;	= Total over: 20% of total	al Cover	Herb – All herbaceous (non-woody) pla herbaceous vines, regardless of size, <u>ar</u> plants, except woody vines, less than ar 3 ft (1 m) in height.	nts, including nd woody pproximately

Sampling Point: WO 5- W

Profile Description: (Describe to the depth needed to document the indicator or confile	m the absence of Indicators.)
Depth Matrix Redox Features	Trace 1
(inches) Color (moist) % Color (moist) % Type Loc2	
D-12 104R 2/1 100	Organic
12-18 IOYR 5/1 100	Fine sand organic bodies
	THE SELECTION DIGITIES
	
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Solls ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T,	U) 1 cm Muck (A9) (LRR O)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 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)
X Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, F	
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) — Reduced Vertic (F18) (MLRA 150A, 150B	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 1	
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (ML	RA 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)	
	
Restrictive Layer (if observed):	
Type:	
Type: Depth (inches):	Hydric Soil Present? Yes No
Type:	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soll Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No
Type: Depth (inches):	Hydric Soil Present? Yes No

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: City/County: Applicant/Owner: Investigator(s): Section, Township, Range: Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): 048901 Long: -82.009710 Subregion (LRR or MLRA): ___ Soil Map Unit Name: _ **NWI** classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) Are Vegetation _____, Soll _____, 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 showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? No within a Wetland? Wetland Hydrology Present? No Remarks: HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (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-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Depth (inches): Saturation Present? Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

A TOTAL CONTRACTOR OF THE CONT	Absolute	ants. Dominant	Indicator	Sampling Point: W Dominance Test worksheet:
ree Stratum (Plot size:)		Species?		Number of Dominant Species
Quercus laurifolia	35		FACW	That Are OBL, FACW, or FAC: (A
Quercus Virginiana	35		FACU	Total Number of Dominant
				Species Across All Strata: (B
		1		5
				Percent of Dominant Species That Are OBL, FACW, or FAC:(A
	THE RES	= Total Cov	/er	Prevalence Index worksheet:
50% of total cover:				Total % Cover of: Multiply by:
apling Stratum (Plot size:)		total oovon		OBL species x 1 =
Sahal palnelle	25		FAC	FACW species x 2 =
	40		1110	FAC species x 3 =
				FACU species x 4 =
				UPL species x 5 =
				Column Totals: (A) (I
				Prevalence Index = B/A =
		= Total Cov	er er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover	<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
hrub Stratum (Plot size:)	7-		1.101	2 - Dominance Test is >50%
Cinnamomomo m. campberda	25		UIL	3 - Prevalence Index is ≤3.01
Sabal palmelle	20		FAC	Problematic Hydrophytic Vegetation¹ (Explain)
			47	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
		= Total Cov	/er	
50% of total cover:				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
erb Stratum (Plot size:)	20,00	10141 00101	Andrew	(7.6 cm) or larger in diameter at breast height (DBH)
	39		FAC	
Varthenocissis avinguetolia	15		CACI	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
		ERIBETH	17/00	than 3 in, (7.6 cm) DBH.
				Church Micado planta qualitatina mando since
				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
				Herb – All herbaceous (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.		11 =		Woody vine - All woody vines, regardless of neight.
1,		T-1-1 0-1		
50% of total cover:		= Total Cov total cover:		
		Loui vovoi.		
OODV Vine Stratum (Piot size:				
/oody Vine Stratum (Plot size:)				
voody Vine Stratum (Piot size:)				

= Total Cover 20% of total cover:

US Army Corps of Engineers

50% of total cover:

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

Hydrophytic Vegetation Present?

00	

Sampling Point: W06 - U

Profile Description: (Describe to the dep	m meened to docum	nent the H	idicator	or commit	n the absence of indicators.)	i
Depth Matrix		x Features				
(inches) Color (moist) %	Color (moist)	<u>%</u>	Type	Loc ²	Texture Remarks	_
0-6 1048 3/1 60	107R5/)	40	B	M	finesone earthwarma	
6-18 10YR 4/2 65	104R3/1	35	MS	M_{-}	finesand	
14-18 LOYR \$1 85	10 XR 3/1	15	145	M	finesard	_
		<u> </u>				_
						-
						_]
						_
						_
¹ Type: C=Concentration, D=Depletion, RM:	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location: PL=Pore Lining, M=Matrix.	_
Hydric Soil Indicators: (Applicable to all	LRRs, unless other	wise note	d.)		Indicators for Problematic Hydric Solis ³ :	
Histosol (A1)	Polyvalue Be	low Surfac	e (S8) (L	RR S, T, I	U) 1 cm Muck (A9) (LRR O)	
Histic Epipedon (A2)	Thin Dark Su				2 cm Muck (A10) (LRR S)	ŀ
Black Histic (A3)	Loamy Mucky			O)	Reduced Vertic (F18) (outside MLRA 150A,	
Hydrogen Sulfide (A4) Stratified Layers (A5)	Loamy Gleye		-2)		Piedmont Floodplain Soils (F19) (LRR P, S,	T)
Organic Bodies (A6) (LRR P, T, U)	Depleted Mal		3)		Anomalous Bright Loamy Soils (F20) (MLRA 153B)	
5 cm Mucky Mineral (A7) (LRR P, T, U)					Red Parent Material (TF2)	
Muck Presence (A8) (LRR U)	Redox Depre	ssions (F8			Very Shallow Dark Surface (TF12)	
1 cm Muck (A9) (LRR P, T)	Marl (F10) (L				Other (Explain in Remarks)	
Depleted Below Dark Surface (A11)	Depleted Oct				3	
Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150)	Iron-Mangane					
Sandy Mucky Mineral (S1) (LRR O, S)	Umbric Surfa Delta Ochric			U)	wetland hydrology must be present, unless disturbed or problematic.	ĺ
Sandy Gleyed Matrix (S4)	Reduced Ver			A. 150B)		
Sandy Redox (S5)	Piedmont Flo					
Stripped Matrix (S6)	Anomalous B	right Loam	y Soils (F	20) (MLF	RA 149A, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)						
Restrictive Layer (if observed):		<u> </u>				_
Restrictive Layer (if observed): Type:						
Restrictive Layer (if observed): Type: Depth (inches):		-			Hydric Soil Present? Yes No	_
Restrictive Layer (if observed): Type:					Hydric Soil Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):					Hydric Soil Present? Yes No	
Restrictive Layer (if observed): Type: Depth (inches):					Hydric Soil Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):		_			Hydric Soll Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):			4		Hydric Soil Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):			N.	-	Hydric Soil Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):			No.	-	Hydric Soll Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):			N		Hydric Soli Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):			N.		Hydric Soll Present? Yes No	-
Restrictive Layer (if observed): Type: Depth (inches):			N.		Hydric Soil Present? Yes No	-
Restrictive Layer (if observed): Type: Depth (inches):			NA.		Hydric Soil Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):			¥		Hydric Soil Present? Yes No	-
Restrictive Layer (if observed): Type: Depth (inches):			N		Hydric Soli Present? Yes No	-
Restrictive Layer (if observed): Type: Depth (inches):			N		Hydric Soll Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):					Hydric Soll Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):					Hydric Soli Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):					Hydric Soli Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):		Hall of	N. C.		Hydric Soil Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):			N. T.		Hydric Soll Present? Yes No	
Restrictive Layer (if observed): Type: Depth (inches):					Hydric Soll Present? Yes No	
Restrictive Layer (if observed): Type: Depth (inches):			N. C.		Hydric Soli Present? Yes No	_
Restrictive Layer (if observed): Type: Depth (inches):					Hydric Soli Present? Yes No	_

roject/Site:	nnet	City/County:			_ Sampling Date:
pplicant/Owner:			State	:	Sampling Point: W06
nvestigator(s):					
andform (hillslope, terrace, etc.):ubregion (LRR or MLRA):	Lat:	28.049006	Long: <u>-8</u>	2.00	848 Datum:
oil Map Unit Name:				NWI class	
re climatic / hydrologic conditions on the	site typical for this time	of year? Yes			
re Vegetation, Soil, or H					
re Vegetation, Soil, or H			(If needed, explain		
UMMARY OF FINDINGS - Att	ach site map show	ing sampling po	int locations,	transec	ts, important features, et
Hydrophytic Vegetation Present?	Yes No		100	21112	/
Hydric Soil Present?	Yes No	is the Sai	mpled Area		/
Wetland Hydrology Present?	Yes No	within a V	Vetland?	Yes	No
Remarks:					1110
wetland					
merromo					
YDROLOGY				71002	
Wetland Hydrology Indicators:			Seco	ndary Indi	cators (minimum of two required
Primary Indicators (minimum of one is re	equired: check all that an	nlv)			oil Cracks (B6)
Surface Water (A1)	Aquatic Fauna				egetated Concave Surface (B8)
High Water Table (A2)		(B15) (LRR U)			Patterns (B10)
Saturation (A3)	Hydrogen Sulfi			_	Lines (B16)
Water Marks (B1)		ospheres along Living			n Water Table (C2)
Sediment Deposits (B2)		educed Iron (C4)			urrows (C8)
Drift Deposits (B3)		eduction in Tilled Soils			Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Sur				ic Position (D2)
Iron Deposits (B5)	Other (Explain				guitard (D3)
Inundation Visible on Aerial Imagery	(B7) 811 104R	2/1 1001016	surface 1	FAC-Neutr	al Test (D5)
Water-Stained Leaves (B9)	0 10/1	all organic	aves.	Sphagnum	al Test (D5) moss (D8) (LRR T, U)
Field Observations:	/	(1/	-	(
Surface Water Present? Yes	No/ Depth (inc	ches):			
Vater Table Present? Yes	No Depth (inc	thes):	_		
Saturation Present? Yesincludes capillary fringe)	No Depth (inc		Wetland Hydro	logy Pres	ent? Yes No
Describe Recorded Data (stream gauge	, monitoring well, aerial p	hotos, previous inspe	ctions), if available		
Remarks:					
		10,007 100 5 -			
NYNY		TO AS THE F			

Tree Stratum (Plot size: 30,)	Absolute Dominant In % Cover Species?	Status ,	Dominance Test worksheet: Number of Dominant Species
1. Querzos laurifolia	75	HEW	That Are OBL, FACW, or FAC:(A)
2			Total Number of Dominant
3.			Species Across All Strata: (B)
4			Percent of Dominant Species
5.			That Are OBL, FACW, or FAC: (A/E
6.	= Total Cover		Prevalence Index worksheet:
50% of total cover:	20% of total cover:	e live	Total % Cover of: Multiply by:
Sapling Stratum (Plot size:			OBL species x 1 =
Sabal palm Quercus / auritohs	30	AC	FACW species x 2 =
Querous / Auritoha	25 E	ACW	FAC species x 3 =
3.			FACU species x 4 =
			UPL species x 5 =
			Column Totals: (A) (B
S			Prevalence Index = B/A =
	= Total Cover		Hydrophytic Vegetation Indicators:
	20% of total cover: _		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:)	20 1	-11	2 - Dominance Test is >50%
Sambucus nigra	- 40	FACILI	3 - Prevalence Index is ≤3.01
a Celtis la evigata	_ / [ACW	Problematic Hydrophytic Vegetation ¹ (Explain)
- V		TOU/	A Section Conference of the Co
			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5			Definitions of Five Vegetation Strata:
6	= Total Cover	1	Definitions of the vegetation strata.
50% of total cover:			Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in
Herb Stratum (Plot size:)	20 70 01 (0(0) 00 0)		(7.6 cm) or larger in diameter at breast height (DBH).
1. Saururus cernuus	30	DBL	Sapling – Woody plants, excluding woody vines,
2 Acer rutoum	5 F	R	approximately 20 ft (6 m) or more in height and less
3.		I WILLIAM	than 3 in. (7.6 cm) DBH.
4.			Shrub - Woody plants, excluding woody vines,
5			approximately 3 to 20 ft (1 to 6 m) in height.
5			Herb - All herbaceous (non-woody) plants, including
7			herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
3			3 ft (1 m) in height.
9			Woody vine - All woody vines, regardless of height.
10,			
11			
500/ 5/ /	= Total Cover		
	20% of total cover: _		
Woody Vine Stratum (Plot size:) 1. TOXICODENDAM Padicans	20 1	AC	
2.			
5.		— I	Undraphytia
	= Total Cover		Hydrophytic Vegetation
5094 of total cover:	20% of total cover:		Present? Yes No
SUM OF LOTAL CLASS			

S ()	ш	

Sampling Point: W06 - W

Depth <u>Matrix</u>	Redox Features	_
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	
0-8 10 YR 2/1 100	<u> </u>	_ Silt
8-18 LOYR 7/2 100)	fine sand
17		2
Hydric Soil Indicators: (Applicable to	RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
		Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2)	Polyvalue Below Surface (S8) (LRR S, T	
Black Histic (A3)	Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O)	2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T,		Red Parent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)		•
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O,	
Coast Prairie Redox (A16) (MLRA 1		wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O,Sandy Gleyed Matrix (S4)		unless disturbed or problematic.
Sandy Redox (S5)	Reduced Vertic (F18) (MLRA 150A, 150 Piedmont Floodplain Soils (F19) (MLRA	•
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (M	
Dark Surface (S7) (LRR P, S, T, U)	/ #10/11/10/20 2.1gm 20/11/ 00/15 (1 20) (11/1	EIIA 140A, 1000, 1000)
Restrictive Layer (if observed):		
Type:		
Туре:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Туре:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:	11	Hydric Soil Present? Yes No
Type:	п	Hydric Soil Present? Yes No
Type:	in .	Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No

Project/Site: Lake bonner	City	//County:		_ Sampling Date: WO+-
Applicant/Owner:				Sampling Point: 4-18-
Investigator(s):	Se	ction, Township, Range:		
Landform (hillslope, terrace, etc.):	Loc	al relief (concave, conve	x, none): Bix	Slope (%): 2 − 5
Subregion (LRR or MLRA):	Lat: 28.0	49154 Long:	-82.00	05372 Datum.
Soil Map Unit Name:	The second second		NWI classi	312
Are climatic / hydrologic-conditions on the site typical	for this-time of year?	Yes No		
Are Vegetation, Soil, or Hydrology				" present? Yes No
Are Vegetation, Soil, or Hydrology			l, explain any ansv	78.0
SUMMARY OF FINDINGS – Attach site	map showing sa	impling point locat	tions, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes	No	1-4-0-4		
Hydric Soil Present? Yes	No	Is the Sampled Area		No
Wetland Hydrology Present? Yes	No	within a Wetland?	Yes	No
Remarks:				
wo/ang				
4000 a facility on the many of				
IIVADOL OOV				
HYDROLOGY				
Wetland Hydrology Indicators:				cators (minimum of two required)
Primary Indicators (minimum of one is required; che				oil Cracks (B6)
	quatic Fauna (B13)			egetated Concave Surface (B8)
	larl Deposits (B15) (L		Drainage F	i i
	lydrogen Sulfide Odor	along Living Roots (C3)		Lines (B16)
	resence of Reduced I			n Water Table (C2) urrows (C8)
	ecent Iron Reduction			Visible on Aerial Imagery (C9)
- Children Color Thought Line 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	hin Muck Surface (C7			ic Position (D2)
	ther (Explain in Rema			guitard (D3)
Inundation Visible on Aerial Imagery (B7)			FAC-Neutr	al Test (D5)
Water-Stained Leaves (B9)			Sphagnum	moss (D8) (LRR T, U)
Field Observations:	/			
Surface Water Present? Yes No	Depth (inches):			
Water Table Present? Yes No	Depth (inches):			
Saturation Present? Yes No Vincludes capillary fringe)	Depth (inches):	Wetland	Hydrology Pres	ent? Yes No
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, p	revious inspections), if a	vailable:	
Remarks:		Maria de la companya		
No hydrolog	50 5-1	(n.t0)3	obser	ree),
NO My Ololog	ic inoi	C4 1013	00)9	and the state of t
•				

VEGETATION	(Eivo Strata)	_ I lea scientific	names of plants.
VEGETATION	(Five Strata)	- Ose scientific	names of plants.

Sampling Point: W7-U

Stratum (Plot size: 30)	% Cover Speci	es? Status	Number of Descional Province	
Broussonetia MANVIRITIME	-7 -		Number of Dominant Species	
		FACU	That Are OBL, FACW, or FAC:	(A)
Subal palm 11	30	_ FAC	Total Number of Dominant	
Salara de la constanta de la c				(B)
			Percent of Dominant Species	/ A /D
			That Are OBL, FACW, or FAC:	(AVB
			Prevalence Index worksheet:	
	= Total		Total % Cover of: Mult	tiply by:
50% of total cover:	20% of total co	over:	OBL species x 1 =	
ling Stratum (Plot size:)	12	Mari	FACW species x 2 =	
MUNUS CAPO INJANA	10	FACU		
			FAC species x 3 =	
			FACU species x 4 = _	
			UPL species x 5 =	
			Column Totals: (A) _	(B)
			West and the second second	
			Prevalence Index = B/A =	
	= Total		Hydrophytic Vegetation Indicators:	17 10
50% of total cover:	20% of total co	over:	1 - Rapid Test for Hydrophytic Veg	getation
ıb Stratum (Plot size:)	0.4	EAC!	2 - Dominance Test is >50%	
Sambucus canadensis	20	FACW	3 - Prevalence Index is ≤3.01	
			Problematic Hydrophytic Vegetation	on ¹ (Explain)
			robicinate rivarophytic vogetation	on (Expidin)
			1	
			Indicators of hydric soil and wetland he present, unless disturbed or problem	ydrology must
			Definitions of Five Vegetation Strata	à:
	= Total	Cover	Tree - Woody plants, excluding woody	v vines.
50% of total cover:	20% of total co	over:	approximately 20 ft (6 m) or more in he	eight and 3 in.
Stratum (Piot size:)			(7.6 cm) or larger in diameter at breast	t height (DBH).
Cantinoa mutibilis	10	FAC	Sapling – Woody plants, excluding wo	oody vines
			approximately 20 ft (6 m) or more in he	
			than 3 in. (7.6 cm) DBH.	a books
			Charles Manager and Advantage Control	di ci da a a
			Shrub – Woody plants, excluding woo approximately 3 to 20 ft (1 to 6 m) in he	
			approximately 5 to 25 it (1 to 5 iii) iii iii	oigit.
			Herb – All herbaceous (non-woody) pl	
			herbaceous vines, regardless of size,	
			plants, except woody vines, less than a 3 ft (1 m) in height.	approximately
			o it (1 m) it noight.	
			Woody vine - All woody vines, regard	iless of height.
	= Total	Cover	-	
50% of total cover:	20% of total co	over:	and the second second second second	
ody Vine Stratum (Plot size:)				
SYN CONIUM.	5			
Dioscorea bulb	5	FAC		
			N=1	
			Hydrophytic	
	= Total	Cover	Vegetation	\checkmark
	20% of total co	wer.	Present? Yes No	

_	-	
100		11

	th needed to document the i	indicator or confirm	the absence	Sampling Point: WO7-
DepthMatrix	Redox Feature			or malous.s.,
nches) Color (moist) %	Color (moist) %	Type Loc2	Texture	Remarks /
-18 10 XR7/2 33			Fine	highly disturbed soil K
1-18 104R6/1 33	104R2/1	C M	Fine sans	11
1-18 10YR2/1 33			The,	· ·
10 10/12/1 02	7		San	4.
ype: C=Concentration, D=Depletion, RM=	=Reduced Matrix, MS=Masked	Sand Grains.	² Location:	PL=Pore Lining, M=Matrix.
dric Soll Indicators: (Applicable to all	LRRs, unless otherwise not	ed.)		for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surfa) 1 cm N	fluck (A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Surface (S9)	(LRR S, T, U)	2 cm N	fluck (A10) (LRR S)
Black Histic (A3)	Loamy Mucky Mineral			ed Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		ont Floodplain Soils (F19) (LRR P, S, T)
_ Stratified Layers (A5) _ Organic Bodies (A6) (LRR P, T, U)	Depleted Matrix (F3) Redox Dark Surface (F	·e/		alous Bright Loamy Soils (F20)
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dark Surface	*		RA 153B) arent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depressions (F	1 /		hallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Mari (F10) (LRR U)	•		Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11)			
Thick Dark Surface (A12)	Iron-Manganese Mass			ators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A				and hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Delta Ochric (F17) (ML		unle	ess disturbed or problematic.
Sandy Redox (S5)	Reduced Vertic (F18) (Piedmont Floodplain S		9.61	
Stripped Matrix (S6)	Anomalous Bright Loar			153D)
Dark Surface (S7) (LRR P, S, T, U)		, (, (, , , , , , , , , , , ,	,
strictive Layer (if observed):				
Туре:				
Depth (inches):			Hydric Soil	Present? Yes No
marks:		1		/
		lane of	SALL	History disturbed
SI Wantile m	1 1 1 1 1 C S V M/11	single of	30 ()>,	1117 DIY O(131 UI)
Soil profile mi	IXED ASSENIE			
Soll protile m	IXED ASSEMIL			
Soll protile m	(Xeg assemil			
Soll protile m	(Xeg assemil			
Soll protile m.	(Xeg(ASSEML	/ /		
Soll protile m	(XE) ASSEMIL			
Soll protile m	(XE) ASSEMIL			
Soll protile m	(XP) ASSEMIL			
Soll protile m	(XP) ASSEMIL			
Soll protile m	(Xeg(ASSEML			
Soll protile m	(XP) ASSEMIL			
Soll protile m	(Xeg(ASSEML			
Soll protile m	(XPG) ASSEMIL			
Soll protile m	(Xeg(ASSEML			
Soll protile m	(Xeg(ASSEML			
Soll protile m	(Xeg(ASSEML			
Soll protile m	(Xeg(ASSEML			
Soll protile m	(Xeg(ASSEML			
Soll protile m	(Xeg assemb			

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Applicant/Owner: Sampling Point: Investigator(s): Section, Township, Range: Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): /MCAUL 049287 Long: -82.005307 Subregion (LRR or MLRA): Soil Map Unit Name: NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes_ (If no, explain in Remarks.) ___ or Hydrology _ significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation , or Hydrology_ _ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. **Hydrophytic Vegetation Present?** Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) _ Marl Deposits (B15) (LRR U) ___ Drainage Patterns (B10) X 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) Sphagnum moss (D8) (LRR T, U) Field Observations: **Surface Water Present?** Water Table Present? Saturation Present? Depth (inches): **Wetland Hydrology Present?** (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: WOT-W

	Absolute Dominant Indicator	Dominance Test worksheet:
1. ACM NOWN	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
		mat Ale Obe, 1 Acto, of 1 Ac.
2. Quercus launitolia	<u> 20</u>	Total Number of Dominant Species Across All Strata: (B)
3	Appendig to	
5,		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6.	= Total Cover	Prevalence Index worksheet:
50% of total cover:		Total % Cover of:Multiply by:
Sapling Stratum (Plot size:)	20 % of total cover.	OBL species x 1 =
1		FACW species x 2 =
2.		FAC species x 3 =
3		FACU species x 4 =
		UPL species x 5 =
4 5		Column Totals: (A) (B)
6.		Prevalence Index = B/A =
	= Total Cover	Hydrophytic Vegetation Indicators:
	20% of total cover:	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:)	n-	2 - Dominance Test is >50%
1. Sambucus nigra	25 FACW	3 - Prevalence Index is ≤3.01
2. Her rubrum	_ 20	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Phrenox reclinata		and the second s
4		¹ Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
6		Definitions of Five Vegetation Strata:
	= Total Cover	Tree - Woody plants, excluding woody vines,
50% of total cover:	20% of total cover:	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size:)	10	(7.6 cm) or larger in diameter at breast height (DBH).
1. Saururus cernuus,	10 000	Sapling - Woody plants, excluding woody vines,
2 Colocasia Esculentus	20 HEW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3. (yelosorus interruptus	65 PACW	
4		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
6.		Herb - All herbaceous (non-woody) plants, including
7.		herbaceous vines, regardless of size, and woody
8.		plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.		Woody vine - All woody vines, regardless of height.
10	e e i i i i i i i i i i i i i i i i i i	Woody villo 7 il woody villos, rogardioso or noight.
11.		
	= Total Cover	
50% of total cover:	20% of total cover:	
Woody Vine Stratum (Plot size:)		
1.		
2		
3		
4.		
5,		Hydrophytic
	= Total Cover	Vegetation Present? Yes No
	0004 54 4-1	LIASAILL IAS 140
50% of total cover:	20% of total cover:	·

-	-	
-	_	

Sampling Point: WO7-W

	Color (moist) /	% Co	Redox Features Nor (moist) % Type	e ¹ Loc ²	Tevture	Daw I	100
nches) ->18	1000 2/1		HU 1901		Texture	Remarks	
118	10/R 2/1	100		<i>n</i>	nuck		
					-		
				5			
pe: C=Con	centration, D=Depl	etion, RM=Redu	ced Matrix, MS=Masked Sand	Grains.	² Location: PL=Por	e Linina. M≕Matri	x
			unless otherwise noted.)		Indicators for Prot	olematic Hydric \$	Solls ³ :
Histosol (A	N1)	_	Polyvalue Below Surface (S8		1 cm Muck (A9		
Histic Epip	edon (A2)		Thin Dark Surface (S9) (LRR		2 cm Muck (A1		
Black Histi	c (A3)	_	Loamy Mucky Mineral (F1) (L	RR O)	Reduced Vertic	(F18) (outside N	/ILRA 150 <i>A</i>
	Sulfide (A4)		Loamy Gleyed Matrix (F2)			dplain Soils (F19)	
	ayers (A5)	_	Depleted Matrix (F3)		Anomalous Brig	ght Loamy Soils (I	F20)
	odies (A6) (LRR P,		Redox Dark Surface (F6)		(MLRA 153B	•	
	y Mineral (A7) (LR		Depleted Dark Surface (F7)		Red Parent Ma	, ,	
	ence (A8) (LRR U)	_	Redox Depressions (F8)			ark Surface (TF1:	2)
	(A9) (LRR P, T) Below Dark Surface		Mari (F10) (LRR U)		Other (Explain	in Remarks)	
-	Selow Dark Surface Surface (A12)	(AII)	Depleted Ochric (F11) (MLRA Iron-Manganese Masses (F12		31- 41451	h	-4!1
	rie Redox (A16) (M	II RA 150A)	Umbric Surface (F13) (LRR P			hydrophytic veget rology must be pr	
	cky Mineral (S1) (L		Delta Ochric (F17) (MLRA 15		_	rbed or problemat	,
	yed Matrix (S4)		Reduced Vertic (F18) (MLRA		4111033 41314	rbed or problemat	IIC.
Sandy Red	- , ,		Piedmont Floodplain Soils (F1				
Stripped M	latrix (S6)		Anomalous Bright Loamy Soil				
Dark Surfa	ce (S7) (LRR P, S,						
	yer (if observed):						
strictive La	yer (if observed):					> /	
strictive La				н	ydric Soil Present	? Yes X	No
strictive Lag Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
trictive La Type: Depth (inche				н	ydric Soil Present	? Yes	No
strictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soll Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soll Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soll Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soll Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soll Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soll Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
trictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
strictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
strictive La Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
strictive Lag Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
strictive Lag Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
strictive Lag Type: Depth (inche				Н	ydric Soil Present	? Yes X	No
				Н	ydric Soll Present	? Yes X	No
strictive Lag Type: Depth (inche				Н	ydric Soll Present	? Yes X	No
strictive Lag Type: Depth (inche				Н	ydric Soll Present	? Yes X	No

1 / 10	AH ///	DATA FORM - AI		dun Coastai F	riain Region
Project/Site: Lake Bo	nnel Flood Haz	City/County: _	POLK		_ Sampling Date: 23 APK
Applicant/Owner:	y of Lake and			State:	_ Sampling Point: W&8 -
Investigator(s): M. Bro	oiner I. Moslex	Section, Town	nship, Range: _		/
Landform (hillslope, terrace,	etc.): bottom	Local relief (c	oncave, convex	none): Con o	Slope (%):
Subregion (LRR or MLRA): _	LRRU La	t:	Long:		Datum:
Soil Map Unit Name:		Nima of war 2 Van		NIMI classii	10.55
	ditions on the site typical for this	time of year? Vee	No	(If no ovalois is	Remarks)
	, or Hydrology sig , or Hydrology na				present? Yes No ers in Remarks.)
SUMMARY OF FINDIN	GS - Attach site map s	howing sampling	point location	ons, transect	s, important features, et
Hydrophytic Vegetation Pre- Hydric Soll Present? Wetland Hydrology Present Remarks:	Yes No		Sampled Area a Wetland?	Yes	No
HADBOLOGA	(List as attend at				
HYDROLOGY					
Wetland Hydrology Indica					ators (minimum of two required)
	n of one is required; check all that				l Cracks (B6)
Surface Water (A1)	Aquatic Fa				egetated Concave Surface (B8)
High Water Table (A2)		osits (B15) (LRR U)			atterns (B10)
Saturation (A3)		Sulfide Odor (C1)		Moss Trim	
Water Marks (B1)		Rhizospheres along Livi	ng Roots (C3)		Water Table (C2)
Sediment Deposits (B2)		of Reduced Iron (C4)		Crayfish Bu	
Drift Deposits (B3)		n Reduction in Tilled So	oils (C6)		/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Surface (C7)			Position (D2)
Iron Deposits (B5)		plain in Remarks)		Shallow Aq	
Inundation Visible on A				FAC-Neutra	
Water-Stained Leaves ((89)			Sphagnum	moss (D8) (LRR T, U)
Field Observations:	🗸				
Surface Water Present?	1 /	n (inches):			
Water Table Present?		n (inches):	_		\/
Saturation Present? (includes capillary fringe)	Yes No Depth	n (inches):		Hydrology Prese	nt? Yes X No
Describe Necorded Data (St	ream gauge, monitoring well, ae	nai priotos, previous ins	pections), ir ava	aliable:	
Remarks:					

/EGETATION (Four Strata) – Use scientific	names of plants.		Sampling Point:	
Tree Stratum (Plot size: 30) 1. Aca Nordan	Absolute Dominant % Cover Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species	
1. Acer rubrum 2.			That Are OBL, FACW, or FAC:	_ (A)
3			Total Number of Dominant Species Across All Strata:	(B)
4 5			Percent of Dominant Species That Are OBL, FACW, or FAC:	
6.			Prevalence Index worksheet:	
7			Total % Cover of: Multiply by:	
В			OBL species x 1 =	
	= Total Co		FACW species x 2 =	
	20% of total cover		FAC species x 3 =	
Sapling/Shrub Stratum (Plot size:) 1. Salix Caroliniana	11-	APL	FACU species x 4 =	
1. Solix Caroliniana	_ 75	ODA	UPL species x 5 =	
2			Column Totals: (A)	
3 4			Prevalence Index = B/A =	4.8
5.			Hydrophytic Vegetation Indicators:	
6.			1 - Rapid Test for Hydrophytic Vegetation	
7			2 - Dominance Test is >50%	
В,			3 - Prevalence Index is ≤3.0¹	
	= Total Co			
5004 of total course	20% of total cover		Problematic Hydrophytic Vegetation ¹ (Exp	nain)
	20 % of total cover		- man that - on - man	
Herb Stratum (Plot size:)	45	FACW	Indicators of hydric soil and wetland hydrolog be present, unless disturbed or problematic.	y must
1. Apid emericana 2. Luduigia peruriana	75	OBL		
2. L'ungia perunava	_ 45	MACIN	Definitions of Four Vegetation Strata:	
3. Cyclosorus Interruptus		FACW	Tree - Woody plants, excluding vines, 3 in. (7	.6 cm) or
4			more in diameter at breast height (DBH), rega	
5			height.	
6, 100 100 100 100 100 100 100 100 100 10			Sapling/Shrub - Woody plants, excluding vin	es less
7.			than 3 in. DBH and greater than 3.28 ft (1 m) t	
				1980
3 9			Herb – All herbaceous (non-woody) plants, re of size, and woody plants less than 3,28 ft tall.	
10			Woody vine - All woody vines greater than 3.	28 ft in
11			height.	
12	= Total Co			
50% of total cover	20% of total cover			
	20% of total cover	-		
Woody Vine Stratum (Plot size:)	Na.			
1,				
2,				
3				
4	17			•
5			Hydrophytic	
	= Total Co	ver	Vegetation No.	
50% of total cover:	20% of total cover	r:	Present? Yes No	-
Remarks: (If observed, list morphological adaptations I				

Sampling Point: WB8-W

(inches)	Matrix Color (moist)		Redox Features	
1	10 YR 2/1		Color (moist) % Type ¹ Lo	oc ² Texture Remarks
9-6	10/10/10	_ 100		organic rich muck
<u> </u>	10 YK 6/3	_ <i>100</i>		coarse sand
	6			
ype: C=Conc	entration, D=Dep	oletion, RM=Red	duced Matrix, MS=Masked Sand Grains.	
,			Rs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A			Polyvalue Below Surface (S8) (LRR \$	
Histic Epipe	, ,		Thin Dark Surface (S9) (LRR S, T, U)	
Black Histic		_	Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,
Hydrogen S Stratified La		_	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, 1
	dies (A6) (LRR P	, T III	Depleted Matrix (F3) Redox Dark Surface (F6)	Anomalous Bright Loamy Soils (F20)
	y Mineral (A7) (LI	_	Depleted Dark Surface (F7)	(MLRA 153B)
	ence (A8) (LRR L		Redox Depressions (F8)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
	(A9) (LRR P, T)	_	Marl (F10) (LRR U)	Other (Explain in Remarks)
	elow Dark Surfac	e (A11) _	Depleted Ochric (F11) (MLRA 151)	Onlor (Explain in Nontarks)
	Surface (A12)		iron-Manganese Masses (F12) (LRR	O, P, T) ³ Indicators of hydrophytic vegetation and
	ie Redox (A16) (I		Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
	ky Mineral (S1) (I	_RR O, S) _	Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
	red Matrix (S4)	_	Reduced Vertic (F18) (MLRA 150A, 1	
Sandy Red		-	_ Piedmont Floodplain Soils (F19) (MLF	
Stripped Ma			_ Anomalous Bright Loamy Soils (F20)	(MLRA 149A, 153C, 153D)
	e (S7) (LRR P, Ser (If observed):			
Type:	er (ii observed).			
Depth (inche:	e):		•	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	5).		-	Hydric Soil Present? Yes No
marks:			1 / 1	
)-/ " NO	MAMIC	soil to layer	
	$I \cup I \cup I$	ganic		
	Ce	V		
	- C			
	S.P.			
	S.P.			

AND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Had Haz Mit City/County:_ Sampling Date: 23 MPK Sampling Point: W Applicant/Owner: Section, Township, Range: _ Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Subregion (LRR or MLRA): Soil Map Unit Name: NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) Are Vegetation _____, Soil _____, 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 showing sampling point locations, transects, important features, etc. **Hydrophytic Vegetation Present?** Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? No Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) ___ High Water Table (A2) ___ Marl Deposits (B15) (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-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Water Table Present? Wetland Hydrology Present? Yes Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

EGETATION (Four Strata) – Use scientific r		Dominant	Indiantas	Sampling Point: V	/
Tree Stratum (Plot size: 30)	% Cover	Species?	Status		
Quergus Virginiana	40		FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
Liquidambar styracition	15		FAC		_ ()
			1110	Total Number of Dominant	
				Species Across All Strata:	_ (B)
*				Percent of Dominant Species	
•				That Are OBL, FACW, or FAC:	(A/E
Tomore Care and the care and th				Prevalence Index worksheet:	
HILL III TO THE THE THE THE THE THE				Total % Cover of: Multiply by:	
				OBL species x 1 =	
				FACW species x 2 =	
50% of total cover:	20% of	total cover	:		
apling/Shrub Stratum (Plot size:)			M. mer a a	FAC species x 3 =	
Broussonetia papyrifera			FACU	FACU species x 4 =	_
				UPL species x 5 =	
				Column Totals: (A)	(B
				Prevalence Index = B/A =	
				Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Vegetation	
				2 - Dominance Test is >50%	
				3 - Prevalence Index is ≤3.01	
		= Total Cov		Problematic Hydrophytic Vegetation¹ (Expl	lain)
50% of total cover:	20% of	total cover			
lerb Stratum (Plot size: _,)				Indicators of hydric soil and wetland hydrology	v must
Bidens alba.	30		FACW	be present, unless disturbed or problematic.	, masi
RIVINA humiles	30		FACU	Definitions of Four Vegetation Strata:	
			FAC	Bollinton's of Four Vogetation Strata.	
Urachloa maxima			140	Tree - Woody plants, excluding vines, 3 in. (7.	
				more in diameter at breast height (DBH), regar	dless
			10.00	height.	
to have the contract of the co				Sapling/Shrub – Woody plants, excluding vine	es less
				than 3 in. DBH and greater than 3.28 ft (1 m) to	
		701	III - 150 N	TALL TO SELECTION OF THE PROPERTY OF THE PROPE	
				Herb - All herbaceous (non-woody) plants, reg	jardles
				of size, and woody plants less than 3.28 ft tall.	
0				Woody vine - All woody vines greater than 3.2	28 ff in
1,-				height.	20 11 111
2.	1 0				
2,		T 1 10			
		= Total Cov			
50% of total cover:	20% of	total cover			
Voody Vine Stratum (Plot size:)					
None					
2.					
				Hydrophytic	
N		= Total Cov	er	Lagin and in the lagin	
				Present? Yes No	
50% of total cover:					

SOIL								S	Sampling Po	oint: 1108-
Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the i	ndicator	or confirm	the absence	of indicat	ors.)	
Depth	Matrix			ox Feature						
(inches)	Color (moist)		Color (moist)	%	Type	_Loc ²	Texture		Remar	ks
0-8	YR 3/2	180					Medium	Sund		
8-12	10 YR 3/3	30	10 YR 4/1	70			fine 50	and		
12-7/8	10YR4/1	100	,							
		- 100								
	· · · · · · · · · · · · · · · · · · ·									
			=Reduced Matrix, M			ins.	² Location:			
		able to all	LRRs, unless othe		-		Indicators		-	ric Soils³:
Histosol	. ,		Polyvalue Bo				l) 1 cm N	luck (A9) (I	LRR O)	
	pipedon (A2)		Thin Dark S				2 cm N			
Black Hi	. ,		Loamy Muck			0)				de MLRA 150A,B)
	n Sulfide (A4)		Loamy Gley	,	F2)					19) (LRR P, S, T)
	Layers (A5)	7 10	Depleted Ma	, ,					Loamy Soi	ils (F20)
	Bodies (A6) (LRR P cky Mineral (A7) (Lf		Redox Dark					A 153B)	===.	
	esence (A8) (LRR U							rent Mater	, ,	
	ck (A9) (LRR P, T)	"	Redox Depre	,))				Surface (ΓF12)
	Below Dark Surfac	e (Δ11)	Marl (F10) (L Depleted Oc		MIDA 45	4)	Other (Explain in I	Remarks)	
	rk Surface (A12)	· (A11)	Iron-Mangan				T) ³ India	store of his	deanh. dia	
		VILRA 150	A) Umbric Surfa	re (F13) (BRPT	III			ogy must b	getation and
	ucky Mineral (S1) (I		Delta Ochric			0)			ed or proble	
	leyed Matrix (S4)		Reduced Ve			1A 150R)	dille	33 013(01)00	d of bronie	manc.
	edox (S5)		Piedmont Flo				94)			
	Matrix (S6)		Anomalous E					153D)		
Dark Sur	face (S7) (LRR P, S	S, T, U)	_			, (, , , , , , ,	,		
Restrictive L	ayer (If observed):			-						
Туре:										\ \ .
Depth (inc	hes):						Hydric Soil	Present?	Yes	No <u>X</u>
Remarks:	Vo hydre	C 50	el indica	ator	5 06	serv	ed			
	7			1						

AND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region City/County: Sampling Date: 23 APR 29 Applicant/Owner: Sampling Point: NO8-W Section, Township, Range: Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): ______ Slope (%): Subregion (LRR or MLRA): _ Soil Map Unit Name: _ NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes __ (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. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soll Present? No within a Wetland? Yes No Wetland Hydrology Present? Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) ___ Marl Deposits (B15) (LRR U) Drainage Patterns (B10) X 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) __ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) Geomorphic Position (D2) ___ Iron Deposits (B5) __ Other (Explain in Remarks) Shallow Aguitard (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? Saturation Present? Depth (inches): Wetland Hydrology Present? Yes_ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

VEGETATION (Four Strata) - Use scientific na	ames of pl	ants.		Sampling Point:
		Dominant	Indicator	Dominance Test worksheet:
1. Liguidamisas styracitua	% Cover	Species?	Status	Number of Dominant Species
1. Liquidambar styracitlua	45		FAC	That Are OBL, FACW, or FAC:(A)
2. Magnolia Vivginiana	30		FACW	Takal Missak and S Dansin and
3. Acer rubrum	20		FAC	Total Number of Dominant Species Across All Strata: (B)
4. Quencus virginiana		1	FAC	Opecies Across Air citata.
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6.				Prevalence Index worksheet:
7.				
8.				Total % Cover of: Multiply by:
		= Total Cov	/er	OBL species x 1 =
50% of total cover:	20% of	total cover		FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Sambucus Canadansis	45		FACW	FACU species x 4 =
Acros Collaborations	10	_	FAC	UPL species x 5 =
2. Acer rubrum	10			Column Totals: (A) (B)
3. Urena lobata	10		FACU	Column rotals (r) (b)
4. Sabul palveto	10		FAC	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.				
7.				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
8.				3 - Prevalence Index is ≤3.01
		= Total Cov		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of	total cover	*)]	and the second s
Herb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
1. Apros americana	55		FACW	be present, unless disturbed or problematic.
2. Chelosorus interruptus	45		FACW	Definitions of Four Vegetation Strata:
3. Télmatoblechnum serrulatur	M 30		FACIN	
				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				noight.
6.				Sapling/Shrub - Woody plants, excluding vines, less
7			114 - 361	than 3 in, DBH and greater than 3.28 ft (1 m) tall.
8.				Herb – All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10.				
11.				Woody vine – All woody vines greater than 3,28 ft in height.
	•			Height.
12	-			
		= Total Cov		
50% of total cover:	20% of	total cover		
Woody Vine Stratum (Plot size:)			4 -	
1. Clematis Vivginiana	10		FAC	
2. Vitis cinera	10			
3. Smilax lauritalia	5			_
4				
5				Hydrophytic
= 8 90		= Total Cov	er er	Vegetation Present?
50% of total cover:	20% of	total cover		FIESERE TES NO
Remarks: (If observed, list morphological adaptations bel	ow).			
Overstery in this were dos Generally dense tern grow	niveta ne cove	by len w	19,5 much	ty., Acerrub, & Mag. virg Apras
	14.			

Sampling Point:

Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type ¹ Loc ²	Texture Remarks
0-7 10 YR 2/1 115%	Muck w/ Minor coarse sand
7.8 101R7/2 100	medium/sand
8-718 104R 3/1 100	medium sand
DIO IDINOTE III	11 011111 0000
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, I	
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Reduced Vertic (F18) (outside MLRA 150A,B)
Stratified Layers (A5) Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (LRR P, S, T) Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P,	T) 3Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14	
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLR Dark Surface (S7) (LRR P, S, T, U)	RA 149A, 153C, 153D)
Restrictive Layer (if observed):	
Type:	
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	Hydric Soll Present? Yes No
Depth (inches):	

WETLAND DETERMINATION DATA FORM -- Atlantic and Gulf Coastal Plain Region Sampling Date: 23 AVN 29 Project/Site: La _____ City/County: ___ Applicant/Owner: ____ _ State: ____ Sampling Point: NOS Investigator(s): ____ Section, Township, Range: ___ Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): ______ Slope (%): Subregion (LRR or MLRA): Lat: Long: __ NWI classification: __ Soil Map Unit Name: _ Are climatic / hydrologic conditions on the site typical for this time of year? Yes ______ No _____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "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?** Is the Sampled Area Hydric Soil Present? within a Wetland? Yes _____ No ___ Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) ___ Aquatic Fauna (B13) ___ Sparsely Vegetated Concave Surface (B8) ___ High Water Table (A2) Marl Deposits (B15) (LRR U) __ Drainage Patterns (B10) ___ Saturation (A3) ___ Hydrogen Sulfide Odor (C1) ___ Moss Trim Lines (B16) ___ Oxidized Rhizospheres along Living Roots (C3) ___ Dry-Season Water Table (C2) ___ Water Marks (B1) Sediment Deposits (B2) Presence of Reduced Iron (C4) ___ Crayfish Burrows (C8) ___ Recent Iron Reduction in Tilled Soils (C6) __ Drift Deposits (B3) ___ Saturation Visible on Aerial Imagery (C9) ___ Algal Mat or Crust (B4) ___ Thin Muck Surface (C7) ___ Geomorphic Position (D2) ___ Iron Deposits (B5) Other (Explain in Remarks) ___ Shallow Aquitard (D3) _ Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Depth (inches): Depth (inches): Saturation Present? Wetland Hydrology Present? Yes _____ No. (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: No eviduce of Lydrotogy observed

US Army Corps of Engineers

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

W08-U2

temarks; (If observed, list morphological adaptations bel	iow).			
50% of total cover:		over:	Present? Yes No	
	= Total	Cover	Vegetation	
			Hydrophytic	
Miliono Michor Engreciona				
Huisostichur capredate				
pody Vine Stratum (Plot size:)				
50% of total cover:	20% of total co	over:		
	= Total			
			height.	J.20 II I
, and the second second			Woody vine - All woody vines greater than	
USA TO A TO			Herb - All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft to	
Dreva lobata			Sapling/Shrub – Woody plants, excluding with an 3 in. DBH and greater than 3.28 ft (1 m	
Panicom maximom	10			
Dioscovea bulbifera	15		more in diameter at breast height (DBH), re height.	
Smilas	10	100	Tree - Woody plants, excluding vines, 3 in.	(7.6 cm)
Abrus praecatorius	10		Definitions of Four Vegetation Strata:	
Prunus cardiniana	15		be present, unless disturbed or problematic	-9, 11143
rb Stratum (Plot size:)		18	¹ Indicators of hydric soil and wetland hydrol	oav mus
50% of total cover:			Problematic Hydrophytic Vegetation ¹ (E	zypiain)
	= Total	Cover	3 - Prevalence Index is ≤3.0¹ Broblematic Hydrophytic Vegetation¹ (5)	Evoleis'
		= = =	2 - Dominance Test is >50%	
			1 - Rapid Test for Hydrophytic Vegetati	on
			Hydrophytic Vegetation Indicators:	
			Prevalence Index = B/A =	1111
		- 4	Column Totals: (A)	(
Sambucus canadensis			UPL species x 5 =	
Prunus caroliniana	<u> 40</u>	FACU	FACU species x 4 =	
olina/Shrub Stratum (Dlat size:			FAC species x 3 =	
50% of total cover:			FACW species x 2 =	
The Control of Landson Control of the Control of th	19 = Total	Cover	OBL species x 1 =	
			Total % Cover of: Multiply t	oy:
7 TENNET HEAVE 12' 1			Prevalence Index worksheet:	
			That Are OBL, FACW, or FAC:	(A
			Percent of Dominant Species	
			Species Across All Strata:	(B
Melia azedarach	15	UPL	Total Number of Dominant	
Prunus cardinana)	75	FACU	That Are OBL, FACW, or FAC:	(A
			Number of Dominant Species	

Sampling Point: W 98-U2

Inches Color (moist) % Tope Loc Texture Remarks McCuttm Annual McCut	Depth (inches)	Matrix (maist)	0/ 0=!==/	Redox Features	1 2 -		
Type: C=Concentration, D=Depiction, RM=Reduced Matrix, MS=Masked Sand Grains. ydrif soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histool (A1)	(inches)	Color (moist)	1 .	moist) % Type			
Indicators (Applicable to all LRRs, unless otherwise noted.)	1-18	101K4/2	100			dium grain sand	
Indicators (Applicable to all LRRs, unless otherwise noted.)							
Indicators (Applicable to all LRRs, unless otherwise noted.)							
Indicators (Applicable to all LRRs, unless otherwise noted.)							
Indicators (Applicable to all LRRs, unless otherwise noted.)							_
Indicators (Applicable to all LRRs, unless otherwise noted.)	14						
Indicators (Applicable to all LRRs, unless otherwise noted.)							
Indicators (Applicable to all LRRs, unless otherwise noted.)		•					
Indicators (Applicable to all LRRs, unless otherwise noted.)							
Histoce (AP) Polyvalue Below Surface (SB) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histoce (Dependent (A2) 1 compt Muck) Mineral (F1) (LRR O) 2 cm Muck (A10) (LRR A 150A, Hydrogen Sulfide (A4) 1 compt Muck) Mineral (F1) (LRR O) Poletated (A4) 1 compt Muck) Mineral (F1) (LRR O) Poletated (A7) (LRR P, S, T, U) 1 compt Muck) Mineral (A7) (LRR P, T, U) 1 compt Muck (A9) (LRR P, T, U) 1 compt Muck (A9) (LRR P, T, U) 2 compt Muck (A9) (LRR P, T, U) 2 compt Muck (A9) (LRR P, T, U) 2 compt Muck (A9) (LRR P, T, U) 3 compt Muck (A9) (LRR P, T) 4 compt Muck (A9) (LRR A 150A) 5 com							3
Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Plydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) Pledment Flooring Solis (F19) (LRR P, S, T, U) Stratified Layers (A5) Cognile Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) Muck Presence (A8) (LRR P, T, U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Selow Dark Surface (A13) Depleted Ochric (F11) (MLRA 1510) Depleted Below Dark Surface (A15) Depleted Ochric (F11) (MLRA 1510) Depleted Selow Dark Surface (A12) Depleted Selow Dark Surface (A15) Depleted Ochric (F11) (MLRA 1510) Depleted Selow Dark Surface (A15) Depleted Ochric (F11) (MLRA 1510) Depleted Selow Dark Surface (A15) Depleted Ochric (F11) (MLRA 1510) Depleted Selow Dark Surface (A15) Depleted Ochric (F11) (MLRA 1510) Depleted Ochric (F11) (MLRA 150) Depleted Ochric (F11) (MLRA 150) Derla Surface (A15) Depleted Ochric (F11) (MLRA 150) Derla Surface (A15) Derla Sur				1.			ls":
Black Histic (A3)							
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F2) Corganic Bodies (A6) (LRR P, T, U) S om Mucky Presence (A6) (LRR P, T, U) 1 cm Muck Presence (A6) (LRR P, T, U) 2 cpleted Deriv Surface (F6) 3 cm Mucky Presence (A6) (LRR P, T) 2 cpleted Deriv Circle (F1) 3 cm Muck Presence (A6) (LRR P, T) 4 cm Muck (A9) (LRR P, T) 5 cm Mucky Presence (A6) (LRR P, T) 5 cm Mucky Presence (A6) (LRR P, T) 5 cpleted Deriv Surface (A11) 5 cpleted Deriv Circle (F1) (MLRA 151) 5 cost Prairie Redox (A16) (MLRA 150A) 5 cm Sandy Mucky Mineral (S1) (LRR P, S) 5 cm Andy Mucky Mineral (S1) (LRR P, S) 5 cm Andy Mucky Mineral (S1) (LRR P, S) 5 cm Andy Mucky Mineral (S1) 5 cm Anomalous Bright Loamy Solis (F20) (MLRA 149A) 5 cm Anomalous Bright Loamy Solis (F20) (MLRA 153D) 5 cm Anomalous Bright Loamy Solis (F20) (MLRA 153D) 5 cm Anomalous Bright Loamy Solis (F20) 5 cm Anomalous Bright Loamy Solis (F20) 5 cm Anomalous Bright Loamy Solis (F20) 6 cm Circle (E12) 7 cm Ci							
Stratified Layers (A5) Depleted Matrix (F3) Radox Dark Surface (F6) Radox Dark Surface (F6) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Very Shallow Dark Surface (F12)					R O)		
Organic Bodies (A8) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T) Mari (F10) (LRR U) Depleted Open Surface (F8) Level (F10) (MLRA 1511) Thick Dark Surface (A12) Depleted Open (F11) (MLRA 1511) Thick Dark Surface (A15) (MLRA 150A) Depleted Open (F17) (MLRA 1511) Thick Dark Surface (A16) (MLRA 150A) Depleted Open (F17) (MLRA 1511) Umbric Surface (F13) (LRR P, T, U) Welland Mydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) Reduced Vertic (F18) (MLRA 1501) (MLRA 1504) Sitripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Settled United Surface (F19) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Settled United Surface (F19) (MLRA 149A, 153C, 153D) Destrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No					-		
5 cm Mucky Mineral (A7) (LRR P, T, U)					_))
Muck Presence (AB) (LRR U) 1 cm Muck (A9) (LRR P, T) 2 Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coest Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Setrictive Layer (if observed): Type: Depth (inches): Depth (inches): Depth (inches): Mari (F10) (LRR U) Depth (inches): Mori (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Iron-M						· · · · · · · · · · · · · · · · · ·	
1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Learny Soils (F20) (MLRA 149A, 153C, 153D) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Strictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No							
					_		
Thick Dark Surface (A12)						Other (Explain in Remarks)	
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 1501) unless disturbed or problematic. Sandy Redox (S5) 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) Derk Surface (S7) (LRR P, S, T, U) estrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No Month of the Anomalous Soil (Soil Present? Yes No) Month of the Anomalous Soil (Soil Present) Present? Month of the Anomalous Soil (Soil Present) Present? Month of the Anomalous Soil Present? Present Pr						3 Indicators of hydrophytic vegetation	
Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sirloped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Sestrictive Layer (If observed): Type: Depth (inches): Wemarks: Mo Ayduu SOI Mal cators Abserved Modern Soil (F17) (MLRA 150A, 150B) Delta Ochric (F17) (MLRA 150A, 150B) Districtive Layer (If observed): Type: Hydric Soil Present? Yes No Modern Soil (F17) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 149A) Anomalous Bright Learny Soils (F20) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Beta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 150C, 153D) Anomalous Bright Learny Soils (F20) (MLRA 149A, 153C, 153D) Beta Ochric (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Beta Ochric (F18) (MLRA 149A, 153C		, ,					
Sandy Gleyed Matrix (S4)							;III.,
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Derk Surface (S7) (LRR P, S, T, U) setrictive Layer (If observed): Type: Depth (Inches): Hydric Soil Present? Yes No emarks: No hydric Soil Indicators absenced						unless disturbed of 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: Depth (inches): Hydric Soil Present? Yes No emarks: No hydric Soil Indicators absences							
_ Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (If observed):						153C 153D)	
estrictive Layer (If observed): Type: Depth (Inches): Hydric Soll Present? Yes No X emarks: No hydric Soll Indicators absences					(. =0) (=10: 140)	, 1000, 1000,	
Depth (inches): Hydric Soil Present? Yes No emarks: No hydric Soil Indicators absences							
Depth (inches): Hydric Soil Present? Yes No emarks: No hydric Soil Indicators absences	Type:						
No hydric soil indicators absences		hes).			Live	rio Sali Bracanta Vac N	
No hydric soil indicators observed		1103/.			пуш	ric Soil Fresenit Fres N	<u>~</u>
	Kemarks.			,			
		1 1	1 -	/ /	1		
	/	Do hya	ME SOIL	1 16 de cotor o	DIDER	'IN ID A	
	/	0 11/0	VILL 30 [1	man canous	OPC	000	
		/					

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region lake Bonnet Hood Haz City/County: Sampling Date: 24 APR 29 State: Sampling Point: NO8~ Applicant/Owner: Investigator(s): __ Section, Township, Range: ____ Landform (hillslope, terrace, etc.): ______ Local relief (concave, convex, none): _____ Slope (%): ____ Subregion (LRR or MLRA): Lat: _____Long: ___ NWI classification: Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "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?** Is the Sampled Area Hydric Soil Present? within a Wetland? Yes _____ No ___ Wetland Hydrology Present? Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) ___ Aquatic Fauna (B13) ___ Sparsely Vegetated Concave Surface (B8) ___ High Water Table (A2) ___ Marl Deposits (B15) (LRR U) ___ Drainage Patterns (B10) Marl Deposits (B15) (LRR U)
Hydrogen Sulfide Odor (C1) ___ Saturation (A3) __ Moss Trim Lines (B16) Oxidized Rhizospheres along Living Roots (C3) ___ Dry-Season Water Table (C2) ___ Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) ___ Crayfish Burrows (C8) ___ Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) ___ Saturation Visible on Aerial Imagery (C9) ___ Algal Mat or Crust (B4) __ Thin Muck Surface (C7) ___ Geomorphic Position (D2) ___ Iron Deposits (B5) ___ Other (Explain in Remarks) ___ Shallow Aquitard (D3) ___ Inundation Visible on Aerial Imagery (B7) ___ FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T. U) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Yes ____ No ___ Depth (inches): _ Saturation Present? Yes ____ No __ __ Depth (inches): __ Wetland Hydrology Present? Yes_ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

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

Sampling Point:

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
		That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant Species Across All Strata: (B)
3		Species Across All Strata: (B)
4		Percent of Dominant Species That Are OBL FACW or FAC: (A/B)
5,		That Are OBL, FACW, or FAC: (A/B)
6	***	Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
8,		OBL species x 1 =
	= Total Cover	FACW species x 2 =
	20% of total cover:	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)		FACU species x 4 =
1		UPL species x 5 =
2.		Column Totals: (A) (B)
3		Column Totals (7)
4		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
6.		1 - Rapid Test for Hydrophytic Vegetation
7,		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.0¹
	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size: 30)		Indicators of hydric soil and wetland hydrology must
1. Cenchrus purpureus	30 Y FACU	be present, unless disturbed or problematic.
2. Aprilos anteridena	25 Y FAKW	Definitions of Four Vegetation Strata:
3. Sambus canadensis	20 FACW	
	30 V OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
4. Ludwigia penviana		height.
6		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7,		than 5 m. bbit and greater than 5.25 it (1 m) tan.
8		Herb - All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		Woody vine - All woody vines greater than 3,28 ft in
11		height.
12		
	105 = Total Cover	
50% of total cover: 52	5 20% of total cover:	
Woody Vine Stratum (Plot size:)		
1		
2		
3,		
4		
5.	0	Hydrophytic
	= Total Cover	Nydrophytic Vegetation
50% of total cover	20% of total cover:	Present? Yes No
Remarks: (If observed, list morphological adaptations bel		J
Iferb stratum only sto B Greader Han 50%		p are OBL, Flew FAC
		/ (-**)

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features (inches) Color (moist) Color (moist) Loc² 100 00 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils3: ___ Histosol (A1) Polyvalue Below Surface (S8) (LRR S,-T, U) ___ 1 cm Muck (A9) (LRR O) ___ Histic Epipedon (A2) ___ Thin Dark Surface (S9) (LRR S, T, U) ___ 2 cm Muck (A10) (LRR S) ___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) ___ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) ___ Stratified Layers (A5) ___ Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) ___ Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) ___ 5 cm Mucky Mineral (A7) (LRR P, T, U) ___ Depleted Dark Surface (F7) Red Parent Material (TF2) ___ Muck Presence (A8) (LRR U) ___ Redox Depressions (F8) Very Shallow Dark Surface (TF12) ___ 1 cm Muck (A9) (LRR P, T) ___ 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) ³Indicators of hydrophytic vegetation and Coast Prairie Redox (A16) (MLRA 150A) ___ Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, ___ Delta Ochric (F17) (MLRA 151) Sandy Mucky Mineral (S1) (LRR O, S) unless disturbed or problematic. 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) Restrictive Layer (if observed): Type: Depth (inches): **Hydric Soil Present?** Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region Like Bonnet Flood Har City/County: Sampling Date: 24 APR 24 ___ State: ____ Sampling Point: WO 8-Applicant/Owner: Investigator(s): ___ Section, Township, Range: ___ Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%): Subregion (LRR or MLRA): ______ Lat: __ NWI classification: __ Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes naturally problematic? Are Vegetation , Soil , or Hydrology (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) ___ Aquatic Fauna (B13) ___ Sparsely Vegetated Concave Surface (B8) __ High Water Table (A2) ___ Marl Deposits (B15) (LRR U) ___ Drainage Patterns (B10) ___ Saturation (A3) ___ Hydrogen Sulfide Odor (C1) ___ Moss Trim Lines (B16) ___ Water Marks (B1) ___ Oxidized Rhizospheres along Living Roots (C3) ___ Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) ___ Crayfish Burrows (C8) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Saturation Visible on Aerial Imagery (C9) ___ Algal Mat or Crust (B4) ___ Thin Muck Surface (C7) ___ Geomorphic Position (D2) __ Iron Deposits (B5) ___ Other (Explain in Remarks) Shallow Aquitard (D3) ___ Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Yes ____ No ___ Depth (inches): ____ Water Table Present? Yes ____ No ___ Depth (inches): ___ Saturation Present? Yes _____ No ____ Depth (inches): _____ Wetland Hydrology Present? Yes _____ No _ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No hydralogy indicators observed

VEGETATION	Four Strata	_ I lee scientific	names of plants.
VEGETATION	Four Strata	- USE SCIENTING	Harries of Plants.

Sampling Point:

7.0	Absolute Domi		Dominance Test worksheet:
Tree Stratum (Plot size: 30)			Number of Dominant Species
1. Pronus caraliniana			That Are OBL, FACW, or FAC:(A)
2. QUARCUS VINGINIAMA			Total Number of Dominant
3.			Species Across All Strata: (B)
4			Percent of Dominant Species
5.			That Are OBL, FACW, or FAC: (A/B)
6			
7.5			Prevalence Index worksheet:
8			Total % Cover of: Multiply by:
In this region of the street o			OBL species x 1 =
50% of total cover:			FACW species x 2 =
Cooling/Charle Charles /Diet size:			FAC species x 3 =
1. Prunus cavoliniana	(30)	FACU	FACU species x 4 =
2			UPL species x 5 =
3.			Column Totals: (A) (B)
4.			Prevalence index = B/A =
5.			Hydrophytic Vegetation Indicators:
6.			1 - Rapid Test for Hydrophytic Vegetation
7			2 - Dominance Test is >50%
8.			3 - Prevalence Index is ≤3.0¹
	= Total		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of total c	over:	Toblematic Hydrophytic Vegetation (Explain)
Host Stratum (Blat dire)			¹ Indicators of hydric soil and wetland hydrology must
1. Cenchrus purpureus			be present, unless disturbed or problematic.
2. Lantena Camara			Definitions of Four Vegetation Strata:
3			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4			more in diameter at breast height (DBH), regardless of height.
5.			neight.
6.			Sapling/Shrub – Woody plants, excluding vines, less
7			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8			Herb - All herbaceous (non-woody) plants, regardless
9			of size, and woody plants less than 3.28 ft tall.
10			Woody vine – All woody vines greater than 3,28 ft in
11.			height.
12.			
	= Total	Cover	
50% of total cover:	20% of total c	over:	
Woody_Vine Stratum (Plot size:)			
1. Bignonia Capreolala	10	FAC	
2			Telepine -
3			
A.			
e			
5			Hydrophytic
		Cover	Vegetation Present? Yes No
50% of total cover:		over:	
Remarks: (If observed, list morphological adaptations be	low).		
XI.			
			1
	1.8		
			п

Sampling Point: <u>WØ8-U3</u>

0-6 10 0->18 10	ators: (Applicable to all	Redox Features Color (moist) % Type¹ Loc² // Name of the color of the	Texture Remarks Five Sand Five Sand
lydric Soll Indic Histosol (A1)	PYR 4/2 0) YR 4/1 100 Intration, D=Depletion, RM: eators: (Applicable to all		fruo Sans
lydric Soll Indic Histosol (A1)	ntration, D=Depletion, RM:		
lydric Soll Indic Histosol (A1)	ntration, D=Depletion, RMsators: (Applicable to all		
lydric Soll Indic Histosol (A1)	ntration, D=Depletion, RMsators: (Applicable to all	=Reduced Matrix, MS=Masked Sand Grains.	
lydric Soll Indic Histosol (A1)	ators: (Applicable to all	=Reduced Matrix, MS=Masked Sand Grains.	
lydric Soll Indic Histosol (A1)	ators: (Applicable to all	=Reduced Matrix, MS=Masked Sand Grains.	
l ydric Soll I ndic Histosol (A1)	ators: (Applicable to all	Reduced Matrix, MS=Masked Sand Grains.	
lydric Soll Indic Histosol (A1)	ators: (Applicable to all	=Reduced Matrix, MS=Masked Sand Grains.	
lydric Soll Indic Histosol (A1)	ators: (Applicable to all	=Reduced Matrix, MS=Masked Sand Grains.	
l ydric Soll I ndic Histosol (A1)	ators: (Applicable to all	Troduced Matrix, Mo-Masked Carlo Grants.	21 continue DI - Description & Manual III
_ Histosol (A1)		LRRs, unless otherwise noted.)	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
_ ` '		Polyvalue Below Surface (S8) (LRR S, T, U)	
		Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
_ Black Histic (Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,E
_ Hydrogen Su	lfide (A4)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T
_ Stratified Lay		Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
	es (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B)
	Mineral (A7) (LRR P, T, U)		Red Parent Material (TF2)
	ce (A8) (LRR U)	Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
	(9) (LRR P, T)	Mari (F10) (LRR U)	Other (Explain in Remarks)
Depleted Belt Thick Dark St	ow Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	3, 1, 4, 5, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,
	Redox (A16) (MLRA 1504	<pre>Iron-Manganese Masses (F12) (LRR O, P, T Implies Surface (F13) (LRR P, T, U)</pre>	
	Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)	wetland hydrology must be present, unless disturbed or problematic.
Sandy Gleyed		Reduced Vertic (F18) (MLRA 150A, 150B)	diffess distalled of problematic.
Sandy Redox		Piedmont Floodplain Soils (F19) (MLRA 149)	A)
_ Stripped Matr	ix (S6)	Anomalous Bright Loamy Soils (F20) (MLRA	
_ Dark Surface	(S7) (LRR P, S, T, U)		i i
estrictive Layer	(if observed):		
Туре:			
Depth (inches):	:		Hydric Soil Present? Yes No
emarks:			

WEILA	AND DETERMINA	1 1 .		- 11	Coastal Plain	
Project/Site: Lake 50	most floo	1 Haz city	County:	OK	San	npling Date: 24 APR Z
Applicant/Owner:						pling Point: WOS-
Investigator(s): M. Br	ciner, I. M	losley Sect	ion, Township	o, Range:		
Landform (hillslope, terrace, etc.						Slope (%):
Subregion (LRR or MLRA):	all the elected by the or	Lat:		Long:		Datum:
Soil Map Unit Name:	TANKE TRANSPER				NWI classification	
Are climatic / hydrologic condition	ons on the site typical	for this time of year?	Yes_	2 9		
Are Vegetation, Soil						nt? Yes No
Are Vegetation, Soil					ain any answers in	
SUMMARY OF FINDING	S - Attach site	map showing sai	npling poi	nt locations	, transects, im	portant features, etc.
	Yes X Yes W Lakeland	No No Of Bonner Promanyly	Had	gs Pank	tence	No A S of on styraciffua
Sabal pal	mello, & C	luercus lai	mitale	^	/	
HYDROLOGY	grant an engagere			-110		
Wetland Hydrology Indicato						minimum of two required)
Primary Indicators (minimum o					Surface Soil Crack	is (B6)
Surface Water (A1)		quatic Fauna (B13)				d Concave Surface (B8)
High Water Table (A2)		arl Deposits (B15) (LR		_		
Saturation (A3)		ydrogen Sulfide Odor (Moss Trim Lines (
Water Marks (B1)		xidized Rhizospheres		Roots (C3)	Dry-Season Water	
Sediment Deposits (B2)		esence of Reduced Iro			Crayfish Burrows (
Drift Deposits (B3)		ecent Iron Reduction in		C6)		on Aerial Imagery (C9)
Algal Mat or Crust (B4)		nin Muck Surface (C7)			Geomorphic Positi	
Iron Deposits (B5)		ther (Explain in Remar	ks)	_	Shallow Aquitard (
Inundation Visible on Aeri					FAC-Neutral Test	
Water-Stained Leaves (BS	3)				Sphagnum moss (D8) (LRR T, U)
Field Observations:	V		VA			
Surface Water Present?	Yes No No	_ Depth (inches):/	7/1			
Water Table Present?	Yes No	_ Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes No	_ Depth (inches):			ology Present?	fes No
Describe Recorded Data (stream	am gauge, monitoring	well, aerial photos, pre	vious inspect	tions), if available	e:	and and one county
Remarks:						
						A STATE OF THE STA
						2