APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 14 March 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:SAJ-RD-WF, Sky Walk, SAJ-2015-03593(BEM-JD)

C. PROJECT LOCATION AND BACKGROUND INFORMATION: The project is located at the southeast corner of Daniels Parkway and Paul J. Doherty Parkway in Section 19, Township 45 South, Range 26 East. On June 2, 2014, the COE issued a preliminary jurisdictional determination (SAJ-2014-01338) for the original 14.91 acre site which identified 3.97 acres of freshwater emergent wetlands on the southern portion of the site. The current project boundary has been modified to 10.40 acres and excludes the previously identified wetlands from the current project boundary; therefore no impacts to wetlands are currently proposed.

State: Florida County/parish/borough: Lee City: Fort Myers

Center coordinates of site (lat/long in degree decimal format): Lat. 81.748397° N, Long. 26.555764° W.

Universal Transverse Mercator:

Name of nearest waterbody: Caloosahatchee River

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A

Name of watershed or Hydrologic Unit Code (HUC): 03090204

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: March 9, 2016

Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

Waters subject to the ebb and flow of the tide.

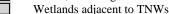
Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

- a. Indicate presence of waters of U.S. in review area (check all that apply): ¹
 - TNWs, including territorial seas



- Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

- b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: linear feet: width (ft) and/or acres.
 - Wetlands: acres.
- c. Limits (boundaries) of jurisdiction based on: Pick List

Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable):³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

 $^{^{2}}$ For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size:	Pick List	
Drainage area:	Pick List	
Average annual rainfa	ll: iı	nches
Average annual snowf	all:	inches

(ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>
 ☐ Tributary flows directly into TNW.
 ☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are Pick List aerial (straight) miles from TNW.
Project waters are Pick List aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: . Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b)	General Tributary Characteristics (check all that apply):
	Tributary is: 🗌 Natural
	Artificial (man-made). Explain:
	Manipulated (man-altered). Explain:
	Tributary properties with respect to top of bank (estimate):Average width:feetAverage depth:feetAverage side slopes:Pick List.
	Primary tributary substrate composition (check all that apply):
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:Presence of run/riffle/pool complexes. Explain:Tributary geometry:Pick ListTributary gradient (approximate average slope):%
(c)	<u>Flow:</u> Tributary provides for: Pick List Estimate average number of flow events in review area/year: Pick List Describe flow regime: . Other information on duration and volume: .
	Surface flow is: Pick List. Characteristics:
	Subsurface flow: Pick List . Explain findings: Dye (or other) test performed: .
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): the presence of litter and debris clear, natural line impressed on the bank the presence of litter and debris changes in the character of soil destruction of terrestrial vegetation shelving sediment down, bent, or absent sediment sorting leaf litter disturbed or washed away scour multiple observed or predicted flow events water staining abrupt change in plant community other (list): Discontinuous OHWM. ⁷ Explain: .
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: oil or scum line along shore objects fine shell or debris deposits (foreshore) physical markings/characteristics other (list): High Tide Line indicated by: Mean High Water Mark indicated by: Survey to available datum; physical markings; vegetation lines/changes in vegetation types.
Che	mical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain:

Identify specific pollutants, if known:

(iii)

.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

- (a) <u>General Wetland Characteristics:</u> Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
- (b) <u>General Flow Relationship with Non-TNW</u>: Flow is: **Pick List**. Explain:

Surface flow is: Pick List Characteristics:

Subsurface flow: **Pick List**. Explain findings:

(c) <u>Wetland Adjacency Determination with Non-TNW:</u>

- Directly abutting
- □ Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW. Project waters are **Pick List** aerial (straight) miles from TNW. Flow is from: **Pick List.** Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: . Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List** Approximately () acres in total are being considered in the cumulative analysis. For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

- TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.
- 2. <u>RPWs that flow directly or indirectly into TNWs.</u>
 - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
 - Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

acres.

- Tributary waters: linear feet width (ft).
- Other non-wetland waters:
 - Identify type(s) of waters:
- 3. Non-RPWs⁸ that flow directly or indirectly into TNWs.
 - Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

acres.

- Tributary waters: linear feet width (ft).
- Other non-wetland waters:
 - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
- Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

- 7. Impoundments of jurisdictional waters.⁹
 - As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
 - Demonstrate that impoundment was created from "waters of the U.S.," or
 - Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 - Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain:
- Other factors. Explain:

Identify water body and summarize rationale supporting determination:

⁸See Footnote # 3.

 $^{^{9}}$ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos*.

Provide estimates for jurisdictional waters in the review area (check all that apply):

.

Tributary waters: linear feet width (ft).

Other non-wetland waters: acres.

- Identify type(s) of waters:
- Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based <u>solely</u> on the "Migratory Bird Rule" (MBR).

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:

Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

Non-wetland w	aters (i.e., riv	vers, streams):	linear feet	width (ft).
Lakes/ponds:	acres.				
Other non-wetl	and waters:	acres. List t	ype of aquatic re	source:	
Wetlands:	acres.				

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
 - Lakes/ponds: acres.
 - Other non-wetland waters: acres. List type of aquatic resource:
- Wetlands: acres.

SECTION IV: DATA SOURCES.

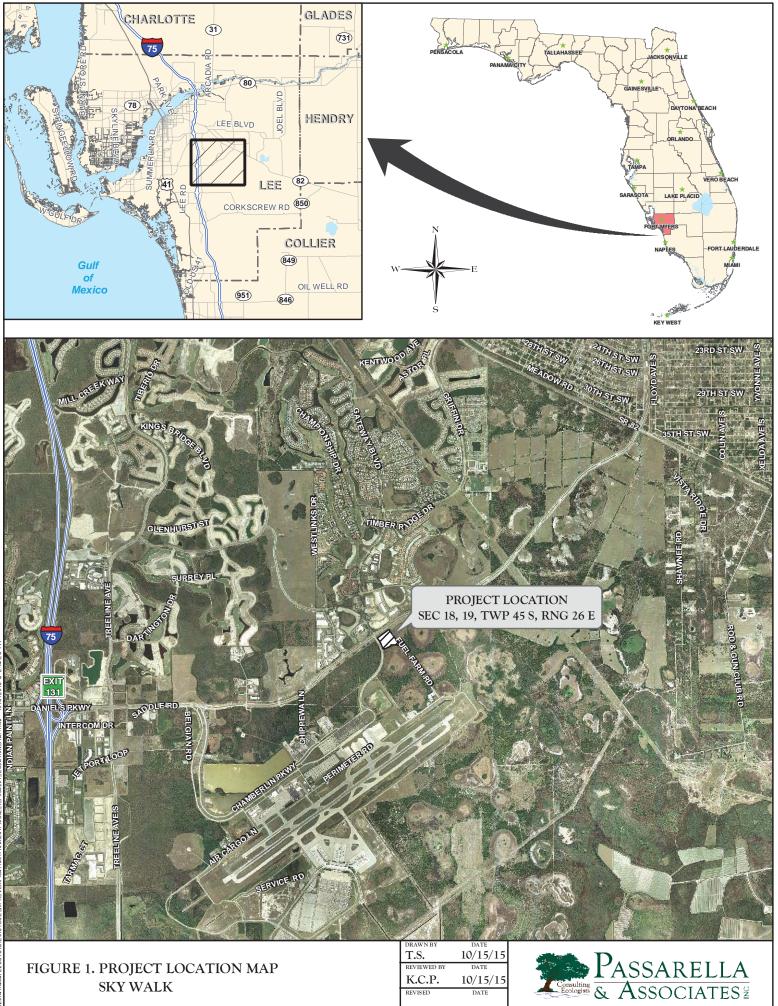
A.	SUPPORTING DATA.	Data reviewed for JD	(check all that apply -	 checked items 	shall be included	l in case file and,	where checked
	and requested, appropria	ately reference sources b	elow):				

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:

\boxtimes	Data sheets prepared/submitted by or on behalf of the applicant/consultant.
	Office concurs with data sheets/delineation report.
	Office does not concur with data sheets/delineation report.
	Data sheets prepared by the Corps: .
	Corps navigable waters' study:
	U.S. Geological Survey Hydrologic Atlas:
	USGS NHD data.
	USGS 8 and 12 digit HUC maps.
	U.S. Geological Survey map(s). Cite scale & quad name:
	USDA Natural Resources Conservation Service Soil Survey. Citation:
	National wetlands inventory map(s). Cite name: .
	State/Local wetland inventory map(s): .
	FEMA/FIRM maps: .
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
	Photographs: Aerial (Name & Date):
	or \square Other (Name & Date): .
\boxtimes	Previous determination(s). File no. and date of response letter:SAJ-2014-01338, 2 June 2014.
	Applicable/supporting case law: .
	Applicable/supporting scientific literature:
	Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: On June 2, 2014, the COE issued a preliminary jurisdictional determination (SAJ-2014-01338) for the original 14.91 acre site which identified 3.97 acres of freshwater emergent wetlands on the southern portion of the site. The current project boundary has been modified to 10.40 acres and excludes the previously identified wetlands from the current project

boundary. The Corps concurs with the applicant's submitted data sheets and drawings which state there are no wetlands in the current project area.

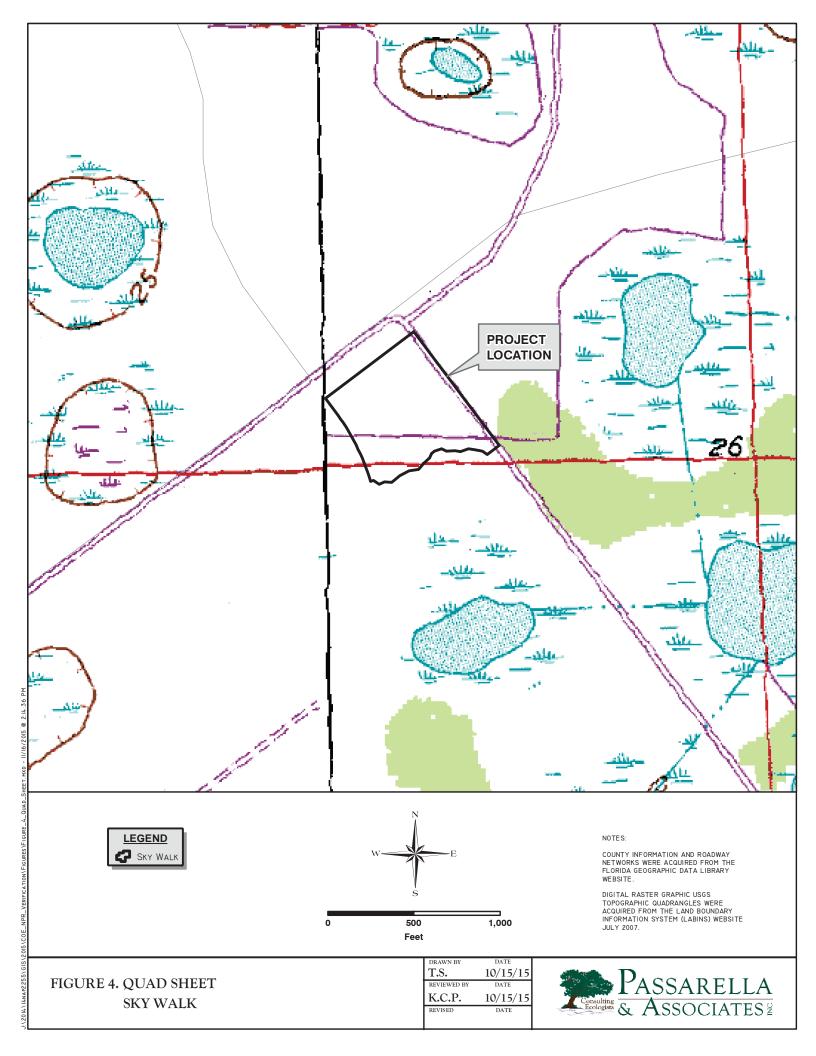


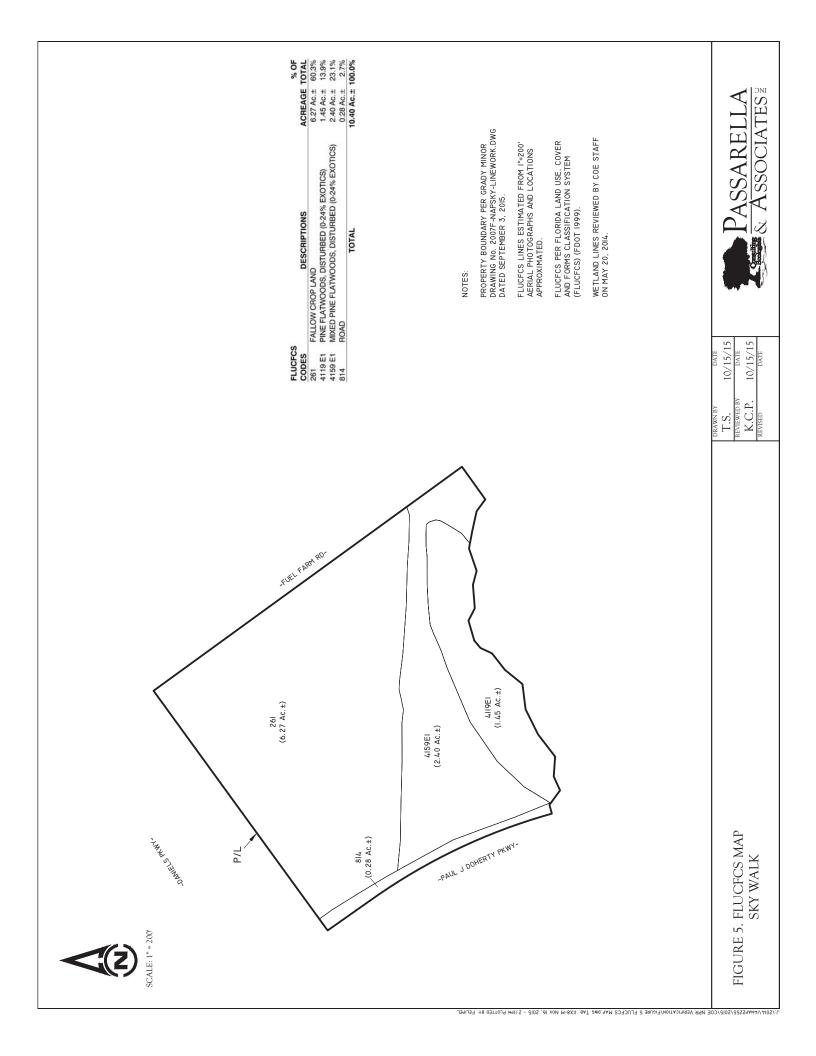
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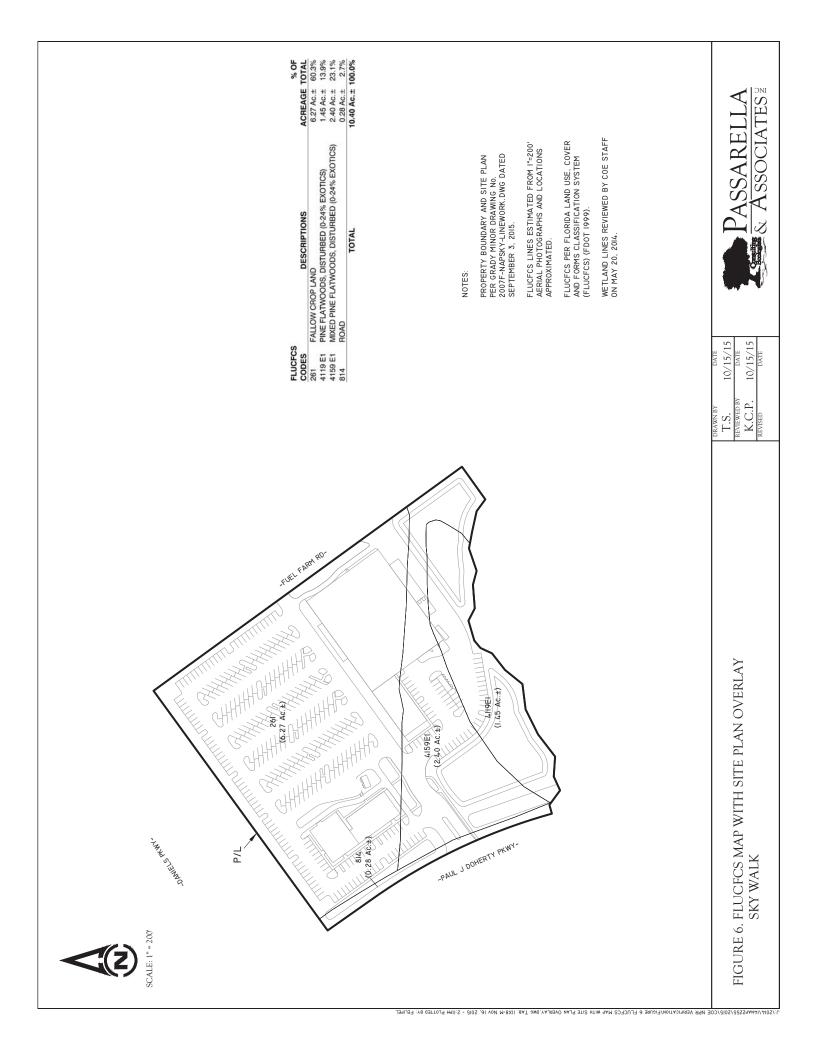


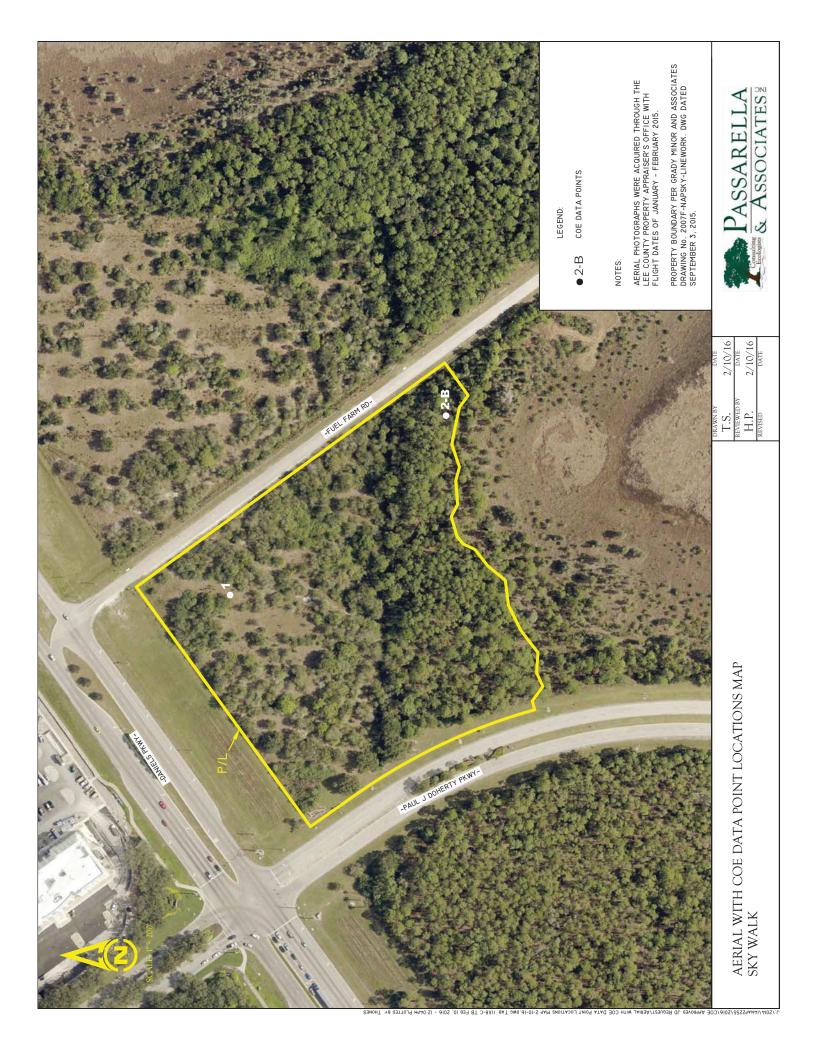


	Soil Unit Description				NOTES: AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH FLIGHT DATES
Sky Walk	0	100 Feet	200		OF JANUARY - FEBRUARY 2015. ROADWAY NETWORKS WERE ACQUIRED FROM THE FLORIDA GEOGRAPHIC DATA LIBRARY WEBSITE. SOILS MAPPING WAS ACQUIRED FROM THE FLORIDA GEOGRAPHIC DATA LIBRARY WEBSITE OCTOBER 2007 AND CREATED BY THE NATURAL RESOURCES CONSERVATION SERVICE 1990.
FIGURE 3. SOILS MAP SKY WALK			DRAWN BY T.S. REVIEWED BY K.C.P. REVISED	DATE 10/15/15 DATE 10/15/15 DATE	PASSARELLA & Associates 2









WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Daniels Parkway Parcel		City/County: Lee			Sampling Date: 05/08/14			
Applicant/Owner: North American Properties					Sampling Point: 1			
Investigator(s): Matt Brosious and Melanie Meta		-			o 45 South, Range 26 East			
Landform (hillslope, terrace, etc.): Flat					Slope (%): _0-2			
Subregion (LRR or MLRA): LRRU	Lat: <u>-81.7</u> 4	48223	Long: _26	6.556425	Datum: <u>NAD83FLW</u>			
Soil Map Unit Name: Felda Fine Sand				NWI classific	ation: Non-Wetland			
Are climatic / hydrologic conditions on the site typi	ical for this time of ye	ear?Yes 🖌 I	No (I	f no, explain in R	emarks.)			
Are Vegetation <u>No</u> , Soil <u>NO</u> , or Hydrology	<u>NO</u> significantly	/ disturbed?	Are "Normal (Circumstances" p	oresent? Yes 🗸 No			
Are Vegetation <u>NO</u> , Soil <u>NO</u> , or Hydrology	<u>No</u> naturally pr	oblematic?	(If needed, ex	plain any answei	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach si	SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks: Lack of hydrologic indicators, hydric soils, and fallow cropland area.	No Vo No V No V	Is the Sam within a W ion indicate sample	etland?	Yes	No <a>			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required;	check all that apply)		<u>{</u>	Secondary Indica	<u>tors (minimum of two required)</u> Cracks (B6)			
Surface Water (A1)	Aquatic Fauna (B1	13) Sparsely Vegetated Concave Surface			etated Concave Surface (B8)			
High Water Table (A2)	Marl Deposits (B1	5) (LRR U) Drainage Patterns (B10)						
Saturation (A3)	Hydrogen Sulfide	. ,		Moss Trim Li	, ,			
Water Marks (B1)		neres along Living F	Roots (C3)	, i	Water Table (C2)			
Sediment Deposits (B2)	1	uced Iron (C4) Crayfish Burrows (C8)			· ,			
Drift Deposits (B3)	Thin Muck Surface	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C						
Iron Deposits (B5)	Other (Explain in F							
Inundation Visible on Aerial Imagery (B7)		(ciliarks)	, L	FAC-Neutral				
Water-Stained Leaves (B9)			ľ		noss (D8) (LRR T, U)			
Field Observations:				opiliagilariti				
Surface Water Present? Yes No	Depth (inches	s):						
Water Table Present? Yes No		s):						
Saturation Present? Yes No	Depth (inches		Wetland Hy	/drology Presen	nt? Yes No ✓			
(includes capillary fringe) Describe Recorded Data (stream gauge, monito	ring well, aerial phot	os, previous inspec	tions), if avail	able:				
Remarks:								
No hydrologic indicators were present.								

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

Sampling Point	. 1

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
1. Canopy open			-	That Are OBL, FACW, or FAC: (A)
2				
3				Total Number of Dominant Species Across All Strata:3 (B)
				Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
6				Descelares a la descuerdada e 4
7				Prevalence Index worksheet:
8				Total % Cover of:Multiply by:
		= Total Cov		OBL species x 1 =
50% of total cover:				FACW species <u>5</u> x 2 = <u>10</u>
	20 70 01	total cover.		FAC species5 x 3 =15
		. /		FACU species 100 x 4 = 400
1. Quercus virginiana		Y	FACU	
2. Schinus terebinthifolia	2	Y	FAC	
3				Column Totals: <u>110</u> (A) <u>425</u> (B)
4				Dravalance index $= D/4 = -3.86$
				Prevalence Index = B/A = <u>3.86</u>
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	10	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 5				
Herb Stratum (Plot size:30 feet)				
	00	Y	FACU	Indicators of hydric soil and wetland hydrology must
1. Paspalum notatum	90			be present, unless disturbed or problematic.
2. Amphicarpum muehlenbergianum	5	N	FACW	Definitions of Four Vegetation Strata:
3. Andropogon virginicus	2	<u>N</u>	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Erigeron canadensis	2	Ν	FACU	more in diameter at breast height (DBH), regardless of
5. Urena lobata	1	N	FAC	height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Mandara Alluna da incerta de la 200 film
11.				Woody vine – All woody vines greater than 3.28 ft in height.
				noight.
12	400			
		= Total Cov		
50% of total cover: 50	20% of	total cover:	20	
Woody Vine Stratum (Plot size:)				
1				
2.				
3				
4				
5				Hydrophytic
		= Total Cov	er	Vegetation
50% of total cover:	20% of	total cover:		Present? Yes No 🗸
Remarks: (If observed, list morphological adaptations belo				
	, , , , , , , , , , , , , , , , , , ,			
Hydrophytic vegetation not present.				

SOIL

1

Profile Desc	cription: (Describe t	o the depti	n needed to docu	ment the i	ndicator	or confirm	the absence of ir	ndicators.)
Depth	Matrix		Rede	ox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	10 YR 6/1	100					Sandy	
3-8	10 YR 5/3	100					Sandy	
8+	10 YR 6/8	70					Sandy	
	10 YR 8/6	30			·		Sandy	
——								
	oncentration, D=Depl					ains.		Pore Lining, M=Matrix.
	Indicators: (Applica	able to all L						Problematic Hydric Soils ³ :
								(A9) (LRR O)
	pipedon (A2)		Thin Dark S					(A10) (LRR S)
	istic (A3) en Sulfide (A4)		Loamy Muck	-		0)		<pre>/ertic (F18) (outside MLRA 150A,B) Floodplain Soils (F19) (LRR P, S, T)</pre>
	d Layers (A5)		Depleted Ma		12)			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	T. U)	Redox Dark	· · ·	-6)		(MLRA 1	
-	icky Mineral (A7) (LR		Depleted Da		,			t Material (TF2)
	esence (A8) (LRR U)		Redox Depr	essions (F	8)		Very Shallo	w Dark Surface (TF12)
🛄 1 cm Mւ	ick (A9) (LRR P, T)		Marl (F10) (I	LRR U)			Other (Exp	lain in Remarks)
	d Below Dark Surface	e (A11)	Depleted Oc	, ,	•	,		
	ark Surface (A12)		Iron-Mangar					s of hydrophytic vegetation and
	rairie Redox (A16) (M					, U)		hydrology must be present,
	Mucky Mineral (S1) (L	RR 0, S)	Delta Ochric	. , .	,	04 4508)	unless o	listurbed or problematic.
	Bleyed Matrix (S4) Redox (S5)		Reduced Ve				20.	
	Matrix (S6)				. ,		A 149A, 153C, 153	וחא
	rface (S7) (LRR P, S	, T, U)		Dright Loai	ny cons (i	20/ (МЕТО	(140,1,1000,100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes No 🗸
Remarks:								
No hydric s	oil indicators were ob	served.						

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site:	City/County:		Sampling Date:	
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: _		Datum:	
Soil Map Unit Name:		NWI classifica	ation:	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Norma	l Circumstances" pr	resent? Yes No	
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed,	explain any answers	s in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Norma	l Circumstances" pr	resent? Yes No	

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

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

HYDROLOGY

Wetland Hydrology Indicato	rs:				Secondary Indicators (minimum of two required)			
Primary Indicators (minimum	of one is requ	uired; cheo	ck all that apply)		Surface Soil Cracks (B6)			
Surface Water (A1) Aquatic Fauna (B13)					Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Ma	arl Deposits (B15) (LRR U)		Drainage Patterns (B10)			
Saturation (A3)		Ну	drogen Sulfide Odor (C1)		Moss Trim Lines (B16)			
Water Marks (B1)	Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3			Roots (C3)	Dry-Season Water Table (C2)			
Sediment Deposits (B2) Presence of Reduced Iron (C4)			esence of Reduced Iron (C4)		Crayfish Burrows (C8)			
Drift Deposits (B3)	_ Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6)			(C6)	 Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) 			
Algal Mat or Crust (B4)	_ Algal Mat or Crust (B4) Thin Muck Surface (C7)							
Iron Deposits (B5)		Ot	ther (Explain in Remarks)		Shallow Aquitard (D3)			
Inundation Visible on Aer	ial Imagery (I	37)			FAC-Neutral Test (D5)			
Water-Stained Leaves (B	9)				Sphagnum moss (D8) (LRR T, U)			
Field Observations:								
Surface Water Present?	Yes	No	_ Depth (inches):					
Water Table Present?	Yes	No	_ Depth (inches):					
Saturation Present?	Yes		_ Depth (inches):	Wetland I	Hydrology Present? Yes No			
(includes capillary fringe)		No						
(includes capillary fringe)		No	_ Depth (inches): well, aerial photos, previous inspec					
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe)		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						
(includes capillary fringe) Describe Recorded Data (stre		No						

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

Samı	alina	Dai	nt:
Jain	JIIIU	FUL	ιıι.

,	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC: (A)
2		
3		Total Number of Dominant Species Across All Strata:
4		· · · · · · · · · · · · · · · · · · ·
		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
8	·	OBL species
	= Total Cover	FACW species x 2 =
50% of total cover:	20% of total cover:	
Sapling/Shrub Stratum (Plot size:)		FAC species x 3 =
1		FACU species x 4 =
2		UPL species x 5 =
3		Column Totals: (A) (B)
4		Disales a la las DA
		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8	·	3 - Prevalence Index is ≤3.0 ¹
	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size:)		¹ Indicators of hydric soil and wetland hydrology must
1		be present, unless disturbed or problematic.
2		Definitions of Four Vegetation Strata:
3		
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of height.
5		
6		Sapling/Shrub – Woody plants, excluding vines, less
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 cover:	
Woody Vine Stratum (Plot size:)		
1		
2		
3		
4	·	
5		Hydrophytic
	= Total Cover	Vegetation
50% of total cover:	20% of total cover:	Present? Yes No
Remarks: (If observed, list morphological adaptations belo		1
	,	

SOIL

Profile Des	cription: (Describe t	o the depth	needed to docur	nent the i	indicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
						·		
					·			
					·			
1 <u>.</u>		ation DM-D	adura a d Mashina Ma	- <u> </u>		·	21	DI - Dana Lining, M-Matrix
	oncentration, D=Depl					ains.		PL=Pore Lining, M=Matrix.
-	Indicators: (Applica	able to all LR			,			for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be) 1 cm N	/luck (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark Sι	irface (S9)) (LRR S,	T, U)	2 cm N	/luck (A10) (LRR S)
Black H	istic (A3)		Loamy Muck	y Mineral	(F1) (LRR	0)	Reduc	ed Vertic (F18) (outside MLRA 150A, B)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix ((F2)		Piedm	ont Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Ma					alous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P,	T. U)	Redox Dark	. ,	-6)			RA 153B)
	ucky Mineral (A7) (LR		Depleted Da		,			arent Material (TF2)
	resence (A8) (LRR U)		Redox Depre					Shallow Dark Surface (TF12)
		,	Marl (F10) (L		0)			(Explain in Remarks)
	uck (A9) (LRR P, T)	(444)				54.)		
·	d Below Dark Surface	e (ATT)	Depleted Oc	. ,	•	,	-) 31	
	ark Surface (A12)		Iron-Mangan					ators of hydrophytic vegetation and
	rairie Redox (A16) (M		Umbric Surfa			, U)		land hydrology must be present,
	/lucky Mineral (S1) (L	RR O, S)	Delta Ochric				unl	ess disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver					
Sandy F	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 149	IA)	
Stripped	d Matrix (S6)		Anomalous E	Bright Loar	my Soils (I	F20) (MLRA	A 149A, 153C	, 153D)
Dark Su	irface (S7) (LRR P, S	, T, U)						
Restrictive	Layer (if observed):							
Type:								
	ahaa):		_				Hydric Soil	Present? Yes No
	ches):		_				Hyune Son	
Remarks:								
l .								
l .								
l								