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

# Form 1of 3: Jurisdictional WOUS, Area A

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

### SECTION I: BACKGROUND INFORMATION

- Α. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 08 Oct 2012
- DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 3; SAC 2005-35850 /Hampton Estil Industrial Park B.

# C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: Hampton City: Estil Center coordinates of site (lat/long in degree decimal format): Lat. 32.78494° N, Long. -81.23358° W. Universal Transverse Mercator: Name of nearest waterbody: Black Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Coosawhatchie River Name of watershed or Hydrologic Unit Code (HUC): 03050208-01

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

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:
- Field Determination. Date(s): 24 Jul 2012

#### 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 "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): <sup>1</sup>
    - TNWs, including territorial seas
    - Wetlands adjacent to TNWs
    - Relatively permanent waters<sup>2</sup> (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. Wetlands:
  - c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):
- 2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup> [Including potentially jurisdictional features that upon assessment are NOT waters or wetlands]
  - Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Non-jurisdictional Water 'D' discussed in JD Form 3 of 3. Explain:

<sup>&</sup>lt;sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>&</sup>lt;sup>2</sup> 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).

<sup>&</sup>lt;sup>3</sup> 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 waterbody<sup>4</sup> 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: 40,333 acres (Black Creek, 03050208-01)

Drainage area: Drainage areas were approximated for all tributaries that were evaluated as part of the Significant Nexus Determinations performed for this JD. These areas were drawn based on apparent flow pathways and drainage areas associated with the subject relevant reach, using USGS quad mapping, aerial photography, and observations of connectivity and direction of flow made in the field. The intended value of the drainage area maps is to document the full collection of wetlands adjacent to the relevant reach, and not to assert that the mapping represents more than approximation with respect to actual area.

Average annual rainfall: 46 inches Average annual snowfall: -0- inches

# (ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>
 ☐ Tributary flows directly into TNW.
 ⊠ Tributary flows through 3 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.

<sup>&</sup>lt;sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

	Project waters cross or serve as state boundaries. Explain: no.
	Identify flow route to TNW <sup>5</sup> :
	u. Tributary stream order, if known: 1
(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:       feet         Average depth:       feet         Average 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: <b>Pick List.</b> Tributary gradient (approximate average slope): %
(c)	<u>Flow:</u> Tributary provides for: <b>Pick List</b> Estimate average number of flow events in review area/year: <b>Pick List</b> Describe flow regime: Other information on duration and volume:
	Surface flow is: <b>Pick List</b> . Characteristics:
	Subsurface flow: Pick List. Explain findings: Dye (or other) test performed: .
	Tributary has (check all that apply): Bed and banks OHWM <sup>6</sup> (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining Discontinuous OHWM. <sup>7</sup> Explain:.
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): <ul> <li>High Tide Line indicated by:</li> <li>oil or scum line along shore objects</li> <li>fine shell or debris deposits (foreshore)</li> <li>physical markings/characteristics</li> <li>itdal gauges</li> <li>other (list):</li> </ul>

<sup>&</sup>lt;sup>5</sup> 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. <sup>6</sup>A 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. <sup>7</sup>Ibid.

#### (iii) Chemical Characteristics:

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

Identify specific pollutants, if known:

#### (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: second-growth forest

Wetland size: A = 1.0 ac

Wetland type. Explain: palustrine forested.

Wetland quality. Explain: good; tree diversity, spacing and low understory density have been maintained by fire and selective harvest. Bordering uplands are under a Conservation Easement filed in 2006.

Project wetlands cross or serve as state boundaries. Explain: no.

 (b) <u>General Flow Relationship with Non-TNW</u>: Flow is: Intermittent flow. Explain: no water present during summer site inspection.

Surface flow is: Discrete

Characteristics: dispersed, non-confined flow patterns evident across area

Subsurface flow: **Unknown**. Explain findings: Dye (or other) test performed: .

- (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 **5-10** river miles from TNW. Project waters are **5-10** aerial (straight) miles from TNW. Flow is from: **Wetland to navigable waters.** Estimate approximate location of wetland as within the **2 - 5-year** 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: **no standing water on inspection**.

Identify specific pollutants, if known: none known, uplands surrounding headwaters have light commercial development.

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

Riparian buffer. Characteristics (type, average width): hydrophytic hardwood canopy (FAC-FACW) over obligate-

to-mesic understory w/ minimal shrub cover, 0-40' wide.

- Vegetation type/percent cover. Explain: moderate-to-sparse shrub cover w/ occasional patches of dense fern, 0-50%.
- Habitat for:
  - Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

- Other environmentally-sensitive species. Explain findings:
- Aquatic/wildlife diversity. Explain findings: **amphibians, aquatic reptiles & insects**.

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

All wetland(s) being considered in the cumulative analysis: **1** (Area *A*) Approximately **1.0-acre** 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)	
Aros A 'V'	1 () ac			

Summarize overall biological, chemical and physical functions being performed:

- The project site jurisdictional wetlands support the environmental interconnectivity of the overall drainage by: - having soil properties, plant cover and gradient such that would produce, process and re-cycle organic carbon and
- essential nutrients for downstream receiving water bodies, to the benefit of micro-to-macro organisms and food webs;
  conducting natural filtration of surface water runoff as it passes over the naturally variable and vegetated shallow surface gradient, which also minimizes the siltation of downstream receiving waters, and affords opportunity for groundwater re-charge to sub-surface aquifers;
- and, allowing rain and groundwater runoff through the natural soil profiles and plant cover, creating cover, breeding habitat and food resources for insect, fish and terrestrial wildlife.

# 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:

# Documentation for the Record only: Significant nexus findings for <u>seasonal RPWs and/or wetlands abutting</u> <u>seasonal RPWs (SRPW)</u>:

# General:

This project area is situated at the headwaters of Black Creek, a RPW-tributary of the TNW Coosawhatchee River, near the town of Estil in Hampton County. The project area's relevant reaches hold the upper headwater acreage of two jurisdictional headwater tribs (area BC=19.22ac, A=1.0ac) that flow parallel about a mile to the main stem of Black Creek. These drainages are similarly situated with respect to topography, plant cover, water regime and drainage area. Each has an embedded Seasonal Relatively Permanent Water (SRPW) tributary. The upper reach of the Area BC SRPW channel (and its adjacent wetlands) is in the project area; the Area A SRPW channel lies just outside the project area. Otherwise, descriptive characteristics derived from on-site observations and standard reference mapping of the two are very similar.

# Form 2, Area A abutting wetlands (to offsite SRPW) findings:

- The topographic gradient of wetland Area A drains on an approximate 1% grade for about 1.2-mile through a fern and shrub understory, forest litter layers and porous, sandy soils to a confluence with mainstem Black Creek. The on-site 1.0-ac portion of these palustrine forested wetlands are located above the SRPW of this drainage that begins its OHWM'd channel just outside the project area boundary. Thus, on-site overland rain runoff through natural plant communities on a natural gradient to the (just off-site) SRPW, to the RPW Black Creek is the primary flow characteristic.

- The Area A palustrine forested wetlands:

- occur within a USGS-mapped topographic down-slope gradient to an off-site 'broken blue line' SRPW drainage that shows an OHWM;
- drain directly to, and abut the USGS blue-line Black Creek drainage, then downslope to the TNW Coosawhatchee River and Broad River estuary
- have soil properties, plant cover and gradient such that would produce, process and re-cycle organic carbon and other essential nutrients for downstream receiving water bodies, to the benefit of environmentally sensitive micro-tomacro organisms and food webs:
- have the ability to conduct natural filtration of surface water runoff as it passes over the naturally variable and vegetated shallow surface gradient, which also minimizes the siltation of downstream receiving waters, and affords opportunity for groundwater re-charge to sub-surface aquifers, and
- allow rain and groundwater runoff through the natural soil profiles & plant cover, creating cover, breeding habitat and food resources for insect, fish and terrestrial wildlife.
- 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: 1. TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.
  - RPWs that flow directly or indirectly into TNWs. 2.

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:

#### Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs. 3.

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):

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

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

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: The on-site 1.0-ac Area A palustrine forested wetlands are located immediately above the SRPW of this drainage that begins its OHWM'd channel just outside the project area boundary.

Provide acreage estimates for jurisdictional wetlands in the review area: Area A, 1.0-acre WOUS

#### 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.<sup>9</sup>

- 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).

Explain:

- **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):<sup>10</sup>
  - 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:

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 waters (i.e., rivers, streams): linear feet width (ft).

Lakes/ponds: acres.

Other non-wetland waters: acres. List type of aquatic resource:

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:List type of aquatic resource:Wetlands:acres.

<sup>&</sup>lt;sup>9</sup> To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>&</sup>lt;sup>10</sup> 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*.

### SECTION IV: DATA SOURCES.

A.		<b>PORTING DATA.</b> Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked
	<b>N</b>	requested, appropriately reference sources below):
	$\bowtie$	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: S&ME, Inc., Chris Daves
	$\boxtimes$	Data sheets prepared/submitted by or on behalf of the applicant/ <b>consultant</b> .
		Office concurs with data sheets/delineation report.
		Office does not concur with data sheets/delineation report.
		Data sheets prepared by the Corps: .
	H	Corps navigable waters' study:
	H	U.S. Geological Survey Hydrologic Atlas:
		USGS NHD data.
	_	USGS 8 and 12 digit HUC maps.
	$\bowtie$	U.S. Geological Survey map(s). Cite scale & quad name: SC/hampton
	$\boxtimes$	USDA Natural Resources Conservation Service Soil Survey. Citation: hampton19
	$\bowtie$	National wetlands inventory map(s). Cite name: <i>in</i> hampton19
		State/Local wetland inventory map(s):
		FEMA/FIRM maps:
		100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
	$\boxtimes$	Photographs: $\square$ Aerial (Name & Date): SC99/11202:193
		or 🛛 Other (Name & Date): consultant-submitted site photos & PM site insp photos (in file)
		Previous determination(s). File no. and date of response letter: SAC 81-2005-1190-1 / 14 Sept 2005
		Applicable/supporting case law:
		Applicable/supporting scientific literature:
		Other information (please specify):

#### **B. ADDITIONAL COMMENTS TO SUPPORT JD:**

#### General:

This site is a 296.01-acre tract of second growth pine and hardwood forest, partially cleared for use as a county-sponsored industrial park site. It is situated on a broad, near-level terrace between the Coosahatchee and Savannah Rivers north of the town of Estil in Hampton County.

#### Form 2, Area A:

The Area *A* jurisdictional wetlands are the abutting upper portions of a SRPW headwater drainage whose OHWM'd channel begins just outside the project area boundary and continues about a mile to the main stem of Black Creek. (This drainage is similarly situated to Area *BC* with respect to topography, plant cover and water regime.)

The 1.0-acre Area *A* wetlands have hydric soil qualities, hydrophytic plant cover and gradient such that they can produce, process and re-cycle organic carbon and other nutrients and transport them downstream to receiving water bodies, to the benefit of micro-to-macro food webs and organisms. Rain and groundwater runoff through the natural soil profiles and native plant cover creates cover, breeding habitat and food resources for insect, fish and terrestrial wetland wildlife. Surface waters originating in Area *A* flow directly about six miles east and south, through Lake Warren to the TNW Coosahatchee River. The wetlands of Area *A* perform important chemical, physical & biological functions that contribute to the ecological and economic interconnectivity of the TNW Coosawhatchee River and Broad River estuaries and are subject to Clean Water Act jurisdiction.