

**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): April 3, 2012**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Charleston; Darby, SAC 2009-448-2JY**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: South Carolina County/parish/borough: Berkeley City: Ladson  
Center coordinates of site (lat/long in degree decimal format): Lat. 33.02112 ° **N**, Long. -80.09584 ° **W**.  
Universal Transverse Mercator:

Name of nearest waterbody: Limehouse Branch

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Goose Creek

Name of watershed or Hydrologic Unit Code (HUC): 3050202

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:

Field Determination. Date(s): 3-23-2010

**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: 7,657' X 40' width (ft) and/or 7.029 acres.

Wetlands: 4.702 acres. Jurisdictional linear conveyances: 1.073 acres

**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.  
Explain: **Seven man-made conveyances were noted on the subject property. These features were either dry or had very little standing water in them at the time of the site visit. Since no recent flow was noted, no OHWM was found and the features appeared to have been constructed from uplands, they were determined to be non-jurisdictional. These features include: Linear conveyance # 31 (0.025 acres) 100' x 15' x 2', Linear conveyance # 5 (0.019 acres) 225' x 15' x**

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

<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>3</sup> Supporting documentation is presented in Section III.F.

5', Linear conveyance #4 (0.021 acres) 200' x 6' x 3', Linear conveyance #1 (0.032 acres) 125' x 10' x 4', Linear conveyance #15 (0.005 acres) 25' x 4' x 2', Linear conveyance #24 (0.017 acres) 75' x 8' x 4' and Linear conveyance #29 (0.051 acres) 225' x 15' X 5'.

### 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: 38,766 acres

Drainage area: 440.48 acres 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: 48 inches

Average annual snowfall: 0 inches

###### (ii) Physical Characteristics:

###### (a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 2 tributaries before entering TNW.

<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 are **2-5** river miles from TNW.  
 Project waters are **1 (or less)** river miles from RPW.  
 Project waters are **2-5** aerial (straight) miles from TNW.  
 Project waters are **1 (or less)** aerial (straight) miles from RPW.  
 Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW<sup>5</sup>: Limehouse Branch to Ancrum Swamp to Blue House Swamp to Goose Creek (TNW).  
 Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

**Tributary** is:  Natural  
 Artificial (man-made). Explain:  
 Manipulated (man-altered). Explain: Limehouse Branch has been channelized and fill has been placed in the flood plain.

**Tributary** properties with respect to top of bank (estimate):

Average width: 40 feet  
 Average depth: 3 feet  
 Average side slopes: **3:1**.

Primary tributary substrate composition (check all that apply):

Silts  Sands  Concrete  
 Cobbles  Gravel  Muck  
 Bedrock  Vegetation. Type/% cover:  
 Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable.

Presence of run/riffle/pool complexes. Explain: NA.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Perennial flow**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Discrete and confined**. Characteristics:

Subsurface flow: **Unknown**. 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  the presence of litter and debris  
 changes in the character of soil  destruction of terrestrial vegetation  
 shelving  the presence of wrack line  
 vegetation matted down, bent, or absent  sediment sorting  
 leaf litter disturbed or washed away  scour  
 sediment deposition  multiple observed or predicted flow events  
 water staining  abrupt change in plant community  
 other (list):  
 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):

High Tide Line indicated by:  Mean High Water Mark indicated by:  
 oil or scum line along shore objects  survey to available datum;  
 fine shell or debris deposits (foreshore)  physical markings;

<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.

- physical markings/characteristics       vegetation lines/changes in vegetation types.  
 tidal gauges  
 other (list):

**(iii) Chemical Characteristics:**

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

Explain: Generally clear but with trash from the surrounding residential units.

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: Common Southeastern herptiles.

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

Adjacent wetlands with no connection: Wetland 10 -0.414 acres

Wetland 12 -0.015 acres

Wetland 14 -1.092 acres

Wetland 16 -0.103 acres

Adjacent wetlands connected by man-made connection: Note: Man-made connections were dug in part in wetlands and in uplands. No flow was noted at the time of the site visit, but indications of recent flow were noted as was wetland vegetation and silt deposition.

Wetland 11 – 0.201 acres via linear conveyance 11 – 0.016 acres (2'x3'x100')

Wetland 9 – 0.418 acres via linear conveyance 9 – 0.017 acres (2'x 3' x 100')

Wetland 6 – 0.091 acres via linear conveyance 6 – 0.024 acres (10' x3' x 90')

Linear conveyance 3 – 0.049 acres (10' x 5' x 160')

Wetland 2 – 0.024 acres via linear conveyance 2 – 0.057 acres (5' x 10' x 190')

Linear conveyance 16 – 0.004 acres (5' x 4' x 30')

Linear conveyance 14 – 0.031 acres (6' x 6' x 100')

Wetland 13 – 0.110 acres via linear conveyance 13 – 0.024 acres (4' x 10' x 90')

Linear conveyance 8 – 0.028 acres (3' x 10' x 130')

Wetland 7 – 0.082 acres via linear conveyance 7 – 0.011 acres (6' x 2' x 50')

Wetland 18 – 0.050 acres via linear conveyance 30 – 0.031 acres (5' x 10' x 130')

Wetland 19 – 0.099 acres via a swale (1' x 6' x 40')

Linear conveyance 28 – 0.041 acres (5' x 15' x 125')

Linear conveyance 27 – 0.037 acres (5' x 15' x 130')

Wetland 17 – 0.534 acres via linear conveyance 26 – 0.388 acres (5' x15' x 675')

Linear conveyance 17 – 0.015 acres (5' x 10' x 60')

Linear conveyance 18 – 0.022 acres (5' x 10' x 110')

Linear conveyance 19 – 0.047 acres (10' x 5' x 240')

Linear conveyance 20 – 0.091 acres (15' x 5' x 170')

Wetland 15 – 0.395 acres via linear conveyance 21 – 0.017 acres (15' x 4' x 110') and linear conveyance 22 – 0.041 acres (5' x 10' x 140')

Linear conveyance 23 – 0.039 acres (5' x 10' x 120')

Linear conveyance 25 – 0.018 acres (5' x 10' x 90')

**(i) Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 4.701 acres

Wetland type. Explain: Palustrine forested.

Wetland quality. Explain: moderate secondary growth.

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain:

Surface flow is: **Discrete and confined**

Characteristics:

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: Discrete connections are by man-made conveyances that range from 2 to 5 feet deep and 30 to 675 feet long. These are connected directly to the RPW via pipes that range from 12 to 48 inches in diameter.

Ecological connection. Explain:

Separated by berm/barrier. Explain: The channelization of Linehouse Branch resulted in the deposition of the excavated material in the original flood plain of the creek. This material now dewatered and represents an upland barrier between jurisdictional wetlands and Limehouse Branch (RPW).

(d) Proximity (Relationship) to TNW

Project wetlands are **2-5** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **10 - 20-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: generally clear.

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: Common Southeastern herptiles.

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

All wetland(s) being considered in the cumulative analysis: **15-20**

Approximately ( 117.1 ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

| <u>Directly abuts? (Y/N)</u> | <u>Size (in acres)</u> | <u>Directly abuts? (Y/N)</u> | <u>Size (in acres)</u> |
|------------------------------|------------------------|------------------------------|------------------------|
| Wetland 12 N                 | 0.015                  | Wetland 11 N                 | 0.201                  |
| Wetland 10 N                 | 0.414                  | Wetland 9 N                  | 0.418                  |
| Wetland 6 N                  | 0.091                  | Wetland 2 N                  | 0.024                  |
| Wetland 13 N                 | 0.110                  | Wetland 7 N                  | 0.082                  |
| Wetland 14 N                 | 1.092                  | Wetland 15 N                 | 0.395                  |
| Wetland 16 N                 | 0.103                  | Wetland 17 N                 | 0.534                  |
| Wetland 18 N                 | 0.099                  | Wetland 19 N                 | 0.050                  |
| Offsite Y                    | 113.5                  |                              |                        |

Summarize overall biological, chemical and physical functions being performed: The forested palustrine wetlands which are similarly situated and adjacent to the RPW are collectively performing functions consistent with the following: Biological – wetlands adjacent to the RPW include bottomland swamp wetlands. As such a broad variety of biological functions are being performed which include providing breeding grounds and shelter for aquatic herptile species, foraging areas for wetland dependent bird and mammal species, and important spawning areas for fish species that inhabit the main channel as adults. These wetlands are essential in providing organic carbon in the form of their collective primary productivity to downstream waters, resulting in the nourishment of the downstream food web. Chemical - Wetlands in the review area are providing the important collective functions of removal of excess nutrients which are contributed by runoff from the surrounding uplands, reducing nitrogen and phosphorus loading downstream, and effectively preventing oxygen depletion that can result from eutrophication. Physical – Wetlands in the review area are collectively performing flow maintenance functions including retaining runoff inflow and temporary flood water storage. Flow maintenance results in the reduction of downstream peak flows (discharge and volume), helping to maintain seasonal flow volumes

### 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: A significant nexus was conducted on this portion of the subject property since the wetlands drain to an RPW that flows away from the project boundary. The subject property is part of the Goose Creek Watershed which is 38,766 acres in size. The area around the subject property is suburban, and the population is increasing in response to more rapid growth associated with the Charleston metropolitan area. Water quality is fair, since the area has been subject to residential development since the 1960's. The Berkeley County soil survey, USGS quad maps, and aerial infra-red photos were reviewed to determine how the subject property fits into the context of its relevant reach, the offsite, Limehouse Branch (RPW) and Goose Creek (TNW). The relevant reach for this property includes approximately 117.1 acres of wetlands draining into Ancrum Swamp/Bluehouse Swamp/Goose Creek. These wetlands represent 90% of the wetlands in the 440.48 acre drainage area. The subject relevant reach abuts the receiving Ancrum Swamp/Bluehouse Swamp which are the headwaters for Goose Creek (TNW). This significant nexus determination addresses wetlands 12, 11, 10, 9, 6, 2, 13, 7, 14, 15, 16, 17, 18 & 19, which drain to Limehouse Branch RPW and ultimately to Goose Creek (TNW). Limehouse Branch (RPW) is shown as named blue line feature on the USGS quad map running through the center of the subject property. This feature is approximately 3 miles long and visible on aerial photos as a distinct dark line, flow, and therefore the tributary was considered to be a perennial RPW. Limehouse Branch RPW flows south to Ancrum Swamp/Bluehouse Swamp (RPW) which are the headwaters of Goose Creek (TNW). Impacts to this relevant reach have been primarily limited to residential homes in the surrounding uplands. The forested palustrine wetlands which are similarly situated and adjacent to the RPW are collectively performing functions consistent with the following: Biological – wetlands adjacent to the RPW include bottomland swamp and depressional wetlands. As such a broad variety of biological functions are being performed which include providing breeding grounds and shelter for aquatic species, foraging areas for wetland dependent species, and important spawning areas for fish species that inhabit the main channel as adults. These wetlands are essential in providing organic carbon in the form of their collective primary productivity to downstream waters, resulting in the nourishment of the downstream food web. Chemical - Wetlands in the review area are providing the important collective functions of removal of excess nutrients which are contributed by runoff from the surrounding uplands, reducing nitrogen and phosphorus loading downstream, and effectively preventing oxygen depletion that can result from eutrophication. Physical – Wetlands in the review area are collectively performing flow maintenance functions including retaining runoff inflow and temporary flood water storage. Flow maintenance results in the reduction of downstream peak flows (discharge and volume), helping to maintain seasonal flow volumes. Based on the collective functions described above and their importance to the biological, chemical, and physical integrity of the traditional navigable waters of Goose Creek, this office has determined that there is a Significant Nexus between the review area Relevant Reach and its adjacent wetlands and the downstream TNW.

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

**1. 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. RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: RPW is a blue line stream on the USGS Quad map identified as Limehouse Branch. Constant flow was noted on several occasions and debris from heavy flow periods was noted against the Oxford Road Bridge.  
 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):

- Tributary waters: **7,657'** linear feet **40** width (ft).  
 Other non-wetland waters: acres.  
Identify type(s) of waters: .

**3. Non-RPWs<sup>8</sup> 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):

- Tributary waters: linear feet width (ft).  
 Other non-wetland waters: acres.  
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:

**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 jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: **4.701** acres.

Adjacent Wetlands with no connection – Wetlands 12, 10, 14, and 16

Adjacent wetlands connected by man-made conveyance and pipe: Wetland 11 – 12" pipe, Wetland 9 – 12" pipe, Wetland 6 – 12" pipe, Wetland 13 – 36" pipe, Wetland 2 -36" pipe, Wetland 15 – 42" pipe, Wetland 17 – 36" pipe, Wetland 7 – 12" pipe, Wetland 18 – 36" pipe, Wetland 19 – 6" pipe

Jurisdictional linear conveyances connected by pipe: Linear conveyance 14 – 36" pipe, Linear conveyance 3 – 24" pipe, Linear conveyance 16- 36" pipe, Linear conveyance 17 – 36" pipe, Linear conveyance 18 – 36" pipe, Linear conveyance 19 – 48" pipe, Linear conveyance 20 -36" pipe, Linear conveyance 21 – 24" pipe, Linear conveyance 22 – 42" pipe, Linear conveyance 23 – 42" pipe, Linear conveyance 28 – 36" pipe, Linear conveyance 27 – 36" pipe, Linear conveyance 25 – 24" pipe, Linear conveyance 26 – 36" pipe, Linear conveyance 8 – 36" pipe, Linear conveyance 7 – 12" pipe, Linear conveyance 30 – 36" pipe

<sup>8</sup>See Footnote # 3.

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).

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 solely 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): **Seven man-made conveyances were noted on the subject property. These features were either dry or had very little standing water in them at the time of the site visit. Since no recent flow was noted, no OHWM was found and the features appeared to have been constructed from uplands, they were determined to be non-jurisdictional. These features include: Linear conveyance # 31 (0.025 acres) 100' x 15' x 2', Linear conveyance # 5 (0.019 acres) 225' x 15' x 5', Linear conveyance #4 (0.021 acres) 200' x 6' x 3', Linear conveyance #1 (0.032 acres) 125' x 10' x 4', Linear conveyance #15 (0.005 acres) 25' x 4' x 2', Linear conveyance #24 (0.017 acres) 75' x 8' x 4' and Linear conveyance #29 (0.051 acres) 225' x 15' X 5'.**

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Provide acreage estimates for non-jurisdictional waters in the review area, where the sole 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).

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

<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.**



- 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 in case file and, where checked and requested, appropriately reference sources below):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Ken Smoak/Sabine and Waters, Inc..
- Data sheets prepared/submitted by or on behalf of the applicant/consultant. Ken Smoak/Sabine and Waters, Inc.
  - 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: Mt. Holly.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Berkeley County Soil Survey, page 80
- National wetlands inventory map(s). Cite name: Mt. Holly 11228:16.
- State/Local wetland inventory map(s):          .
- FEMA/FIRM maps:          .
- 100-year Floodplain Elevation is:          (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): 99:11228:16.
  - or  Other (Name & Date):          .
- Previous determination(s). File no. and date of response letter:          .
- Applicable/supporting case law:          .
- Applicable/supporting scientific literature:          .
- Other information (please specify):          .

**B. ADDITIONAL COMMENTS TO SUPPORT JD:** Wetlands on the subject property represent relict portions of the original floodplain wetlands that were destroyed or altered severely when Limehouse Branch was channelized. This left a patchwork of wetlands that are either adjacent to Limehouse Branch, or are now connected via man-made conveyances and pipes. This JD form documents the jurisdictional status of 11.731 acres of wetlands and waters on the subject property as well as 113.5 acres off site. The jurisdictional wetlands drain to Limehouse Branch (RPW) and then south to Ancrum Swamp/Bluehouse Swamp (RPW) which are the headwaters of Goose Creek, a TNW. The jurisdictional wetlands are adjacent to the RPW due to channelization, therefore a Significant Nexus Determination was performed. This SND includes wetlands on site as well as those also associated with Limehouse Branch offsite, and ultimately drain to Goose Creek. Based on the documentation provided in Section III, C of this form, the nexus between Limehouse Branch (tributary) and adjacent wetlands and Goose Creek, the downstream TNW, is a Significant Nexus and on this basis all wetlands documented on this form are within the jurisdiction of the Clean Water Act. Additionally, seven linear conveyances were found on the subject property and determined to be non-jurisdictional.