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): 11-28-2012
- B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC, George Newell, 2007-1277-2JR

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Berkeley** City: **Moncks Corner** Center coordinates of site (lat/long in degree decimal format): Lat. **33.18657°** N, Long. **80.02061°** W. Universal Transverse Mercator:

Name of nearest waterbody: Cooper River

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

Name of watershed or Hydrologic Unit Code (HUC): West Cooper River Watershed (03050201-030)

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: **11-28-2012**

Field Determination. Date(s): 9-26-2012

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): ¹
 - TNWs, including territorial seas
 - Wetlands adjacent to TNWs
 - 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: 1.6 acres.
- c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and Regional Supplement Elevation of established OHWM (if known):
- 2. Non-regulated waters/wetlands (check if applicable):³ [Including potentially jurisdictional features that upon assessment are NOT waters or wetlands]

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.

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Two linear conveyance features are associated with the property. One feature runs along the northeast property boundary to a crossdrain at US 17A and is entirely non-jurisdictional. A second linear conveyance runs from the northeast property boundary through the wetland and ultimately to a crossdrain at US 17A along the property boundary that fronts US 17A. The portion of this second "ditch" outside the wetland is non-jurisdictional. The portion of the "ditch" that has been excavated within the wetland has been depicted as part of the wetland and has the same jurisdictional as the wetland. Both ditches are shown on the Wetland Delineation Map and in sight photographs in the project file.

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: West Cooper River Watershed (HUC 03050201-030) 36,155 acres Drainage area: 450 acres Average annual rainfall: 47 inches Average annual snowfall: 0 inches

(ii) **Physical Characteristics:** (a) Relationship with TN

Relationship with TNW: Tributary flows directly into TNW. Tributary flows through 3 tributaries before entering TNW.

Project waters are 2-5 river miles from TNW.

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

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

Identify flow route to TNW⁵: Based on site visit and reconnaissance of the flow route as well as photo and map intrepretation, water flows south through two unnamed tributaries for approximately 2.3 river miles, then east approximately 1.2 miles, then turns north for approximately 1.2 miles before flowing east approximately 0.5 mile to enter the Cooper River.

	Tributary stream order, if known: 1st.
(b)	General Tributary Characteristics (check all that apply): Tributary is: Natural Artificial (man-made). Explain: . Manipulated (man-altered). Explain: Based on inspection at publicly accessible locations and on photo interpretation, portions of the tributary have been altered by channelization, including culvert and cross drain installation for driveway and road crossings.
	Tributary properties with respect to top of bank (estimate): Average width: 3 feet Average depth: 0.5 feet Average side slopes: 2:1 .
	Primary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Muck Other. Explain: .
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Presence of run/riffle/pool complexes. Explain: Tributary geometry: Meandering. Geometry is meandering in the least manipulated portions and is highly straightened and channelized in the portion that has been re-routed to serve as part of the roadside drainage for US 17A southwest of the subject property.
	Tributary gradient (approximate average slope): 2 %
(c)	<u>Flow:</u> Tributary provides for: Intermittent but not seasonal flow Estimate average number of flow events in review area/year: 20 (or greater) Describe flow regime: holds water during wet portions of the year and flows after every rain event . Other information on duration and volume:
	Surface flow is: Discrete and confined. Characteristics: Based on inspection at publicly accessible locations and on photo interporetation, portions of the tributary have been channelized while some are natural. The entire tributary reach exhibits bed and bank features consistent with discrete and confined flow.
	Subsurface flow: Unknown. Explain findings: No observations or borings were made within the tributary sediments because the tributary is located off the property of interest.
	Tributary has (check all that apply):

other (list): the relevant reach of the subject tributary was viewed from publicly accessible points along

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. 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.

			s (t P V i i c	tream. The most acc landmark noted on t his location the tribu revious JD), Septem isited by the regulat ndicated above: visil onsistent with regula ccumulating in the c	cessibl the US utary v iber 26 tor resj ble bed ar flow	ect site and its confluence with another unnamed first order e location was the crossing of US 17A near St. Paul's Church GS quad map, not the field) southwest of Moncks Corner. At vas actively flowing on March 31, 2008 (during performance of 5, 2012, and numerous other dates when this location has been ponsible for this JD, and exhibited the characteristics l and bank, OHWM, aquatic vegetation oriented downstream w, and leaf litter consistently washing away (as opposed to el).
			High Tide Line ir oil or scum lin fine shell or de			e lateral extent of CWA jurisdiction (check all that apply): Mean High Water Mark indicated by: survey to available datum; physical markings; vegetation lines/changes in vegetation types.
gas		Cha Ider	Explain: There were no vi	sible signs of poor water own: pollutants from	ater q	oily film; water quality; general watershed characteristics, etc.). uality. Flowing water was clear, free of oils and discoloration. lential and commercial development and traffic, i.e. oil and
	(iv)	Biol	logical Characteristics. Ch Riparian corridor. Characte			 hat apply):): Based on site inspection at publicly accessible locations and on infrared photos, the tributary appears to have a riparian buffer and ranging from 20'-200'.
			Wetland fringe. Characteri Habitat for: Federally Listed species Fish/spawn areas. Expla Other environmentally-: Aquatic/wildlife diversi	. Explain findings: in findings: . sensitive species. Exp	While respe- it was associ exhib consis reside amph type l	
2.	Cha	ract	eristics of wetlands adjacer	nt to non-TNW that i	flow d	irectly or indirectly into TNW
	(i)		evidenc	PFO1 per NWI. Sin e of manipulation by on fern, fetter bush, in: moderate. erve as state boundarie	y ditch privet	

 (b) <u>General Flow Relationship with Non-TNW</u>: Flow is: Intermittent flow. Explain: Wetland exhibits conditions typical of hydrologic seasonality.

Surface flow is: Discrete and confined

Characteristics: A linear conveyance (ditch) excavated within the wetland provides a clear drainage connection to downstream waters.

Subsurface flow: Unknown. Explain findings: No observations or measurements were made during the field visit and no water was present on the date of the field visit. When obvious surface connectivity is apparent, as in this case, the presumption of at least some level of subsurface flow is reasonable.

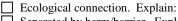
Dye (or other) test performed:

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

Directly abutting

Not directly abutting

☑ Discrete wetland hydrologic connection. Explain: via ditches and pipes as well as bed and bank stream channels. Water flows via ditches initiating upslope. Any water from Wetland One is able to outfall in either of two ditches that lead from the wetland to the roadside at US 17A. These ditches continue beneath US 17A via crossdrain pipes and enter a section of covered piping along the opposite side of US 17A. The covered pipe section ultimately surfaces and contributes flow to the relevant reach unnamed tributary.



Separated by berm/barrier. Explain:

(d) <u>Proximity (Relationship) to TNW</u>

Project wetlands are 2-5 river miles from TNW.
Project waters are 1-2 aerial (straight) miles from TNW.
Flow is from: Wetland to navigable waters.
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: No water was present at the time of the field visit.

Identify specific pollutants, if known: The site fronts the high-traffic flow of US Highway 17A and is flanked by secondary roads on two other sides. The fourth property boundary abuts a cemetery. Pollutants would likely be those typical of roadside runoff as well as residential and commercial development.

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

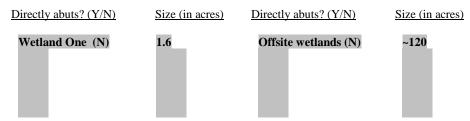
- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: tree/ shrub/ groundcover filtering out pollutants and trapping sediments. Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive 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: **10**

Approximately (120) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:



Summarize overall biological, chemical and physical functions being performed: wetlands listed in the cumulative analysis are considered one wetland system since (with exception of Wetland One on the subject property) there is no opportunity to ground truth the connectivity of the wetlands to the tributary, or break them out. They are located just south of the town of Moncks Corner which is a developed area where development is continuing. Wetlands in the drainage area of the relevant reach collectively perform inportant functions to filter pollutants and sediments caused by high vehicle traffic and development, ultimately preventing them from entering the Cooper River. These wetlands also provide for flood storage in heavy rain events, habitat for a diversity of aquatic and upland species, and help to nourish the downstream food web by the transport of primary production elements from the drainage area down to the TNW.

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: The wetland and tributaries within the review area are located just south of the town of Moncks Corner which is a developed area and is continuing to expand. The wetlands perform inportant functions to filter out pollutants and sediments caused by intense traffic and development, preventing them form entering the Cooper River. These wetlands also provide for flood storage in heavy rain events along with habitat for a diversity of aquatic and upland species. The Cooper River has been shown to exhibit high turbidity due to elevated suspended sediments and other particulates, have lowered dissolved oxygen levels and heightened biological oxygen demand (BOD). The influx of relatively better water quality with respect to these measures demonstrates the important contribution of lower turbidity and higher oxygen level waters that are made by the relevant reach and its collectivley adjacent wetlands to the integrity of the downstream TNW.
- 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 seasonal RPWs and/or wetlands abutting seasonal RPWs:

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):

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

- Non-RPWs⁸ 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:

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.

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

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.

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

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and \bowtie 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: 1.6 acres.

Impoundments of jurisdictional waters.⁹ 7.

- 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):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:

Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres.

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.

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: 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: county drainage maps/plans, plat of property,
 - ____ previous JD.
 - 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: **Regional Supplement Wetland Determination Data Forms**.
 - 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: Moncks Corner.
 - USDA Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey.
 - 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): 99:11228:40.
 - or \boxtimes Other (Name & Date): Google Maps.

Previous determination(s). File no. and date of response letter: 80-2001-1102, 10-1-2001; SAC 2007-1277-2JX issued August

27, 2007 which was subsequently appealed and upheld-reissued on April 4, 2008.

ice law	Applicable/supporting ca
ise raw:	ADDIICADIE/SUDDOITING Ca

Applicable/supporting scientific literature:

Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: Wetland One on the subject property was delineated from scratch in the field on September 26, 2012and was found to occupy 1.6 acres. The wetland is adjacent to and part of the collective drainage area of an unnamed non-relatively permanent water tributary which ultimately drains to the East Branch of the Cooper River. The tributary and all its adjacent wetlands, including the subject wetland (Wetland One) were found to have a Significant Nexus to the downstream TNW Cooper River, a navigable water of the United States. On this basis, the relevant reach tributary and all its adjacent wetlands, including Wetland One, are subject to the jurisdiction of the Clean Water Act as documented on this form.