# 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** REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 10/4/2012 B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC 2012-00934-2JU CSU Ballfield C. PROJECT LOCATION AND BACKGROUND INFORMATION: State: South Carolina County/parish/borough: **Charleston** City: North Charleston Center coordinates of site (lat/long in degree decimal format): Lat. 32.982784° N, Long. -80.067329° W. Universal Transverse Mercator: Name of nearest waterbody: Goose Creek Reservoir Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Goose Creek Reservoir Name of watershed or Hydrologic Unit Code (HUC): 3050201 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: 9/20/12 Field Determination. Date(s): 9/20/12 **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. 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 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: **378.9** linear feet: width (ft) and/or 0.08 acres. Wetlands: 0.85 & 0.07 acres. c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual, Established by OHWM. 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:

<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).

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: Goose Creek/Goose Creek Reservoir.

Summarize rationale supporting determination: Goose Creek/Goose Creek Reservoir is a Section 10 Water of the United States.

### 2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": The wetlands on-site are part of a wetland system that is contiguous with the Goose Creek Reservoir. The wetlands on-site continue off site to the north and then to the east as a wetland/drainage system (Huckhole Swamp/Goose Creek) that is evident on aerial imagery, depicted on the NWI Map, and displays continuous hydric soils to where the system drains into the Goose Creek Reservoir (Section 10 Water of the US), connects to the Cooper River (Section 10 Water of the US) and ultimately drains into the Atlantic Ocean. In addition, the wetlands on-site also continue off-site and directly abut a perennial RPW that is part of the same contiguous wetland system, as discussed in III D. 2 & 4.

### 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 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

**General Area Conditions:** 

# Watershed size: Pick List; Drainage area: Pick List Average annual rainfall: inches Average annual snowfall: inches (ii) Physical Characteristics: (a) Relationship with TNW: Tributary flows directly into TNW. Tributary flows through Pick List tributaries before entering TNW. Project waters are Pick List aerial (straight) miles from TNW.

<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 are <b>Pick List</b> aerial (straight) miles from RPW.  Project waters cross or serve as state boundaries. Explain: .					
	Identify flow route to $TNW^5$ : Tributary stream order, if known:					
(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):  Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain:					
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:  Presence of run/riffle/pool complexes. Explain:  Tributary geometry: Pick List.  Tributary gradient (approximate average slope): %					
(c)	Flow: Tributary provides for: Pick List Estimate average number of flow events in review area/year: Pick List Describe flow regime: Other information on duration and volume:					
	Surface flow is: Pick List. Characteristics: .					
	Subsurface flow: Pick List. Explain findings:  Dye (or other) test performed:					
	Tributary has (check all that apply):  Bed and banks  OHWM <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 other (list):  Discontinuous OHWM. Explain:					
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):  High Tide Line indicated by: Oil or scum line along shore objects In ine shell or debris deposits (foreshore) Ophysical markings/characteristics Other (list):  Mean High Water Mark indicated by: Survey to available datum; Ophysical markings; Ophysical markings; Ovegetation lines/changes in vegetation types.					
Che	omical Characteristics:					

(iii) Chemical Characteristics:

<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.

				tracterize tributary (e.g., water color is clear, discolored, only film; water quanty; general watersned characteristics, etc Explain: htify specific pollutants, if known:
(iv)	Bio	logica	al Ch	Aracteristics. 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.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
		(i)		Asical Characteristics:  General Wetland Characteristics:  Properties:  Wetland size: acres  Wetland type. Explain:  Wetland quality. Explain:  Project wetlands cross or serve as state boundaries. Explain:
			(b)	General Flow Relationship with Non-TNW: Flow is: Pick List. Explain:
				Surface flow is: Pick List Characteristics:
				Subsurface flow: Pick List. Explain findings:  Dye (or other) test performed:
			(c)	Wetland Adjacency Determination with Non-TNW:  Directly abutting  Not directly abutting  Discrete wetland hydrologic connection. Explain:  Ecological connection. Explain:  Separated by berm/barrier. Explain:
			(d)	Proximity (Relationship) to TNW Project wetlands are Pick List river miles from TNW. Project waters are Pick List aerial (straight) miles from TNW. Flow is from: Pick List. Estimate approximate location of wetland as within the Pick List floodplain.
		(ii)	Cha	emical Characteristics: aracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: artify specific pollutants, if known:
		(iii)	Bio	logical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width): Vegetation type/percent cover. Explain: Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings:
	3.	Cha	All	eristics of all wetlands adjacent to the tributary (if any) wetland(s) being considered in the cumulative analysis: Pick List proximately ( ) 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:

# 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:

 $Documentation\ for\ the\ Record\ only:\ Significant\ nexus\ findings\ for\ seasonal\ RPWs\ and/or\ wetlands\ abutting\ seasonal\ RPWs:$ 

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

l.	TNWs and Ac	ljacent Wetlands.	Check all that appl	y and provide size estimates in review area:
	TNWs:	linear feet	width (ft), Or,	acres.
	Wetlands a	djacent to TNWs:	<b>0.85 &amp; 0.07</b> 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: Photos taken on the 9/20/12 site visit depict flowing water along the reach within and just outside of the investigation area with water depths ranging from several inches in the headwaters to several feet in pools. According to the NOAA National Weather Forecast Summary for the month of September 2012, the monthly average precipitation for North Charleston was 4.08 inches less than the normal average for that month. Additionally, prior to the September 20 site visit; there was only a total of 1.1 inches of precipitation during the month of September with rain events of 0.94" on September 7, 0.01" on September 8, and 0.15" on September 18. The stream substrate consists of silt, sand and gravel with clear bed and banks, riffle-pool features, depositional areas, sinuosity, and a rather large floodplain with drift deposits over 40 feet from the stream bank which in some parts is approximately 4 feet higher than the stream bottom. Fish were observed in both the headwaters portion of the RPW as well as the pool displayed in the photographs. The drainage area for this stream is approximately 155 acres. It has been influenced by man and receives the majority of the storm water runoff from Charleston Southern University. Pre-development, the USGS map topographic contours display lower topography in this area and evidence of water conveyance or a potential drainage feature. The stream was most likely manipulated or rerouted slightly during University construction. There are currently two detention basins and a drainage ditch upstream from the site in line with where the USGS topography suggests water was directed. LIDAR for Charleston County depicts the stream from its origin, flowing through the site wetlands at an off-site location, connecting to the Huckhole Swamp/Goose Creek wetland system. Additionally the Charleston
	☐ 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: .
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: The wetland on-site continues off-site where it abuts the RPW. The wetland is the floodplain for the RPW and displays multiple drift deposits related to high water events from the RPW. Also, as mentioned in Section III A., while this wetland directly abuts the RPW it also is adjacent to a TNW.
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.  Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.  Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

<sup>&</sup>lt;sup>8</sup>See Footnote # 3.

		Provide estimates for jurisdictional wetlands in the review area: acres.					
	7.	Impoundments of jurisdictional waters.9  As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.  Demonstrate that impoundment was created from "waters of the U.S.," or  Demonstrate that water meets the criteria for one of the categories presented above (1-6), or  Demonstrate that water is isolated with a nexus to commerce (see E below).  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:						
	Ider	ntify water body and summarize rationale supporting determination:					
		vide 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):						
	facto	vide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR ors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional gment (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.					
		wide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such adding 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.					
SE	<u>CT</u> IO	ON IV: DATA SOURCES.					
	SUPI and	PORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked requested, appropriately reference sources below):  Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Wetland delineation map. Ken Smoak of Sabine Waters.					

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 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.

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B. ADDITIONAL COMMENTS TO SUPPORT JD: The wetland system on-site is contiguous with the Goose Creek Reservoir and an RPW on-site. The wetlands on-site continue off site to the north and then to the east as a wetland/drainage system (Huckhole Swamp/Goose Creek) that is evident on aerial imagery, depicted on the NWI Map, and displays continuous hydric soils to where the system drains into the Goose Creek Reservoir (Section 10 Water of the US), connects to the Cooper River (Section 10 Water of the US) and ultimately drains into the Atlantic Ocean.