Reach 1: Stream 1 &2, Wetland A & B

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. REP	ORT COMPLETION D	ATE FOR APPROVED	JURISDICTIONAL	DETERMINATION (JD): February	6, 2020
--------	------------------	------------------	----------------	-------------------	-------------	---------

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573

	SAS-2019-00573
C.	PROJECT LOCATION AND BACKGROUND INFORMATION:
	State: Georgia County/parish/borough: Warren City: Warrenton
	Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W.
	Universal Transverse Mercator: NAD 1983
	Name of nearest waterbody: Rocky Comfort Creek
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River
	Name of watershed or Hydrologic Unit Code (HUC): 030060202
	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	DEVIEW DEDEODMED FOR SITE EVALUATION (CHECK ALL THAT ADDLY).
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date:
	Field Determination. Date(s): July 22-25, 2019
	Field Determination. Date(s): July 22-23, 2019
SEC	CTION II: SUMMARY OF FINDINGS
	RHA SECTION 10 DETERMINATION OF JURISDICTION,
A.	KIIA SECTION IN DETERMINATION OF JURISDICTION.
The	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the
	iew area. [Required]
1011	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:
	Laplani.
R	CWA SECTION 404 DETERMINATION OF JURISDICTION.
ь.	ewasterion wasterion of genesic row.
The	ere Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
1110	made by the cost water that the (controlled as defined by 55 clicpan 526) in the fermional
	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 ² (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
	Relatively permanent waters ² (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 but not directly abutting NF ws that now directly of indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
	Impoundments of jurisdictional waters
	Impoundments of jurisdictional waters
	Isolated (interstate or intrastate) waters, including isolated wetlands
	h. Identify (actimate) size of waters of the U.S. in the various area.
	b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: 1,343 linear feet: width (ft) and/or acres.
	Wetlands: 3.57 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM
	Elevation of established OHWM (if known):
	2. Non-regulated waters/wetlands (check if applicable): ³
	2. Non-regulated waters/wetlands (check if applicable): Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

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: 5,540 square miles Drainage area: 31.92 acres Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through 4 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Streams 1 and 2 drain into NHP mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River.

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

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

	Tributary stream order, if known: 1st order streams.	
(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: 2-6 feet Average depth: 1-3 feet Average side slopes: 2:1.	
	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 streams with some eroding Presence of run/riffle/pool complexes. Explain: Streams lack run/riffles/pools due to low flow regime and substraints.	
composition.	Tributary geometry: Relatively straight Tributary gradient (approximate average slope):	
(e)	Flow: Tributary provides for: Intermittent but not seasonal 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: Confined. Characteristics: Channels contain defined bed and bank. Subsurface flow: Unknown. Explain findings: Dye (or other) test performed: Tributary has (check all that apply): Bed and banks OHWM6 (check all indicators that apply): clear, natural line impressed on the bank the presence of litter and debris destruction of terrestrial vegetation 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.7 Explain:	
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply) High Tide Line indicated by:	e .
Cha	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics Explain: Waters are cloudy to clear throughout channel. entify specific pollutants, if known:	i, etc.)

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.

Thid.

(iv) Bio	logical Characteristics. Channel supports (check all that apply):
	H	Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics:
	X	Habitat for:
		Federally Listed species. Explain findings:
		Fish/spawn areas. Explain findings:
		Other environmentally-sensitive species. Explain findings:
		Aquatic/wildlife diversity. Explain findings: Baseflow and substrate presence provide habitat for aquatic diversity.
2. Cl	aract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i)	Phy	vsical Characteristics:
(-)		General Wetland Characteristics:
	()	Properties:
		Wetland size: Wetland A = 3.26, Wetland B=0.31 acres
		Wetland type. Explain: Wetland A = PFO/PEM/PUB, Wetland B = PSS.
		Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
		Project wetlands cross or serve as state boundaries. Explain:
	(b)	General Flow Relationship with Non-TNW:
	(0)	Flow is: Intermittent flow. Explain: Developed channel bed and bank, minimal sorting, hydric soils in the channel bed,
no flow	obser	
		Surface flow is: Confined
		Characteristics: Within channel bed and bank.
		Subsurface flow: Pick List. Explain findings:
		☐ Dye (or other) test performed:
	(c)	Wetland Adjacency Determination with Non-TNW:
	1	☐ 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 30 (or more) river miles from TNW.
		Project waters are 30 (or more) aerial (straight) miles from TNW.
		Flow is from: Wetland to navigable waters Estimate approximate location of wetland as within the Pick List floodplain.
(ii)		emical Characteristics:
	Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
	7.1	characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.
	Idei	ntify specific pollutants, if known:
(ii	ii) Bio	logical Characteristics. Wetland supports (check all that apply):
	\boxtimes	Riparian buffer. Characteristics (type, average width): Hardwood forest, 50 feet wide.
	\boxtimes	Vegetation type/percent cover. Explain: Hardwood forest, 70-100%.
	\bowtie	Habitat for:
		Federally Listed species. Explain findings:
		☐ Fish/spawn areas. Explain findings: ☐ Other environmentally-sensitive species. Explain findings:
		Aquatic/wildlife diversity. Explain findings: Habitat for various aquatic species.
3. Cl		eristics of all wetlands adjacent to the tributary (if any)
	All	wetland(s) being considered in the cumulative analysis: 2

Approximately (3.57) acres in total are being considered in the cumulative analysis.

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland A (Y)	3.26		
Wetland B (Y)	0.31		

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

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: 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: Stream 1 and Stream 2 scored as an Intermittent Streams on the NC Stream Assessment Form. Stream 1 drains into jurisdictional Wetland A and B respectively, then into (Intermittent) Stream 2, then Rocky Comfort Creek.

	Provide estimates for jurisdictional waters in the review area (check all that apply):
	Tributary waters: 1,343 linear feet width (ft).
	Other non-wetland waters: acres.
	Identify type(s) of waters:
9	and Colors Co. To the Color to the Color
3.	Non-RPWs ⁸ 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.
	Descride actionates for invisible tend maters within the naview area (sheet all that analy).
	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:
	and any opposition of the state
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 i
	seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly
	abutting an RPW: Stream 1 and Stream 2 scored as an Intermittent Streams on the NC Stream Assessment Form. Stream
	1 drains into jurisdictional Wetland A and B respectively, then into (Intermittent) Stream 2, then Rocky Comfort Creek.
	Taking into jurisdictional Wedanic It and D respectively, then into (internations) Stream 2, then recently connect creek.
	Provide acreage estimates for jurisdictional wetlands in the review area: 3.57 acres.
	Court out with a first of the court of the c
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.
	conclusion is provided at section in.c.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
	1101de deleage estimates foi jurisdictional weitalies in the 1216 willed.
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.
	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).
TO	OLATED INTERCLATE OR INTERA CTATEL WATERS INCLUDING ISOLATED WETLANDS THE USE
	OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE,
	GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY
SU	CH WATERS (CHECK ALL THAT APPLY): 10
H	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.
H	which are or could be used for industrial purposes by industries in interstate commerce.
H	Interstate isolated waters. Explain:
Ħ	Other factors. Explain:
_	Characteristics Court Annual Transaction

⁸See Footnote #3.

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.

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. 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): 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: 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: Figure 1 - 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: ☑ U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4 State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Mother (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

Identify water body and summarize rationale supporting determination:

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Reach 2: Stream 3, Wetland G

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.

SE.	CHON I: BACKGROUND INFORMATION
A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573 C. PROJECT LOCATION AND BACKGROUND INFORMATION: County/parish/borough: Warren State: Georgia City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Rocky Comfort Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019 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

Identify (estimate) size of waters of the U.S. in the review area:
 Non-wetland waters: 1, 130 linear feet: width (ft) and/or

Non-wetland waters: 1, 130 linear feet: width (ft) and/or acres. Wetlands: 0.45 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM

Elevation of established OHWM (if known):

CECTION I. DACKCROUND INFORMATION

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

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

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

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: 5,540 square miles

Drainage area: 12.24 acres

Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Stream 3 drains into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River

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

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

	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: 2-5 feet Average depth: 1-2 feet Average side slopes: 2:1.
	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: Presence of run/riffle/pool complexes. Explain: No run/riffle/pool complexes observed. Tributary geometry: Relatively straight Tributary gradient (approximate average slope):
(c)	Flow: Tributary provides for: Ephemeral 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: Confined. Characteristics: Low flow observed within channel. Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation the presence of wack line sediment sorting sediment sorting sediment sorting sediment deposition multiple observed or predicted flow events water staining abrupt change in plant community 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:
Cha	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: No water observed within the channel. artify specific pollutants, if known:

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.

Tlbid.

	(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:
•	Cha	the state of small and a discount to many TNYV the toff flow discounting the state TNYV
2.	Cha	acteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Physical Characteristics:
		a) General Wetland Characteristics:
		Properties:
		Wetland size: Wetland G = 0.45 acres
		Wetland type. Explain: Wetland G = PFO.
		Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
		roject wetlands cross or serve as state boundaries.
		Project wetlands cross or serve as state boundaries. Explain:
		b) General Flow Relationship with Non-TNW:
	- 03	Flow is: Ephemeral flow. Explain: No flow observed, weak channel bed and bank, minimal sorting, no hydric soils is
cha	nnel l	d.
		Surface flow is: Confined
		Characteristics: Within channel bed and bank.
		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 30 (or more) river miles from TNW.
		Project waters are 30 (or more) 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: Water is clear, watershed contains planted pine and agricultural uses.
		dentify specific pollutants, if known:
	(iii)	Biological Characteristics. Wetland supports (check all that apply):
	()	Riparian buffer. Characteristics (type, average width): Hardwood forest, 50 ft wide.
		Vegetation type/percent cover. Explain: Hardwood forest, 70-100%.
		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	acteristics of all wetlands adjacent to the tributary (if any)
٥.	CHA	All wetland(s) being considered in the cumulative analysis: 1

All wetland(s) being considered in the cumulative analysis: I Approximately (0.45) acres in total are being considered in the cumulative analysis.

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N)
Wetland G (Y) 0.45

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.

Size (in acres)

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: Wetland G drains into Stream 3 (Ephemeral), respectively, which ultimatley drains into Wetland C and Rocky Comfort Creek. Stream 3 scored as an Ephemeral Stream on the NC Stream Assessment form.
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

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: 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 ⁸ 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: 1,130 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: Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly
	abutting an RPW: Provide acreage estimates for jurisdictional wetlands in the review area: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 0.45 acres.
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).
SUC	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:
Ide	ntify water body and summarize rationale supporting determination:

⁸See Footnote #3.

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.

	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):
	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.
CF.	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.
	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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps.
	U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5 National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: ☐ Aerial (Name & Date): ArcGIS 2017. or ☐ Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law:
	Applicable/supporting scientific literature: Other information (please specify):

Reach 3: (Stream 4a, 4b, 5, 6, 7) (Wetland D1, H) 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 JURIS	DICTIONAL DETERMI	NATION (JD)	: February	6, 20	20
----	----------------------------	----------------	-------------------	-------------	------------	-------	----

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site,

	SAS-2019-0	0573
c.	PROJECT	LOCATION AND BACKGROUND INFORMATION:
·.	State: Georg	
		dinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W.
		ransverse Mercator: NAD 1983
		arest waterbody: Rocky Comfort Creek
		arest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River
	Name of wa	tershed or Hydrologic Unit Code (HUC): 030060202
	Check i	if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
	M Check i	if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a
	differen	nt JD form.
D.	REVIEW P	PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
		(Desk) Determination. Date:
	Field D	etermination. Date(s): July 22-25, 2019
SE	CTION II: S	UMMARY OF FINDINGS
A.	RHA SECTI	ON 10 DETERMINATION OF JURISDICTION.
		avigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the
revi	ew area. [Req	
		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 SECTI	ION 404 DETERMINATION OF JURISDICTION.
The	ere Are "water	rs of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters	
	a. Indic	cate presence of waters of U.S. in review area (check all that apply): ¹
		TNWs, including territorial seas
		Wetlands adjacent to TNWs
	\boxtimes	Relatively permanent waters ² (RPWs) that flow directly or indirectly into TNWs
	\boxtimes	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
	\boxtimes	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
		Impoundments of jurisdictional waters
		Isolated (interstate or intrastate) waters, including isolated wetlands
		Carried Control of the Control of th
	b. Iden	tify (estimate) size of waters of the U.S. in the review area:
		wetland waters: 6,331 linear feet: width (ft) and/or acres.
		ands: 3.79 acres.
	c. Limits	(boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM
	Elevation	on of established OHWM (if known):
		Control and the control of the contr
	2. Non-re	gulated waters/wetlands (check if applicable): ³
		otentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional
		Explain: .

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

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

³ Supporting documentation is presented in Section III.F.

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: 5,540 square miles Drainage area: 71.52 acres Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through 5 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Stream 4a, Stream 4b, Stream 5, and Stream 6 drain to Stream 7 which drains into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River.

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

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

	Tributary stream	order, if known: 1st and 2nd order.		
(b)		Characteristics (check all that apply	<u>():</u>	
	Tributary is:	 ☑ Natural ☑ Artificial (man-made). Explai ☑ Manipulated (man-altered). I 		in: .
	Average wie Average der		mate):
	Primary tributary Silts Cobbles Bedrock Other. E	☐ Vegetation. Type/%		☐ Concrete ☐ Muck
	Presence of run/r Tributary geomet			ng banks]. Explain: Streams exhibit stability. /pools present throughout the channels.
(c)	Estimate average Describe flo	es for: Pick List 1, 7, = Intermittent; Stream 5 = Epl number of flow events in review are two regime: low to moderate flow. In on duration and volume:		
	2000	Confined. Characteristics: Pick List. Explain findings:		
		other) test performed:		
	Bed and	eck all that apply): banks (check all indicators that apply):		
	☐ clear ☐ char ☐ shel ☐ vege	r, natural line impressed on the bank nges in the character of soil ving tation matted down, bent, or absent		the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line sediment sorting
	⊠ sedin ⊠ wate □ othe	litter disturbed or washed away ment deposition er staining r (list):		multiple observed or predicted flow events abrupt change in plant community
	Disconti	nuous OHWM.7 Explain:	-1	
	☐ High T	an the OHWM were used to determine the Line indicated by: or scum line along shore objects shell or debris deposits (foreshore)	Mea	teral extent of CWA jurisdiction (check all that apply): an High Water Mark indicated by: survey to available datum; physical markings;
	☐ phys	sical markings/characteristics gauges r (list):		vegetation lines/changes in vegetation types.
Cha		(e.g., water color is clear, discolored scloudy to clear within channels.	, oily	film; water quality; general watershed characteristics, etc.

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.

Tlbid.

	(iv)	Bio	logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width):
			Wetland fringe. Characteristics:
		\bowtie	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings: Presence of baseflow and substrate provide habitat for species diversity.
2.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Phy	esical Characteristics:
			General Wetland Characteristics:
			Properties:
			Wetland size: Wetland D1 = 1.85 , Wetland H = 1.94 acres
			Wetland type. Explain: Wetland D1 = PFO, Wetland H = PFO.
			Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
			Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW:
			Flow is: Pick List. Explain: Stream 4a, 5 = Ephemeral: Weak channel bed and bank, minimal sorting, no hydric soils in
the	chann	nel be	ed, no flow observed; Stream 4b, 6, 7 = Intermittent: Developed channel bed and bank, minimal sorting, hydric soils in the
cha	nnel l	ped, 1	no flow observed.
			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
		(0)	Project wetlands are 30 (or more) river miles from TNW.
			Project waters are 30 (or more) aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters
			Estimate approximate location of wetland as within the Pick List floodplain.
	(;;)	Che	emical Characteristics:
	(11)		racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
		CH	characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.
		Ider	ntify specific pollutants, if known:
		20177	
	(iii)		logical Characteristics. Wetland supports (check all that apply):
			Riparian buffer. Characteristics (type, average width): Hardowood forest, 50 feet wide.
			Vegetation type/percent cover. Explain: Hardwood forests, 70-100%.
		Ш	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	ract	eristics of all wetlands adjacent to the tributary (if any)
			wetland(s) being considered in the cumulative analysis: 2

All wetland(s) being considered in the cumulative analysis: 2
Approximately (3.79) acres in total are being considered in the cumulative analysis.

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland D1 (Y)	1.85	A	
Wetland H (Y)	1.94		

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: Stream 4a (Ephemeral) drains into Wetland H, Stream 4b (Intermittent), Stream 7 (Intermittent) respectively, then to Rocky Comfort Creek. Stream 5 (Ephemeral) drains into Wetland H, Stream 4b (Intermittent), Stream 7 (Intermittent) respectively, then to Rocky Comfort Creek. Stream 6 (Intermittent) drains into Wetland D1, Stream 7 (Intermittent) respectively, and into Rocky Comfort Creek.
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

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: Tributaries of TNWs where tributaries have continuous flow (flow) for the following the flow) and the flow of the fl
	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: Stream 4a scored as an Ephemeral Stream on the NC Stream Assessment Form. Stream 4b scored as an

Intermittent Stream on the NC Stream Assessment Form. Stream 5 scored as an Ephemeral Stream on the NC Stream Assessment Form. Stream 6 and Stream 7 scored as Intermittent Streams on the NC Stream Assessment Form.

	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 1,130 linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters:
3.	Non-RPWs ⁸ 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: 1,130 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: Stream 4a (Ephemeral) drains into Wetland H, Stream 4b (Intermittent), Stream 7 (Intermittent) respectively, then to Rocky Comfort Creek. Stream 5 (Ephemeral) drains into Wetland H, Stream 4b (Intermittent), Stream 7 (Intermittent) respectively, then to Rocky Comfort Creek. Stream 6 (Intermittent) drains into Wetland D1, Stream 7 (Intermittent) respectively, and into Rocky Comfort Creek.
	Provide acreage estimates for jurisdictional wetlands in the review area: 3.57 acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 3.57 acres.
7.	Impoundments of jurisdictional waters. 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).
DE	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY):10

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 water body and summarize rationale supporting determination:		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:
Tributary waters: linear feet width (fi). Other non-wetland waters: acres. Wetlands: acres.		Identify water body and summarize rationale supporting determination:
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): 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). 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: Figure 1 – 6, Historical Aerials. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: U.S. Geologica		Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters:
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. 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: Figure 1 – 6, Historical Aerials. Data sheets prepared submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS 8 and 12 digit HUC maps. USGS 8 and 12 digit HUC maps. USGS 8 and 12 digit HUC maps. State/Local wetland inventory map(s). Cite anne: USFWS National Wetlands Inventory: Figure 5. National wetlands inventory map(s). Cite scale & Quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite anne: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s). Cite anne: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory	F.	 ☐ 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:
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: Figure 1 − 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS NHD data. USGS NHD data. USGS Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Field Photos, 2019.		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:
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: Figure 1 − 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs 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 NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or ○ Other (Name & Date): Field Photos, 2019.		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:
and requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Figure 1 − 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019.	SEC	CTION IV: DATA SOURCES.
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: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019.	Α.	and requested, appropriately reference sources below): ☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Figure 1 − 6, Historical Aerials. ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant. ☐ Office concurs with data sheets/delineation report.
Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019.		☐ Corps navigable waters' study: ☐ U.S. Geological Survey Hydrologic Atlas: ☐ USGS NHD data. ☐ USGS 8 and 12 digit HUC maps.
Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019.		 U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
		Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019.

Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):	
--	--

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Reach 4: Stream 8; Wetland D2

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)	: February	6, 202	0
----	--	------	------------	--------	---

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS, 2019, 00573

	SAS-2019-00573
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Rocky Comfort Creek
	Name of nearest Traditional Navigable Water (TNW) Into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202
	 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): July 22-25, 2019
SE A.	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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:
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere 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): TNWs, including territorial seas Wetlands adjacent to TNWs
	Relatively permanent waters ² (RPWs) that flow directly or indirectly into TNWs Non-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: 372 linear feet: width (ft) and/or acres. Wetlands: 1.25 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM Elevation of established OHWM (if known):
	2. Non-regulated waters/wetlands (check if applicable): ³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

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: 5,540 square miles

Drainage area: 7.23 acres

Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Wetland D2 drains into Stream 8. Stream 8 drains into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeochee River

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

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

	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: 2-5 feet Average depth: 1-2 feet Average side slopes: 2:1.
	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: Presence of run/riffle/pool complexes. Explain: No run/riffle/pool complexes observed. Tributary geometry: Relatively straight Tributary gradient (approximate average slope):
(c)	Flow: Tributary provides for: Ephemeral 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: Confined. Characteristics: Low flow observed within channel. Subsurface flow: Pick List. Explain findings: Dye (or other) test performed: Tributary has (check all that apply):
	Bed and banks OHWM ⁶ (check all indicators that apply): 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:
Cha	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: No water observed within the channel. artify specific pollutants, if known:

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

	(iv)	Biol	logical 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:
			ALL TO SECURITION OF THE CONTROL OF
2.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Phy	sical Characteristics:
	(-)		General Wetland Characteristics:
		(-)	Properties:
			Wetland size: Wetland $D2 = 1.25$ acres
			Wetland type. Explain: Wetland D2 = PFO.
			Wetland quality. Explain: : Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
			Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW:
			Flow is: Ephemeral flow. Explain: Weak channel bed and bank, minimal sorting, no hydric soils in the channel bed, no
flov	v obse	erved	
			Surface flow is: Pick List
			Characteristics:
			Characteristics.
			Subsurface flow: Pick List. Explain findings:
			Dye (or other) test performed:
		1-1	W. d. J. A. d
		(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:
		(4)	Descriptive (Palationalis) to TNW
		(a)	Proximity (Relationship) to TNW Project wetlands are 30 (or more) river miles from TNW.
			Project wettands are 30 (or more) aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters
			Estimate approximate location of wetland as within the Pick List floodplain.
			Estimate approximate location of wettand as within the Fire List noodplain.
	(ii)	Che	emical Characteristics:
		Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.
		Ider	ntify specific pollutants, if known:
	(iii)	Rio	logical Characteristics. Wetland supports (check all that apply):
	()	\boxtimes	Riparian buffer. Characteristics (type, average width): Hardwood buffer, 50ft wide.
			Vegetation type/percent cover. Explain: Hardwood forest, 70-100%
			Habitat for:
		ш	Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings:
3	Che	ract	eristics of all wetlands adjacent to the tributary (if any)
J.	CHA		wetland(s) being considered in the cumulative analysis: 1
			proximately (1.25) acres in total are being considered in the cumulative analysis.
		444	reministry (1.25) detect in total me certification in the culturality analysis.

Directly abuts? (Y/N) Size (in acres)
Wetland D2 (Y) Size (in acres)

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

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Wetland D2 drains into Stream 8 (Ephemeral), respectively, then into Rocky Comfort Creek. Stream 8 scored as an Ephemeral Stream on the NC Stream Assessment form.
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

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: 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 ⁸ 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: 372 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.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 1.25 acres.
7.	Impoundments of jurisdictional waters. 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).
SU	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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: .
rae	ntify water body and summarize rationale supporting determination:

⁸See Footnote #3.

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.

	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):
	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.
SF	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.
	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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data.
	USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or ☑ Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

Reach 5: Stream 9, 10; Wetland E

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.

A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020
В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573
c.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Rocky Comfort Creek
	Name of nearest Traditional Navigable Water (TNW) Into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the few 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.
The	ere 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): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters ² (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: 1,478 linear feet: width (ft) and/or acres. Wetlands: 3.88 acres.

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

Elevation of established OHWM (if known):

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

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and Established by OHWM

SECTION I: BACKGROUND INFORMATION

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.

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: 5,540 square miles Drainage area: 42.59 acres Average annual rainfall: 50.06 inches

Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Wetland E drains into Streams 9 and 10, which drains into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River.

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

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

	Tributary stream order, if known: 1st and 2nd order.
(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: 2-6 feet Average depth: 1-3 feet Average side slopes: 2:1.
	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: Streams exhibit stability. Presence of run/riffle/pool complexes. Explain: Run/riffle/pools present throughout the channels. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): %
(c)	
	Surface flow is: Confined. Characteristics: Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): 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:
Ch	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc. Explain: Water within channels is cloudy to clear. ntify specific pollutants, if known:

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.

Thid.

	(iv) I	Biological Characteristics. Channel supports (check all that apply):
	Į	Riparian corridor. Characteristics (type, average width):
	1	Wetland fringe. Characteristics:
	1	Habitat for:
		Federally Listed species. Explain findings:
		Fish/spawn areas. Explain findings:
		Other environmentally-sensitive species. Explain findings:
		Aquatic/wildlife diversity. Explain findings: Presence of baseflow and substrate provide habitat for species diversity.
2.	Char	acteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)]	Physical Characteristics:
		a) General Wetland Characteristics:
	,	Properties:
		Wetland size: Wetland $E = 3.89$ acres
		Wetland type. Explain: Wetland E = PFO.
		Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
		Project wetlands cross or serve as state boundaries. Explain:
		b) General Flow Relationship with Non-TNW:
		Flow is: Intermittent flow. Explain: Developed channel bed and bank, minimal sorting, hydric soils in the channel bed,
no	flow ob	served
	THE MOST	
		Surface flow is: Confined
		Characteristics: .
		Subsurface flow: Pick List. Explain findings:
		Dye (or other) test performed:
		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 30 (or more) river miles from TNW.
		Project waters are 30 (or more) 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: Water is clear, watershed contains planted pine and agricultural uses.
	1	dentify specific pollutants, if known:
	(iii) l	Biological Characteristics. Wetland supports (check all that apply):
		Riparian buffer. Characteristics (type, average width): Hardwood forest, 50 feet wide.
	-	Vegetation type/percent cover. Explain: Hardwood forest, 70-100%
	Ť	Habitat for:
	1	☐ Federally Listed species. Explain findings:
		Fish/spawn areas. Explain findings:
		Other environmentally-sensitive species. Explain findings:
		Aquatic/wildlife diversity. Explain findings:
3.		acteristics of all wetlands adjacent to the tributary (if any)
		All wetland(s) being considered in the cumulative analysis: 1
	-	Approximately (3.80) agree in total are being considered in the cumulative analysis

Directly abuts? (Y/N) Size (in acres)
Wetland E (Y) Size (in acres)
3.89

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

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.
	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: 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

	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 1,478 linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters:
3.	Non-RPWs ⁸ 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: Wetland E drains to Streams 9 and 10 and into Rocky Comfort Creek.
	Provide acreage estimates for jurisdictional wetlands in the review area: 3.88 acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 3.57 acres.
7.	Impoundments of jurisdictional waters. 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).
DE	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:
Ide	entify water body and summarize rationale supporting determination:

⁸See Footnote #3.

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.

	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):
	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.
CF.	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.
	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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps.
	U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: ☑ Aerial (Name & Date): ArcGIS 2017. or ☑ Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

Reach 6: Stream 11a, 11b, 12, 13a, 13b, 14; Wetland F, I, J,K, L; Open Water 1, 2

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 DISTINDUM DESCRIPTION

SE	CHON I: BACKGROUND INFORMATION
A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020
R	DISTRICT OFFICE FILE NAME AND NUMBER: Savannah Division, Piadmont Branch, Bulldog Sita

SAS-2019-00573 C. PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Rocky Comfort Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019 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: 7,186 linear feet: width (ft) and/or 0.42 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM Elevation of established OHWM (if known):

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

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

Explain:

Wetlands: 6.64 acres.

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 5,540 square miles Drainage area: 101.54 acres Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

☐ Tributary flows through 4 and 5 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Wetland F drains to Stream 11a, Stream 11b, and Wetland I which drains to Stream 11c. Open Water 1 drains to Stream 12 and into Wetland I. Open Water 2 drains to Wetland J and to Stream 14 which drains

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

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

to Stream 11c. Wetland K drains to Stream 13a and 13b, into Stream 14, and into Stream 11c. These drain into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River. Tributary stream order, if known: 1st and 2nd order.

(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: 2-6 feet Average depth: 1-3 feet Average side slopes: 2:1.
	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: Streams exhibit stability. Presence of run/riffle/pool complexes. Explain: Run/riffle/pools present throughout the channels. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): %
(c)	Flow: Tributary provides for: Pick List Stream 11a, 11b, 12, 13a, 13b, 14 = Intermittent; Stream 12 = Ephemeral Estimate average number of flow events in review area/year: Pick List Describe flow regime: low to moderate flow. Other information on duration and volume:
	Surface flow is: Confined. Characteristics: Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): 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 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:
Che	emical Characteristics

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

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

		Iden	ntify specific pollutants, if known:
	(iv)	Biol	ogical Characteristics. Channel supports (check all that apply):
	()		Riparian corridor. Characteristics (type, average width):
		Ħ	Wetland fringe. Characteristics:
			Habitat for:
		Z	☐ Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings: Presence of baseflow and substrate provide habitat for species diversity.
			A referred with a second of the second of th
2.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Phy	rsical Characteristics:
	(-)		General Wetland Characteristics:
		()	Properties:
			Wetland size: Wetland I = 3.77, Wetland J = 1.48, Wetland K = 2.43, Wetland L = 1.40 acres
			Wetland type. Explain: Wetland I, J, K, L = PFO.
			Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
			Project wetlands cross or serve as state boundaries. Explain:
			Project wetlands cross of serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW:
		(0)	Flow is: Pick List. Explain: Stream 11a, 11by, 13a, 13b, 14 = Intermittent - Developed channel bed and bank, minimal
cort	ing 1	wdrie	e soils in the channel bed, no flow observed; Stream 12 = Ephemeral - Weak channel bed and bank, minimal sorting, no
			the channel bed, no flow observed.
пус	116 30	113 111	are chainer oca, no now observed.
			Surface flow is: Confined
			Characteristics: Within channel bed and bank.
			Characteristics. Within channel oct and bank.
			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 30 (or more) river miles from TNW.
			Project waters are 30 (or more) aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters
			Estimate approximate location of wetland as within the Pick List floodplain.
			25 million approximate rounded of western as with the rest root plant.
	(ii)	Che	emical Characteristics:
	(-)		racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.
		Ider	ntify specific pollutants, if known:
			, -, -, -, -, -, -, -, -, -, -, -, -, -,
	(iii	Biol	logical Characteristics. Wetland supports (check all that apply):
	1	\boxtimes	Riparian buffer. Characteristics (type, average width):Hardwood forest, 50 feet wide.
			Vegetation type/percent cover. Explain: Hardwood forest, 70-100%
			Habitat for:
		ш	Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings:
3.	Ch	ract	eristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **5**Approximately (10.97) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland F (Y)	1.89		
Wetland I (Y)	3.77		
Wetland J (Y)	1.48		
Wetland K (Y)	2.43		
Wetland L (Y)	1.40		

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:

- 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: Wetland F drains to Stream 11a, Stream 11b, and Wetland I which drains to Stream 11c. Open Water 1 drains to Stream 12 (Ephemeral) and into Wetland I. Open Water 2 drains to Wetland J and to Stream 14 which drains to Stream 11c. Wetland K drains to Stream 13a and 13b, into Stream 14, and into Stream 11c. These drain into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

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

1.	TNWs: linear feet width (ft), Or, acres.					
2.						

	jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Streams 11a, 11b, 13a, 13b, and 14 scored as Intermittent Streams on the NC Stream Assessment Form.
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 7,186 linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters:
3.	Non-RPWs ⁸ 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: 7,186 linear feet width (ft). Other non-wetland waters: 0.42 acres. Identify type(s) of waters: Open Waters 1 & 2.
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: Wetland F drains to Stream 11a, Stream 11b, and Wetland I which drains to Stream 11c. Open Water 1 drains to Stream 12 (Ephemeral) and into Wetland I. Open Water 2 drains to Wetland J and to Stream 14 which drains to Stream 11c. Wetland K drains to Stream 13a and 13b, into Stream 14, and into Stream 11c. These drain into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River
	Provide acreage estimates for jurisdictional wetlands in the review area: 6.64 acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 6.64 acres.
7.	Impoundments of jurisdictional waters. 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).

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are

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

⁸See Footnote #3.

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

rs 1 the
R ional
e such
ecked

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.

or Other (Name & Date): Field Photos, 2019.	
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:

Reach 7: Stream 11c

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.

SE A.	CTION I: BACKGROUND INFORMATION REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020
В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Rocky Comfort Creek Name of nearest Traditional Navigable Water (TNW) Into which the aquatic resource flows: Ogeechee River
	Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
rev	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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: CWA SECTION 404 DETERMINATION OF JURISDICTION.
	ere 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): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters ² (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: 770 linear feet: width (ft) and/or acres. Wetlands: acres.
	c. Limits (boundaries) of jurisdiction based on: Established by OHWM. Elevation of established OHWM (if known):
	2. Non-regulated waters/wetlands (check if applicable): ³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional waters.

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 5,540 square miles

Drainage area: 4.37 acres

Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Stream 3 drains into NHP mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River

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

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

	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: 2-5 feet Average depth: 1-2 feet Average side slopes: 2:1.
	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: Presence of run/riffle/pool complexes. Explain: No run/riffle/pool complexes observed. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): %
(c	Flow: Tributary provides for: Intermittent but not seasonal 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: Confined. Characteristics: Moderate flow observed within channel. Subsurface flow: Pick List. Explain findings:
	□ Dye (or other) test performed: Tributary has (check all that apply): □ Bed and banks ○ OHWM ⁶ (check all indicators that apply): □ 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 □ 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:
C	hemical Characteristics: haracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc. Explain: Water is cloudy to cloudy to clear within the channel. lentify specific pollutants, if known:

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. Thid.

	(iv)	Bio	logical Characteristics. Channel supports (check all that apply):
			Riparian corridor. Characteristics (type, average width):
			Wetland fringe. Characteristics:
		X	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings: Presence of baseflow and substrate provide habitat for species diversity.
			Z injustic vitable divisity. Explain intellige, its selection and substitute provide month for species divisity.
2.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Dh	vsical Characteristics:
	(i)		General Wetland Characteristics:
		(a)	Properties:
			Wetland type. Explain:
			Wetland quality. Explain:
			Project wetlands cross or serve as state boundaries. Explain:
		(L)	General Flow Beletianship with New TNW/
		(0)	General Flow Relationship with Non-TNW:
			Flow is: Pick List. Explain: .
			Surface flow is: Pick List
			Characteristics:
			Characteristics: .
			Subsurface flow: Pick List. Explain findings:
			Dye (or other) test performed:
			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:
		(4)	Proximity (Relationship) to TNW
		(u)	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)	Che	emical Characteristics:
	1	Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain:
		Idea	ntify 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:
			- Contract C
3.	Cha	ract	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.

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

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.				
 RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rational 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: Stream 11c scored as an Intermittent Stream on the NC Stream Assessment Form.				

	Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
3.	Non-RPWs ⁸ 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: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7.	Impoundments of jurisdictional waters. 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).
DE	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:
Ide	ntify water body and summarize rationale supporting determination:

E.

⁸See Footnote #3.

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.

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.
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):
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 udgment (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.
UPPORTING 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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature:

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Reach 8: Stream 16; Wetland M

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.

SE	CTION I: BACKGROUND INFORMATION
A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020
В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Rocky Comfort Creek
	Name of nearest Traditional Navigable Water (TNW) Into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019
SE	CTION II: SUMMARY OF FINDINGS
	RHA SECTION 10 DETERMINATION OF JURISDICTION.
	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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:
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere 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): TNWs, including territorial seas Wetlands adjacent to TNWs
	Relatively permanent waters ² (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: 666 linear feet: width (ft) and/or acres. Wetlands: 3.90 acres.

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

Explain:

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and Established by OHWM

Elevation of established OHWM (if known):

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

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 5,540 square miles

Drainage area: 18.40 acres

Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Wetland M drains into Stream 16, which drains into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River.

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

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

	Tributary stream order, if known: 1st and 2nd order.
(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: 2-6 feet Average depth: 1-3 feet Average side slopes: 2:1.
	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: Stream exhibits stability. Presence of run/riffle/pool complexes. Explain: Run/riffle/pools present throughout the channel. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): %
(c)	Flow: Tributary provides for: Intermittent but not seasonal flow Estimate average number of flow events in review area/year: Pick List Describe flow regime: Moderate flow. Other information on duration and volume:
	Surface flow is: Confined. Characteristics: Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): 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 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:
Cha	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc. Explain: Water is cloudy to clear within channel. ntify specific pollutants, if known:

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.

Tlbid.

	(iv) Bio	logical Characteristics. Channel supports (check all that apply):
		Н	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: Presence of baseflow and substrate provide habitat for species diversity.
	2. Ch	aract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Phy	vsical Characteristics:
		(a)	General Wetland Characteristics:
			Properties:
			Wetland size: Wetland $M = 3.90$ acres
			Wetland type. Explain: Wetland M = PFO.
			Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
			Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW:
		(0)	Flow is: Intermittent flow. Explain: Developed channel bed and bank, minimal sorting, hydric soils in the channel bed,
1	no flow	obser	
			Surface flow is: Confined
			Characteristics: Within channel bed and bank.
			Subsurface flow: Pick List. Explain findings:
			Dye (or other) test performed:
			_ by (or state) test performed.
		(c)	Wetland Adjacency Determination with Non-TNW:
		1.1	☐ Directly abutting
			☐ Not directly abutting
			Discrete wetland hydrologic connection. Explain:
			Ecological connection. Explain:
			Separated by berm/barrier. Explain:
		(d)	Proximity (Relationship) to TNW
		(0)	Project wetlands are 30 (or more) river miles from TNW.
			Project waters are 30 (or more) aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters
			Estimate approximate location of wetland as within the Pick List floodplain.
	(ii)	Che	emical Characteristics:
	. ,		racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.
		Ide	ntify specific pollutants, if known:
	(22	n Dia	landard Channet suit than Wetherd amounts (charter all that ample)
	(II		logical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width): Hardwood forest, 50 feet wide
			Vegetation type/percent cover. Explain: Hardwood forest, 70-100%.
		77	Habitat for:
		-	Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings:
4	3. Ch		eristics of all wetlands adjacent to the tributary (if any)
		All	wetland(s) being considered in the cumulative analysis: 1

Approximately (3.90) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (i Wetland M (Y)

Size (in acres) 3.90 Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

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: ☐ 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: Stream 16 scored as an Intermittent Stream on the NC Stream Assessment Form.

	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 666 linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
3.	Non-RPWs ⁸ 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: Wetland M drains into Stream 16, which drains into NHD mapped perennial stream Rocky Comfort Creek. Rocky Comfort Creek drains south into the Ogeechee River.
	Provide acreage estimates for jurisdictional wetlands in the review area: 3.90 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 adjacen and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 3.90 acres.
7.	Impoundments of jurisdictional waters. 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).
SU	OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:

E.

⁸See Footnote #3.

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.

Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: 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): 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. acres. List type of aquatic resource: Other non-wetland waters: Wetlands: 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): width (ft). Non-wetland waters (i.e., rivers, streams): linear feet. 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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: ☑ USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

Identify water body and summarize rationale supporting determination:

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Reach 9: Wetland N; Open Water 3 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.

S	E	CTI	ON	I:	BA	CKGRO	UND	INFO	DRMA	TION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020

DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site,

Ξξ.	SAS-2019-00573
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton
	Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983
	Name of nearest waterbody: Rocky Comfort Creek
	Name of nearest Traditional Navigable Water (TNW) Into which the aquatic resource flows: Ogeechee River
	Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019
SE	CTION II: SUMMARY OF FINDINGS
A.	RHA SECTION 10 DETERMINATION OF JURISDICTION.
	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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:
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere 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 ² (RPWs) that flow directly or indirectly into TNWs Non-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
	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 0.25 acres.
	Wetlands: 2.17 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM
	Elevation of established OHWM (if known):
	2. Non-regulated waters/wetlands (check if applicable): ³
	Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 5540 square miles

Drainage area: 12.40 acres

Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through 2 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Wetland N drains into Open Water 3 respectively, which drains in to Rocky Comfort Creek and then the Ogeochee River.

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

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

	Tributary stream order, if known:	
(b)	General Tributary Characteristics (check all that apply Tributary is: Natural	<u>):</u>
Open Water 3	☐ Artificial (man-made). Explain infrequently drains through a grass spillway which has ☐ Manipulated (man-altered). Explain infrequently drains through a grass spillway which has ☐ Manipulated (man-altered).	
	Tributary properties with respect to top of bank (esting Average width: feet Average depth: feet Average side slopes: Pick List.	mate):
	Primary tributary substrate composition (check all that Silts Sands Gravel Bedrock Vegetation. Type/%	☐ Concrete ☐ Muck
	Tributary condition/stability [e.g., highly eroding, slow Presence of run/riffle/pool complexes. Explain: No ru Tributary geometry: Pick List Tributary gradient (approximate average slope):	
(c)	Flow: Tributary provides for: Pick List Estimate average number of flow events in review are Describe flow regime: Other information on duration and volume: Surface flow is: Overland sheetflow. Characteristics Subsurface flow: Yes. Explain findings: Seepage occumul Dye (or other) test performed:	
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (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. ⁷ Explain:	the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line sediment sorting scour multiple observed or predicted flow events abrupt change in plant community
		me 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.
Cha	emical Characteristics: racterize tributary (e.g., water color is clear, discolored Explain: Water cloudy to clear within Open Water. ntify specific pollutants, if known:	, oily film; water quality; general watershed characteristics, etc.).

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

	(iv)	Bio	logical 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:
	01		
2.	Ch	aract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(1)	DI.	1.10
	(i)		vsical Characteristics:
		(a)	General Wetland Characteristics:
			Properties:
			Wetland size: Wetland $N = 2.17$ acres
			Wetland type. Explain: Wetland $N = PFO$.
			Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
			Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW:
			Flow is: Pick List. Explain: .
			Surface flow is: Discrete and confined Wetland N / Open Water 3 infrequently flows through a spillway to Wetland C
			Characteristics: Man-made grass spill way, no defined channel bed or bank. No OHWM.
			Contraction of the first of the second of
			Subsurface flow: Yes. Explain findings: Open Water 3 maintains hydrologic connection through seep below its
im	oound	lment	
			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:
		(1)	Province (Palatinakia) (TNW)
		(a)	Proximity (Relationship) to TNW
			Project wetlands are 30 (or more) river miles from TNW.
			Project waters are 30 (or more) aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters
			Estimate approximate location of wetland as within the 100 - 500-year floodplain.
	(ii)		emical Characteristics:
		Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain:
		Idea	ntify specific pollutants, if known:
	(iii) Bio	logical Characteristics. Wetland supports (check all that apply):
		\boxtimes	Riparian buffer. Characteristics (type, average width):100 feet.
			Vegetation type/percent cover. Explain:
		H	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings:
3.	Ch	aract	eristics of all wetlands adjacent to the tributary (if any)
J.	CH		wetland(s) being considered in the cumulative analysis: 1
		App	proximately (2.17) 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 N

2.17

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: Wetland N drains to Open Water 3 which infrequently drains through a spillway and through seepage of the impoundment to Wetland C, and ultimatley to Rocky Comfor.
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

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: 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 ⁸ 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: 0.25 acres. Identify type(s) of waters: Open Water 3 is an impoundment of Wetland N that infrequently drains through a spillway, and through seepage, into Rocky Comfort Creek.
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 2.17 acres.
7.	Impoundments of jurisdictional waters. 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).
DE	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:

E.

⁸See Footnote #3.

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.

Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: 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): 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. acres. List type of aquatic resource: Other non-wetland waters: Wetlands: 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): width (ft). linear feet. 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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: ☑ USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

Identify water body and summarize rationale supporting determination:

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Reach 10: Stream 17; Open Water 4; Wetland O

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.

SE	CTION I: BACKGROUND INFORMATION
A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERM

MINATION (JD): February 6, 2020

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site,

	SAS-2019-00573
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Goldens Creek
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019
SE A.	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
rev	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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: CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere 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: 1,732 linear feet: width (ft) and/or 0.35 acres. Wetlands: 3.88 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM Elevation of established OHWM (if known):
	 Non-regulated waters/wetlands (check if applicable):³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

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 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.

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

(i) General Area Conditions:

Watershed size: 5,540 square miles Drainage area: 40.50 acres Average annual rainfall: 50.06 inches

Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

☑ Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW5: Open Water 4 drains into Wetland O and into Stream 17. Stream 17 drains into Goldens Creek, which drains into the Ogeechee River.

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

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.

	Tributary stream order, if known: 1st order.
(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: 2-6 feet Average depth: 1-3 feet Average side slopes: 2:1.
	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: Stream exhibits stability. Presence of run/riffle/pool complexes. Explain: Run/riffle/pools present throughout the channel. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): %
(e)	Flow: Tributary provides for: Intermittent but not seasonal flow Estimate average number of flow events in review area/year: Pick List Describe flow regime: low to moderate flow. Other information on duration and volume:
	Surface flow is: Confined. Characteristics: Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation shelving the presence of wrack line sediment sorting sediment sorting sediment deposition abrupt change in plant community 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:
Cl	hemical Characteristics: naracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.) Explain: Water is cloudy to clear throughout the channel. entify specific pollutants, if known:

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.

Thid.

	(iv)		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: Presence of baseflow and substrate provide habitat for species diversity.			
2.	Cha	aract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW			
	(i)	Physical Characteristics:				
	200	(a)	General Wetland Characteristics:			
			Properties:			
			Wetland size: Wetland O = 3.88 acres			
			Wetland type. Explain: Wetland O = PFO. Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.			
			Project wetlands cross or serve as state boundaries. Explain:			
		4.5				
		(b)	General Flow Relationship with Non-TNW: Flow is: Intermittent flow. Explain:			
			Flow is, intermittent now, Explain.			
			Surface flow is: Confined			
			Characteristics: Within channel bed and bank.			
			Subsurface flow: Yes. Explain findings: Seepage through man made impoundment.			
			Dye (or other) test performed:			
		(-)	Waland Adiana Data alian indiana indiana and National Nat			
		(c)	Wetland Adjacency Determination with Non-TNW: Directly abutting			
			Not directly abutting Not directly abutting			
			□ Discrete wetland hydrologic connection. Explain: Seepage through impoundment.			
			Ecological connection. Explain:			
			Separated by berm/barrier. Explain:			
		(4)	Proximity (Relationship) to TNW			
		(4)	Project wetlands are 30 (or more) river miles from TNW.			
			Project waters are 30 (or more) aerial (straight) miles from TNW.			
			Flow is from: Wetland to navigable waters			
			Estimate approximate location of wetland as within the Pick List floodplain.			
	(ii)	Che	emical Characteristics:			
	()		aracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed			
			characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.			
	Identify specific pollutants, if known:					
	logical Characteristics. Wetland supports (check all that apply):					
		\boxtimes	Riparian buffer. Characteristics (type, average width): Hardwood forest, 50 feet wide.			
		\boxtimes	Vegetation type/percent cover. Explain: Hardwood forest, 70-100%			
			Habitat for:			
			Federally Listed species. Explain findings:			
			Fish/spawn areas. Explain findings:			
			Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings:			
,	CL					
3.	Cha		eristics of all wetlands adjacent to the tributary (if any) wetland(s) being considered in the cumulative analysis: 1			
			proximately (3.88) acres in total are being considered in the cumulative analysis.			
		TI				

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in Wetland O (Y)

Size (in acres) 3.88 Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Open Water 4 drains into Wetland O and into Stream 17. Stream 17 drains into Goldens Creek, which drains into the Ogeechee River.
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

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

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.	 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: Stream 17 scored as an Intermittent Stream on the NC Stream Assessment Form.			

	Provide estimates for jurisdictional waters in the review area (check all that apply):
	☐ Tributary waters: 1,732 linear feet width (ft).
	Other non-wetland waters: 0.35 acres.
	Identify type(s) of waters: Open Water 4.
	N. DONY S. J. of D. of J. of D. of D
3.	Non-RPWs ⁸ 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: 1,732 linear feet width (ft).
	Other non-wetland waters: 0.35 acres.
	Identify type(s) of waters: Open Water 4.
	identity type(s) of waters. Open water 4.
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:
	Waladadadada DDW da dibada bailada BDW da dibada bailada bailada bailada da idi di
	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: Open Water 4 drains into Wetland O and into Stream 17. Stream 17 drains into Goldens Creek, which
	drains into the Ogeechee River .
	Provide acreage estimates for jurisdictional wetlands in the review area: 3.88 acres.
	and the state of S and the state of the stat
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.
	Trovide 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.
	D
	Provide estimates for jurisdictional wetlands in the review area: 3.88 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).
	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE,
	GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY
SU	CH 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:

E.

⁸See Footnote #3.

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.

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. 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): 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: 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: Figure 1 - 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: ☑ U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Mother (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature:

Identify water body and summarize rationale supporting determination:

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Other information (please specify):

Reach 11: Stream 18, Wetland P, Open Water 5

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.

SE	CHON I: BACKGROUND INFORMATION
A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020
B.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site,
	CAS 2010 00572

SAS-2019-00573 C. PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Goldens Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202 Check if map/diagram of review area and/or potential invisidad 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): July 22-25, 2019 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: 1,778 linear feet: width (ft) and/or 1.32 acres. Wetlands: 6.21 acres. c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM Elevation of established OHWM (if known):

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

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

Explain:

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

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

Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 5,540 square miles Drainage area: 27.34 acres Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Open Water 5 drains into Wetland P. Intermittent Stream 18 lies within Wetland P and drains into Goldens Creek, which drains into the Ogeechee River.

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

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

	Tributary stream order, if known: 1st order.	
(b)	General Tributary Characteristics (check all that apply)	<u>:</u>
	Tributary is: Natural Artificial (man-made). Explain Manipulated (man-altered). Ex	
	Tributary properties with respect to top of bank (estin Average width: 2-6 feet Average depth: 1-3 feet Average side slopes: 2:1.	nate):
	Tivelage side slopes. 271	
	Primary tributary substrate composition (check all that Silts Sands Cobbles Gravel Bedrock Vegetation. Type/% Other. Explain:	☐ Concrete ☐ Muck
	Tributary condition/stability [e.g., highly eroding, slou Presence of run/riffle/pool complexes. Explain: Run/ri Tributary geometry: Relatively straight	ffle/pools present throughout the channel.
	Tributary gradient (approximate average slope):	%
(c)	Tributary provides for: Intermittent but not seasonal Estimate average number of flow events in review area Describe flow regime: low to moderate flow. Other information on duration and volume: Surface flow is: Confined. Characteristics: Subsurface flow: Pick List. Explain findings: Dye (or other) test performed: Tributary has (check all that apply): Bed and banks OHWM6 (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	the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line sediment sorting scour
	 	multiple observed or predicted flow events abrupt change in plant community
	☐ Discontinuous OHWM. ⁷ Explain:	
		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.
Cha	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, Explain: Water is cloudy to clear throughout the chann ntify specific pollutants, if known:	oily film; water quality; general watershed characteristics, etc. el.

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.

Tlbid.

	(iv)	Bio	logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width):			
			Wetland fringe. Characteristics:			
		X	Habitat for: ☐ Federally Listed species. Explain findings:			
			Fish/spawn areas. Explain findings:			
			Other environmentally-sensitive species. Explain findings:			
			Aquatic/wildlife diversity. Explain findings: Presence of baseflow and substrate provide habitat for species diversity			
			Z referre whome diversity. Explain intolings, resource of observer and substatic provide intoline for species diversity			
2.	Cha	aracteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW				
	(i)	Phy	sical Characteristics:			
			General Wetland Characteristics:			
			Properties:			
			Wetland size: Wetland $P = 6.21$ acres			
			Wetland type. Explain: Wetland P = PFO.			
			Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.			
			Project wetlands cross or serve as state boundaries. Explain:			
		(L)	Garand Flow Polotion his with Non TNW.			
		(0)	General Flow Relationship with Non-TNW: Flow is: Intermittent flow. Explain: Developed channel bed and bank, minimal sorting, hydric soils in the channel bed,			
no	flow	heer				
110	llow	JUSCI	ved.			
			Surface flow is: Confined			
			Characteristics: Within channel bed and bank.			
			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:			
		(A)	Proximity (Relationship) to TNW			
		(4)	Project wetlands are 30 (or more) river miles from TNW.			
			Project waters are 30 (or more) aerial (straight) miles from TNW.			
			Flow is from: Wetland to navigable waters			
			Estimate approximate location of wetland as within the Pick List floodplain.			
	(ii)		emical Characteristics:			
		Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed			
			characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.			
		Ider	ntify specific pollutants, if known:			
	CH.	Die	logical Characteristics. Wetland supports (check all that apply):			
	(III		NELONG CHIMILE TO THE ROOM OF THE PROPERTY OF THE THE ROOM OF THE CONTRACT OF			
		X	Vegetation type/percent cover. Explain: Hardwood forest, 70-100%.			
			Habitat for:			
			☐ Federally Listed species. Explain findings:			
			Fish/spawn areas. Explain findings:			
			Other environmentally-sensitive species. Explain findings:			
			Aquatic/wildlife diversity. Explain findings:			
3.	Ch		eristics of all wetlands adjacent to the tributary (if any)			
			wetland(s) being considered in the cumulative analysis: 1			
		App	proximately (6.21) acres in total are being considered in the cumulative analysis.			

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)
Wetland P (Y) 6.21

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: Open Water 5 drains into Wetland P. Intermittent Stream 18 lies within Wetland P and drains into Goldens Creek, which drains into the Ogeechee River.
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

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

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: 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: Stream 18 scored as an Intermittent Stream on the NC Stream Assessment Form.

	Provide estimates for jurisdictional waters in the review area (check all that apply):					
	☐ Tributary waters: 1,778 linear feet width (ft).					
	Other non-wetland waters: 1.32 acres.					
	Identify type(s) of waters: Open Water 5.					
3.	Non-RPWs8 that flow directly or indirectly into TNWs.					
	Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a					
	TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.					
	Provide estimates for jurisdictional waters within the review area (check all that apply):					
	☐ Tributary waters: 1,778 linear feet width (ft).					
	Other non-wetland waters: 1.32 acres.					
	Identify type(s) of waters: Open Water 5.					
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: Open Water 5 drains into Wetland P. Intermittent Stream 18 lies within Wetland P and drains into					
	Goldens Creek, which drains into the Ogeechee River.					
	Goldens Creek, which drains into the Ogeechee River.					
	Provide acreage estimates for jurisdictional wetlands in the review area: 6.21 acres.					
5.	이 얼마나 보면 사람이 있는데 보면 보면 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면 되었다					
	Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent					
	and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this					
	conclusion is provided at Section III.C.					
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.					
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.					
	Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and					
	with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.					
	Provide estimates for jurisdictional wetlands in the review area: 6.21 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).					
TO	ON A TED INSTERIOR A TE OR INSTRUMENTAL STATES WATERS IN OUT UNION SECONDATED WET AND STATE WOR					
150	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE,					
	GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY					
SU	CH WATERS (CHECK ALL THAT APPLY);10					
H	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.					
H	which are or could be used for industrial purposes by industries in interstate commerce.					
	Interstate isolated waters. Explain:					
H	Other factors. Explain:					
	Salt Marie Lapandi					

E.

⁸See Footnote #3.

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.

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. 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): 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: 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: Figure 1 - 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: ☑ U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Mother (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature:

Identify water body and summarize rationale supporting determination:

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Other information (please specify):

Reach 12: Wetland Q1, Open Water 6

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.

	CTION I: BACKGROUND INFORMATION REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020
В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Golden Creek
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
rev	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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: CWA SECTION 404 DETERMINATION OF JURISDICTION.
	ere 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 0.52 acres. Wetlands: 0.23 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM Elevation of established OHWM (if known):
	2. Non-regulated waters/wetlands (check if applicable): ³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 5,540 square miles

Drainage area: 4.37 acres

Average annual rainfall: 50.06 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 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW⁵: Open Water 6 drains in to Wetland Q1, which drains into Goldens Creek and into the Ogeechee River.

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

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

		Tributary stream order, if known:					
	(b)	General Tributary Characteristics (check all that apply)	<u>):</u>				
		Tributary is: Natural					
		☐ Artificial (man-made). Explain ☐ Manipulated (man-altered). Ex		in:			
		Tributary properties with respect to top of bank (estim	nate`				
		Average width: feet	late)				
		Average depth: feet					
		Average side slopes: Pick List.					
		Primary tributary substrate composition (check all that	app	ly):			
		☐ Silts ☐ Sands		☐ Concrete			
		Cobbles Gravel		Muck			
		☐ Bedrock ☐ Vegetation. Type/% (☐ Other. Explain:	cove	r:			
		Utiler, Explain.					
		Tributary condition/stability [e.g., highly eroding, sloug	ghin	g banks]. Explain:			
		Presence of run/riffle/pool complexes. Explain:	•				
		Tributary geometry: Pick List Tributary gradient (approximate average slope):	%				
		income) gradient (approximate average steps).	, ,				
	(c)						
		Tributary provides for: Pick List Estimate average number of flow events in review area	/sred	er Dick Liet			
		Describe flow regime:	yea	I. FICK LIST			
		Other information on duration and volume:					
		Surface flow is: Confined. Characteristics: Moderate flow observed within channel.					
	Subsurface flow: Pick List. Explain findings:						
		Dye (or other) test performed:					
		Tributary has (check all that apply):					
		☐ Bed and banks					
		 ✓ OHWM⁶ (check all indicators that apply): ☐ clear, natural line impressed on the bank 		the presence of litter and debris			
		changes in the character of soil	H	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	H	multiple observed or predicted flow events			
		water staining other (list):		abrupt change in plant community			
		☐ Discontinuous OHWM. 7 Explain:					
		If factors other than the OHWM were used to determine	a lat	and autout of CWA invitediation (about all that apply).			
				n High Water Mark indicated by:			
		oil or scum line along shore objects		survey to available datum;			
		fine shell or debris deposits (foreshore)		physical markings;			
		physical markings/characteristics	Ц,	vegetation lines/changes in vegetation types.			
		☐ tidal gauges ☐ other (list):					
		in outer (1131).					
(iii)		emical Characteristics:	- 14	A Company of the Comp			
	Cha	aracterize tributary (e.g., water color is clear, discolored, Explain: Water relatively cloudy to clear within Open V		film; water quality; general watershed characteristics, etc.) er 6.			
	Ider	ntify specific pollutants, if known:					

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.

Tlbid.

	(iv)	Bio	logical Characteristics. Channel supports (check all that apply):
			Riparian corridor. Characteristics (type, average width):
			Wetland fringe. Characteristics:
		X	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings: Presence of baseflow provide habitat for species diversity.
			Aquatic whome diversity. Explain imidings, Presence of dasenow provide habitat for species diversity.
2.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Phy	esical Characteristics:
	(1)		General Wetland Characteristics:
		(a)	Properties:
			Wetland size: Wetland Q1 = 0.23 acres
			Wetland type. Explain: Wetland Q1 = PFO.
			Wetland quality. Explain: Low to Moderate, surrounded by silvicultural land and previously disturbed areas.
			Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW:
		1 1	Flow is: Pick List. Explain:
			Surface flow is: Overland sheetflow
			Characteristics: Pond overflow, not through defined channel.
			Subsurface flow: Pick List. Explain findings:
			Dye (or other) test performed:
			Dyc (of other) test performed.
		(c)	Wetland Adjacency Determination with Non-TNW:
			☐ Directly abutting
			Not directly abutting
			Discrete wetland hydrologic connection. Explain: Pond overflows through spillway as sheetflow and seeps
thr	onoh i	man-	made impoundment.
1111	ough.	III.	☐ Ecological connection. Explain:
			Separated by berm/barrier. Explain:
			Separated by bermboarner. Explain.
		(d)	Proximity (Relationship) to TNW
			Project wetlands are 30 (or more) river miles from TNW.
			Project waters are 30 (or more) aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters
			Estimate approximate location of wetland as within the Pick List floodplain.
	(ii)		emical Characteristics:
		Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.
		Ider	ntify specific pollutants, if known:
	GH	Rio	logical Characteristics. Wetland supports (check all that apply):
	(III)	DIO.	Riparian buffer. Characteristics (type, average width):
		\mathbf{A}	Vegetation type/percent cover. Explain: Herbaceous ground cover and hardwood forest, 100%.
			Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings:
2	CL	me of	existics of all wetlands adjacent to the tributery (if any)
3.	Cha		eristics of all wetlands adjacent to the tributary (if any) wetland(s) being considered in the cumulative analysis: 1
		4 411	remains of semigroup solutions in the continuous analysis.

Approximately (0.23) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)
Wetland Q1 (N) 0.23

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:

- 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: Open Water 6
 drains in to Wetland Q1, which drains to Wetland Q2 and ultimatley into Goldens Creek and into the Ogeechee River.
- Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into
 TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its
 adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

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: ☐ 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-RPWs⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C. 			
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: 0.52acres. Identify type(s) of waters: Open Water 6.			
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:			
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:			
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.			
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.			
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.			
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.			
	Provide estimates for jurisdictional wetlands in the review area: 0.23 acres.			
7.	Impoundments of jurisdictional waters. 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).			
SU	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:			
Ide	ntify water body and summarize rationale supporting determination:			

E.

⁸See Footnote #3.

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.

	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):
	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.
CE	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.
	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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps.
	U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

Reach 13: Goldens Creek & Wetland Q2

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: E	BACKGROUND	INFORMATION	V
--------------	------------	-------------	---

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573

	SAS-2019-00573					
C	PROJECT LOCATION AND BACKGROUND INFORMATION:					
	State: Georgia County/parish/borough: Warren City: Warrenton					
	Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W.					
	Universal Transverse Mercator: NAD 1983					
	Name of nearest waterbody: Goldens Creek					
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River					
	Name of watershed or Hydrologic Unit Code (HUC): 030060202					
	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): July 22-25, 2019					
SE	CTION II: SUMMARY OF FINDINGS					
A.	RHA SECTION 10 DETERMINATION OF JURISDICTION.					
The	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the					
	ew 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.					
The	re 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					
	Non-RPWs that flow directly or indirectly into TNWs					
	Wetlands directly abutting RPWs that flow directly into TNWs					
	Western directly abuting Kr ws that how directly of indirectly find fixed a late of the state of					
	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					
	Isolated (interstate or intrastate) waters, including isolated wetlands					
	Y TO BE A STATE OF THE STATE OF					
	b. Identify (estimate) size of waters of the U.S. in the review area:					
	Non-wetland waters: 8,965 linear feet: width (ft) and/or acres.					
	Wetlands: 75.70 acres.					
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and Established by OHWM					
	Elevation of established OHWM (if known):					
	2. Non-regulated waters/wetlands (check if applicable): ³					
	Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.					
	Evnlain'					

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 5,540 square miles Drainage area: 164.45 acres

Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through 2 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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 TNW5: Goldens Creek lies within and on the edge of Wetland Q2, which drain into the Ogeechee River .

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

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

	Tributary stream order, if known: 1st order.							
(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: 10-20 feet Average depth: 1-4 feet							
	Average side slopes: 2:1.							
	Discourse the second section (death all shot section)							
	Primary tributary substrate composition (check all that apply): ☐ Silts ☐ Concrete							
	☐ Cobbles ☐ Gravel ☐ Muck							
	☐ Bedrock ☐ Vegetation. Type/% cover:							
	Other. Explain:							
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stream exhibits stability.							
	Presence of run/riffle/pool complexes. Explain: Run/riffle/pools present throughout the channel.							
	Tributary geometry: Meandering							
	Tributary gradient (approximate average slope):							
(c)	Flow:							
	Tributary provides for: Seasonal flow							
	Estimate average number of flow events in review area/year: Pick List Describe flow regime: Moderate flow.							
	Other information on duration and volume:							
	Surface flow is: Confined. Characteristics:							
	Subsurface flow: Pick List. Explain findings:							
	Dye (or other) test performed:							
	Tributary has (check all that apply):							
	Bed and banks							
	OHWM ⁶ (check all indicators that apply):							
	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							
	☐ other (list): ☐ Discontinuous OHWM. ⁷ Explain:							
	□ Discontinuous Offwire. 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;							
	☐ fine shell or debris deposits (foreshore) ☐ physical markings; ☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.							
	☐ tidal gauges							
	other (list):							
(iii) Ch	emical Characteristics:							
	aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).							
	Explain: Water within channel is cloudy to clear.							
Ide	ntify specific pollutants, if known:							

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.

Tibid.

	(iv)		logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Perennial Stream Goldens Creek lies on the edge of Wetland Q2. Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings: Presence of baseflow and substrate provide habitat for species diversity.
2.	Cha	iract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)		vsical Characteristics: General Wetland Characteristics:
		(a)	Properties:
			Wetland size: Wetland Q2 = 75.69 acres
			Wetland type. Explain: Wetland Q2 = PFO.
			Wetland quality. Explain: Moderate, located adjacent/abutting to Golden Creek.
			Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW:
			Flow is: Perennial flow. Explain:
			Surface flow is: Confined
			Characteristics: Within channel bed and bank.
			Colonia do Dillia Enlia de l'occ
			Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
		(c)	Wetland Adjacency Determination with Non-TNW:
		(0)	Directly abutting
			☐ Not directly abutting
			Discrete wetland hydrologic connection. Explain:
			Ecological connection. Explain:
			Separated by berm/barrier. Explain:
		(d)	Proximity (Relationship) to TNW
		(4)	Project wetlands are 30 (or more) river miles from TNW.
			Project waters are 30 (or more) aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters
			Estimate approximate location of wetland as within the Pick List floodplain.
	(ii)	Ch	emical Characteristics:
		Cha	aracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.
		Ide	ntify specific pollutants, if known:
	(iii) Bio	logical Characteristics. Wetland supports (check all that apply):
			Riparian buffer. Characteristics (type, average width): Hardwood forest, 50 feet wide.
		\boxtimes	Vegetation type/percent cover. Explain: Hardwood forest, 70-100%
		\boxtimes	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings: Habitat for various aquatic species.
3.	Cha	ract	eristics of all wetlands adjacent to the tributary (if any)
			wetland(s) being considered in the cumulative analysis: 1

3.

Approximately (75.69) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Wetland Q2 (Y)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

- 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:
- 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:
- Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

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

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: Goldens Creek scored as a Perennial Stream on the NC Stream Assessment Form and is a mapped NHD stream.
	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 ⁸ 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.
	seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Goldens Creek lies within and on the edge of Wetland Q2, which drain into the Ogeechee River.
	Provide acreage estimates for jurisdictional wetlands in the review area: 75.70 acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 3.90 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).
DE	CLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:

E.

⁸See Footnote #3.

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.

Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: 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): 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. acres. List type of aquatic resource: Other non-wetland waters: Wetlands: 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): width (ft). Non-wetland waters (i.e., rivers, streams): linear feet. 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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: ☑ USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017. or Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

Identify water body and summarize rationale supporting determination:

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Reach 14: Stream 15, Rocky Comfort Creek; Wetland C

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.

A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020
В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Georgia County/parish/borough: Warren City: Warrenton Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W. Universal Transverse Mercator: NAD 1983 Name of nearest waterbody: Rocky Comfort Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River Name of watershed or Hydrologic Unit Code (HUC): 030060202 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): July 22-25, 2019
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
B.	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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: CWA SECTION 404 DETERMINATION OF JURISDICTION. Creater "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
1110	
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters ² (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: 8,103 linear feet: width (ft) and/or acres. Wetlands: 30.80 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and Established by OHWM Elevation of established OHWM (if known):
	2. Non-regulated waters/wetlands (check if applicable): ³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain:

SECTION I: BACKGROUND INFORMATION

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 5,540 square miles Drainage area: 270.80 acres Average annual rainfall: 50.06 inches Average annual snowfall: - inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 2 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW. Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) 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:

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

		Intermitter	nt Stream 15 drains in to V	Vetla	nd C wh	nich drains into Rocky Comfort Creek and then t		
	Ogeechee River. Tributary stream order, if known: 1 st order.							
(b)	General Tributary Tributary is:	Natu	ristics (check all that applural ficial (man-made). Expla					
			ipulated (man-altered).		in:	(4)		
		hth: Rocky oth: 1-4 fee				5 = 1-3 feet		
		substrate o	composition (check all the	at app	ly):			
	⊠ Silts		⊠ Sands			Concrete		
				6 cov	er	∐ Muck		
	Other. E.		· vegetation. Type?	o cov	CI.			
		iffle/pool c	complexes. Explain: Run			s]. Explain: Stream exhibits stability. present throughout the channel.		
			mate average slope):	%				
(c)	Flow:							
	Tributary provides for: Intermittent and Seasonal flow							
Rocky Comfort Creek = Perennial, Stream 15 = Intermittent								
Estimate average number of flow events in review area/year: Pick List Describe flow regime: Moderate flow.								
	Other information on duration and volume:							
	Surface flow is: Confined. Characteristics:							
	Subsurface flour	Diel List	Explain findings:					
	Dye (or							
	Tributary has (ch		t apply):					
	Bed and		indicators that appled					
			indicators that apply):	M	the pre	esence of litter and debris		
			character of soil	X		ction of terrestrial vegetation		
	☐ shel	vino		\overline{X}		esence of wrack line		
	∨ege	tation mat	ted down, bent, or absent			ent sorting		
	The second secon		rbed or washed away	\bowtie	scour			
		ment depos	sition	H		ole observed or predicted flow events		
		r staining r (list):		ш	aorupi	t change in plant community		
			WM. ⁷ Explain:					
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):							
			dicated by:			Water Mark indicated by:		
			e along shore objects			to available datum;		
			bris deposits (foreshore) ngs/characteristics			l markings; ion lines/changes in vegetation types.		
	nhtre				, egetati			
		gauges	8					

Identify flow route to TNW5: Rocky Comfort Creek lies within and on the edge of Wetland C, which drain into the

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.

Tbid.

			racterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Water within channel is cloudy to clear.
		Iden	ntify specific pollutants, if known:
	(iv)		logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width):
			Wetland fringe. Characteristics: Perennial Stream Goldens Creek lies on the edge of Wetland Q2. Habitat for:
			☐ Federally Listed species. Explain findings: ☐ Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings: Presence of baseflow and substrate provide habitat for species diversity.
2.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Phy	sical Characteristics:
		(a)	General Wetland Characteristics:
			Properties:
			Wetland size: Wetland C = 131.80 acres Wetland type. Explain: Wetland C = PFO.
			Wetland quality. Explain: Moderate, located adjacent/abutting to Rocky Comfort Creek.
			Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW:
~		10.7	Flow is: Ephemeral flow. Explain: Weak channel bed and bank, minimal sorting, no hydric soils in channel, no observed
flov	v.		
			Surface flow is: Confined
			Characteristics: Within channel bed and bank.
			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:
		(4)	Provincity (Polotionskip) to TNW
		(a)	Proximity (Relationship) to TNW Project wetlands are 30 (or more) river miles from TNW.
			Project waters are 30 (or more) aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters
			Estimate approximate location of wetland as within the Pick List floodplain.
	(ii)	Che	emical Characteristics:
		Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
		Idei	characteristics; etc.). Explain: Water is clear, watershed contains planted pine and agricultural uses.
	(iii)		logical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width): Hardwood forest, 50 feet wide.
		X	Vegetation type/percent cover. Explain: Hardwood forest, 70-100%.
		X	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings: Habitat for various aquatic species.
3.	Cha		eristics of all wetlands adjacent to the tributary (if any)
			wetland(s) being considered in the cumulative analysis: 1
		App	proximately (131.80) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Wetland C (Y) Size (in acres) 131.80 Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

C which drains into Rocky Comfort Creek and then the Ogeechee River.

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: Rocky Comfort Creek scored as a Perennial Stream on the NC Stream Assessment Form and is a mapped NHD stream.				
	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: Stream 15 scored as an Intermittent Stream on the NC Stream Assessment Form. Stream 15 drains in to Wetland

	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 ⁸ 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: Intermittent Stream 15 drains in to Wetland C which drains into Rocky Comfort Creek and then the Ogeechee River. ☐ 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: 30.80 acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7.	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).
DE	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:

E.

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.

	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):
	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.
SE	CTION 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: Figure 1 – 6, Historical Aerials. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey (Citation: NRCS Web Soil Survey: Figure 5
	U.S. Geological Survey map(s). Cite scale & quad name: Beall Springs and Warrenton 7.5 Min Quads. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Figure 5. National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory: Figure 4. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ArcGIS 2017.
	or 🔀 Other (Name & Date): Field Photos, 2019. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

Reach 15: Farm Pond

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:	BACKGROUNI	INFORMATION
--	------------	------------	-------------

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2020

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah Division - Piedmont Branch, Bulldog Site, SAS-2019-00573

	SAS-2019-00573
c.	PROJECT LOCATION AND BACKGROUND INFORMATION:
	State: Georgia County/parish/borough: Warren City: Warrenton
	Center coordinates of site (lat/long in degree decimal format): Lat. 33.368968° N, Long. 82.674051° W.
	Universal Transverse Mercator: NAD 1983
	Name of nearest waterbody: Rocky Comfort Creek
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ogeechee River
	Name of watershed or Hydrologic Unit Code (HUC): 030060202
	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.
	different 3D Tollin.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
	Office (Desk) Determination. Date:
	Field Determination. Date(s): July 22-25, 2019
	<u> </u>
SE	CTION II: SUMMARY OF FINDINGS
	RHA SECTION 10 DETERMINATION OF JURISDICTION.
The	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the
	iew 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: .
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere Are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required
	1. Waters of the U.S.
	a. Indicate presence of waters of U.S. in review area (check all that apply): 1
	TNWs, including territorial seas
	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
	Non-RPWs that flow directly or indirectly into TNWs
	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
	Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
	Impoundments of jurisdictional waters
	Isolated (interstate or intrastate) waters, including isolated wetlands
	b. Identify (estimate) size of waters of the U.S. in the review area:
	Non-wetland waters: linear feet: width (ft) and/or acres.
	Wetlands: acres.
	c. Limits (boundaries) of jurisdiction based on: Pick List
	Elevation of established OHWM (if known):
	2. Non-regulated waters/wetlands (check if applicable): ³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: The Non-water feature does not drain WOTUS, nor does it provide a connection between WOTUS. The Non-water feature is a constructed livestock pond that stores animal waste. The Non-water feature does not drain WOTUS, nor do they provide connection between WOTUS. There were no observed back flows from wetlands into the Non-

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.

water farm pond feature during field studies. The Non-water farm pond feature has insignificant connection to overall physical, chemical, and biological health of the surrounding wetlands..

• 33CFR § 328.3 (b)(4)(ii), "artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds...are not waters of the US"

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.	TN	W
	-	7.0

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: Pick List
Drainage area: Pick List
Average annual 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 river miles from TNW.				
	Project waters are Pick List river miles from RPW.				

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 Pick List aerial (straight) miles from TNW. Project waters are Pick List aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain:
	Identify flow route to TNW ⁵ :
	Tributary stream order, if known:
(b)	General Tributary Characteristics (check all that apply):
(0)	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 ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation shelving the presence of wack line sediment sorting sediment sorting sediment sorting sediment deposition multiple observed or predicted flow events 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:

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. ⁷Ibid.

(iii) Chemical Characteristics:

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

Identify specific pollutants, if known:

	(iv)	Bio	logical Characteristics. Channel supports (check all that apply):
			Riparian corridor. Characteristics (type, average width):
		Ш	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.	Ch	aract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
			de la breata de la companya del companya del companya de la compan
	(i)		sical Characteristics:
		(a)	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:
		(0)	Flow is: Pick List. Explain:
			110W 15. TER Elst. 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:
		17	☐ Directly abutting
			☐ Not directly abutting
			☐ Discrete wetland hydrologic connection. Explain:
			Ecological connection. Explain:
			Separated by berm/barrier. Explain:
		(1)	Description (Parlacional Liny) to TNNV
		(a)	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.
			Estimate approximate recation of wettand as within the Fire List noodplain.
	(ii)		emical Characteristics:
		Cha	rracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain:
		Iden	ntify specific pollutants, if known:
	Giii) 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.	Ch	ne of	existics of all watlands adjacent to the tributary (if any)
3.	CII		eristics of all wetlands adjacent to the tributary (if any) wetland(s) being considered in the cumulative analysis: Pick List
			oroximately () acres in total are being considered in the cumulative analysis.
		App	Jacres in total are being considered in the cumulative analysis.

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

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:
	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 ⁸ 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: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7.	Impoundments of jurisdictional waters. 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).
DE	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:
Ide	ntify water body and summarize rationale supporting determination:

E.

⁸See Footnote #3.

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.

	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):
bet No	e Non-water feature does not drain WOTUS, nor does it provide a connection between WOTUS. The Non-water feature is a structed I ivestock pond that stores animal waste. The Non-water feature does not drain WOTUS, nor do they provide connection ween WOTUS. There were no observed back flows from wetlands into the Non-water farm pond feature during field studies. The n-water farm pond feature has insignificant connection to overall physical, chemical, and biological health of the surrounding tlands. • 33CFR § 328.3 (b)(4)(ii), "artificial, constructed lakes and ponds created in dry land such as farm and stock watering pondsare not waters of the US"
	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.
SE	CTION 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: Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report.
	Data sheets prepared by the Corps:
	Corps navigable waters' study:
	 U.S. Geological Survey Hydrologic Atlas: □ USGS NHD data. □ USGS 8 and 12 digit HUC maps.
	☑ U.S. Geological Survey map(s). Cite scale & quad name:
	 ✓ USDA Natural Resources Conservation Service Soil Survey. Citation: ✓ National wetlands inventory map(s). Cite name:
	 National wetlands inventory map(s). Cite name: State/Local wetland inventory map(s): FEMA/FIRM maps:
	FEMA/FIRM maps: 100 years Floridalia Floration in
	□ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) □ Photographs: ☐ Aerial (Name & Date): 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: