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): 7/6/15

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Charleston District, Peak Media LLC, SAC-2014-01248-2JU

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: South Carolina County/parish/borough: **Charleston** City:
Center coordinates of site (lat/long in degree decimal format): Lat. 32.84146° **N**, Long. -79.81117° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: **Atlantic Intracoastal Waterway (AIWW)**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **AIWW**
Name of watershed or Hydrologic Unit Code (HUC): **03050209-02**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: **11/13/14, 7/6/15**
☒ Field Determination. Date(s): **4/27/15**

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 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: **pRPW Tributary 1 = 824 linear feet, pRPW Tributary 2 = 49 linear feet.**
   Wetlands: **Wetland 1 = 0.82 acres, Wetland 2 = 1.18 acres, Wetland 3 = 0.01 acres, Wetland 4 = 0.08 acres.**

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual, Established by OHWM.**
   Elevation of established OHWM (if known): .

[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).

2. **Non-regulated waters/wetlands (check if applicable):**[3] **[Including potentially jurisdictional features that upon assessment are NOT waters or wetlands]**

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Two ponds are located in the western portion of the parcel. One of the ponds is depicted on the USGS Quadrangle as an area of excavation. This general area has experienced land disturbance since at least 1989 based on Google Earth aerial imagery with the ponds being developed into their current configuration by the February 1994 aerial image. It appears as if the ponds have been excavated out of uplands based on the presence of non-hydric soils found along the pond perimeters within the project area during the April 27, 2015, site visit. In addition, extensive fill material associated with construction debris such as concrete and old concrete culverts was observed within the ponds and in the vicinity of the western portion of the project area. There were no observed inlets or outlets from the ponds. Based on the above information, it has been determined that the ponds are non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.**

A roadside ditch is located along the northern side of Primus Road. This ditch appears to have been dug out of uplands and drains only uplands. During the April 27, 2015, site visit, the ditch did not display a bed and bank, OHW, or any other signs of relatively permanent flow. Therefore, the ditch has been determined to be non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**
Identify TNW: .

Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
Summarize rationale supporting conclusion that wetland is "adjacent": .

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

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

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

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

If the waterbody[4] 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.

[3] Supporting documentation is presented in Section III.F.
[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

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

pRPW 1 and 2 are being evaluated together as part of the relevant reach drainage area for this significant nexus determination since they are both part of the overall wetland/tributary system, Wetlands 1, 2, and 4 directly abut both tributaries as one contiguous wetland that extends off site, and the system as a whole displays characteristics representative of a first order drainage.

(i) General Area Conditions:
Watershed size: **HUC 03050209-02 = 108,770 acres**
Drainage area: **956 acres**

Drainage area was approximated for the tributary that was evaluated as part of the Significant Nexus Determination performed for this Jurisdictional Determiantion. This area was drawn based on apparent flow pathways and drainage areas associated with the subject relevant reach using USGS quadrangle mapping, USGS National Hydrography Dataset mapping, aerial photography, and observations of connectivity and direction of flow made in the field. The intended value of the drainage area map is to document the full collection of wetlands adjacent to the relevant reach and not to assert that the mapping represents more than approximation with respect to actual area.

Average annual rainfall: **51** inches
Average annual snowfall: **0.5** 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 **1-2** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **1-2** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: **pRPW 1 & 2 join onsite and flow approximately 1 mile before discharging into an unnamed tidal creek associated with the marshes of the AIWW/Atlantic Ocean**.
Tributary stream order, if known: **appears to be a first order drainage**.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **It appears as if the tributary system has been excavated and straightened at some point based on fill piles located along the side of the tributary**.

Tributary properties with respect to top of bank (estimate):
Average width: **Approximately 7-10 feet.**
Average depth: **Approximately 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: **The tributary system appears to be relatively stable as no erosion was observed along the banks most likely due to the low flow nature of the system and relatively flat drainage area.**
Presence of run/riffle/pool complexes. Explain: **None**.
Tributary geometry: **Relatively straight.**
Tributary gradient (approximate average slope): **< 1** %

(c) Flow:
Tributary provides for: **Perennial flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: **The approximate drainage area for the relative reach tributary is 956 acres with approximately 135 acres being associated with pRPW 2 and 821 acres being associated with pRPW 1. The drainage area**

[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.

consists of uplands, wetlands, residential and commercial development and agricultural fields. Bed and bank, OHW, and flow was observed during the April 27, 2015, site visit which occurred during a period of normal rainfall based on a Direct Antecedent Rainfall Evaluation Method (DAREM) analysis performed prior to the site visit. pRPW 1 is depicted on the USGS Quadrangle as a blue line perennial stream. In addition, the National Hydrography Data Set depicts pRPW 1 to have a perennial flow regime. Therefore, it has been determined that a perennial flow regime exists for the relevant reach tributary system.

Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: **Flow is primarily confined to the tributary channels until high precipitation events and soil saturation conditions results in discrete unconfined flow within the surrounding flood plain wetlands and uplands.**

Subsurface flow: **Unknown**. 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):
- ☐ 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: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by:
- ☐ oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- ☐ physical markings/characteristics
- ☐ tidal gauges
- ☐ other (list):

☐ Mean High Water Mark indicated by:
- ☐ survey to available datum;
- ☐ physical markings;
- ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: **There was no apparent evidence of poor or degraded water quality observed during the site visit.**
Identify specific pollutants, if known: **Pollutants including both dissolved and particulate chemicals typically found in roadside runoff as well as those typically found in moderately developed suburban to rural landscapes and associated with agricultural practices have the potential to be present within the tributary based on the surrounding landuse.**

(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: **The tributary likely provides support for water dependent species, including native fish communities that move within the relative reach and move downstream between the tributary and the TNW and between the stream and its adjacent wetlands, amphibians during breeding periods, and numerous wading birds and small mammals that feed on the aquatic species, including numerous categories of macroinvertebrates.**

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

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:

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

Wetland size: **Wetland 1 = 0.82 acres, Wetland 2 = 1.18 acres, Wetland 3 = 0.01 acres, Wetland 4 = 0.08 acres.**
Wetland type. Explain: **Forested**.
Wetland quality. Explain: **Wetlands appear to be of high quality providing water quality and habitat functions**.
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: **Flow for Wetlands 1, 2, and 4 would be during the wet season and in response to precipitation events when the soils within the wetlands become saturated and reach storage capacity. Considering that the tributaries are present within the wetland interior, it is likely that sustained flow occurs as the water table is drawn down below the ground surface after precipitation events as the surrounding landscape drains to the wetlands and tributary system. Wetland 3 is separated from the tributary by an approximately 10 feet wide berm that appears to consist of spoils excavated from pRPW 1. Flow from Wetland 3 to the tributary would consist of subsurface drainage through the native soils underneath the berm. Although there was no direct observation of subsurface flow during the site visit, soils within Wetland 3 were saturated to the surface above the water level of pRPW 1 and it is likely that hydrologic connectivity is present within the subsurface soil layers.**

Surface flow is**: Discrete and confined**
Characteristics: **Surface flow is discrete within the wetlands and confined when it reaches the tributaries that provide the hydrologic connection to the TNW. Flow for Wetlands 1, 2, and 4 would be during the wet season and in response to precipitation events when the soils within the wetlands become saturated and reach storage capacity. Considering that the tributaries are present within the wetland interior, it is likely that sustained flow occurs as the water table is drawn down below the ground surface after precipitation events as the surrounding landscape drains to the wetlands and tributary system. Wetland 3 is separated from the tributary by an approximately 10 feet wide berm that appears to consist of spoils excavated from pRPW 1. Flow from Wetland 3 to the tributary would consist of subsurface drainage through the native soils underneath the berm. Although there was no direct observation of subsurface flow during the site visit, soils within Wetland 3 were saturated to the surface above the water level of pRPW 1 and it is likely that hydrologic connectivity is present within the subsurface soil layers.**

Subsurface flow: **Unknown**. Explain findings: **Flow for Wetlands 1, 2, and 4 would be during the wet season and in response to precipitation events when the soils within the wetlands become saturated and reach storage capacity. Considering that the tributaries are present within the wetland interior, it is likely that sustained flow occurs as the water table is drawn down below the ground surface after precipitation events as the surrounding landscape drains to the wetlands and tributary system. Wetland 3 is separated from the tributary by an approximately 10 feet wide berm that appears to consist of spoils excavated from pRPW 1. Flow from Wetland 3 to the tributary would consist of subsurface drainage through the native soils underneath the berm. Although there was no direct observation of subsurface flow during the site visit, soils within Wetland 3 were saturated to the surface above the water level of pRPW 1 and it is likely that hydrologic connectivity is present within the subsurface soil layers.**

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting

Wetlands 1, 2, and 4 are all part of one contiguous wetland that extends off-site and is directly abutting both pRPW 1 and 2.

☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain: .
☐ Ecological connection. Explain: .
☒ Separated by berm/barrier. Explain: **Wetland 3 is separated from the tributary by an approximately 10 feet wide berm that appears to consist of spoils excavated from pRPW 1. Flow from Wetland 3 to the tributary would consist of subsurface drainage through the native soils underneath the berm. Although there was no direct observation of subsurface flow during the site visit, soils within Wetland 3 were saturated to the surface above the water level of pRPW 1 and it is likely that hydrologic connectivity is present within the subsurface soil layers.**

(d) Proximity (Relationship) to TNW
Project wetlands are **1-2** river miles from TNW.
Project waters are **1-2** aerial (straight) miles from TNW.
Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the **50 - 100-year** floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **There was no apparent evidence of poor or degraded water quality in the wetlands during the site visit.**
Identify specific pollutants, if known: .

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

☐ Riparian buffer. Characteristics (type, average width): .
☐ Vegetation type/percent cover. Explain: .
☒ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **The wetlands provide support for wetland dependent species, including amphibians during breeding periods, and numerous wading birds and small mammals that feed on the aquatic species, including numerous categories of macroinvertebrates.**

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

All wetland(s) being considered in the cumulative analysis: **11**

For the purpose of this determination, 7 wetlands outside of the project area within the relative reach drainage area are being evaluated as adjacent to the relative reach. This estimate is approximate, based on a review of aerial and NWI imagery, and is likely an underestimate.

Approximately (**147**) 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 1 Onsite Y	**0.82**	**Wetland C Offsite Y**	**76**
Wetland 2 Onsite Y	**1.18**	**Wetland D Offsite N**	**3**
Wetland 3 Onsite N	**0.01**	**Wetland E Offsite N**	**7**
Wetland 4 Onsite Y	**0.08**	**Wetland F Offsite Y**	**40**
Wetland A Offsite Y	**11**	**Wetland G Offsite N**	**4**
Wetland B Offsite Y	**4**		

Summarize overall biological, chemical and physical functions being performed: **Wetlands 1, 2, 3, 4, and Wetlands A, B, C, D, E, F, & G within the drainage area encompassed by the relevant reach tributary intercept runoff from the surrounding uplands. This water helps to concentrate and route detritus from the uplands, as well as that produced by the wetland vegetation itself, to the waters and TNW further down the landscape. Specifically, large quantities of decomposing biomass are conveyed to the RPW and TNW thereby providing important primary productivity toward the biological maintenance of the food web supported by the TNW. The residence time of water may be relatively short during periods of peak flow when water levels are highest, and therefore would favor rapid delivery of pollutants, including both dissolved and particulate chemicals typically found in roadside runoff as well as those typically found in moderately developed suburban to rural landscapes and from agricultural fields. However, during much of the year flow volumes are much lower and residence times are substantially increased, allowing dissolved and suspended pollutants to interact with sediments and vegetation, thus likely ameliorating the poorer water quality conditions present during higher flow periods. Additional important chemical and physical water quality functions such as denitrification, carbon storage, and sediment and phosphorous retention are also provided by Wetlands 1, 2, 3, 4, and Wetlands A, B, C, D, E, F, & G.**

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:

The project area is located in watershed 03050209-02 located in Charleston County and consists primarily of the lower portion of the Santee Coastal Frontage Basin's Atlantic Intracoastal Waterway and its tributaries from Five Fathom Creek to the Ben Sawyer Bridge. The watershed occupies 108,770 acres of the Coastal Zone region of South Carolina and contains 7,573.8 acres of estuarine areas including a portion of the Atlantic Intracoastal Waterway (AIWW), which flows past numerous sea islands and the tidally influenced creeks that separate them. This reach of the AIWW is classified SFH. There is a high potential for growth in this watershed, which contains the City of Isle of Palms, the Towns of Awendaw and McClellanville, and portions of the Towns of Mt. Pleasant and Sullivans Island. Several suburban growth areas surround the City of Charleston. All growth areas in the watershed have water and sewer services available. The project area is located amidst development sprawl along the Route 17 corridor which poses stresses to aquatic resources in the area. The exponential growth in this area increases the significance and importance of the aquatic resource functions currently being provided by existing wetlands.

Wetlands 1, 2, 3, 4, and Wetlands A, B, C, D, E, F, & G within the drainage area encompassed by the relevant reach tributary intercept runoff from the surrounding uplands. This water helps to concentrate and route detritus from the uplands, as well as that produced by the wetland vegetation itself, to the waters and TNW further down the landscape. Specifically, large quantities of decomposing biomass are conveyed to the RPW and TNW thereby providing important primary productivity toward the biological maintenance of the food web supported by the TNW. The residence time of water may be relatively short during periods of peak flow when water levels are highest, and therefore would favor rapid delivery of pollutants, including both dissolved and particulate chemicals typically found in roadside runoff as well as those typically found in moderately developed suburban to rural landscapes and from agricultural fields. However, during much of the year flow volumes are much lower and residence times are substantially increased, allowing dissolved and suspended pollutants to interact with sediments and vegetation, thus likely ameliorating the poorer water quality conditions present during higher flow periods. Additional important chemical and physical water quality functions such as denitrification, carbon storage, and sediment and phosphorous retention are also provided by Wetlands 1, 2, 3, 4, and Wetlands A, B, C, D, E, F, & G.

Considering the amount of development currently occurring and expected to occur in this area in the near future, the functions of the wetlands in the project area play an important role relating to downstream water quality. Based on the biological, chemical, and physical functions described above, this office has concluded that a Significant Nexus exists between this relevant reach, its similarly situated adjacent wetlands and the downstream TNW.

Documentation for the Record only: Significant nexus findings for seasonal RPWs and/or wetlands abutting seasonal RPWs:
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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: **The approximate drainage area for the relative reach tributary is 956 acres with approximately 135 acres being associated with pRPW 2 and 821 acres being associated with pRPW 1. The drainage area consists of uplands, wetlands, residential and commercial development and agricultural fields. Bed and bank, OHW, and flow was observed during the April 27, 2015, site visit which occurred during a period of normal rainfall based on a Direct Antecedent Rainfall Evaluation Method (DAREM) analysis performed prior to the site visit. pRPW 1 is depicted on the USGS Quadrangle as a blue line perennial**

stream. In addition, the National Hydrography Data Set depicts pRPW 1 to have a perennial flow regime. Therefore, it has been determined that a perennial flow regime exists for the relevant reach tributary system which includes pRPW 1 & 2.

☐ 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: pRPW Tributary 1 = 824 linear feet, pRPW Tributary 2 = 49 linear feet.**

☐ 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 1, 2, and 4 are all part of one contiguous wetland that extends off-site and is directly abutting both pRPW 1 and 2.**

☐ 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: **Wetland 1 = 0.82 acres, Wetland 2 = 1.18 acres, Wetland 4 = 0.08 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: **Wetland 3 = 0.01 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.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

Explain:

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

[8] See 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.*

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

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

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☒ Other: (explain, if not covered above): **Two ponds are located in the western portion of the parcel. One of the ponds is depicted on the USGS Quadrangle as an area of excavation. This general area has experienced land disturbance since at least 1989 based on Google Earth aerial imagery with the ponds being developed into their current configuration by the February 1994 aerial image. It appears as if the ponds have been excavated out of uplands based on the presence of non-hydric soils found along the pond perimeters within the project area during the April 27, 2015, site visit. In addition, extensive fill material associated with construction debris such as concrete and old concrete culverts was observed within the ponds and in the vicinity of the western portion of the project area. There were no observed inlets or outlets from the ponds. Based on the above information, it has been determined that the ponds are non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.**

A roadside ditch is located along the northern side of Primus Road. This ditch appears to have been dug out of uplands and drains only uplands. During the April 27, 2015, site visit, the ditch did not display a bed and bank, OHW, or any other signs of relatively permanent flow. Therefore, the ditch has been determined to be non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

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: **Wetland Delineation Submittal, S&ME**.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report. **Office concurs with determination.**
☐ 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: **National Hydrography Dataset**.
☒ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name: **Fort Moultrie Quadrangle**.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: **NRCS Web Soil Survey, Charleston County**.
☒ National wetlands inventory map(s). Cite name: **NWI Wetlands Mapper**.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): **Google Earth 1989-2015**.
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: Based on the biological, chemical, and physical functions described above, this office has concluded that a Significant Nexus exists between this relevant reach, its similarly situated adjacent wetlands and the downstream TNW Ashley River. Therefore it has been determined that Wetlands 1, 2, 3, and 4, as well as pRPW 1 & 2 are jurisdictional and subject to regulation under Section 404 of the Clean Water Act.