



**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): 7/2/2018**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Vicksburg District MVK-2018-128**

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

State: Mississippi County/parish/borough: Rankin City: Flowood  
Center coordinates of site (lat/long in degree decimal format): Lat. 32.279446° **Pick List**, Long. -90.161242 ° **Pick List**.

Universal Transverse Mercator:

Name of nearest waterbody: Unnamed Tributary of Conway Slough

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

Name of watershed or Hydrologic Unit Code (HUC): 03180002

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: 7/2/18

Field Determination. Date(s): 3/27/18--4/24/18--5/8/18--5/24/18

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

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

Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: linear feet: width (ft) and/or 0.9 acres.

Wetlands: 7.4 acres.

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

Elevation of established OHWM (if known): 100 Year Floodplain elevation is 165'.

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

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

Explain: .

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

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

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

### SECTION III: CWA ANALYSIS

#### A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”:

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

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

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

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

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions:

Watershed size: 33750.924862 acres

Drainage area: 268 acres

Average annual rainfall: 54.14 inches

Average annual snowfall: 0.9 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 2 tributaries before entering TNW.

Project waters are 2-5 river miles from TNW.

Project waters are 1-2 river miles from RPW.

Project waters are 1 (or less) aerial (straight) miles from TNW.

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

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW<sup>5</sup>: The wetlands drain along the frontage road ditch westward where the water enters a pipe under access road, that was installed sometime in the distant past and travels ~ 80 feet before it reaches a ~10 acre

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

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

wetland complex and continues draining southward under highway 80. Immediately below (south) of highway 80 the wetlands have all been filled and have been replaced with underground pipes, the water flows through the pipes south for ~300 feet before turning east and continuing underground for another ~500 feet before re-emerging into a large, ~22 acre, wetland complex that extends southward to Interstate-20 and eastward surrounding the Flying J Truck Stop. It is at this point, where the wetlands reach Interstate-20 and there is a large culvert under Interstate-20 which collects and funnels the water from a drainage basin of ~144 acres into a single drainage feature, which represents the beginning of the tributary/other waters feature (Seasonal RPW Reach) used in this analysis for a significant nexus determination. Once the tributary emerges from under Interstate-20 on the south side it is ~12 feet wide with a top bank height of ~3 feet. The tributary continues to flow southward through a large wetland complex toward Conway Slough for ~2500 feet before its confluence with Conway Slough. From here the waters flow west approximately 1 mile where it reaches a control structure/pumping station at the mainline Pearl River levee where the water is either allowed to flow on through or is pumped over the levee during times of high water and then flows to the Pearl River (TNW).  
Tributary stream order, if known: 1st.

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

**Tributary is:**  Natural  
 Artificial (man-made). Explain: .  
 Manipulated (man-altered). Explain: The tributary has been re-routed and straightened and excavated over the years to facilitate drainage. Historically the tributary extended farther north than it does today, due to urban development and the construction of Hwy 80 and Interstate-20 the tributary doesn't begin until directly north of Interstate-20 .

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

Average width: 12 feet  
Average depth: 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: Tributary seems to be stable. There is a spoil along the western side of the tributary from previous cleanouts .

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

**Tributary geometry:** **Relatively straight**

**Tributary gradient (approximate average slope):** 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: Flow is Seasonal.

Other information on duration and volume: The drainage basin of the tributary is approximately 268 acres. With all the urban development, construction, and impervious surfaces contributing to the tributary, coupled with the average rainfall received in this area, it is expected that this tributary flows at least seasonally. Following rainfall events it is obvious from debris and wrack lines witnessed that the tributary overtops its banks periodically inundating the abutting wetlands. The tributary also appears on the USGS Quads as a blue line stream.

**Surface flow is:** **Confined**. Characteristics: Flow is confined within the tributary except when rainfall events lead to overtopping the bank.

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

Dye (or other) test performed: .

**Tributary has (check all that apply):**

Bed and banks  
 OHWM<sup>6</sup> (check all indicators that apply):  
 clear, natural line impressed on the bank  the presence of litter and debris  
 changes in the character of soil  destruction of terrestrial vegetation  
 shelving  the presence of wrack line  
 vegetation matted down, bent, or absent  sediment sorting  
 leaf litter disturbed or washed away  scour

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

- sediment deposition
- water staining
- other (list):
- Discontinuous OHWM.<sup>7</sup> Explain: .
- multiple observed or predicted flow events
- abrupt change in plant community

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: Tributary has the ability to carry excess sediments as well as oil based pollutants. The water was relatively clear at the time of site visits except at the lower end where it entered Conway Slough there was an iron film on the water. The watershed is dominated by urban development and impervious surfaces, roadways, Highways, and Interstates, and Industrial and commercial buildings. All of which are potential sources for pollutants. The litter and debris wrack lines witnessed along the tributary and the amount of debris and litter in the adjacent wetlands indicates the tributary carries an enormous of amount trash/litter from surrounding properties.

Identify specific pollutants, if known: .

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<sup>7</sup>Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width): Forested wetland ~53 acres /1300' wide.
- Wetland fringe. Characteristics: Tributary flows through a large forested wetland and then flows into a very large emergent wetland that appears to remain permanently inundated before entering Conway Slough and then the Pearl River (TNW).
- Habitat for:
  - Federally Listed species. Explain findings: .
  - Fish/spawn areas. Explain findings: .
  - Other environmentally-sensitive species. Explain findings: .
  - Aquatic/wildlife diversity. Explain findings: Witnessed various species of fish, birds, reptiles, crawfish, and amphibians using the tributary. Bream spawning areas observed where tributary joins Conway Slough.

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

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 7.4 acres

Wetland type. Explain: Emergent/Forested/Scrub-shrub.

Wetland quality. Explain: Wetlands high quality and serve many needed functions, such as retention of flood events during rainfall, especially given their position on the landscape.

Project wetlands cross or serve as state boundaries. Explain: N/A.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: The wetland flow has been interrupted from its historic path because of the construction of Hwy 80 and the levees around the site itself. The wetlands currently flow and are connected to the large wetland complex abutting the man made levee along the west side of the property, through a man made ditch to allow the site to drain. Without this ditch the entire site would remain inundated to the point of overtopping the frontage road along Hwy 80, the water has to go somewhere. The consultants report confirms the findings that the wetlands serve a flood storage function (Presence of Standing Water) and pollutant trapping function (Sediment Deposits and Drift Deposits) which verify the wetlands do in fact contribute flow to the adjacent wetlands and subsequent TNW.

Surface flow is: **Confined**

Characteristics: Water flows from wetland via a culverted road side drainage feature into a large wetland complex then to tributary.

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: The wetlands are connected to the RPW through a series of pipes for approximately 800 feet. These pipes are replacing the wetlands that have been previously filled allowing the water to still flow. There is a continuous surface connection to the RPW except for the area where the wetlands have been filled and the pipes have been installed below ground, but still contribute to uninterrupted flow to the RPW.

Ecological connection. Explain: We witnessed fish, waterfowl, frogs, and crawfish utilizing the wetland area. The same species would also use the wetland areas directly abutting the levee along the west and north property line as part of life cycle of the species.

Separated by berm/barrier. Explain: The site is almost completely separated by Hwy 80 from its historical wetland complex to the south and by a man made levee around the site nearly separating it from the abutting wetlands to the west and north of the site. Man made structures does not isolate a waters of the U.S.

(d) Proximity (Relationship) to TNW

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

Project waters are **1 (or less)** 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: The subject wetlands along with the similarly situated wetlands play a vital role in trapping chemical pollutants from reaching the Pearl River (TNW) given the location and surrounding metropolitan and urban areas, the presence of Interstate-20, Highway 80, Old Brandon Road, Highway -49, The Flying-J Truck Stop, and numerous industries and business' surrounding and abutting the wetlands, the ability to trap and filter harmful chemicals cannot be underestimated. Oil based pollutants such as motor oil, gas, diesel, various other automotive fluids, industrial byproducts, and sediment from the ongoing development surrounding the area, confirmed by the consultants own report

(sediment deposits/drift deposits) will certainly end up in the aquatic system, all of which can be filtered and/or trapped and help protect the chemical integrity of the Pearl River.

Identify specific pollutants, if known: .

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

Riparian buffer. Characteristics (type, average width):54.

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 subject wetlands consist predominantly of an emergent wetland

habitat which remains inundated the vast majority of the year, providing unparalleled habitat for numerous species of aquatic organisms, vertebrates, invertebrates, and avian species which rely on these types of aquatic habitats. This wetland type provides for breeding and rearing habitat for numerous species such as frogs, salamanders, and birds. The great white egret was witnessed utilizing the subject wetlands during each site visit made by Regulatory staff. Various other aquatic species such as fish, frogs, crawfish, and waterfowl were also observed during each site visit. The presence of such diversity indicates what a highly utilized and valuable resource for the biological community these wetlands provide. The observations, along with the consultants report (Crawfish Burrows) support the conclusion that the subject wetlands do significantly affect the biological integrity of the Pearl River. .

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

All wetland(s) being considered in the cumulative analysis: **3**

Approximately ( 98.5 ) 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>
Y	79.9		
N	18.6 (includes onsite)		

Summarize overall biological, chemical and physical functions being performed:

**Physical:**

The subject wetlands are one of the few remaining wetland resources left undeveloped in the area, while there are ~98 acres of similarly situated wetlands located along the reach of the unnamed tributary, they are all part of the same historical wetland complex which has been dissected with roads, filled and piped underground and partitioned into smaller pieces. The subject wetlands in conjunction with the similarly situated wetlands serve a substantial flood storage function and stormwater retention, given their location in the highly populated and developed areas surrounding the site. According to the Rankin County, MS Floodplain administrator the 100 year flood elevation for the subject site is 165 feet MSL. According to the FEMA FIRM maps, the subject site is listed as "Zone X Shaded" with a 2% chance of annual flooding, this is due to the man-made levees that surround the site and altered the natural hydrologic regime of the site. However, the wetlands onsite are situated at or below the 100 year flood elevation of 165 feet MSL which would indicate the site being within the historic 100 year floodplain. Flooding from the Pearl River has been a major problem for this area in the past, hence the control gate and pumping station installation and the current proposed One Lake project along the Pearl River which is intended to alleviate or help control the persistent flooding problem experienced in this, and the surrounding areas. The subject site also contains levees to help control backwater flooding from the Pearl River. Conway Slough has been straightened and re-routed in nearly its entire length and travels through large urban areas with mostly impervious surfaces with expedited runoff rates, Bass Pro Shop, MS Braves Stadium, The Outlets of MS, etc.. all drain directly into Conway Slough above the subject site. The rate at which Conway Slough floods is exacerbated by this urban development and without the floodwater storage and stormwater retention functions of the subject wetlands in conjunction with the similarly situated wetlands, it is believed the flooding of Conway Slough and the Pearl River would only increase in severity, duration, and magnitude. It is believed the wetlands do significantly affect the physical integrity of the Pearl River.

**Chemical:**

The subject wetlands along with the similarly situated wetlands play a vital role in trapping chemical pollutants from reaching the Pearl River (TNW) given the location and surrounding metropolitan and urban areas, the presence of Interstate-20, Highway 80, Old Brandon Road, Highway -49, The Flying-J Truck Stop, and numerous industries and business' surrounding and abutting the wetlands, the ability to trap and filter harmful chemicals cannot be underestimated. Oil based pollutants such as motor oil, gas, diesel, various other automotive fluids, industrial byproducts, and sediment from the ongoing development surrounding the area will certainly end up in the aquatic system, all of which can be filtered and help protect the chemical integrity of the Pearl River.

**Biological:**

The subject wetlands consist predominantly of an emergent wetland habitat which remains inundated the vast majority of the year, providing unparalleled habitat for numerous species of aquatic organisms, vertebrates, invertebrates, and avian species which rely on these types of aquatic habitats. This wetland type provides for breeding and rearing habitat for numerous species such as frogs, salamanders, and birds. The great white egret was witnessed utilizing the subject wetlands during each site visit made by Regulatory staff. Various other aquatic species such as fish, frogs, crawfish, and waterfowl were also observed during each site visit. The presence of such diversity indicates what a highly utilized and valuable resource for the biological community these wetlands provide for the export of food resources, organic matter, movement corridor through all wetlands and subject RPW and TNW. The observations support the conclusion that the subject wetlands do significantly affect the biological integrity of the Pearl River.

### 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 subject wetlands are one of the few remaining wetland resources left undeveloped in the area, while there are ~98 acres of similarly situated wetlands located along the reach of the unnamed tributary, they are all part of the same historical wetland complex which has been dissected with roads, filled and piped underground and partitioned into smaller pieces. The subject wetlands in conjunction with the similarly situated wetlands serve a substantial flood storage function and stormwater retention, given their location in the highly populated and developed areas surrounding the site. According to the Rankin County, MS Floodplain administrator the 100 year flood elevation for the subject site is 165 feet MSL. According to the FEMA FIRM maps, the subject site is listed as “Zone X Shaded” with a 2% chance of annual flooding, this is due to the man-made levees that surround the site and altered the natural hydrologic regime of the site. However, the wetlands onsite are situated at or below the 100 year flood elevation of 165 feet MSL which would indicate the site being within the historic 100 year floodplain. Flooding from the Pearl River has been a major problem for this area in the past, hence the control gate and pumping station installation and the current proposed One Lake project along the Pearl River which is intended to alleviate or help control the persistent flooding problem experienced in this, and the surrounding areas. Conway Slough has been straightened and re-routed in nearly its entire length and travels through large urban areas with mostly impervious surfaces with expedited runoff rates, Bass Pro Shop, MS Braves Stadium, The Outlets of MS, etc.. all drain directly into Conway Slough above the subject site. The rate at which Conway Slough floods is exacerbated by this urban development and without the floodwater storage and stormwater retention functions of the subject wetlands in conjunction with the similarly situated wetlands, it is believed the flooding of Conway Slough and the Pearl River would only increase in severity, duration, and magnitude. It is believed the wetlands do significantly affect the physical integrity of the Pearl River. The subject wetlands along with the similarly situated wetlands play a vital role in trapping chemical pollutants from reaching the Pearl River (TNW) given the location and surrounding metropolitan and urban areas, the presence of Interstate-20, Highway 80, Old Brandon Road, Highway -49, The Flying-J Truck Stop, and numerous industries and business’ surrounding and abutting the wetlands, the ability to trap and filter harmful chemicals cannot be underestimated. Oil based pollutants such as motor oil, gas, diesel, various other automotive fluids, industrial byproducts, and sediment from the ongoing development surrounding the area will certainly end up in the aquatic system, all of which can be filtered and help protect the chemical integrity of the Pearl River. The subject wetlands consist predominantly of an emergent wetland habitat which remains inundated the vast majority of the year, providing unparalleled habitat for numerous species of aquatic organisms, vertebrates, invertebrates, and avian species which rely on these types of aquatic habitats. This wetland type provides for breeding and rearing habitat for numerous species such as frogs, salamanders, and birds. The great white egret was witnessed utilizing the subject wetlands during each site visit made by Regulatory staff. Various other aquatic species such as fish, frogs, crawfish, and waterfowl were also observed during each site visit. The presence of such diversity indicates what a highly utilized and valuable resource for the biological community these wetlands provide. The observations support the conclusion that the subject wetlands do significantly affect the biological integrity of the Pearl River.

**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<sup>8</sup> that flow directly or indirectly into TNWs.**

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

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

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.  
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .  
 Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: 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 jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: **7.4** 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.<sup>9</sup>**

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

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

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

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

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

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

<sup>10</sup>Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

**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 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: .
- 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: .
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: 166' (National Geodetic 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: See III.D.7 - The pond in the NW corner of the site was developed when the landowner constructed a flood protection levee around portions of the property. Based on current conditions and historic information, the**

levee was built through wetlands prior to 1960. Overtime the inundated wetlands converted to open water habitat. The large wetland complex on the west side of property is abutting the current levee along the west and north boundaries. Without the levee, the wetlands would have extended farther onto the property. It is the Corps position that this aquatic resource remains jurisdictional, as a man-made structure does not sever the jurisdictional status of an aquatic resource.