Appendix B
SAS APPROVED JURISDICTIONAL DETERMINATION FORM
US Army Corps of Engineers
(Revised 18 May 2011)

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 12, 2012

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Savannah District, Hollow Oak Landfill Violation, SAS-2012-00675

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:Georgia County/parish/borough: Chatham City: Bloomingdale
Center coordinates of site (lat/long in degree decimal format): Lat. 32.0782238306133°N, Long. -81.373671870036° W.
Universal Transverse Mercator:
Name of nearest water body: Ogeechee River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:
Name of watershed or Hydrologic Unit Code (HUC): Lower Ogeechee, Gerogia, 3060202
☒ 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 APPLIES):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): November 21, 2012

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION:
☐ 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:

- 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)

B. CWA SECTION 404 DETERMINATION OF JURISDICTION:

- There 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 CWA jurisdictional waters of U.S. in review area (check all that apply): 1
☐ TNWs, including territorial seas (complete Sec III A. 1)
☐ Wetlands adjacent to TNWs (complete Sec III A 2.)
☐ Interstate Waters that flow directly or indirectly into TNWs, explain in Sec III B 1.
☐ Wetlands adjacent to Interstate Waters that flow directly or indirectly into TNWs. Explain in section III B 2.

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

☐ Waters that flow directly or indirectly into and have a significant nexus with a TNW (provide data supporting this conclusion in Section III.D.)

☐ Wetlands adjacent to waters that flow directly or indirectly into a TNW and the tributary (relevant reach) and its adjacent wetlands have a significant nexus with that TNW (provide data supporting this conclusion in Section III.D.)

☐ 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."
- ☐ Demonstrate that water meets the criteria for one of the categories presented above
- ☐ Demonstrate that water is isolated with a nexus to commerce (see below).

☐ Isolated (interstate or intrastate) waters, including isolated wetlands (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):[2]

- ☐ 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:

b. Identify (estimate) size of all waters of the U.S. selected above in the review area:
Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: acres.

2. Non-regulated waters/wetlands (check if applicable): Review area includes non-wetland waters that have a bed and bank or display indicators of an Ordinary High Water Mark (See 33 CFR 328.3(e) and RGL 05-05) and/or review area includes wetlands that meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

a. ☐ Intrastate, non-navigable isolated waters, including wetlands, with no substantial nexus to interstate (or foreign) commerce

(1) Rationale supporting conclusion that waters, including wetlands, are isolated:

☐ No hydrologic connectivity connecting isolated water(s), including wetland(s), to downstream traditional navigable water. Explain :

☐ No ecological connectivity connecting isolated water(s), including wetland(s), to downstream navigable traditional water. Explain:

(2) Rationale supporting conclusion that waters, including wetlands, have no substantial nexus to interstate (or foreign) commerce:

☐ Water(s), including wetland(s), are not and could not be used by interstate or foreign travelers for recreational or other purposes. Explain:

☐ Water(s), including wetland(s), are not and could not be used for fish or shellfish production, taken and sold in interstate or foreign commerce. Explain:

☐ Water(s), including wetland(s), are not and could not be used for industrial purposes by industries in interstate commerce. Explain:

☐ Other substantial nexus to interstate (or foreign) commerce. Explain:

b. ☐ Non-navigable tributaries and/or their directly abutting or adjacent wetlands that have no "significant nexus" to a downstream TNW (See Section D for more information):

☐ Water(s), including wetland(s), are not and could not have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW. Explain:

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[2] **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.***

☐ Water(s), including wetland(s), are not and could not 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. Explain:

☐ Water(s), including wetland(s), are not and could not, have the capacity to transfer nutrients and organic carbon that support downstream. Explain:

☐ Other relationships to the physical, chemical, or biological integrity of the TNW. Explain:

c. ☐ Intrastate, non-navigable isolated waters, including wetlands, would have been regulated based solely on the "Migratory Bird Rule" (MBR), prior to the Jan 2001 Supreme Court decision in "SWANCC."

d. Provide acreage estimates for non-regulated waters in the review area:

(1) 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

(2) 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

(3) 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) (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

3. Uplands and Non-waters/wetlands features (check if applicable):

☒ 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.

☒ If potential waters were assessed within the review area, these areas display no indicators of an Ordinary High Water Mark (OHWM) and thus do not meet the criteria for non-wetland waters (See 33 CFR 328.3(e) and RGL 05-05).

☐ Uplands and/or no potential jurisdictional waters or wetlands were identified and assessed within the review. Explain:

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 only, then skip to Sec IV; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2, then skip to Sec IV; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

☐ Waters of the State
☐ Waters Covered Under a Court Case
☐ Navigable in Fact Waters (if selected explain below)
Basis for Decision:

Tributary has (check all that apply):

- ☐ Bed and banks
- ☐ OHWM3 (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
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
- ☐ Discontinuous OHWM.4 Explain:.

Factors other than the OHWM 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.

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

Wetland relationship to water (s) of the US, excluding other wetlands

- ☐ Separated by berm or barrier or the like – (footnote see section Sec 328.3 (c)
- ☐ Connections
  - ☐ Surface
  - ☐ Shallow subsurface
  - ☐ Ecological

Basis for decision (explain):

B. CHARATERISTICS OF INTERSTATE WATERS/WETLANDS:

1. Interstate Waters that flow directly to or indirectly into TNW

Summarize rationale supporting basis for determination: .

- ☐ Waters of the State
- ☐ Waters Covered Under a Court Case
- ☐ Navigable in Fact Waters (if selected explain below)

Basis for Decision:

a. Relationship with TNW:

- ☐ Tributary flows directly into TNW.
- ☐ Tributary flows through Pick List tributaries before entering TNW.

Tributary stream order, if known: .

Project waters are Pick List river miles from TNW.

Project waters are Pick List aerial (straight) miles from TNW.

Identify flow route to TNW5: .

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[3]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.

[4]Ibid.

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

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
  - ☐ sediment deposition
  - ☐ water staining
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
- ☐ Discontinuous OHWM.7 Explain:.

Factors other than the OHWM 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.

2. Wetland adjacent to Interstate Waters

Summarize rationale supporting conclusion that wetland is "adjacent":

Wetland relationship to water (s) of the US, excluding other wetlands

- ☐ Separated by berm or barrier or the like – (footnote see section Sec 328.3 (c)
- ☐ Connections
  - ☐ Surface
  - ☐ Shallow subsurface
  - ☐ Ecological

Basis for decision (explain):

C. Characteristics of Tributary and Its Adjacent Wetlands (If Any):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any. If the JD covers only the waterbody8 (and no adjacent wetlands), complete Sections III.C.1, III.D and IV. If the JD covers a tributary with adjacent wetlands, complete Section III.C.1 for the tributary, Section III.C.2 for any onsite wetlands, and Section III.C.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.D below, then complete Sec IV.

1. Characteristics of the waterbody that flows directly or indirectly into a TNW

a. General Area Conditions:

Watershed size: Pick List

Drainage area: Pick List

Average annual rainfall: inches

Average annual snowfall: inches

b. Physical Characteristics:

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[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.

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

(1) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ T ributary flows through Pick List tributaries before entering TNW.

Identify flow route to TNW9: .

Tributary stream order, if known: .

Project waters are Pick List river miles from TNW.

Project waters are Pick List aerial (straight) miles from TNW.

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

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

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

Average width: feet

Average depth: feet

Average side slopes: Pick List.

Primary tributary substrate composition (check all that apply):

☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: Pick List

Tributary gradient (approximate average slope): %

(3) Flow:

Tributary provides for: Pick List

Estimate average number of flow events in review area/year: Pick List

Rationale to support 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

☐ OHWM10 (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
☐ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events

☐ Discontinuous OHWM.11 Explain:.

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[9] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, flows into tributary b, which then flows into TNW.

[10] 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.

[11] Ibid.

Factors other than the OHWM used to determine lateral extent of CWA jurisdiction (check all that apply):

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

c. 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:

d. 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 rearing/spawn areas. Explain findings:
  - [ ] Other environmentally-sensitive species. Explain findings:
  - [ ] Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to tributary that flows directly or indirectly into TNW

a. Physical Characteristics:

(1) Wetland Adjacency Determination:

- [ ] Directly abutting
- [ ] Not directly abutting
  - [ ] Separated by berm/barrier.
  - [ ] Connection.
    - [ ] Surface
    - [ ] Shallow subsurface
    - [ ] Ecological

  Basis for decision (explain):

(2) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain:

Wetland quality. Explain:

(3) General Flow Relationship:

Flow is: Pick List. Explain:

Surface flow is: Pick List

Characteristics:

Subsurface flow: Pick List. Explain findings:

- [ ] Dye (or other) test performed:

(4) 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.

b. Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:
Identify specific pollutants, if known:

c. 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:

d. Other Ecological Characteristics. Explain:

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: Pick List
Approximately ( ) 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)

Summarize overall biological, chemical and physical functions being performed:

D. 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. 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. 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 water 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 IV:

2. Significant nexus findings for water and its adjacent wetlands, where the water 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 IV:

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:Meldrim SE
☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
☒ National wetlands inventory map(s). Cite name: USFWS NWI, Meldrim SE
☐ 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, 2008
  or ☒ Other (Name & Date): Site Photographs, November 21, 2012
☐ 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: Ponds within landfill property predate available aerial photography (1993). Based on USGS topographic maps and USFWS NWI maps, land fill borrow ponds were constructed entirely in upland areas. Ponds would be considered non-jurisdictional active borrow pits based on available information.