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): January 5, 202	3

B.	DISTRICT OFFICE, FILE NAME, AND NUMBER: NAP-2023-00030-85 Moore's Meadowood Farm SX
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Delaware County/parish/borough: Sussex County City: Georgetown Center coordinates of site (lat/long in degree decimal format): Lat. 38.699039° N, Long. 75.360231° W. Universal Transverse Mercator: Name of nearest waterbody: Peterkins Branch Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Indian River Name of watershed or Hydrologic Unit Code (HUC): HUC 10 0204030302 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
D.	different JD form. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
	Office (Desk) Determination. Date: January 5, 2023 Field Determination. Date(s):
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:
B.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere are and are not "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters ² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands
	b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: 2050 linear feet: 5 width (ft) and/or 0.25 acres. Wetlands: 17.5503 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):
	 Non-regulated waters/wetlands (check if applicable):³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Site contains a man made borrow pit used for obtaining sand, totaling 4.4270 acres excavated from dry land (upland) and surrounded by uplands.

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

TNW

Identify TNW: None.

Summarize rationale supporting determination: USGS Topographic Maps, Site Survey and USFWS NWI Map clearly demonstate conditions..

Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 28,699 acres Drainage area: 375 acres Average annual rainfall: 40 inches Average annual snowfall: 6 inches

(ii) F

Phy	vsical Characteristics:
a)	Relationship with TNW:
	Tributary flows directly into TNW.
	☐ Tributary flows through 5 tributaries before entering TNW.
	Project waters are 5-10 river miles from TNW.
	Project waters are 1 (or less) river miles from RPW.
	Project waters are 5-10 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: N/A.

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

		Identify flow route to TNW ⁵ : Unnamed tributary to Peterkins Branch to Deep Branch to Cowbridge Branch to Indian River. Tributary stream order, if known: 2nd.
	(b)	General Tributary Characteristics (check all that apply): Tributary is:
		Tributary properties with respect to top of bank (estimate): Average width: 5 feet Average depth: 2.5 feet Average side slopes: Vertical (1:1 or less).
		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: Channel on site is stable to slighty eroding. Presence of run/riffle/pool complexes. Explain: uncommon due to flat terrain. 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: 6-10 Describe flow regime: flowing during winter month but otherwise ranging from intermittent to ephemeral. Other information on duration and volume:
		Surface flow is: Discrete and confined. Characteristics:
		Subsurface flow: No. 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 changes in the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line sediment sorting sediment sorting sediment deposition changes in plant community change in plant community 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:
(iii)		emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Water quality good. Water when flowing is generally clear unless fields are recently plowed.

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

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

This 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.

Identify specific pollutants, if known: Agricultural runoff.

insects.	(iv)	\boxtimes	Riparian corridor. Characteristics (type, average width): Forested-generlly 250 to 600 feet wide. Wetland fringe. Characteristics: Forested-200 to 500 feet wide. Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Seasonal fish migration is possible. Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings: Even in dry times pools of water will provide habitat for amphibians and
2.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	-	General Wetland Characteristics: Properties: Wetland size:17.5503 acres Wetland type. Explain:Paulstrine Forested. Wetland quality. Explain:High quality forested habitat with a diversity of relatively mature trees. Project wetlands cross or serve as state boundaries. Explain: No.
		(b)	General Flow Relationship with Non-TNW: Flow is: Ephemeral flow . Explain:
			Surface flow is: Overland sheetflow Characteristics: Subsurface flow: Unknown. Explain findings: Dye (or other) test performed:
		(c)	Wetland Adjacency Determination with Non-TNW: ☐ Directly abutting ☐ Not directly abutting ☐ Discrete wetland hydrologic connection. Explain: Wetlads directly abut channel bank in most places. ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain:
		(d)	Proximity (Relationship) to TNW Project wetlands are 5-10 river miles from TNW. Project waters are 5-10 aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters. Estimate approximate location of wetland as within the 500-year or greater floodplain.
	(ii)	Cha	emical Characteristics: racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water discharged from wetland expected to be clear. ntify specific pollutants, if known: None.
good spe			Riparian buffer. Characteristics (type, average width):wooded varies, mostly 200 to 500 feet. Vegetation type/percent cover. Explain:nearly 100 percent. Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Channel is subject to fish passage in winter and fall months. Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings: Abutting forested wetlands is high quality mature native forest with sity.

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

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

Approximately (17.5503) 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 A-Y	2		
Wetland B- Y	1.5		
Wetland C-Y	14		

Summarize overall biological, chemical and physical functions being performed: The forested wetlands abutting the channel serves as riparian habiat which buffers the stream from active agricultural land and limited urbanized areas. It serves as wildlife habitat and a corridor for wildlife movements. The opportunity for high wildlife and water quality functions exists.

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.
2.	RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The stream channel flows at a minimum of three months each year and meets the definition of a tributary.

	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 2050 linear feet 5 width (ft). Other non-wetland waters: acres. Identify type(s) of waters:
3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Observations of channel found flowing water in winter months consistent with physical characteristics of flow.
	Provide acreage estimates for jurisdictional wetlands in the review area: 17.5 acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7.	Impoundments of jurisdictional waters. As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below).
DEC SUC	PLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce.

E.

 ⁸See Footnote # 3.
 To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

☐ 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.
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): Site contains waters seasonally with a fringe of emergent wetlands lying within a lated man made borrow pit depression excavated totally from dry land (uplands) totaling 4.4 acres. This pit is wholly surronded
dry land. Active borrow pit operations may have occurred within the last 5 years. Borrow pits excavated from dry land for the pose of mining fill material are excluded waters based upon current regulations.
Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres.
Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
CTION IV: DATA SOURCES. 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 Survey - Moores Meadowood Farm perpared by Soultions IPEM LLC dated 2/3/ 2022, Sheets 1 of 1 Data sheets prepared/submitted by or on behalf of the applicant/consultant.
U.S. Geological Survey map(s). Cite scale & quad name:Harbeson and Millsboro Quadrangles 1:2400. USDA Natural Resources Conservation Service Soil Survey. Citation:Web Soil Survey 2.0. National wetlands inventory map(s). Cite name:Georgetown. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is:N/A(National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date):1937 through 2022 DE First Map 7 google Earth.
or ☑ Other (Name & Date):March 25 2022 Wetland Delineation Report. Previous determination(s). File no. and date of response letter: Applicable/supporting case law:Rapanos & SWANCC.

Other information (please specify):		Applicable/supporting scientific literature: Other information (please specify):	
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B. ADDITIONAL COMMENTS TO SUPPORT JD: Based on historical aerial imagery, the borrow pit was excavated between 1937 and 1954. The borrow pit is designated as a gravel pit on the 1955 USGS Topographic Quadrangle. The borrow pit is well defined with elevated slopes and there is no surface connection to the non-tidal wetlands or the unnamed channel on the parcel. The borrow pit cannot be categorized as an (a)(1) through (a)(5) water in accordance with the definition of waters of the United States. Because the borrow pit was created by excavating dry land, the pit is an excluded feature as described in the preamble of the November 13, 1986, Federal Register (51 FR, 41217). As such, in accordance with 33 CFR 328.3, the borrow pit does not meet the definition of waters of the United States.