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.

В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAP-OPR-2010-00711-95
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Pennsylvania County/parish/borough: Bucks County City: Sellersville/East Rockhill Township Center coordinates of site (lat/long in degree decimal format): Lat. 40.384637° N, Long75.311825° W. Universal Transverse Mercator: Name of nearest waterbody: Three Mile Run
	Name of nearest Traditional Navigable Water (TNW) Into which the aquatic resource flows: Delaware River Name of watershed or Hydrologic Unit Code (HUC): 020401050702 (Middle Tohickon Creek). 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: 08 November 2021 by Robert Youhas, Biologist, USACE-Philadelphia District. ☐ Field Determination. Date(s): 05 November 2021 by Robert Youhas, Biologist, USACE-Philadelphia District.
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce Explain:
B.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters ² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands
	b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: linear feet: width (ft) and/or 0.8479 acres. Wetlands: 0.2186 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known): approximately 540.0-feet above sea level.
	2. Non-regulated waters/wetlands (check if applicable): ³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional Explain: .

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

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

Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1.	TNW Identify TNW:
	Summarize rationale supporting determination: .
2.	Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions: Watershed size: 8.11 square miles Drainage area: 5,190.0 acres Average annual rainfall: 46.9 inches Average annual snowfall: 20.9 inches

(ii) Physical Characteristics:

(a) Relationship with TNW: ☐ Tributary flows directly into TNW. Tributary flows through 2 tributaries before entering TNW. Project waters are 15-20 river miles from TNW. Project waters are 1 (or less) river miles from RPW. Project waters are 10-15 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.

Identify flow route to TNW5: An unnamed perennial tributary (UNT) to Three Mile Run and its abutting wetlands (Feature B and Wetland B, respectively) were determined to be present at the subject property. The UNT to Three Mile

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

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

Run (non-RPW) flows to Three Mile Run (RPW) (Feature A); Three Mile Run flows to Lake Nockamixon; Lake Nockamixon flows to Tohickon Creek; and Tohickon Creek flows to the Delaware River (TNW). The onsite pond is part of Feature A as it is contiguous with Three Mile Run. Wetland A abuts Three Mile Run (Feature A). Tributary stream order, if known: N/A.

(b)	General Tributary Characteristics (check all that apply): Tributary is: ☐ Natural ☐ Artificial (man-made). Explain: ☐ Manipulated (man-altered). Explain:
	Tributary properties with respect to top of bank (estimate): Average width: 15 feet Average depth: 2 feet Average side slopes: 4:1 (or greater)
	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: Naturally carved bed and bank, stable. Presence of run/riffle/pool complexes. Explain: N/A. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): <10 %
(c)	Flow: Tributary provides for: Intermittent but not seasonal flow Estimate average number of flow events in review area/year: 20 (or greater) Describe flow regime: : Intermittent flow based on volume of overland sheetflow and existing natural topography. Other information on duration and volume: N/A.
landscape wh	Surface flow is: Overland sheetflow. Characteristics: Overland sheet flow that follows the natural topography of the are it drains to Three Mile Run.
	Subsurface flow: Unknown. Explain findings: N/A. Dye (or other) test performed: .
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation the presence of wrack line vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition destruction of terrestrial vegetation the presence of wrack line sediment sorting scour multiple observed or predicted flow events abrupt change in plant community other (list): Discontinuous OHWM. ⁷ Explain:
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by:
(iii) Che	mical Characteristics:

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

Thid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Generally colorless water. Natural organic sheen observed in several portions; substantial leaf litter present at the time of the field inspection (05 November 2021).

Identify specific pollutants, if known: N/A.

	Long	⊠ □ □ g-Ear	Degical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Forested palustrine corridor. Wetland fringe. Characteristics: N/A. Habitat for: Federally Listed species. Explain findings: N/A. Fish/spawn areas. Explain findings: N/A. Other environmentally-sensitive species. Explain findings:: Potential habitat present for Indiana bat (Myotis sodalis), and Bat (Myotis septentrionalis), and Bog Turtle (Clemmys muhlenbergii). Aquatic/wildlife diversity. Explain findings:: Usage by macroinvertebrates, insects, deer, rodents, and avian wildlife.
2.			eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	ebusl	(a) h (Linent sh	sical Characteristics: General Wetland Characteristics: Properties: Wetland size:0.0338 acres Wetland type. Explain: Palustrine emergent and forested wetland. Wetland quality. Explain: Somewhat diverse vegetation including Skunk cabbage (Symplocarpus foetidus), Northem ndera benzoin), Bog hemp/False nettle (Boehmeria cylindrica), and Rattlesnake Manna Grass (Glyceria canadensil); allow surface ponding with saturated soils. Project wetlands cross or serve as state boundaries. Explain: N/A.
			General Flow Relationship with Non-TNW: Flow is: Intermittent flow. Explain: .
			Surface flow is: Overland sheetflow Characteristics: Shallow depressional wetland fed by overland sheetflow.
			Subsurface flow: Unknown. Explain findings: N/A. Dye (or other) test performed:
			Wetland Adjacency Determination with Non-TNW: ☐ Directly abutting ☐ Discrete wetland hydrologic connection. Explain: ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain:
			Proximity (Relationship) to TNW Project wetlands are 15-20 river miles from TNW. Project waters are 10-15 aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters Estimate approximate location of wetland as within the 100 - 500-year floodplain.
	(ii)	Chai	mical Characteristics: racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Natural organic sheen observed in several surface ponded portions; substantial leaf litter present at the time of the site inspection (05 November 2021). tify specific pollutants, if known: N/A.
widt			ogical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width):Palustrine emergent and forested wetland, approximately 60.0-foot
App	roxir	nately otis	Vegetation type/percent cover. Explain: Approximatley 20% tree stratum/canopy coverage, herb stratum 35%. y 63%+ of dominant species are OBL, FACW, or FAC. Habitat for: ☐ Federally Listed species. Explain findings: Potential habitat present for Indiana bat (Myotis sodalis), Northern Long-septentrionalis), and Bog Turtle (Clemmys muhlenbergii). ☐ Fish/spawn areas. Explain findings: N/A.
			☐ Other environmentally-sensitive species. Explain findings: N/A. ☐ Aquatic/wildlife diversity. Explain findings: N/A.

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: 2
Approximately (0.2186) 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	0.1848		
Wetland B	Y	0.0338		

Summarize overall biological, chemical and physical functions being performed:: Wetland B and Wetland A provide runoff storage; sediment trapping; nutrient transport and recycling; and export of organic material to the non-RPW (UNT to Three Mile Run) and to the RPW (Three Mile Run), respectively, which in turn supplies these functions to the TNW (Delaware River). Wetlands B and A may be utilized by macroinvertebrates, insects, deer, rodents, and avian wildlife for foraging and shelter.

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: An unnamed perennial tributary (UNT) to Three Mile Run and its abutting wetlands (Feature B and Wetland B, respectively) were determined to be present at the subject property. The UNT to Three Mile Run (non-RPW) flows to Three Mile Run (RPW) (Feature A); Three Mile Run flows to Lake Nockamixon; Lake Nockamixon flows to Tohickon Creek; and Tohickon Creek flows to the Delaware River (TNW). The UNT to Three Mile Run (Feature B) and its adjacent wetlands (Wetland B) provide the following functions to the TNW: runoff transport; runoffstorage; sediment and pollutant trapping; nutrient transport and recycling; export of organic material; and utilization by macroinvertebrates, insects, deer, rodents, and avian wildlife for foraging and shelter. Thus, the UNT to Three Mile Run and its adjacent wetlands were determined, via significant nexus evaluation, to be a jurisdictional non-RPW and jurisdictional wetlands, respectively.
- 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: Wetland A abuts Three Mile Run (RPW) (Feature A); Three Mile Run flows to Lake Nockamixon; Lake Nockamixon flows to Tohickon Creek; and Tohickon Creek flows to the Delaware River (TNW). Wetland A provides the following functions to the TNW: runoff storage; sediment and pollutant trapping; nutrient transport and recycling; export of organic material; and utilization by macroinvertebrates, insects, deer, rodents, and avian wildlife for foraging and shelter. Thus, Wetland A was determined, via significant nexus evaluation, to be a jurisdictional wetland.

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: Three Mile Run (RPW) flows to Lake Nockamixon; Lake Nockamixon flows to Tohickon Creek; and Tohickon Creek flows to the Delaware River (TNW). From the results of observations during the 05 November 2021 site inspection, as well as review of all supporting information, Feature A (Three Mile Run and its contiguous pond) was determined to be an RPW, as it is a perennial water feature with an established bed and bank, Ordinary High Water mark, and flowing water present. 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: 0.6528 acres linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .	
	3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. ☑ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.	
		Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: 0.1951 acres 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: Wetland A was determined to be directly abutting to Feature A (i.e. Three Mile Run and it contiguous pond); specifically via the observed and documented presence of hydrophytic vegetation, hydric soils, and wetland hydrology as per the Corps' 1987 Wetlands Delineation Manual and the Corps' 2012 Eastern Mountains and Piedmont Regional Supplement to the Corps of Engineers Wetland Delineation Manual. The palustrine emergent and forested wetlands of Wetland A were determinted to be contiguous to and continuous with the ordinary high water mark of Feature A.	
		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: 0.1848-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.	

⁸See Footnote # 3.

	conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: 0.0338-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).
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):
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width(ft). Other non-wetland waters: acres. Identify type(s) of waters: . Wetlands: acres.
F.	NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width(ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
	Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.

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

SECTION IV: DATA SOURCES.

 $^{^{9}}$ 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.

٠	SUP	PORTING 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):
	\boxtimes	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: E-1 entitled "NAP-2010-00711-95" and dated 05
	Nov	vember 2021.
	\boxtimes	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.
	\boxtimes	U.S. Geological Survey map(s). Cite scale & quad name: Quakertown, PA Quadrangle.
	\boxtimes	USDA Natural Resources Conservation Service Soil Survey. Citation: Bucks/Philadelphia County, PA Soil Survey Sheet #31.
		National wetlands inventory map(s). Cite name: .
		State/Local wetland inventory map(s): .
		FEMA/FIRM maps: .
		100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
	\boxtimes	Photographs: Acrial (Name & Date):GoogleEarth Acrial Photographs: 21 September 2020, 15 June 2018, 17 April 2017, 17
	Apr	ril 2016, 20 April 2014, 19 May 2012, 29 August 2010, 09 May 2010, 06 June 2005, 05 June 2004, 31 December 2001, 12 April
	199	9, 12 March 1995, and 28 March 1992.
		or 🛮 Other (Name & Date):Site photos taken on 13 November 2005, 20 November 2009, and 05 November 2021.
	\boxtimes	Previous determination(s). File no. and date of response letter: NAP-2010-00711-35 Preliminary JD dated 30 November 2010.
		Applicable/supporting case law:
		Applicable/supporting scientific literature:
		Other information (please specify):
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B. ADDITIONAL COMMENTS TO SUPPORT JD: N/A.

