#### 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**

#### REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): June 3, 2020

B.	DISTRICT OFFICE, FILE NAME, AND NUMBER:NAO-2020-00657-rhs Route 15 Widening
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Virginia County/parish/borough: Loudoun City: Center coordinates of site (lat/long in degree decimal format): Lat. 39.155865° N, Long. 77.539903° W.  Universal Transverse Mercator: Zone 18N - 279,710m East, 4,307,636m North Name of nearest waterbody: Limestone Branch Distance: 0 ft.  Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Potomac River
	Name of watershed or Hydrologic Unit Code (HUC): 020700080403  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:  ☐ Field Determination. Date(s): May 14, 2020
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew 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	re 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 waters² (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: 12,896 linear feet: 2-20 width (ft) and/or 6.84 acres.  Wetlands: 1.38 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual  Elevation of established OHWM (if known):

#### 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: E-1 is a non-tidal drainage ditches excavated in uplands to convey stormwater which are not generally considered to be waters of the U.S. .

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

<sup>&</sup>lt;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>&</sup>lt;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: 38,681 acres
Drainage area: 5,491 acres
Average annual rainfall:

Average annual rainfall: inches Average annual snowfall: inches

#### (ii) Physical Characteristics:

## (a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

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

Project waters are 1 (or less) 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  $TNW^5$ : 0 feet to Limestone Branch to Potomac River (0.3 miles total length).

Tributary stream order, if known: .

<sup>&</sup>lt;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>&</sup>lt;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.

(b)	General Tributary Characteristics (check all that apply):
	Tributary is: Natural
	Artificial (man-made). Explain:
	Manipulated (man-altered). Explain: Streams have culverts.
	Tributary properties with respect to top of bank (estimate):  Average width: 2-20 feet  Average depth: 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: Erosion present along banks.
	Presence of run/riffle/pool complexes. Explain:
	Tributary geometry: Relatively straight
	Tributary gradient (approximate average slope): %
(c)	Flow: Tributary provides for: Seasonal flow Estimate average number of flow events in review area/year: 6-10 Describe flow regime: Ephemeral, intermittent and perennial streams present. Other information on duration and volume:
	Surface flow is: <b>Discrete and confined.</b> Characteristics:
	Subsurface flow: Unknown. Explain findings:  Dye (or other) test performed:
	Tributary has (check all that apply):
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):    High Tide Line indicated by:
Che	mical Characteristics:
Chai	Explain: Average stream water quality in developed area receiving run-off. tify specific pollutants, if known: Run-off from roadways.

(iii)

<sup>&</sup>lt;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.

<sup>7</sup>Ibid.

(i widths			ogical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Herbaceous-,scrub/shrub-, and forested- upland with various
widin	·		Wetland fringe. Characteristics: PEM, PSS, and PFO.  Habitat for:  Federally Listed species. Explain findings:  Fish/spawn areas. Explain findings:  Other environmentally-sensitive species. Explain findings:  Aquatic/wildlife diversity. Explain findings:
2. (	Cha	racto	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(	i)		sical Characteristics:  General Wetland Characteristics: Properties: Wetland size: 1.38 acres Wetland type. Explain: PEM, PSS, and PFO. Wetland quality. Explain: Average. Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW: Flow is: Intermittent flow. Explain:
			Surface flow is: Discrete and confined Characteristics:
			Subsurface flow: Unknown. Explain findings:
year f	loo		Wetland Adjacency Determination with Non-TNW:  ☐ Directly abutting ☐ Not directly abutting ☐ Discrete wetland hydrologic connection. Explain: Wetlands that do not directly abut are located within the 100 n of streams and connected via overland sheetflow or flood events. ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain:
		(d)	Proximity (Relationship) to TNW Project wetlands are 1 (or less) river 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)	Cha	emical Characteristics: racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Average wetland water quality in developled area receiving run-off. atify specific pollutants, if known: Run-off from roadways.
width		Biol	logical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width):Herbaceous- scrub/shrub-, and forested- upland with various
wiains	s.		Vegetation type/percent cover. Explain:PEM, PSS, PFO % cover varies.  Habitat for:  Federally Listed species. Explain findings:  Fish/spawn areas. Explain findings:  Other environmentally-sensitive species. Explain findings:  Aquatic/wildlife diversity. Explain findings:
3. (	Cha	racto	eristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: 30 (or more)
Approximately (1.38) 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)
W-1 (Y)	0.01		
W-2 (Y)	0.01		
W-3 (Y)	0.02		
W-4 (Y)	0.02		
W-5 (Y)	0.02		
W-6 (Y)	0.01		
W-7 (Y)	0.02		
W-8 (Y)	0.01		
W-9 (Y)	0.02		
W-10 (Y)	0.02		
W-11 (Y)	0.06		
W-12 (Y)	0.00		
W-13 (Y)	0.02		
W-14 (Y)	0.00		
W-15 (Y)	0.01		
W-16 (Y)	0.00		
W-17 (N)	0.03		
W-18 (Y)	0.01		
W-19 (Y)	0.00		
W-20 (Y)	0.01		
W-21 (Y)	0.01		
W-22 (Y)	0.01		
W-23 (Y)	0.00		
W-24 (Y)	0.02		
W-25 (Y)	0.01		
W-26 (N)	0.90		
W-27 (Y)	0.01		
W-28 (Y)	0.01		
W-29 (Y)	0.08		
W-30 (Y)	0.00		
W-31 (Y)	0.01		

Summarize overall biological, chemical and physical functions being performed: These wetlands reduce the amount of pollutants reaching a TNW.

#### 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:

- 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:Ephemeral streams
  convey stormwater to nearby by streams and wetlands.
- 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 wetlands reduce the amount of pollutants reach a downstream TNW and within the 100-year floodplain.

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

TH	(AT 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.	<ul> <li>RPWs that flow directly or indirectly into TNWs.</li> <li>☑ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Streams were determined to be perennial based on field observations.</li> <li>☑ 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: Streams were determined to be intermittent based on field observations.</li> </ul>
	Provide estimates for jurisdictional waters in the review area (check all that apply):  Tributary waters: 11,974 linear feet 5-20 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: 922 linear feet 2-4 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: See Attachment I.
	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: See Attachment I.
	Provide acreage estimates for jurisdictional wetlands in the review area: <b>0.45</b> acres.

Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

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

		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: <b>0.93</b> 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).
Е.	DE	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.  Interstate isolated waters. Explain:
		Other factors. Explain:
	Ide	ntify water body and summarize rationale supporting determination:
	Pro	vide estimates for jurisdictional waters in the review area (check all that apply):
	Н	Tributary waters: linear feet width (ft).  Other non-wetland waters: acres.
	_	Identify type(s) of waters: .
	ш	Wetlands: acres.
F.	NO	N-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:
ger	⊠ ierall	Other: (explain, if not covered above): Non-tidal drainage ditches excavated in uplands to convey stormwater are not y considered to be waters of the U.S
8-		
	fact	vide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR ors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional gment (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.
		vide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such ading is required for jurisdiction (check all that apply):

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

<sup>&</sup>lt;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*.

		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.
SEC	CTIO	N IV: DATA SOURCES.
A. S	SUPI	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:Attachment I: Waters of the U.S. (Including
	Wet	lands) Delineation Map dated March 9, 2020.
	$\boxtimes$	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.
	Ш	Data sheets prepared by the Corps: .
	Ш	Corps navigable waters' study:
		U.S. Geological Survey Hydrologic Atlas: .
		USGS NHD data.
		USGS 8 and 12 digit HUC maps.
	$\bowtie$	U.S. Geological Survey map(s). Cite scale & quad name: Waterford, MD VA 1984, 1"=2,000'.
		USDA Natural Resources Conservation Service Soil Survey. Citation: Loudoun County Digital Data, 2018.
	otin	National wetlands inventory map(s). Cite name: Downloaded March 2019.
	$\exists$	State/Local wetland inventory map(s): FEMA/FIRM maps: Panel: 51107C0120E; Effective: 02/17/2017.
	otag	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
	$\forall$	Photographs: Aerial (Name & Date):Spring 2009 Natural Color Imagery from VBMP, Spring 2017 Near Color Infrared
	_	gery from VBMP, and Spring 2019 Natural Color Imagery from Loudoun County OMGI.
	IIIIa	or \( \sum \) Other (Name & Date): Site photographs from January 10 and 13 through 15, 2020.
		Previous determination(s). File no. and date of response letter: .
	Ħ	Applicable/supporting case law:
	Ħ	Applicable/supporting scientific literature: .
	Ħ	Other information (please specify):
	_	e mer miermanen (kreme eksent).

# B. ADDITIONAL COMMENTS TO SUPPORT JD:

#### 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): June 3, 2020

# DISTRICT OFFICE, FILE NAME, AND NUMBER:NAO-2020-00657-rhs Route 15 Widening C. PROJECT LOCATION AND BACKGROUND INFORMATION: State: Virginia County/parish/borough: Loudoun City: Center coordinates of site (lat/long in degree decimal format): Lat. 39.155865° N, Long. 77.539903° W. Universal Transverse Mercator: Zone 18N - 279,710m East, 4,307,636m North Name of nearest waterbody: Potomac River -- Distance: 6,542 ft. Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Potomac River Name of watershed or Hydrologic Unit Code (HUC): 020700080403 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: Field Determination. Date(s): May 14, 2020 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. B. CWA SECTION 404 DETERMINATION OF JURISDICTION. There Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required] 1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): 1 TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters<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: 4,266 linear feet: 2-20 width (ft) and/or 1.65 acres. Wetlands: 0.79 acres. c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known):

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: E-2, E-3, E-4, and E-5 are non-tidal drainage ditches excavated in uplands to convey stormwater are not generally considered to be waters of the U.S.

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

<sup>&</sup>lt;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).

Supporting documentation is presented in Section III.F.

#### **SECTION III: CWA ANALYSIS**

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

Wetland adjacent to TNW

(i) General Area Conditions: Watershed size: 38,681 acres Drainage area: 2,197 acres

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.	INW Identify TNW:	
	Summarize rationale supporting determination:	

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

# Average annual rainfall: inches Average annual snowfall: inches (ii) Physical Characteristics: (a) Relationship with TNW: Tributary flows directly into TNW. Tributary flows through Pick List tributaries before entering TNW. Project waters are 1-2 river miles from TNW. Project waters are 1 (or less) river miles from RPW. Project waters are 1-2 aerial (straight) miles from TNW. Project waters are 1 (or less) aerial (straight) miles from RPW. Project waters 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>: 6,542 ft to Unnamed Tributary to Potomac River (1 mile total length). Tributary stream order, if known:

<sup>&</sup>lt;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>&</sup>lt;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.

(b)	General Tributary Characteristics (check all that apply):
	Tributary is: Natural
	Artificial (man-made). Explain:
	☐ Manipulated (man-altered). Explain: Streams have culverts.
(c)	Manipulated (man-altered). Explain: Streams have culverts.  Tributary properties with respect to top of bank (estimate):  Average width: 2-20 feet  Average depth: feet  Average side slopes: 2:1.  Primary tributary substrate composition (check all that apply):  Silts Sands Cobbles Gravel Muck  Bedrock Vegetation. Type/% cover:  Other. Explain:  Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Erosion present along banks.  Presence of run/riffle/pool complexes. Explain:  Tributary geometry: Meandering  Tributary gradient (approximate average slope): %  Flow:  Tributary provides for: Seasonal flow  Estimate average number of flow events in review area/year: 6-10  Describe flow regime: Ephemeral, intermittent, and perennial streams are present.
	Other information on duration and volume:
	Surface flow is: <b>Discrete and confined.</b> Characteristics: .
	Subsurface flow: Unknown. Explain findings:  Dye (or other) test performed:
	Tributary has (check all that apply):
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):    High Tide Line indicated by:
Chai	mical Characteristics: racterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Average stream water quality in developled area receiving run-off. tify specific pollutants, if known: Run-off from roadways.

(iii)

<sup>&</sup>lt;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.

<sup>7</sup>Ibid.

(iv)		logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Herbaceous-, scrub/shrub-, and forested- upland with various
widths.		Wetland fringe. Characteristics: PEM and PFO.  Habitat for:  Federally Listed species. Explain findings:  Fish/spawn areas. Explain findings:  Other environmentally-sensitive species. Explain findings:  Aquatic/wildlife diversity. Explain findings:
2. Ch	ıract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i)		General Wetland Characteristics: Properties: Wetland size:0.79 acres Wetland type. Explain:PEM and PFO. Wetland quality. Explain:Average. Project wetlands cross or serve as state boundaries. Explain:
	(b)	General Flow Relationship with Non-TNW: Flow is: Intermittent flow. Explain:
		Surface flow is: Discrete and confined Characteristics:
		Subsurface flow: Unknown. Explain findings:  Dye (or other) test performed:
year floo		Wetland Adjacency Determination with Non-TNW:  ☐ Directly abutting ☐ Not directly abutting ☐ Discrete wetland hydrologic connection. Explain: The wetland that does not directly is located within the 100 n of a perennial stream and connected via overland sheetflow or flood events. ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain:
	(d)	Proximity (Relationship) to TNW Project wetlands are 1-2 river miles from TNW. Project waters are 1-2 aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters. Estimate approximate location of wetland as within the 50 - 100-year floodplain.
(ii)	Cha	emical Characteristics: racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Average wetland water quality in developled area receiving run-off .  tify specific pollutants, if known: Run-off from roadways.
	Bio	logical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width):Herbaceous-, scrub/shrub-, and forested- upland with various
widths.		Vegetation type/percent cover. Explain:PEM and PFO, % cover varies.  Habitat for:  Federally Listed species. Explain findings:  Fish/spawn areas. Explain findings:  Other environmentally-sensitive species. Explain findings:  Aquatic/wildlife diversity. Explain findings:
3. Cha	All	wetland(s) being considered in the cumulative analysis: 20-25 proximately (0.79) 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)
W-32 (Y)	0.08		
W-33 (Y)	0.16		
W-34 (Y)	0.03		
W-35 (Y)	0.02		
W-36 (Y)	0.00		
W-37 (Y)	0.00		
W-38 (Y)	0.01		
W-39 (Y)	0.01		
W-40 (Y)	0.01		
W-41 (Y)	0.00		
W-42 (Y)	0.01		
W-43 (Y)	0.16		
W-44 (Y)	0.00		
W-45 (Y)	0.03		
W-46 (Y)	0.01		
W-47 (Y)	0.02		
W-48 (Y)	0.14		
W-49 (Y)	0.00		
W-50 (Y)	0.06		
W-51 (N)	0.01		
W-52 (N)	0.01		
W-53 (N)	0.01		

Summarize overall biological, chemical and physical functions being performed: These wetlands reduce the amount of pollutants reaching a TNW.

#### 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:

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: Based on
topography, this ephemeral stream would channelize overland sheetflow towards S-14, which is a perennial tributary to the
Potomac River.

- 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: This wetland reduces the amount of pollutants from reaching a TNW.

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.	<ul> <li>RPWs that flow directly or indirectly into TNWs.</li> <li>☑ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Streams were determined to be perennial based on field observations.</li> <li>☑ 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: Streams were determined to be intermittent based on field observations.</li> </ul>
	Provide estimates for jurisdictional waters in the review area (check all that apply):  Tributary waters: 4,180 linear feet 12-20width (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: 86 linear feet 2 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: See Attachment I.
	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: <b>0.71</b> acres.

Provide acreage estimates for jurisdictional wetlands in the review area: 0.08 acres.

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

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

conclusion is provided at Section III.C.

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

				ed adjacent wetlands,			on with the tributary to w ΓΝW are jurisdictional. Ε	which they are adjacent and Data supporting this
		Prov	vide estimates for juri	sdictional wetlands in	the review area:	acres.		
	7.	As a	Demonstrate that im Demonstrate that wa	dictional waters.9 coundment of a jurisdi poundment was create atter meets the criteria fater is isolated with a r	ed from "waters of for one of the cate	of the U.S.," or egories presente	ed above (1-6), or	
E.	SUC 	GRAI CH W which from which Inters	DATION OR DEST VATERS (CHECK As h are or could be used which fish or shellfish	TRUCTION OF WHI ALL THAT APPLY) If by interstate or foreign is hare or could be take If for industrial purpose	CH COULD AI :10 gn travelers for ron n and sold in inte	FFECT INTER ecreational or or erstate or foreign	n commerce.	
	Ider	ntify v	water body and sun	nmarize rationale sup	porting determ	ination:		
		Tribu Othei Id				all that apply):		
F.		If po Wet! Revi	otential wetlands wer land Delineation Mar- iew area included iso Prior to the Jan 200 "Migratory Bird Ru- iers do not meet the " er: (explain, if not co	nual and/or appropriate lated waters with no su I Supreme Court decis le" (MBR). Significant Nexus" sta vered above): E-2, E-3	eview area, these e Regional Suppl abstantial nexus to ion in "SWANCO" ndard, where suc b, E-4, and E-5 a	e areas did not nements. To interstate (or C," the review a	foreign) commerce.	ulated based <u>solely</u> on the Explain:
stor			-	sidered to be waters				
	facto	ors (i.gment Non- Lake Othe		tory birds, presence of ): rivers, streams):		cies, use of wat width (ft).	e <u>sole</u> potential basis of ju er for irrigated agricultur	risdiction is the MBR e), using best professional
		nding Non- Lake Othe		iction (check all that a rivers, streams):		width (ft).	t meet the "Significant No	exus" standard, where such

## **SECTION IV: DATA SOURCES.**

<sup>&</sup>lt;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.

١.	SUPI	OKTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where check
	and	requested, appropriately reference sources below):
	$\boxtimes$	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Attachment I: Waters of the U.S. (Including
	Wet	lands) Delineation Map dated March 9, 2020.
	$\boxtimes$	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: Waterford, MD VA 1984, 1"=2,000'.
	$\boxtimes$	USDA Natural Resources Conservation Service Soil Survey. Citation: Loudoun County Digital Data, 2018.
		National wetlands inventory map(s). Cite name: Downloaded March 2019.
		State/Local wetland inventory map(s):
	$\boxtimes$	FEMA/FIRM maps: Panel: 51107C0120E; Effective: 02/17/2017.
		100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
	$\boxtimes$	Photographs: Aerial (Name & Date): Spring 2009 Natural Color Imagery from VBMP, Spring 2017 Near Color Infrared
	Ima	gery from VBMP, and Spring 2019 Natural Color Imagery from Loudoun County OMGI.
		or 🛮 Other (Name & Date):Site photographs from January 10 and 13 through 15, 2020.
	$\boxtimes$	Previous determination(s). File no. and date of response letter: JD #NAO-2013-00306 issued June 13, 2018.
		Applicable/supporting case law: .
		Applicable/supporting scientific literature: .
		Other information (please specify):

# B. ADDITIONAL COMMENTS TO SUPPORT JD: .