#### 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
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# A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): November 8, 2021

B.	DISTRICT OFFICE, FILE NAME, AND NUMBER:NAO-2021-02211, NAO, Summit School Road
C.	PROJECT LOCATION AND BACKGROUND INFORMATION:  State: Virginia County/parish/borough: Prince William City: Center coordinates of site (lat/long in degree decimal format): Lat. 38.666944° N, Long77.280833° W.  Universal Transverse Mercator: Zone 18N - 301,564m East, 4,282,287m North  Name of nearest waterbody: Marumsco Creek Distance: 920 ft.  Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Marumsco Creek  Name of watershed or Hydrologic Unit Code (HUC): 020700100805  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: November 8, 2021  Field Determination. Date(s):
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
revi	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:  CWA SECTION 404 DETERMINATION OF JURISDICTION.
	re 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): ¹  □ 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: 3,048 linear feet: 1-12 width (ft) and/or acres.  Wetlands: 0.48 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):

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

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

Explain: In WSSI's opinion, the ditches in the northeastern portion of the study area are erosional features

(Attachment 1: Note #11), lack a continuous defined bed and bank and ordinary high-water mark, and thus are not

<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.

jurisdictional waters of the U.S. Stormwater conveyance features, such as the ones in the northeastern portion of the study area (i.e., roadside ditches) (Attachment I: Note #12), that were constructed or excavated in uplands or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff are not considered to be "waters of the U.S." per the commentary for 33 CFR Section 328.3, in the "Final Rule for Regulatory Programs of the Corps of Engineers" (Fed. Reg. Vol. 51, No. 219, pg. 41217, November 13, 1986).

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

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#### 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.

2.	Wetland adjacent to TNW		
	Summarize rationale supporting determination:		
1.	Identify 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: 29,409 acres

# Drainage area: 154 acres 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 2-5 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 cross or serve as state boundaries. Explain: Identify flow route to TNW5: 920 ft. to Marumsco Creek (2.2 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:
ROW.	Manipulated (man-altered). Explain: Culverts present; tributary goes through maintained utility
	Tributary properties with respect to top of bank (estimate):  Average width: 1-12 feet  Average depth: 0.25-1 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: .
areas of erosio	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Overally low to moderate, with some higher present.  Presence of run/riffle/pool complexes. Explain:  Tributary geometry: Relatively straight  Tributary gradient (approximate average slope): 1-2 %
(c)	Flow:  Flow:  Estimate average number of flow events in review area/year: 6-10  Describe flow regime: Perennial and intermittent tributaries present.  Other information on duration and volume:
	Surface flow is: Discrete and confined. Characteristics: Stream has defined bed and bank.
	Subsurface flow: <b>Unknown</b> . Explain findings:
	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:
Cha	emical Characteristics: cracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Average water quality, color appeared clear. Watershed includes undeveloped forested aras, in addition to residential development.  https://emical.chi/papeared/pape

<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)	$\boxtimes$	logical Characteristics. Channel supports (check all that apply):  Riparian corridor. Characteristics (type, average width): Forested and herbaceous areas, varying widths.  Wetland fringe. Characteristics: PFO, PSS and PEM.  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	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)		General Wetland Characteristics: Properties: Wetland size:0.48 acres Wetland type. Explain:PFO, PSS and PEM. Wetland quality. Explain:Average. Project wetlands cross or serve as state boundaries. Explain:
		ent ai	General Flow Relationship with Non-TNW: Flow is: Intermittent flow. Explain: Intermittent and and ephemeral connections to downstream TNW through and ephemeral streams or narrow wetland swale connections. Non-abutting wetlands have intermittent connection to TNW ing events.
			Surface flow is: Discrete and confined 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: Connection via overland sheet flow and/or flooding events. ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain: ☐ .
		(d)	Proximity (Relationship) to TNW Project wetlands are 2-5 river miles from TNW. Project waters are 2-5 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:  aracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Average water quality, color appeared clear. Watershed includes undeveloped forested aras, in addition to residential development.  https://doi.org/10.1001/j.color.org/10.1
	(iii)	Bio	logical Characteristics. Wetland supports (check all that apply):  Riparian buffer. Characteristics (type, average width):Forested and herbaceous, varying widths.  Vegetation type/percent cover. Explain:Typically 75-100% vegetative cover of respective dominant stratum.  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	ıract	eristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: 30 (or more)
Approximately (0.48) 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,0.081			
W-2,Y,0.032			
W-3,N,0.001			
W-4,Y,0.006 W-5,Y,0.003			
W-6,Y,0.012			
W-0,1,0.012 W-7,Y,0.001			
W-8,Y,0.001 W-8,Y,0.045			
W-9,Y,0.008			
W-10,Y,0.001			
W-10,1,0.001 W-11,N,0.005			
W-11,1,0.003 W-12,Y,0.007			
W-13,Y,0.0004			
W-14,Y,0.028			
W-15,Y,0.020 W-15,Y,0.001			
W-16,Y,0.002			
W-17,Y,0.002			
W-18,N,0.002			
W-19,Y,0.001			
W-20,Y,0.001			
W-21,Y,0.004			
W-22,Y,0.002			
W-23,Y,0.001			
W-24,Y,0.003			
W-25,Y,0.002			
W-26,Y,0.01			
W-27,Y,0.004			
W-28,Y,0.002			
W-29,Y,0.001			
W-30,Y,0.001			
W-31,Y,0.002			
W-32,Y,0.001			
W-33,Y,0.142			
W-34,Y,0.054			
W-35,Y,0.008			
W-36,N,0.003			
W-37,N,0.001			
W-38,N,0.0004			
W-39,N,0.001			

Summarize overall biological, chemical and physical functions being performed: Wetlands retain overland sheet flow, sediment, stormwater runoff and floodwater from storm/flooding events. Wetlands also provide wildlife habitat and sediment/pollutant retention.

### 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: Wetlands have capacity to store excess floodwaters and pollutants during flooding events prior to entry into RPWs and downstream TNWs.

# 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: Tributaries with perennial flow, which typically flow year-round including during the late summer lo flow period in non-drought conditions are present within the study area.</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 flow seasonally: Tributaries that have intermittent flow, and are typically dry during the late summer low flow period in non-drought conditions are present within the study are.</li> </ul>
	Provide estimates for jurisdictional waters in the review area (check all that apply):  Tributary waters: 3,048 linear feet 1-12 width (ft).  Other non-wetland waters: acres.  Identify type(s) of waters: .
3.	Non-RPWs <sup>8</sup> that flow directly or indirectly into TNWs.  Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply):  Tributary waters: linear feet width (ft).  Other non-wetland waters: acres.  Identify type(s) of waters:
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.     Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.   Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Limits of wetland delineated according to 1987 Manual and Regional Supplement.

Wetland boundary connects to stream OHWM boundary.

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

		abutting an RPW: Limits of wetland delineated according to 1987 Manual and Regional Supplement. Wetland boundary connects to stream OHWM boundary.
		Provide acreage estimates for jurisdictional wetlands in the review area: <b>0.47</b> 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: <b>0.013</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.	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.	SUC	DLATED [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:
		vide 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.		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: SW-1 is very small and is located in a depression within an old road bed, not topographically upslope of WOTUS. This feature does not significantly affect the checmical, physical, and biological integrity of a TNW.

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

 <sup>9</sup> 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.

Other: (explain, if not covered above): In WSSI's opinion, the ditches in the northeastern portion of the study area are erosional features (Attachment 1: Note #11), lack a continuous defined bed and bank and ordinary high-water mark, and thus are not jurisdictional waters of the U.S. Stormwater conveyance features, such as the ones in the northeastern portion of the study area (i.e., roadside ditches) (Attachment I: Note #12), that were constructed or excavated in uplands or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff are not considered to be "waters of the U.S." per the commentary for 33 CFR Section 328.3, in the "Final Rule for Regulatory Programs of the Corps of Engineers" (Fed. Reg. Vol. 51, No. 219, pg. 41217, November 13, 1986).
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 suc 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: 0.04 acres. List type of aquatic resource: Erosional features and stormwater convetance features.  Wetlands: 0.001 acres.
SECTION IV: DATA SOURCES.  A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):  Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Attachment I: Waters of the US (Including wetalnds) "Delineation and Resources Protection Area Evalutation Map, Summit School Road High School (14th HS) Parcels 4-7", Sheets 1 and 2, dated April 30, 2021 and revised October 29, 2021.  Data sheets prepared/submitted by or on behalf of the applicant/consultant.  □ Office concurs with data sheets/delineation report.  □ Data sheets prepared by the Corps: □ Corps navigable waters' study: □ U.S. Geological Survey Hydrologic Atlas: □ USGS 8 NHD data. □ USGS 8 NHD data. □ USGS 8 and 12 digit HUC maps.  ■ U.S. Geological Survey map(s). Cite scale & quad name:Occoquan, VA 1998, 1"=2,000".  ■ USDA Natural Resources Conservation Service Soil Survey. Citation:Prince William County Digital Data, USDA, 2019.  National wetlands inventory map(s): ■ FEMA/FIRM maps:Panel: 51153C0216D, Effective: 01/05/1995; Panel: 51153C0217D, Effective: 01/05/1995. □ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) ■ Photographs: ☑ Aerial (Name & Date):1954 Black and White Aerial Imagery from Fairfax County Digital Data (Exhibit 7), Spring 1994 Color Infrared Imagery from a U.S. Geological Survey Digital Orthophoto Quarter Quad (Exhibit 8), Spring 2017 Color Infrared Imagery from Virginia Base Mapping Program (Exhibit 9), and March 2021 Natural Color Imagery from Nearmap® (Exhibit 10).  □ Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: