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): March 7, 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAB-OP-RMS (POTOMAC CHASE) 2014-02120

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: MarylandCounty/parish/borough: CharlesCity: Indian HeadCenter coordinates of site (lat/long in degree decimal format):Lat. 38°37'36"N; Long. -77°03'15"WName of nearest waterbody:Tributary to Mattawoman Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Potomac River

The site is located southwest of the intersection of Gardner Road and Accokeek Road. The site is bordered by an unnamed tributary to Mattawoman Creek, a perennial nontidal tributary to the Potomac River, a tidal, navigable, interstate tributary of the Chesapeake Bay, a traditional navigable waterway.

Name of watershed or Hydrologic Unit Code (HUC): Mattawoman Creek - 02130307

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: N/A
- Field Determination. Date(s): December 3, 2014

SECTION II: SUMMARY OF FINDINGS A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are not "*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. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There 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
 - Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs (Reaches 2 & 4)

Non-RPWs that flow directly or indirectly into TNWs. (Reaches 1, 3, 5 &	6)
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Wetlands directly abutting RPWs that flow directly or indirectly into TNWs (98,330 square feet)

- 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 (Reach 7 and 32,402 square feet of PFO wetlands)

b. Identify (estimate) size of waters of the U.S. in the review area: The project impact area is indicated below.

Wetlands: Emergent-2,361 square feet and Forested-130,732 square feet

Waters: Total of 39,139 square feet along 4,673 linear feet:

Reach 1 (EPH): Stream A2; 5,496 square feet along 815 linear feet.

Reach 2 (RPW): Stream B1; 21,861 square feet along 1,861 linear feet.

Reach 3 (EPH): Stream C1; 21,981 square feet along 1,861 linear feet.

- Reach 4 (RPW): Stream C2; 3,240 square feet along 378 linear feet.
- Reach 5 (EPH): Stream C2a; 1,483 square feet along 266 linear feet.
- Reach 6 (EPH): Stream E1; 5,089 square feet along 732 linear feet.

Reach 7 (EPH): Stream I2; 1,068 square feet along 170 linear feet.

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

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

- c. Limits (boundaries) of jurisdiction based on: 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual Elevation of established OHWM (if known): OHWM elevation varies for each stream reach.
- 2. Non-regulated waters/wetlands (check if applicable):³

Explain: Reach 7 and the adjacent 32,402 square feet of PFO wetlands located in the northwest corner of the property are isolated with no channel or stream to or from these areas. Based upon the field observed evidence of side casting of sand and gravel and construction debris, it appears that these isolated depressions were created out of uplands. Therefore, based upon US vs James Wilson 4th circuit case/CFR 328.3 (a) (3), the Baltimore District does not regulate this water and wetland.

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

- 1. Characteristics of non-TNWs that flow directly or indirectly into TNW
 - (i) General Area Conditions: Watershed size. Drainage area: 400 acres Average annual snowfall: 15.4 inches

Average annual rainfall: 39.74 inches

- (ii) Physical Characteristics: (a) Relationship with TNW:
 - a) <u>Relationship with TNW:</u> Tributary flows directly into TNW.

³ Supporting documentation is presented in Section III.F.

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

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

Project waters are 15 river miles from TNW. Project waters are 0 river miles from RPW. Project waters are 11 aerial (straight) miles from TNW. Project waters are 0 aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: Waters are unnamed tributaries to Mattawoman Creek, a perennial nontidal tributary to the Potomac River, a tidal, navigable, interstate tributary of the Chesapeake Bay, a traditional navigable waterway.

Tributary stream order, if known:

(b) <u>Ge</u>	neral 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: 2-3					
	Average depth: 3-6 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: Stable Tributary geometry: Meandering Tributary gradient (approximate average slope): Gentle					
(c)	<u>Flow:</u> Tributary provides for: ephemeral flow					
Estimate average number of flow events in review area/year: 2 to 5, snow melt						
	Describe flow regime: ephemeral flow.					
Other information on duration and volume: less than 24 hours .						
	Surface flow is: Characteristics: discrete and confined Subsurface flow: No groundwater component					
	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 shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. ⁷ Explain: N/A.					

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

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW. ⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break ⁷Ibid.

High Tide Line indicated by: oil or scum line along shore objects

Mean High Water Mark indicated by:

survey to available datum;

physical markings;

vegetation lines/changes in vegetation types.

fine shell or debris deposits (foreshore) physical markings/characteristics

tidal gauges

other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Clear and clean.

Identify specific pollutants, if known:

(iv) Biological Characteristics. Channel supports (check all that apply):

Riparian corridor. Characteristics (type, average width): Channel is within the forest.

Wetland fringe. Characteristics:

 \square Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

Physical Characteristics: (i)

General Wetland Characteristics: (a)

Properties: Wetland size: Wetland type. Wetland quality. Explain: Refer to Section IV.B. Project wetlands cross or serve as state boundaries. Explain: N/A.

(b) General Flow Relationship with Non-TNW:

Flow is: Explain:

Surface flow is: Characteristics:

Subsurface flow: **Explain findings:** Dye (or other) test performed:

- (c) Wetland Adjacency Determination with Non-TNW:
 - Directly abutting
 - □ Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:
- (d) Proximity (Relationship) to TNW

Project wetlands are river miles from TNW. Project waters are aerial (straight) miles from TNW. Flow is from:

Estimate approximate location of wetland as within the floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
 - Π Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

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

All wetland(s) being considered in the cumulative analysis: Approximately acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
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Summarize overall biological, chemical and physical functions being performed: Refer to Section IV.B.

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: Reaches 3, 5 and 6 are located in similar landscape position and same subwatershed, thus have similar functions and values. Reach 3, located in the northern portion of the site, unnamed ephemeral tributary to Reach 2, is an approximate straight line 451-foot channel. Reaches 5 & 6, are located in the southern portion of the site and drain directly to Mattawoman Creek, are 732-foot and 170-foot channels respectively.

These channels become more defined channel that get deeper and wider as goes downstream ranging from one to three feet wide at top of slope. There is some sorting of bed material and there is leaf litter in the channel. Woody debris crosses over the channel. The channels have some sinuosity at the downstream end and some substrate sorting. There are no abutting or adjacent wetlands at the ephemeral channel area. There are no boulders or stone in the channel and there are no pool areas. The following stream geomorphology was absent: riffle-pool sequence; depositional bars or benches; braided channels; and grade controls. The upper limits of the ephemeral channel are demarcated by the formation of a defined bed and bank that deepens as it moves downhill with distinct stream banks that are approximately 1-foot high when it reaches the RPW stream channels. There was no water in the channels. There were no sitings of crayfish, snails, fish, amphibians or wetland vegetation in the channel. There are drainage patterns above this reach that channels flow directly to these ephemeral systems.

There is no evidence that these systems are fed by groundwater and there is some erosion with leaf litter and some sand sediment in the bottom. The channel are located within a forested areas and the forested drainage areas are less than five acres. There is OHWM and bank and bed material. The ephemeral channels have jurisdictional stream characteristics. There are no associated wetlands and the ephemeral streams do not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

Aquatic Life (Organisms): No aquatic species or indicators of aquatic species such as crayfish chimneys were observed during the site visit. The channels were dry at the time of the site visit.

Habitat for Wildlife – A detailed assessment of the quality of wildlife habitat was not performed. The ephemeral stream corridors and adjacent upland areas provide habitat for a variety of upland wildlife species.

Support Nutrient Cycling – These areas supports nutrient cycling. The riparian forested corridors manage the nutrients from the adjacent forested land. The deciduous forest also inputs detritus into this ephemeral systems. The opportunity to perform this function within the ephemeral channels is limited since there is only five acres of forest or less that drain to the channels and the channels lacks the plant cover to cycle the nutrients in the detritus.

Sediment Transport –These reaches carry some sediment from forest runoff as well as the eroding banks and the drainage patterns above the ephemeral channels. The natural stream bottoms have down-cut over the years. The streams maintain the capacity to transport sediments from the abutting forest.

Pollutant Trapping – The opportunity to perform this function is poor since there is only 5 acres or less of forest that drain to the channels and these channels lacks the plant cover to cycle the nutrients in the detritus.

Water Quality Improvement: The channels do not have the vegetative cover to trap and uptake pollutants in the stormwater runoff that is received in the channels. These reaches, with abutting forested uplands, filters some runoff.

Temperature – Although the ephemeral channels are located in forested areas, the channel banks lack the vegetative cover to shade the water column in the streams. The channels do not influence the cold and hot weather conditions of waters downslope of the ephemeral channels.

Flood Storage – There is little opportunity for these reaches to provide this function. This channel beds are depressed and not connected to the adjacent uplands; the slope of this channel is about 4-6%.

Groundwater Discharge: These functions were not confirmed in the field. It is likely that groundwater discharges may occur infrequently. Due to the steepness of the slopes of the channel beds, there is little opportunity time for the water pond and infiltrate through the channel beds to the underlying water table below.

Groundwater recharge: These channels do not store water to slowly release it for groundwater recharge, which could possibly contribute to base flow to surface water systems onsite during dry periods. However, the small size of the channels and contributing drainage areas would not contribute ample groundwater recharge.

Commerce – These channels, located on private property, have limited opportunities; however, they flow into Mattawoman Creek which do support fishing activities in the tidal areas.

Navigation - These reaches are not navigable.

Recreation – These reaches, on private property, has limited recreational opportunities because of its small size and lack of regular or seasonal water flow regime; however, if allowed, could support recreational activities such as hiking and bird watching proportionate to the riparian forested habitat, if the site is not developed.

Public Health – The water quality functions of these reaches, although limited, directly influences downstream areas; therefore, providing a direct benefit to the overall public health.

Significant Nexus – Based on the above and field experience in Southern Maryland, these channels have a significant nexus with the physical, chemical or biological integrity of the TNW.

- 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: Reach 1, Stream A2, located in the northern part of the site, flows into Reach 2, Stream B1, and is 815-foot long. Based upon the similar landscape position, drainage area and physical characteristics, this reach has very similar functions and values as the above reaches 3, 5 & 6. Similarly based upon my assessment of the functions and values and field experience in Southern Maryland, this channel has a significant nexus with the physical, chemical or biological integrity of the TNW.
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.

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

TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
 TNWs:
 Wetlands adjacent to TNWs:

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: Continuous stream flow year-round. Streams are present on NWI and USGS mapping.
- 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: **Reach 1: Stream B1, 1861 linear feet**

Reach 4: Stream C2, 378 linear feet non-wetland waters: acres.

Other non-wetland waters: Identify type(s) of waters:

3. <u>Non-RPWs⁸ that flow directly or indirectly into TNWs.</u>

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:
- Other non-wetland waters:

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: The wetlands abut the stream channels. The drainage flow from the wetlands goes directly in to these streams.
 - 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: Approximately 4,000 square feet

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:

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:

7. Impoundments of jurisdictional waters.⁹

- 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):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.

⁸See Footnote # 3.

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*.

which are or could be used for industrial purposes by industries in interstate commerce.

Interstate isolated waters. Explain:

Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters:
- Other non-wetland waters:
- Identify type(s) of waters:

Wetlands:

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 <u>solely</u> on the "Migratory Bird Rule" (MBR).
 - Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:

Reach 7, Stream i2, is an approximate linear 170-foot isolated swale/upland drainage pattern upslope of ephemeral stream Reach 2:

The drainage pattern has no sorting of bed material. There are no boulders, stone, cobble or gravel in the drainage; there are no pool areas or woody debris. The following stream geomorphology was absent: continuous bed and bank, sinuosity; riffle-pool sequence; substrate sorting; depositional bars or benches; braided channels; headcuts; and grade controls. The drainage is set within a man-excavated depression. It appears that the depression was created by mining of surface gravel and/or sands as there were side casted piles of these material adjacent to the depression. The reach is located on the southern end of the two depressions and during larger rain events overflow downslope toward Reach 2. No channel or single drainage pattern was observed downslope of Reach 7. It appears that any overflow is carried downhill in a sheetflow manner rather than by a single drain feature. The steepness of the slope (4-6%) most likely carry overflows rapidly downhill to Reach 2. There was no water in the channel. There were no sitings of crayfish, snails, fish, amphibians or wetland vegetation in the channel.

Other: (explain, if not covered above):

Man-made isolated PFO (depressional) wetlands:

There are two isolated wetlands located in man-made depressions upslope of Reach 7, Stream i2. The two PFO wetlands are approximately an acre and a quarter acre in size. They do not appear to have any surface connection to one another. The wetlands were dry at the time of the site visit but likely receive hydrology from upland runoff and seasonally high groundwater sources. The delineation report includes photographs taken in April 2014 which show inundation within these wetlands. Both wetlands were determined to meeting wetland criteria under the 1987 Federal Wetland Delineation Manual.

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):
- Lakes/ponds:
- Other non-wetland waters: List type of aquatic resource:
- Wetlands:

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): Approximately 1,068 square feet along 170 linear feet.

- Lakes/ponds:
 - Other non-wetland waters: acres. List type of aquatic resource:
- Wetlands:

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: **Dated June 25, 2014 by Bowman Consulting Group, Ltd.**

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. 02070011 Lower Potomac U.S. Geological Survey map(s). Cite scale & quad name: USDA Natural Resources Conservation Service Soil Survey. Citation: 2000 scale ; Mt Vernon and Port Tobacco National wetlands inventory map(s). Cite name: NWI Mt. Vernon State/Local wetland inventory map(s): FEMA/FIRM maps FEMA FIRM 24017C0045C and 24017C0160C 100-year Floodplain Elevation is: 62 (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): ARCMAP 2014 or ⊠ Other (Name & Date): Site photographs of April 17&18, 2014 Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: $\overline{\Box}$ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

References: