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): December 19, 2013

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAB-OP-RMS (FORT LINCOLN MULTI-FAMILY HOMES, DC/JD)2013-02031-M32

PROJECT LOCATION AND BACKGROUND INFORMATION: Reaches: four stream reaches, two abutting non-tidal wetlands, and three isolated wetlands on a 28-acre property referred to as Fort Lincoln Multi-Family Homes.

State: **District of Columbia** County/parish/borough: City: **Washington, DC**

Center coordinates of site (lat/long in degree decimal format): Lat. **38.922717** Long. **-76.952389**

Name of nearest waterbody: **an unnamed tributary of the Northwest Branch of the Anacostia River**

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

The site is located north of Commodore Joshua Barney Drive NE, east of Fort Lincoln Drive NE, and south of Fort Lincoln Cemetery and the border between Washington D.C. and Maryland, in Washington D.C. The site drains east into a pipe that runs under the Fort Lincoln Cemetery and empties into an unnamed tributary of the Northwest Branch of the Anacostia River, which drains into the Anacostia River, a traditional navigable tributary of the Potomac River, a tidal, navigable, interstate tributary of the Chesapeake Bay, a traditional navigable waterway.

Name of watershed or Hydrologic Unit Code (HUC): **Lower Anacostia River - 02070010 0204**

☒ 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): **24 October 2013**

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 waters[2] (RPWs) that flow directly or indirectly into TNWs

      ☒ Non-RPWs that flow directly or indirectly into TNWs

      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area: The project site consists of nontidal wetlands and nontidal streams. Total area of waters is approximately 3,920 square feet along 1,530 linear feet of jurisdictional waters, 15,100 square feet of wetlands.**

      The project impact area is indicated below.

[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): The OHWM is highly variable, and thus is unknown.

2. Non-regulated waters/wetlands (check if applicable):[3]

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined not to be jurisdictional. Explain: **During the 24 October 2013 Corps site visit, the circumference of each of the isolated wetlands was walked. Wetland A (300 square feet), Wetland B (1,300 square feet), and Wetland C (1,500 square feet) are all groundwater seep-fed and are all located high up on the valley slope of the stream valley for Stream Reach A-1 at a much higher elevation than Stream Reach A-1. There was some surface drainage out of each wetland, but the flow from the wetland was not observed to reach all the way down to the stream channel and the narrow drainage feature did not have stream characteristics such as bed and bank. Wetlands A, B, and C did not have a direct or strong indirect connection to a stream; therefore, based on US vs James Wilson 4th circuit case/CFR 328.3 (a)(3), the Baltimore District does not regulate the three isolated wetlands.**

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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[4] **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: **Anacostia River 46.2 square miles (41.9% impervious cover)**
Drainage area: **unknown**

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[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.

Average annual rainfall: **unknown**
Average annual snowfall: **unknown**

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☒ Tributary flows through **1** tributaries before entering TNW.

Project waters are **less than 1** river miles from TNW.
Project waters are **less than 1** river miles from RPW.
Project waters are **less than 1** aerial (straight) miles from TNW.
Project waters are **less than 1** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .
Identify flow route to TNW[5]: **Stream Reaches A-2 and A-3 (non-RPWs) flow into Stream Reach A-1 (seasonally intermittent RPW), which flows off-site onto the Fort Lincoln Cemetery in a culvert pipe. Stream Reach B-1 also flows off-site onto the Fort Lincoln Cemetery in a culvert pipe. Although the path of the flow for A-1 and B-1 off-site was not confirmed, it can be assumed, based on topography, that the culvert pipes under Fort Lincoln discharge into the Northwest Branch of the Anacostia River, which then drains to the Anacostia River.**
Tributary stream order, if known: **Stream reaches A-2, A-3, and B-1 are first order streams. Stream Reach A-1 is a second order stream.**

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain:
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width:
A-1 (~2 feet wide at downstream end, ~50 feet wide in middle), A-2 (~25 feet), A-3(5 feet), B-1 (5 feet)
Average depth:
A-1 (4 inches deep at downstream end, 50 feet deep in middle), A-2 (20 feet), A-3 (3 feet), B-1 (3 feet)
Average side slopes: **A-1 (1% at bottom, 75% in middle), A-2 (80%), A-3 (80%), B-1 (75%)**

Primary tributary substrate composition (check all that apply):

☐ Silts	☒ Sands **(lower portion of A-1)**	☐ Concrete
☐ Cobbles	☒ Gravel **(lower portion of A-1)**	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	

☒ Other. Explain: **packed bare soil for A-2, A-3, B-1, and the upper and middle portions of A-1**

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **A-2, A-3, B-1, and the upper and middle portion of A-1 are all deeply incised, scoured, and unstable. The banks are very steep and unvegetated and the bed substrate is packed bare soil. The bottom portion of A-1 is stable with gently-sloped vegetated banks and sand and small gravels as the dominant stream bottom substrate.**
Tributary geometry: **A-2, A-3, B-1, and the upper and middle portion of A-1 are all incised with very steep and tall banks and are generally straight. The lower portion of A-1 is a shallow channel that is well connected with the floodplain and has some sinuosity.**
Tributary gradient (approximate average slope): **A-2, A-3, B-1, and the upper and middle portion of A-1 are all low- to moderate-gradient channels, with slopes ranging from approximately 1% to 7%. The lower portion of A-1 is a low-gradient channel with an average slope of 1%.**

(c) Flow:
Tributary provides for: **A-2, A-3, B-1, and the upper and middle portion of A-1 = non-RPW / ephemeral flow**
Lower portion of A-1 = seasonally intermittent RPW

Estimate average number of flow events in review area/year: **A-2, A-3, B-1, and the upper and middle portion of A-1 all provide for ephemeral non-RPW flow, which would be expected to occur during every moderate to major storm event, approximately 50 times per year. The lower portion of A-1 was flowing during the October 24, 2013 Corps site visit. The site visit took place during the end of the "dry" season and after approximately seven days without rain, and A-2 and A-3, the tributaries of A-1, were not flowing at the time of the site visit, all indicating that the flow in the lower portion of A-1 was the result of groundwater influence and not carry-over flow from upstream or surface flow. This indicates that the flow in Stream Reach A-1 is at least seasonally intermittent and would be expected to flow, at a minimum, during the "wet" season, typically from late October to early May, and during moderate to major storm events during the "dry" season from mid May to early October.**

[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.

Describe flow regime: **A-2, A-3, B-1, and the upper and middle portion of A-1 = non-RPW / ephemeral flow**
Lower portion of A-1 = seasonally intermittent RPW

Other information on duration and volume:

Surface flow is: **discrete and confined for A-2, A-3, B-1, and the upper and middle portion of A-1, generally discrete and confined with some interaction with floodplain for lower portion of A-1**
Characteristics:

Subsurface flow: **groundwater is the likely source for the the baseflow in the lower portion of A-1 observed during the Corps site visit – the site visit occurred at the end of the "dry" season and after approximately seven days without rain, and there was no flow in the upper portion of the channel;**

☐ Dye (or other) test performed: N/A.

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 **(lower portion of A-1)**
- ☐ the presence of litter and debris
- ☐ destruction of terrestrial vegetation
- ☐ the presence of wrack line

☒ sediment sorting **(lower portion of A-1)**
☐ leaf litter disturbed or washed away ☒ scour **(A-2, A-3, B-1, and the upper and middle portions of A-1)**

- ☐ sediment deposition
- ☐ water staining
- ☐ other (list):
- ☐ multiple observed or predicted flow events
- ☐ abrupt change in plant community

☐ 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):

☐ High Tide Line indicated by:
- ☐ oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- ☐ physical markings/characteristics
- ☐ tidal gauges
- ☐ other (list):

☐ Mean High Water Mark indicated by:
- ☐ survey to available datum;
- ☐ physical markings;
- ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: **Water was not flowing in A-2, A-3, B-1, and the upper and middle portions of A-1 during the Corps site visit. The water flowing in the lower portion of A-1 observed during the Corps October 24, 2013 site visit was clear.**
Identify specific pollutants, if known: **None known**

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

☒ Riparian corridor. Characteristics (type, average width):
☐ Wetland fringe. Characteristics:
☒ Habitat for:
- ☐ Federally Listed species. Explain findings:
- ☐ Fish/spawn areas. Explain findings:
- ☐ Other environmentally-sensitive species. Explain findings:
- ☒ Aquatic/wildlife diversity. Explain findings: **the lower portion of A-1 has at least seasonally-intermittent flow which is probably sufficiently frequent flow to support at least more tolerant species of benthic macro-invertebrates**

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: **Wetland D (6,300 square feet) and Wetland F (includes Wetland E – 8,800 square feet)**

[6]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
[7]Ibid.

Wetland type. **Wetlands D and F are PFO wetlands.**
Wetland quality. Explain: **Wetlands D and F appear to be high quality wetlands and, at a minimum, provide flood storage for the lower portion of A-1.**
Project wetlands cross or serve as state boundaries. Explain: **N/A**.

(b) General Flow Relationship with Non-TNW:
Flow is: **surface and subsurface, continuous** Explain: **Wetlands D and F abut A-1 and thus exchange surface and subsurface water freely with the stream.**

Surface flow is: **see above**
Characteristics:

Subsurface flow: **see above**
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 **less than 1** river miles from TNW.
Project waters are **less than 1** aerial (straight) miles from TNW.
Flow is from: **stream and probably also from groundwater**
Estimate approximate location of wetland as within the floodplain. **Wetlands D and F comprise the entirety of the floodplain at the downstream terminus of A-1 and heading upstream, comprise the interior section of the floodplain, abutting A-1.**

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **During the Corps site visit, the soil appeared to be saturated in Wetlands D and F, but there was not ponding on the surface of the wetlands. Water in the wetlands is probably similar to the water in A-1 (which the wetlands abut): clear, without any film on the surface. The project site is one of the last few un-developed areas in the watershed. Wetlands D and F and Stream Reach A-1 receive surface water from the forested portions of the site, which likely results in moderately good water quality.**
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: **Wetlands D and F have an approximately 1,460 foot wide riparian buffer of deciduous trees.**
☐ Habitat for:
☐ Federally Listed species. Explain findings:
☐ Fish/spawn areas. Explain findings:
☐ Other environmentally-sensitive species. Explain findings:
☒ Aquatic/wildlife diversity. Explain findings: **Birds, squirrels, and red fox all were observed during the 24 October 2013 Corps site visit. As some of the last remaining forested habitat in the very urbanized Anacostia River watershed, the forested site, including the forested riparian buffer of Wetlands D and F, provide important habitat for wildlife. Since no large predators, such as bear or mountain lion, are left in the wild near the urban centers of the Mid-Atlantic of the U.S., red fox is one of the few remaining predator of small mammals, such as rodents. If the populations of small mammals are left unchecked, they might devastate the vegetation of the few remaining natural areas in the urbanized watersheds in the region.**

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)
Wetland D (Y)	**0.14 ac**	**Wetland F (and E) (Y)**	**0.20 ac**

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: **Stream reaches A-2 and A-3 flow indirectly into a TNW by way of two other stream reaches: they flow through A-1, then through the Northwest Branch of the Anacostia River before they reach the Anacostia River. Stream Reach B-1and the upper and middle portions of A-1 both flow through one tributary, the Northwest Branch of the Anacostia River, before they reach the Anacostia River, a TNW. The lengths of the non-RPW ephemeral channels are as follows: A-2 is 600 feet long, A-3 is 220 feet long, B-1 is 1,600 feet long, and the non-RPW portion of A-1 is approximately 1,000 feet long (out of 1,500 total linear feet). These ephemeral channels have jurisdictional stream characteristics; all four channels have a well-defined bed and bank, rack lines, an Ordinary High Water Mark and evidence of scouring along the bed and banks. The following stream geomorphology was absent: flow (on the day of the Corps 24 October 2013 site visit); riffle-pool sequence; depositional bars or benches; braided channels; and sediment sorting. No aquatic fauna or wetland vegetation was observed to be within any of the four channels. There is no evidence that these ephemeral reaches are fed by groundwater. There are no wetlands abutting or adjacent to any of these four reaches. The closest wetlands to the middle portion of A-1 are at a much higher elevation on the stream valley and there is not a clear path of flow from these wetlands to A-1. The non-RPWs (including the upper and middle portions of A-1) do not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.**

* Aquatic Life (Organisms): **Due to the ephemeral nature of the flow in the channels, large aquatic organisms, such as fish, or aquatic organisms that require a constant state of moisture would not be expected to be present. However, more opportunistic organisms that only require a short period of time to develop, such as some tolerant species of benthic macro-invertebrates (e.g. mosquito larvae), could potentially be expected to be present in the channel for very brief periods of time. The Corps' site visit on 24 October 2013 took place toward the end of the dry season. The downstream RPW reach of A-1 was flowing, while the upper and middle portions of A-1 and the other non-RPW reaches were not flowing.**

* Habitat for Wildlife: **A detailed assessment of the quality of wildlife habitat was not performed. The ephemeral streams' corridors and adjacent upland areas may provide habitat for a variety of upland wildlife species. Deer, birds, squirrels, and red fox were all observed during the 24 October 2013 Corps site visit.**

* Support Nutrient Cycling: **The abutting riparian areas are dominated by deciduous forest which adds carbon, in the form of detritus. The conveyance of the detritus downstream may provide soil nutrition and a food source for fish and other aquatic organisms downstream. The lack of pools of standing water within or adjacent to any of the non-RPW stream channels indicates that it is unlikely that the anoxic conditions required for denitrification are present. The four non-RPW channels have eroded down to the point that they all have limited connectivity with their floodplains, thus there is little slowing of sediment as it is transported downstream from the drainage areas of each stream or from erosion within the stream channels themselves. Any nutrients attached to that sediment would also be transported downstream. While the four non-RPWs have ample opportunity to transport nutrients, there is limited opportunity to perform this function in-situ.**

* Sediment Transport: **The four non-RPWs in the area of review are heavily incised and are primarily transport reaches. There are no major blockages, such as a beaver dam or road crossing, to arrest the transport of sediment prior to reaching the RPW at the downstream end of Stream Reach A-1.**

* Pollutant Trapping: **The channel likely receives un-channelized overland flow from the surrounding upland areas that include a road, a parking lot, and an apartment building. Flow from Commodore Joshua Barney Drive NE and parking lot may convey pollutants such as motor oil and coolant and overland or subsurface flow from the mowed strip of land surrounding the apartment buildings may convey pollutants such as fertilizer or pesticides. The deeply incised non-RPW channels have little to no connection to their floodplains and would be expected to transport any pollutants downstream to the RPW, Stream Reach A-1. Although pollutants transported downstream in minor storm events would likely be trapped by the upland and wetland floodplain of the lower portion of Stream Reach A-1, pollutants transported through the non-RPWs in a large storm event could possibly reach the TNW.**

* WQ Improvement: **Since all four of the non-RPW channels have limited connection to their floodplains and are primarily transport reaches, the stream reaches would be expected to have a negligible to negative impact on water quality. Although there is a road, parking lot, and an apartment building in the upstream portion of the drainage basins of these stream reaches, the majority of the drainage areas of these streams is forested, undeveloped land. These forested riparian uplands would be expected to make a substantial contribution to improving water quality of surface and groundwater flow before it reaches the stream channels. This forested site is one of the few remaining natural areas in a highly disturbed and increasingly urban area.**

* Temperature: **When these non-RPW streams carry flow, the tree canopy in the riparian buffer would be expected to contribute shade which would moderate temperature fluctuations.**

* Flood Storage: **Due to the incised nature of the non-RPWs, likely caused by high velocity overland flow over the nearby impervious surfaces and down steep slopes in the drainage areas of each channel, the non-RPWs are not well connected to their floodplains and would thereby be unlikely to provde flood storage.**

* Commerce: **The non-RPW channels are deep (ranging from ~3 feet to 50 feet deep). However, the location of these channels upstream of a culvert (which flows under the Fort Lincoln Cemetery) and flow too infrequently to support commerce, including recreational boating or fishing. However, the non-RPWs would be expected to contribute stream flow and detritus which would improve water quality downstream in the Anacostia River, a TNW which does support fishing and boating activities less than 1 mile from the area of review.**

* Navigation: **The four non-RPWs on site are not navigable.**

* Recreation: **The four non-RPWs do not have sufficient flow to support aquatic recreation, such as swimming, boating, or fishing. However four non-RPWs are located in close proximity to single family and apartment housing on one of the last forested parcels in an increasingly developed area. If allowed, the area of review could support non-aquatic recreational activities such as hiking and bird watching proportionate to the riparian upland forested habitat.**

* Public Health: **As transport reaches, the four non-RPWs would likely have a negative impact on public health by carrying any pollutant threatening public health downstream. Other than conveying pollutants that could affect public health, the non-RPWs would not be expected to directly impact public health. If the forested area of review was available for non-aquatic recreation, the non-RPWs, as part of the area of review, could indirectly affect public health by providing a natural area for psychological benefits.**

* Groundwater Discharge: **No seeps were noted within the four non-RPW channels. Groundwater seeps were observed within the area of review in three isolated wetlands, two jurisdictional wetlands, and the lower portion of Stream Reach A-1.**

* Groundwater recharge: **The non-RPWs and the surrounding forested area of review are not paved and the groundwater seeps indicate that several aquatic features onsite intersect groundwater, thus it would be expected that some amount of groundwater recharge occurs.**

Based on the above and field experience in Washington, D.C., Stream Reaches A-2, A-3, B-1, and the upper and middle portions of Stream Reach A-1 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:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs:
   - ☐ 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:
   - ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: **The lower portion of Stream Reach A-1 was flowing at the time of the site visit, despite the area of review having no rain for the last seven to ten days prior to the site visit, the visit occurring toward the end of the dry season, and no contribution of flow from headwater tributaries Stream Reach A-2 and A-3 and the upper and middle portions of A-1. The lack of flow from other sources indicates that groundwater discharge is the primary source of baseflow for the stream and that the stream flow is at least seasonally-intermittent, if not perennial, and is a RPW that flow indirectly into a TNW. The well developed stream morphological characteristics of Stream Reach A-1 that indicate at least seasonally-intermittent flow include: development of bed and bank; development of an ordinary high water mark as indicated by a line below which no vegetation was rooted; sediment sorting; slight sinuosity with small point bars and meanders; development of a small floodplain; the clearing of debris from within the channel; and the presence of flow. Chemical and biological assessments of the stream were not conducted and no additional flow data is available for this stream reach.**

     Provide estimates for jurisdictional waters in the review area (check all that apply):
     - ☒ Tributary waters: **Lower portion of Stream Reach A-1 – 500 square feet along 240 linear feet**
     - ☐ Other non-wetland waters: acres.
       Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☒ Tributary waters: **Stream Reach A-2 – 600 square feet along 300 linear feet;**
     Stream Reach A-3 - 220 square feet along 110 linear feet;
     Stream Reach B-1 - 1,600 square feet along 400 linear feet
     Upper and middle portion of Stream Reach A-1 – 1,000 square feet along 480 linear feet
   - ☐ 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:

   - ☒ 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: **Wetlands D and F (includes E) directly abut the lower part of Stream Reach A-1. There is no separation between Wetlands D and F and Stream Reach A-1 and the elevation of the wetlands is approximately 2 centimeters higher than the stream, indicating that groundwater providing hydrology to the wetlands may drain through the wetlands to the stream as well as the stream intercepting the water table itself.**

   Provide acreage estimates for jurisdictional wetlands in the review area:
   Wetland D – 0.14 ac; Wetland F (includes Wetland E as shown on the plan) – 0.20 ac

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:

[8] See Footnote # 3.

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.
☐ 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 solely on the "Migratory Bird Rule" (MBR).
   ☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **Wetlands A, B, and C are located at too high of an elevation above Stream Reach A-1 to have a surface connection with the nearest stream and thus do not have a significant nexus to a TNW. Wetlands A, B, and C have accordingly been marked as 'isolated wetland' on the plan and have been determined to be non-jurisdictional wetlands based on a lack of significant nexus to a TNW.**
   ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole 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):
☐ Lakes/ponds:
☐ Other non-wetland waters: List type of aquatic resource:
☒ Wetlands: **Wetland A – 0.01 ac; Wetland B - 0.03 ac; Wetland C - 0.03 ac**

SECTION IV: DATA SOURCES.

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

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: **ADC vicinity map included in Delineation Report**

☒ 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.

☒ U.S. Geological Survey map(s). Cite scale & quad name: **Washington East MD-DC quad included in Delineation Report; Topographic map of site 1979, portion of Beltsville, included in 2007 Corps JD of portion of site, included in Delineation Report;**

☒ USDA Natural Resources Conservation Service Soil Survey. Citation: **Soils map of site from Washington, D.C. digital data provided in Delineation Report.**

☒ National wetlands inventory map(s). Cite name: **NWI map of site provided in Delineation Report.**

☐ State/Local wetland inventory map(s):

☒ FEMA/FIRM maps: **FIRM map of Washington D.C. and Prince Georges County Digital Data for the site was included in Delineation Report**

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): **Color Infrared aerial photo of site included in Delineation Report. GoogleEarth aerial photo using USGS imagery from 2007**

or ☒ Other (Name & Date): **Photographs included with Delineation Report**

☒ Previous determination(s). File no. and date of response letter: **Previous determination for the site includes 2003-00282 (FORT LINCOLN), authorized on 13 March 2003; and a subsequent site visit on 27 February 2009 that did not culminate in a JD.**

☐ Applicable/supporting case law:

☐ Applicable/supporting scientific literature:

☐ Other information (please specify): **Drought Severity Index by Division for the United States for the week ending September 13, 2008 and U.S. Drought Monitor for September 09, 2008, both included in the Delineation Report**

B. ADDITIONAL COMMENTS TO SUPPORT JD:

References: