APPENDIX B. WETLAND DELINEATION

2007 WETLAND DELINEATION

1.0 INTRODUCTION

1.1 STUDY PURPOSE

The purpose of this investigation was for the U.S. Army Corps of Engineers, Baltimore District (Corps) to confirm and adjust the waters and wetlands delineated in 1999 within the Huntington Flood Damage Reduction Focus Area to assist with the plan and design of the project. These waters and wetlands were previously delineated for the Woodrow Wilson Bridge Project (USDOT, 2000). This purpose was achieved through (1) a review of the delineation and report from the 1999 delineation; (2) a site visit by the U.S. Army Corps of Engineers, Baltimore District, Planning Division and Norfolk District, Regulatory Branch to confirm and make adjustments to the waters and wetlands delineation where necessary; and (3) a report and map of the findings to support a Jurisdictional Determination. The delineation conducted in 1997 and 1999 and the confirmation and adjustments of wetlands conducted in 2007 followed the 1987 *Corps of Engineers Wetland Delineation Manual*.

1.2 STUDY AREA

The study area for this investigation is the Huntington Flood Damage Reduction Study Focus Area. The study area is bounded by Cameron Run to the north, Huntington Avenue to the south, Fenwick Avenue to the west and Foley Street and the Riverside Apartments. The majority of the area is residential and Huntington Park is located to the north of the homes. Huntington Park consists of a baseball field, mowed lawns and fill areas, with a wooded buffer between the park and Cameron Run. Wetlands exist within the wooded buffer along Cameron Run and along the southern bank of Cameron Run.

2.0 METHODS

2.1 DATA COLLECTION AND ANALYSIS

The Corps reviewed the 1997 and 1999 wetland delineations completed for the Woodrow Wilson Bridge Project for the location and descriptions of wetland areas within the Huntington Flood Damage Reduction Focus Area. The Corps also collected information from USGS topographic quadrangles (USGS, 1983), USDA soil surveys (USDA, 1963; USDA, 2008), aerial photography (Aerials Express, 2004), and U.S. Fish and Wildlife Service's National Wetland Inventory (NWI) maps (USFWS, 2005) to further assess the potential for wetlands to occur within the study area. A composite map was created in GIS by overlaying the collected data, including the 1997 and 1999 wetland delineation, aerial photography, topography, soils and NWI data. Previously identified wetlands and potential wetland areas were identified to be verified in the field.

2.2 WETLAND DELINEATION

The wetland delineations in 1997, 1999 and 2007 were performed pursuant to the 1987 *Corps of Engineers Wetland Delineation Manual* and subsequent guidance memoranda, as Federal and state agencies require use of these documents for jurisdictional investigations. The 2007 delineation field work was conducted on 23 July 2007 by the Corps, Baltimore District Planning Division and Norfolk District Regulatory Branch. Previously delineated wetland boundaries were confirmed or adjusted and marked with flagging where necessary.

2.3 GLOBAL POSITIONING SYSTEM (GPS) METHODOLOGY

Updated wetland boundaries were surveyed using Global Positioning System (GPS) technology. The objective of the GPS survey was to collect location data for each new wetland delineation flag. This survey horizontally references the North American Datum of 1983 (NAD83), Virginia North State Plane Coordinate System (Zone 4501). The survey utilized the Trimble GeoXT handheld GPS system for GIS data collection yielding sub-meter horizontal accuracy. This data was then transferred into ArcGIS 9.3 for analysis and mapping.

3.0 FINDINGS

3.1 WOODROW WILSON BRIDGE PROJECT WETLAND DELINEATION

Two wetland areas were delineated within the Huntington Flood Damage Reduction Focus Area during the 1997 and 1999 wetland delineations (see Attachment 1 for a map of the wetland delineation and datasheets). Both of these wetlands are along the southern bank of Cameron Run. Wetland 12C is located on the northwestern side of Huntington Park and is a small circular wetland that is approximately 0.54 acres. Wetland 12C is classified as a palustrine, forested, broadleaf deciduous, semi-permanently flooded, tidal wetland. Wetland 13 is a complex of wetlands that includes Wetland 13A and Wetland 13B. This wetland complex is located on the northeastern corner of Huntington Park. Wetland 13 surrounds Wetlands 13A and 13B and is classified as a palustrine, forested, broadleaf decidous, temporarily flooded, tidal wetland. Wetlands 13A and 13B are immediately adjacent to Cameron Run and are classified as palustrine, emergent, temporarily flooded, tidal wetland.

3.2 2007 WETLAND DELINEATION

The two wetland areas identified in 1997 and 1999 were observed during the 2007 delineation, but have decreased in size with portions of these wetlands converted to uplands (see Attachment 2 – map entitled “2007 Wetland Delineation”). Photographs and datasheets for these two wetland areas are attached as Attachment 3 and Attachment 4, respectively.

Wetland 12C shifted from a circular wetland to a linear feature that is influenced by tides in Cameron Run from the Potomac River. At the time of the visit, this wetland was flagged to be approximately 0.006 acres (264 square feet), which is a significant decrease in area since 1997 and 1999. This wetland is still a palustrine forested wetland and is dominated by red maple (*Acer rubrum*), box elder (*Acer negundo*), green ash (*Fraxinus pennsylvanicum*), and spotted ladysthumb (*Polygonum persicaria*). Evidence of wetland hydrology included water marks on trees, sediment deposits and wetland drainage patterns. The soils are mapped as hydric, and showed low chroma colors with common and distinct mottles. Saturated soils were observed at a depth of 12 inches.

A large portion of Wetland 13 also converted to uplands, leaving a small portion of Wetland 13 disconnected from the larger main complex. The palustrine forested Wetland 13 remains forested but has decreased significantly in size and is approximately 1.8 acres, including the disconnected portion. Wetland 13A is approximately 1.3 acres and Wetland 13B is approximately 0.9 acres. It appears that while the forested portion of the wetland complex has decreased in size, the emergent wetland areas may have slightly increased over time. The forested wetland, Wetland 13, is dominated by green ash, with red maple, box elder, American sycamore (*Platanus occidentalis*) and silver maple (*Acer saccharinum*) scattered throughout.

Evidence of wetland hydrology within the forested wetland includes water marks on trees, sediment deposits and wetland drainage patterns. A drainage channel from a pipe discharging stormwater into Wetland 13 is apparent from the long finger of Wetland 13 that extends south into the park on the southwestern side of the wetland. The soils are mapped as hydric, and showed low chroma colors with common and distinct mottles. Wetlands 13A and 13B are immediately adjacent to Cameron Run and are still surrounded by the forested Wetland 13. There is a small stretch of Wetland 13 that divides these two palustrine emergent wetlands. The eastern edge of Wetland 13 is lined by a stormwater drainage channel. Dominant species in both Wetland 13A and 13B are the same and include spatterdock/yellow pond-lily (*Nuphar advena*), rice cutgrass (*Leersia oryzoides*), spotted ladysthumb, and jewelweed (*Impatiens capensis*). At the time of the visit, both Wetlands 13A and 13B were inundated. These wetlands are influenced by tides in Cameron Run from the Potomac River.

4.0 CONCLUSIONS

Wetlands 12C, 13, 13A and 13B are all jurisdictional wetlands under Section 404 of the Clean Water Act. A letter of Jurisdictional Determination is attached (Attachment 5), exerting regulatory authority over these wetlands by the Corps, Norfolk District, Regulatory Branch. Any activity that would result in the discharge or placement of fill or any mechanized land clearing activities within these wetland areas will require a permit from the Department of the Army and possibly authorizations from the State and local authorities.

5.0 REFERENCES

Aerials Express. 2004. Aerial Photography, Washington, D.C.

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U.S. Fish and Wildlife Service (USFWS). 2005. National Wetland Inventory (NWI) mapping. Washington, D.C.

U.S. Geological Survey (USGS). 1983. Alexandria, VA. – D.C. – MD. Quadrangle. 7.5-minute topographic series. Scale 1:24,000. 1 Sheet. U.S. Department of the Interior.