Appendix C: Wetlands Memorandum

MEMORANDUM

TO: Tammy Stidham, National Park Service – National Capital Region (NPS-NCR)
DATE: February 1, 2018
FROM: Craig Patterson Nein, Environmental Scientist
PROJECT: Environmental Assessment for Park Improvements to Buzzard Point Park
JMT JOB NO.: 13-1429-23A
RE: Wetland Investigation and Delineation

On behalf of the National Park Service (NPS), Johnson, Mirmiran & Thompson, Inc. (JMT) conducted a wetland investigation and delineation on December 13, 2017 for the proposed Environmental Assessment for Park Improvements to Buzzard Point Park (Buzzard Point Park Project). Buzzard Point Park is a NPS waterfront park located on an industrialized peninsula adjacent to the Anacostia River, in the southwestern portion of the District of Columbia. The main objective of the project is for NPS to transform Buzzard Point Park into a community waterfront amenity, following the closure of the existing marina at the park in 2016. The study area for the wetland delineation investigation described in this report was approximately 9.97 acres in size and ran along the northern shore of the Anacostia River from 2nd Street SW to the vicinity of the intersection of Half Street SW and Water Street SW.

Prior to conducting the fieldwork, a desktop review of published information was performed to identify known site conditions and to determine the presence of known wetlands and/or watercourses in the study area. A list of the references utilized and their effective dates is provided below.

- *Alexandria, VA-DC-MD 7.5' x 7.5' Topographic Quadrangle* (United States Geological Survey, 2013) (**Figure 1**);
- *Web Soil Survey of District of Columbia* (United States Department of Agriculture - National Resources Conservation Service, 2017) (**Figure 2**);
- *National Wetlands Inventory* (United States Fish and Wildlife Service, 2017) (**Figure 3**);
- *Flood Insurance Rate Map, District of Columbia, Washington, DC, Panel # 1100010057C* (Federal Emergency Management Agency, 2010) (**Figure 4**);
- *Anacostia River Bathymetric Survey 2013, Technical Memorandum, December 9, 2013* (District Department of the Environment, 2013) (**Figure 5**).

According to the Alexandria 7.5' x 7.5' Quadrangle (USGS, 2013), the project site lies adjacent to the northern side of the Anacostia River, approximately 1,700 feet northeast of the Washington Canal.

The Web Soil Survey data for the District of Columbia (USDA-NRCS, 2017) identified two mapped units within the study area, which are described in **Table 1** below. The study area is

confined to a small area in a largely industrialized peninsula adjacent to the Anacostia River, which accounts for the lack of variability in soil types.

Table 1: Soil Profile Descriptions for the Buzzard Point Park Project

Map Unit Symbol	Map Unit Name	Map Unit Properties	Hydric Rating
Ub	Urban land	runoff class = very high	Non-Hydric
W	Water	Composed of 100-percent water	Non-Hydric

A review of the National Wetlands Inventory Wetlands Mapper (USFWS, 2017) identified one riverine wetland within the vicinity of the study area. The Anacostia River was identified as a riverine wetland system with Cowardin class R1UBV (Riverine Tidal Unconsolidated Bottom, Permanent-Tidal). No mapped palustrine wetlands were identified.

The FEMA Floodplain Map (FEMA, 2010) indicates that the majority of the study area is located within a FEMA-designated 100-year floodplain of the Anacostia River system. A portion of the northeastern end of the study area occurs within the 500-year floodplain boundary.

JMT performed a field investigation of the study area to identify and delineate wetlands and to evaluate potential impacts to wetlands and floodplains in accordance with Executive Orders 11990 (Protection of Wetlands) and 11988 (Floodplain Management). Methodologies outlined in the associated NPS Procedural Manuals (PM 77-1 and PM 77-2) were followed. Any area that is classified as a wetland according to the Federal Geographic Data Committee (FGDC) Wetlands Classification Standard (FGDC-STD-004-2013) is considered a wetland by the NPS and subject to Director's Order 77-1 and the associated procedures in PM 77-1. The FGDC Wetlands Classification Standard is based on the U.S. Fish and Wildlife Service's *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979).

Guidance for delineating and mapping wetlands to meet both U.S. Army Corps of Engineers (USACE) and NPS requirements outlined in PM 77-1 was followed for the field investigation. Thus, for areas with vegetation and soils, delineations were conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, Version 2.0* (USACE, 2010). For naturally unvegetated or non-soil sites (e.g., some stream channels), the limits of these systems based on the FGDC Wetlands Classification Standard were followed. In riverine wetland systems, the boundary between the riverine wetland and deepwater habitat occurs at a depth of 2.5 meters at low water. This report identifies the classification of delineated resources based on both the NPS and USACE regulations and procedures.

RESULTS

One riverine wetland (WET-1 in the Anacostia River) and one deepwater habitat area (DW-1 in the Anacostia River) were identified and delineated in the study area based on the FGDC Wetlands Classification Standard during the investigation on December 13, 2017. No palustrine wetlands were observed, as all vegetated areas adjacent to the Anacostia River were dominated by vegetation more characteristic of uplands and lacked hydric indicators. Please see **Attachment 2** for site photographs from the field investigation. Delineated resource boundaries and site photograph locations are depicted on **Figure 6** in **Attachment 1**.

Aquatic Resources

Wetland 1 (WET-1)

WET-1 is a riverine wetland consisting of the western side of the Anacostia River running alongside the eastern portion of the study area. This wetland was classified as a R1UBV system (Riverine Tidal Unconsolidated Bottom, Permanent-Tidal). The riverward side of the WET-1 boundary (2.5 meters below low water elevation) was mapped using the 2013 bathymetric data (DDOE, 2013). A portion of the boundary had to be estimated at this time due to a lack of bathymetric data in the vicinity of the former marina infrastructure. The area of WET-1 mapped for the proposed project consisted of approximately 5.69 acres and was delineated as open ended, continuing further to the northeast and southwest. Observable substrate along the banks of the river included silt, cobbles, and boulders. Steep banks with heights of 6 to 8 feet or greater were observed throughout the study area. Based on the FGDC Wetlands Classification Standard, the portion of the Anacostia River landward of 2.5 meters below low water elevation (WET-1) was delineated as a NPS wetland.

WET-1 would also qualify as a portion of a jurisdictional Waters of the U.S. (Anacostia River, perennial watercourse) and be subject to Section 404 permitting requirements by the USACE.

Deepwater Habitat 1 (DW-1)

The deeper portions of the Anacostia River beyond the 2.5-meter boundary line are considered deepwater habitat per the FGDC Wetlands Classification Standard, and are labeled as DW-1 in **Figure 6**. According to the FGDC Standard, deepwater habitats are permanently flooded lands lying below the deepwater boundary of wetlands. As stated in PM 77-1, deepwater habitats under the FGDC Standard are not considered wetlands and are not regulated by the NPS per Executive Order 11990. The DW-1 area was mapped as open-ended and continues further up and downstream from the study area.

Similar to the WET-1 portion of the Anacostia River, the DW-1 area would also be considered part of a jurisdictional Waters of the U.S. (perennial watercourse) and be subject to Section 404 permitting requirements by the USACE.

Uplands

The existing park is situated in a heavily urbanized area and consists primarily of impervious surfaces, maintained lawns, and a vegetated riparian fringe along the majority of the length of the Anacostia River within the study area. Dominant vegetation along the vegetated riparian area included red maple (*Acer rubrum*, FAC), elm (*Ulmus* sp.), American sycamore (*Platanus occidentalis*, FACW), Morrow's honeysuckle (*Lonicera morrowii*, FACU), blackberry (*Rubus* sp.), American pokeweed (*Phytolacca americana*, FACU), Japanese knotweed (*Reynoutria japonica*, FACU), Virgin's bower (*Clematis terniflora*, FACU), Japanese honeysuckle (*Lonicera japonica*, FACU), and English ivy (*Hedera helix*, FACU).

CONCLUSION

On behalf of the NPS, JMT performed a wetland delineation investigation on December 13, 2017 for the Environmental Assessment for Park Improvements to Buzzard Point Park in the District of Columbia, during which one wetland and one deepwater habitat area based on the FGDC Wetlands Classification Standard were identified. WET-1 is a riverine (R1UBV) wetland consisting of the western side of the Anacostia River to 2.5 meters below low water elevation. DW-1 consists of deepwater habitat in the deeper sections of the Anacostia River beyond the riverward boundary of WET-1.

The entirety of the Anacostia River, including the portions delineated as WET-1 and DW-1, would also be classified as a perennial watercourse and jurisdictional Waters of the U.S., subject to Section 404 permitting by the USACE.

In addition to any required Section 404 permitting, potential adverse impacts to WET-1 or floodplain resources would likely require a formal Statement of Findings with associated compensation for NPS wetland and/or floodplain impacts. Coordination with the NPS Water Resources Division would be required to obtain an official determination. A Building Permit through the District of Columbia may also be required for proposed construction or development in Special Flood Hazard Areas (SFHAs). All development projects in SFHAs must comply with Title 12 (DC Construction Codes) and Title 20 Chapter 31 (Flood Hazard Rules) of the District of Columbia Municipal Regulations (DCMR).

ATTACHMENT 1:
FIGURES

ALEXANDRIA, VA-DC-MD 7.5 MINUTE USGS QUADRANGLE

NORTH AMERICAN 1983 DATUM (NAD 83)

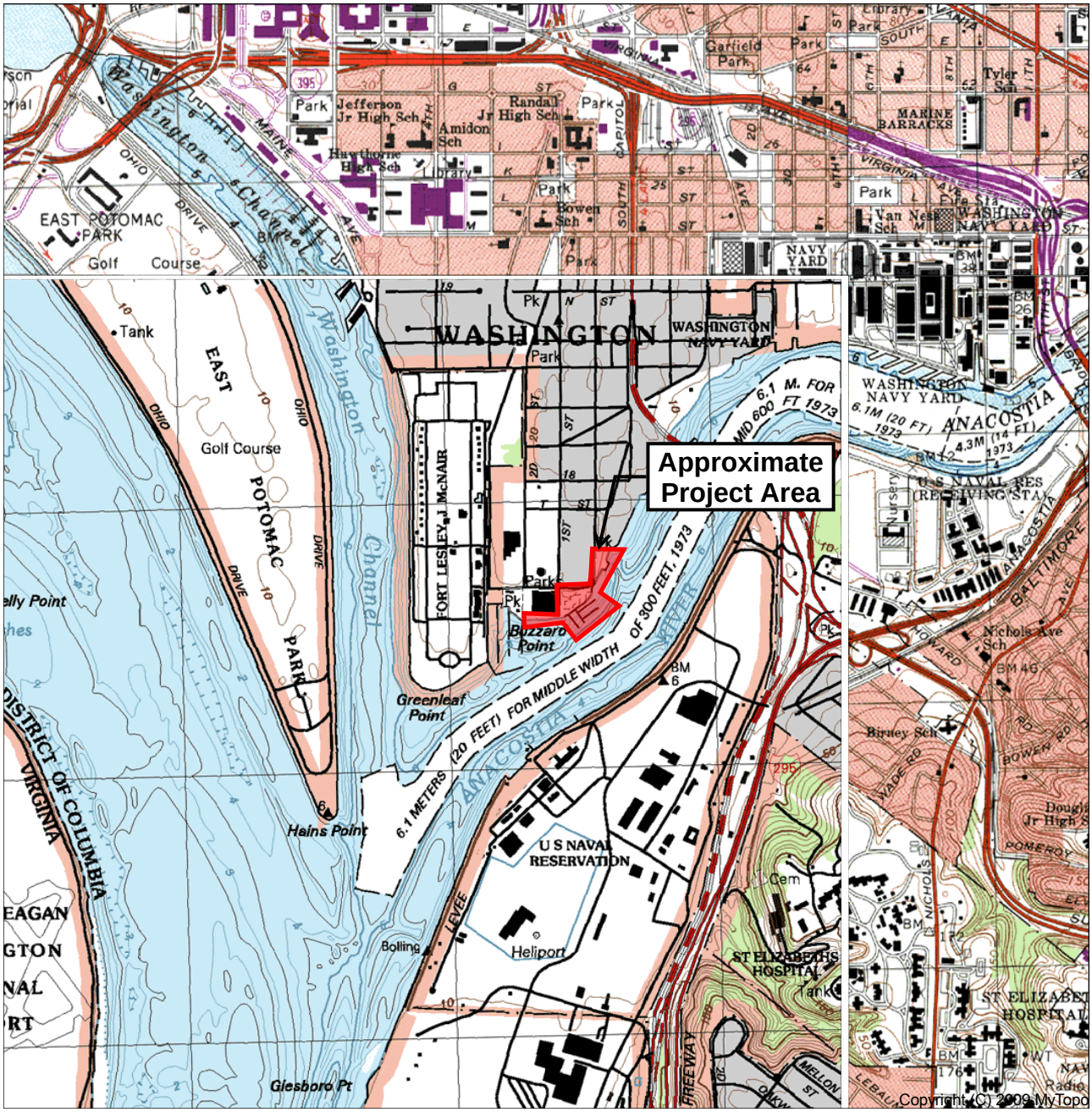


Figure 1: Project Location Map

Buzzard Point Park Project
District of Columbia

SCALE 1:24000

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8
MILES

0 1000 2000 3000 4000
FEET

Figure 2. Web Soil Survey Map, Buzzard Point Park Project, District of Columbia

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: District of Columbia
Survey Area Data: Version 11, Oct 2, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ub	Urban land	28.8	45.8%
W	Water	34.0	54.2%
Totals for Area of Interest		**62.9**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

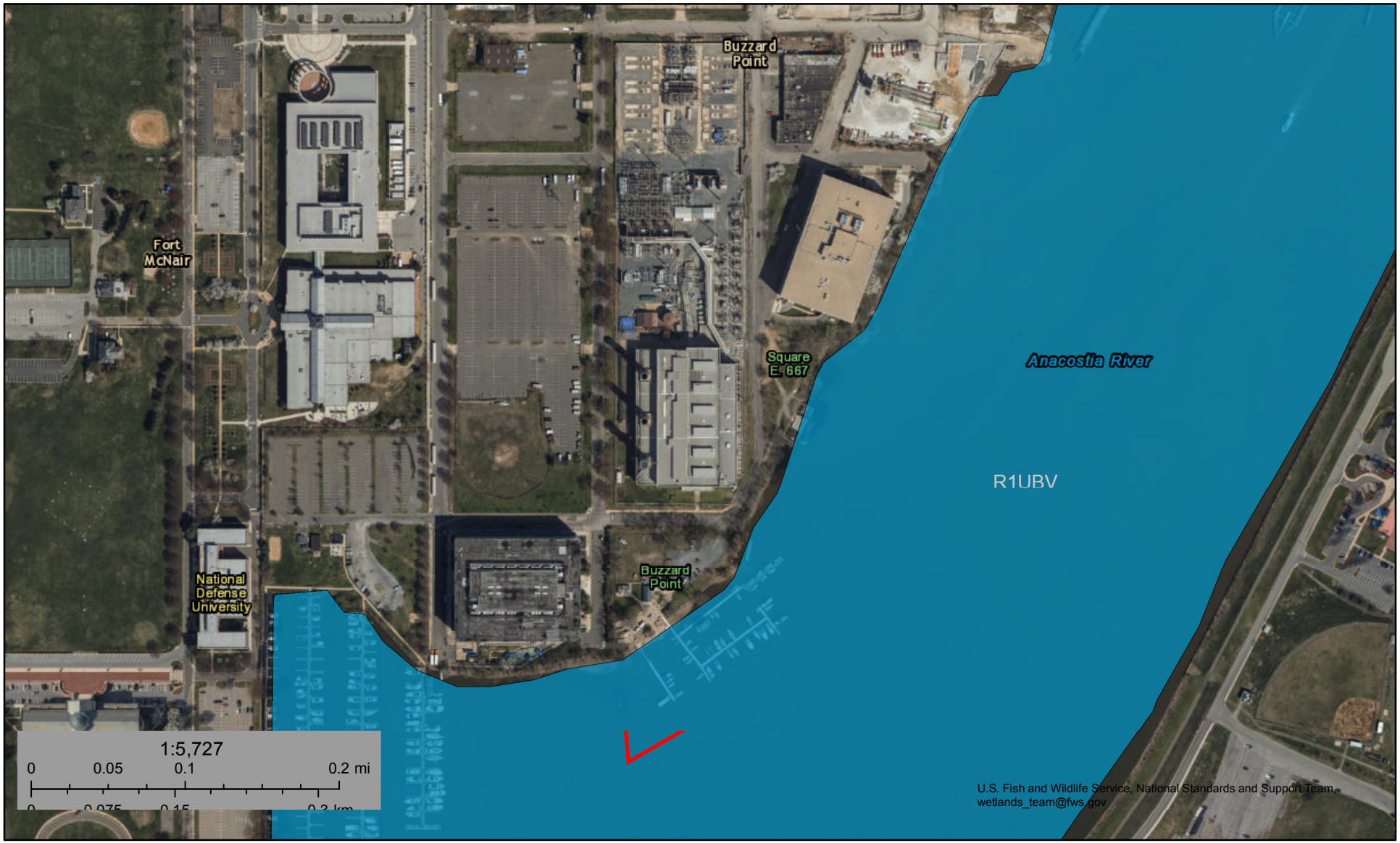
Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

U.S. Fish and Wildlife Service
National Wetlands Inventory

Figure 3. NWI Map

Buzzard Point Park Project, District of Columbia



December 19, 2017

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Figure 4. FEMA FIRM Map, Buzzard Point Park Project, District of Columbia

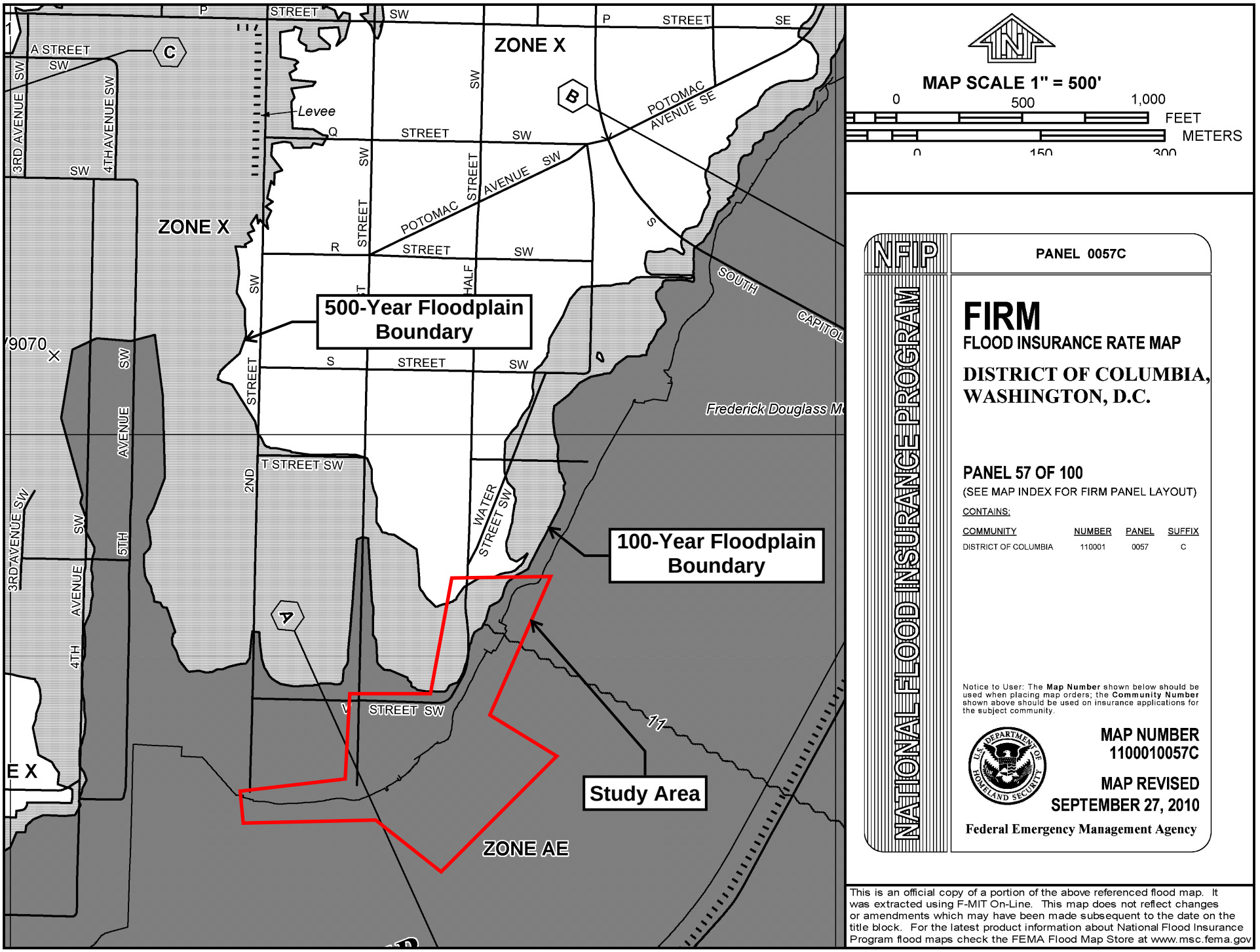


Figure 5. Bathymetry Map

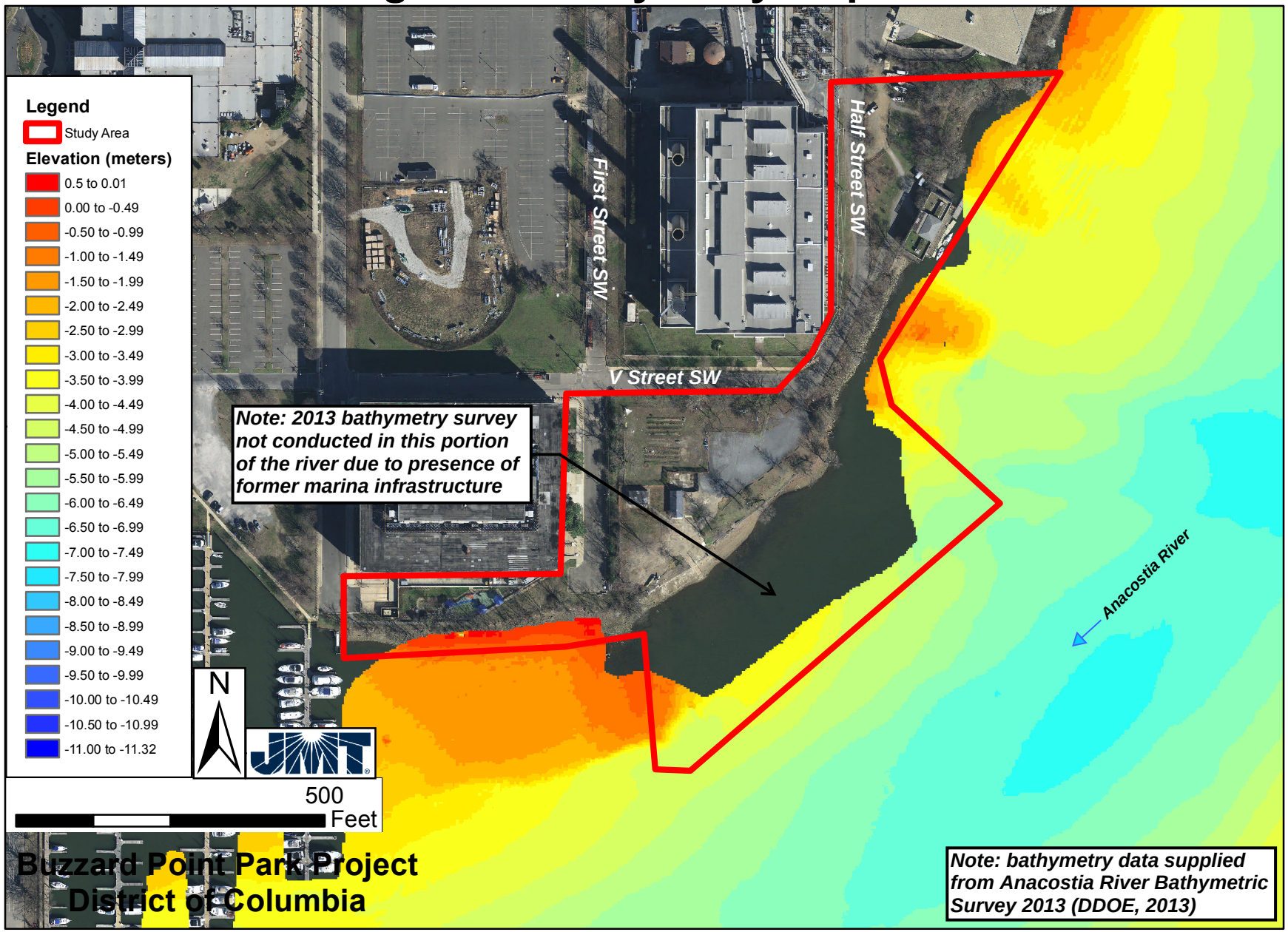
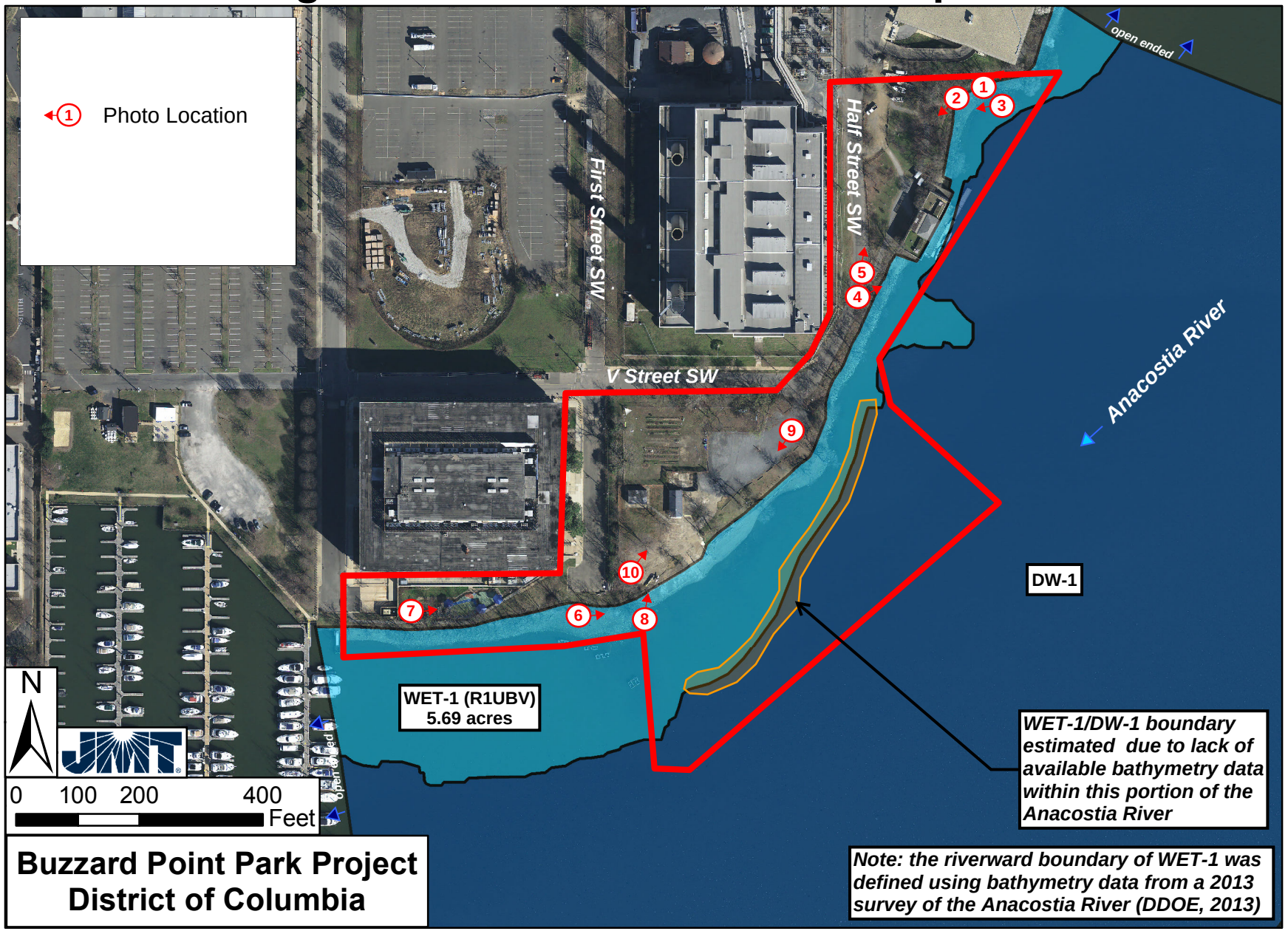


Figure 6. Wetland Delineation Map



ATTACHMENT 2:
SITE PHOTOGRAPHS

Photo 1: Looking northeast toward the northern end of the study area

Photo 2: Looking southwest along the riparian fringe of the Anacostia River (WET-1) in the northern portion of the study area.

Photo 3: Looking west along the north shore of the Anacostia River (WET-1) in the northern portion of the study area

Photo 4: Looking northeast toward the Anacostia River (WET-1) in the vicinity of the Henson Center building

Photo 5: Looking north within Buzzard Point Park in the vicinity of the Henson Center building

Photo 6: Looking east along the rocky shoreline of the Anacostia River (WET-1) in the southern portion of the study area

Photo 7: Looking east along an existing pathway in the southern portion of the study area

Photo 8: Looking north towards the bank of the Anacostia River (WET-1) in the vicinity of the old park marina

Photo 9: Looking southwest towards the Anacostia River (WET-1) from the existing parking lot in the central portion of the study area

Photo 10: Looking northeast towards the old park marina in the central portion of the study area