

**Greenbelt Park
Jaeger Tract Wetland Delineation**

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Jaeger Tract Wetland Delineation

In order to expand on the resource database and to investigate the possible creation of a man-made wetland within Greenbelt Park, a wetland delineation has been performed on a portion of the Park known as the Jaeger Tract. The delineation determined the presence and extent of wetlands as defined in the U.S. Army Corps of Engineers Wetland Delineation Manual and the U.S. Fish and Wildlife Service's Manual, "A Field Guide to Nontidal Wetland Identification". The evaluation was refined through an onsite investigation of soils, hydrology and vegetation. The spatial extent of the wetland area has been quantified and is described in this report.

Wetlands Report

The following report has been compiled for the Jaeger Tract, located south of the Westchester Park Apartments in Greenbelt Park. The Park is located in Prince George's County northeast of the District of Columbia. This report results from a site investigation of soils, hydrology and vegetation as defined in the U.S. Army Corps of Engineers Wetlands Delineation Manual. The presence and extent of wetlands within the Jaeger Tract are outlined and described. Site investigation included classification of all soil types and hydrophytic (wetland) vegetation as well as the identification of all visible hydrologic features. The designated wetland area was flagged and its area and exact extent have been determined and described below.

A) SITE DESCRIPTION

The Jaeger Tract is located within Greenbelt Park just east of Kenilworth Avenue (MD 201) and south of the Westchester Park Apartments (Fig. 1). The area consists of a partially developed 18.86 acre parcel of land that was donated to the Park. When donated, the parcel had been excavated and foundations laid for an apartment complex. The area was almost totally devoid of vegetation and many erosion and runoff problems were occurring, providing a large quantity of sediment to Still Creek. In 1985, the State of Maryland cited the Park for violation of the non-point source requirements of the Clean Water Act. The Park then made an agreement with a local contractor who provided approximately 300,000 cubic yards of fill material and plantings for the area. Presently, despite the remediation efforts that have been made, the Jaeger Tract is still considered a significant contributor of sediment to the Park's streams.

Land cover of the area currently consists of approximately 90% brush-grass mixture, and a small amount of woods in the southern site area where the parcel adjoins Still Creek. The site, originally consisting of flat coastal plain topography incised somewhat by a small stream valley, now consists of a main central hill area with 3:1 side slopes. Existing wetlands were observed in the southeast section of the parcel, which is the site of a failed stormwater management pond.

Wetlands were also observed along the southern site boundary of the parcel in a narrow band along Still Creek. These creek area wetlands were located only along the extreme south eastern parcel fringe and hence are not dealt with in detail in this report. (note: these wetlands are in the stream corridor and not contiguous with those on site)

A wetland investigation was also performed in the southwestern corner of the Jaeger Tract, in an area proposed as a possible site for wetland creation (Fig. 2). The results of this investigation as well as those for the entire site have been summarized in the conclusion.

B) WETLAND AND CREEK CHARACTERISTICS

The two existing wetland areas within the Jaeger Tract are located in the southeast portion of the site adjacent to a tributary to Still Creek and along the Still Creek flood plain. The main wetland occupies the area of a failed stormwater management pond and extends somewhat up an inlet to the pond (Fig. 2). The wetland occupies a total area of approximately 0.34 acres and is composed of a mixture of emergent and scrub/shrub wetland plant species. Topography throughout the wetland area is level, becoming slightly steeper along the two stormwater management pond inlets.

Though not a natural wetland, the stormwater management pond area exhibits many wetland characteristics such as standing water, the presence of seeps, hydrophytic vegetation and hydric soil.

According to the U.S. Fish and Wildlife Service's classification, the stormwater management pond area (although not identified on the USFWS's wetland maps) could be classified as PEM5A in the bulk of its area, and PSS1A in small portions of the area (Fig.3). PEM5A is defined as a palustrine emergent wetland dominated by narrow leaved persistent wetland plants subject to temporary flooding, while PSS1A differs only in that it is dominated by scrub/shrub species. The wetland associated with the Still Creek floodplain is identified on the USFWS's wetland maps as PF01A: a palustrine wetland forest dominated by broad leaved deciduous trees subject to temporary flooding.

The creek adjacent to the main wetland area, although not a part of the wetland, is a small unnamed tributary to Still Creek and drains an area of approximately 90 acres. The creek is located in the lower Anacostia basin area and is a part of the Northeast Branch watershed. The channel slope of the creek is approximately 3% through the site with an average stream flow of 5 cfs. The creek, at least in its lower reaches, is perennial with its streamflow occurring as a result of runoff and a seasonally high water table.

According to the Maryland Department of the Environment the creek, as well as the main branch of Still Creek, is classified as a Class 1 stream, suitable for water contact recreation, aquatic life and water supply. A National Park Service Flood Plain map, prepared in a June 1980 Study for the park indicates that the 100 year floodplain delineation overlaps the studied wetland area (Fig. 4).

C) SOILS

The soil of the wetland area consists entirely of the Bibb Silt Loam (Fig. 5). The Bibb Silt Loam is a nearly level, poorly drained soil of flood plains formed from recently deposited alluvium that was washed down from upland soils of the county. Drainage is the soil's most serious limitation, and a high water table limits the soil's uses. Due to its saturated condition during most of the year, the soil tends to develop anaerobic conditions that favor the growth of hydrophytic vegetation. The soil is then, by definition, a "hydric" soil and exhibits hydric mineral soil characteristics such as mottles and a characteristic grey color.

A number of soil samples were taken throughout the wetland area from the upper B horizon using a garden spade. In at least 8 different areas the wetland soils were found to be saturated and exhibit "mottles," a brownish discoloration caused by precipitated iron in a poorly drained soil. These soil samples were used as one of the indicators to delineate the wetland boundary.

The native vegetation commonly associated with the Bibb Silt Loam tends to consist of water tolerant wetland species such as wetland oaks, willow, maple and river birch. However in this particular area smaller vascular wetland species tended to dominate the wetland.

D) VEGETATION

According to the United States Army Corps of Engineers, wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Technically to be a wetland, the area in question must exhibit at least one wetland characteristic from each wetland parameter: hydrology, soil, and vegetation. Hydrologic characteristics of the site are consistent with a wetland, with inundation and soil saturation occurring at regular intervals during the growing season. Soils at the site are saturated long enough during the growing season to develop anaerobic conditions, favoring wetland vegetation and are therefore classified as being hydric. Finally, the presence of hydrophytic vegetation is also consistent with wetland characteristics. The presence of wetland features in hydrology, soil and vegetation confirms the wetland identification for the area in the storm water management pond.

The following is a list of indicative wetland plant species found at the site. These plant species, indicators of wetland hydrology, soil samples and the procedure outlined in the U.S. Army Corps of Engineers wetlands delineation manual were used to delineate the wetland area.

TABLE 1A
HYDROPHYTIC VEGETATION SWM POND

COMMON NAME	GENUS SPECIES	INDICATOR STATUS	ABUNDANCE & COMMENTS
Umbrella Sedge	Cyperus strigosus	FACW	common in open areas
Nodding Bur Marigold	Bidens cernua	OBL	common in open areas
False Nettle	Boehmeria cylindrica	OBL	some species noted
Smartweed	Polygonum punctatum	OBL	common in open areas
Cattail	Typha latifolia	OBL	common throughout area
Jewel weed	Impatiens capensis	FACW	some species noted
Monkey Flower	Mimulus ringens	FACW	some species noted
Bushy Beardgrass	Andropogon glomeratus	OBL	some species noted
Black Willow	Silix nigra	OBL	some species noted
Eastern Cottonwood	Populus deltoides	FACW	some species noted

In delineating the wetland, the predominance of obligate, facultative wet and facultative plant species were used. Obligate plant species occur greater than 99% of the time in wetlands under natural conditions. Facultative wet plant species occur between 67 and 99% of the time in wetlands under natural conditions. In the wetland area in the pond under study there was a predominance of obligate and facultative wet plant species noted, the most common being Nodding Bur Marigold, Cattail, Smartweed and Black Willow.

E) CONCLUSION

In conclusion, the wetland within the stormwater management pond area was found to occupy approximately 0.34 acres of the total 18.86 acre Jaeger Tract. This area may be increased if a combination wetland/stormwater management pond for the area is constructed. This wetland estimate does not include the band of wetlands, approximately 5-10 feet wide along Still Creek, as this area was isolated and totally separate from the stormwater management pond area. This wooded area, to be left undisturbed, could be classified by the USFW as PFO1A, a palustrine wetland forest dominated by broad leaved deciduous trees subject to temporary flooding. This area occurs only on the far southeastern property line of the Jaeger Tract. All other areas observed within the site, including the studied southwestern area did not meet wetland criteria and hence were not classified as wetlands.

REFERENCES

- 1) Washington East, MD-DC National Wetlands Inventory Quadrangle, Prepared April 1981.
- 2) Soil survey of Prince Georges County, Maryland. United States Department of Agriculture, Soil Conservation Service, April 1967.
- 3) U.S. Army Corps of Engineers Wetland Delineation Manual. Federal manual for identification and delineation of jurisdictional wetlands, U.S. Fish & Wildlife, EPA, Army Corps of Engineers, SCS, Cooperative publication, January 1989.
- 4) The Audubon Society Field Guide to Wetlands, William A. Niering, published by Alfred A. Knopf, Inc., Chanticleer Press, Inc., New York, 1985.
- 5) Vascular plants species occurring in Maryland Wetlands. Frank Wrightson Dawson, III, or David G. Burk, prepared for Coastal Resources Division, Tidewater Administration, Maryland Department of Natural Resources, June 1985.
- 6) Maryland Department of the Environment; Code of Maryland, Regulations 10.50.01; Water Quality and Water Pollution Control. July 1, 1991.
- 7) U.S.G.S. Quadrangle for Washington East, MD-DC, photo revised 1971.
- 8) Britian and Brown: An Illustrated flora of the Northern United States and Canada, General Publishing Company, Canada, Dover addition, New York, 1970.
- 9) Tiner, Ralph; Field Guide to Nontidal Wetland Identification, Maryland Department of Natural Resources, Annapolis, Maryland and U.S. Fish & Wildlife Service, 1988.
- 10) Information Base for a Development Concept Plan/General Management Plan for Greenbelt Park, Maryland, U.S. Department of the Interior, June 1980.

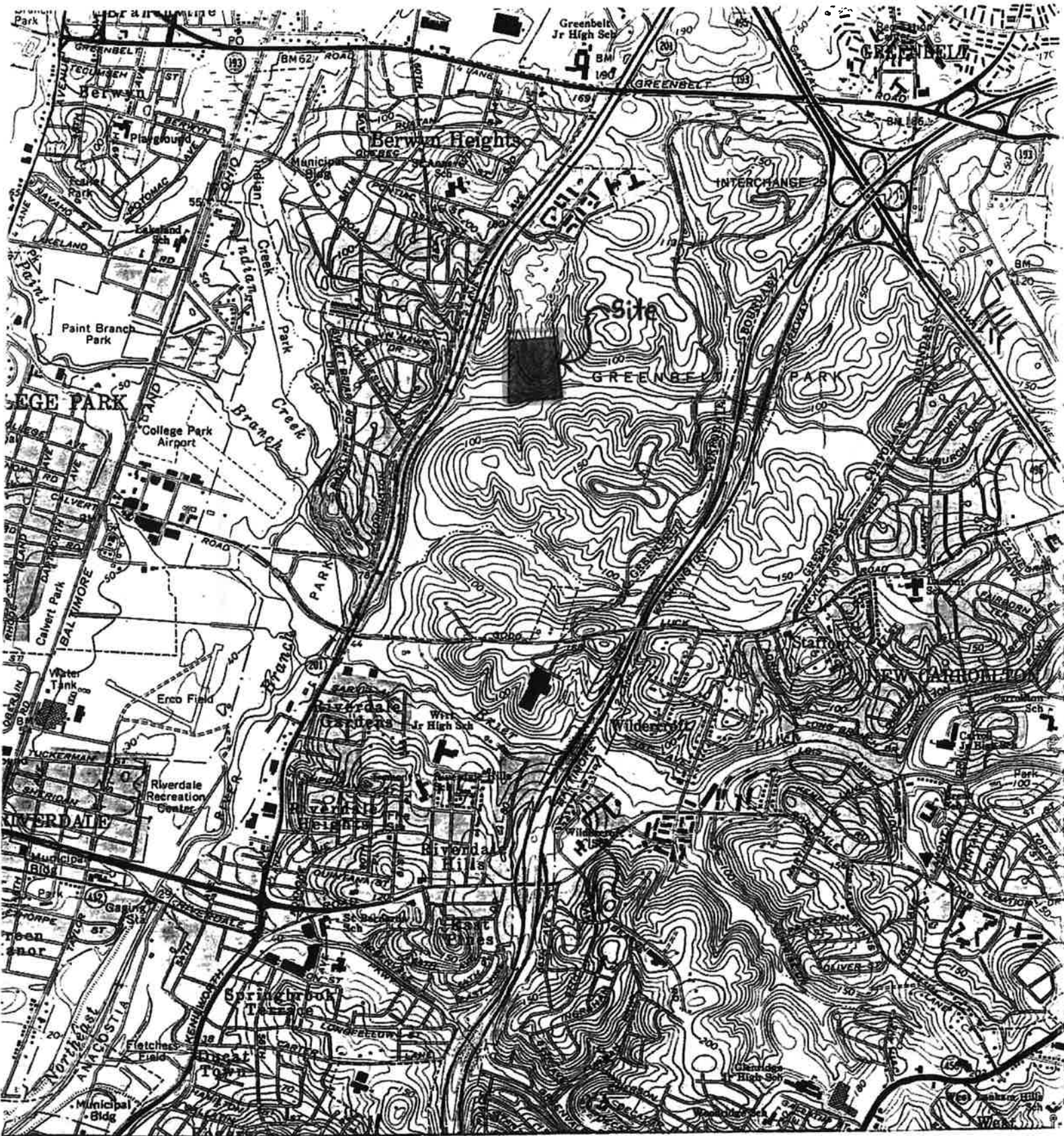


Fig. 1 Jaeger Tract Site

copy reduced 80%

75'

Scale 1" = 75'

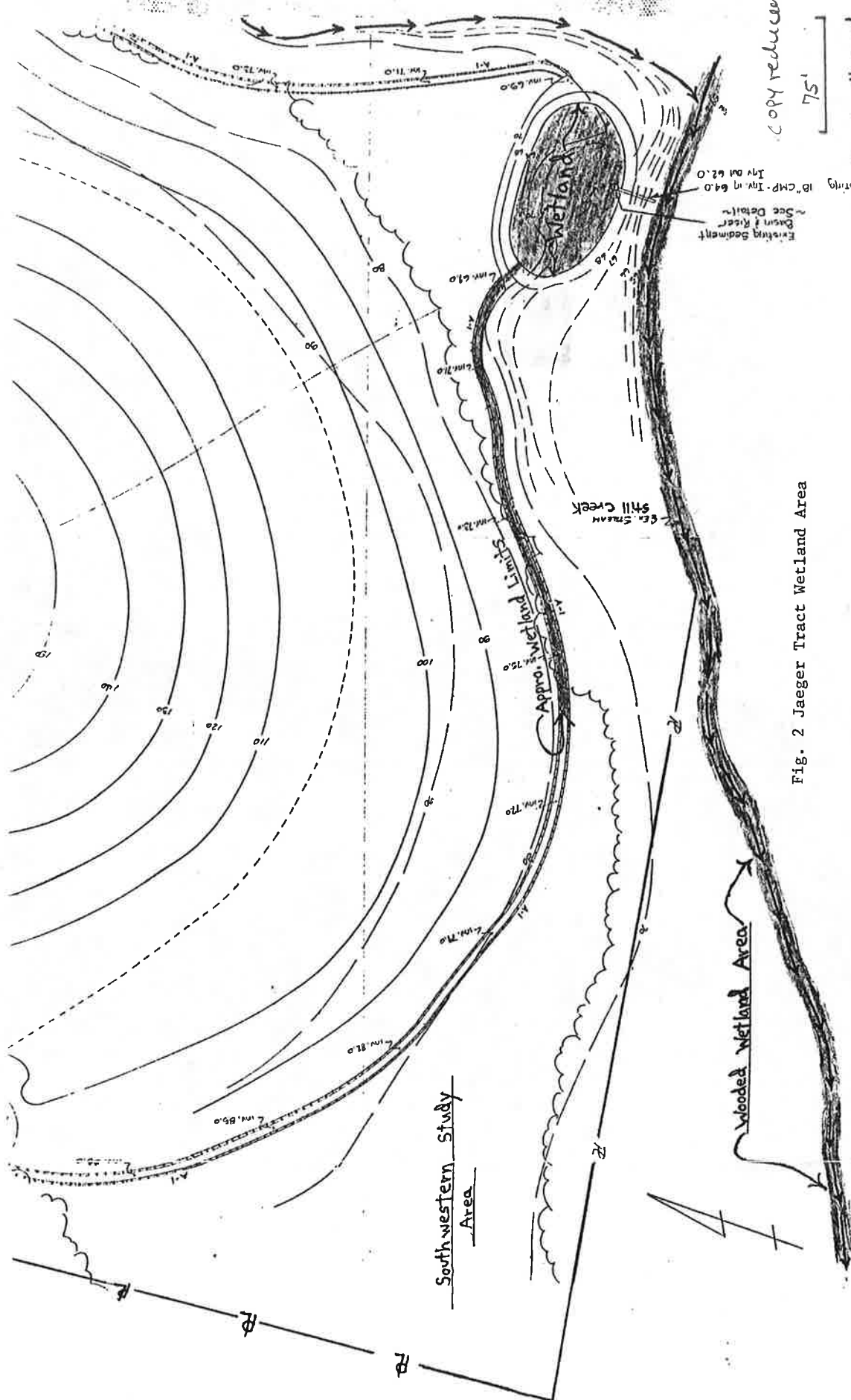


Fig. 2 Jaeger Tract Wetland Area

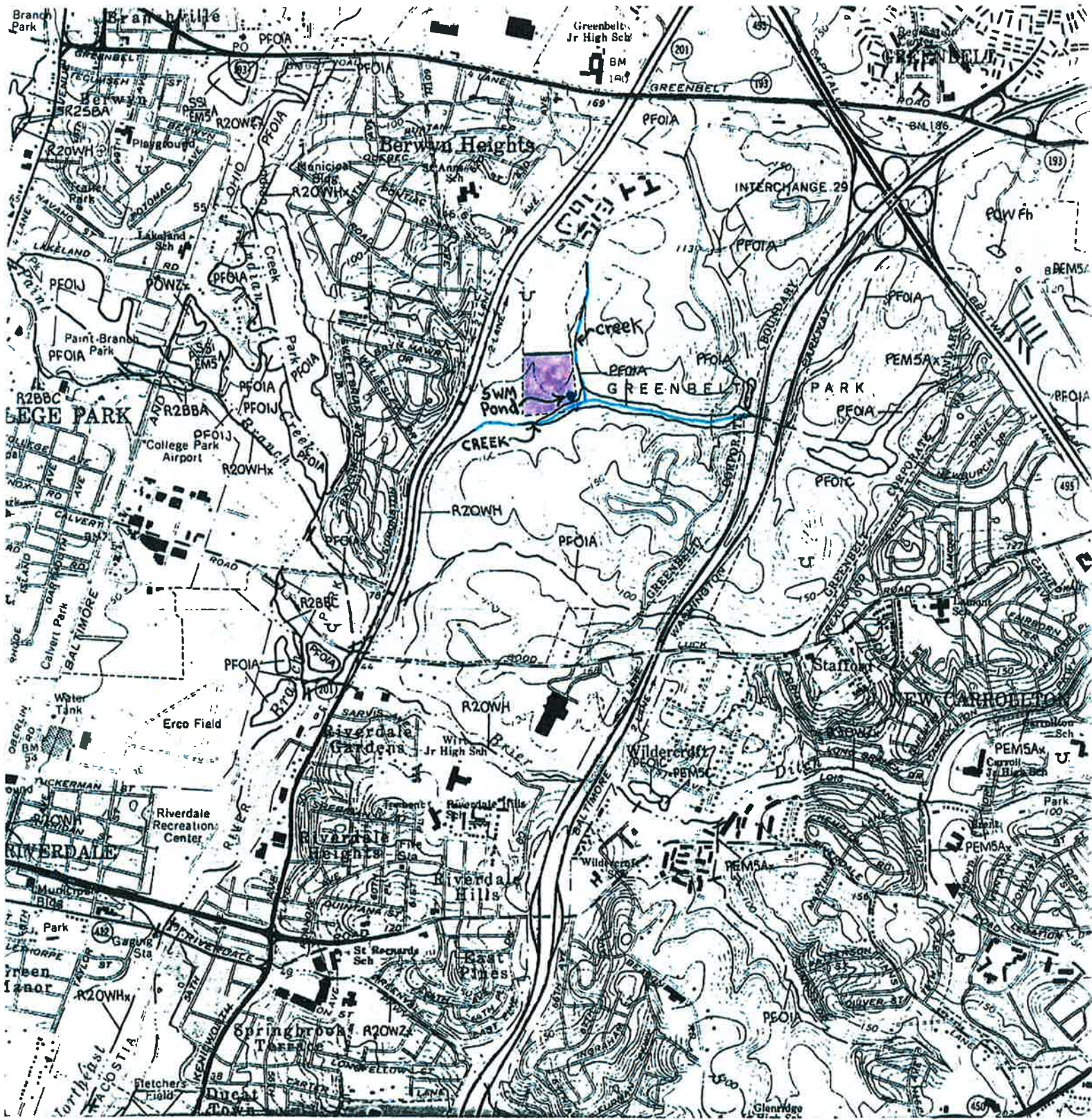


Fig. 3 National Wetlands Inventory Map



Data on flooding conditions within the park was not available during development and preparation of this map.

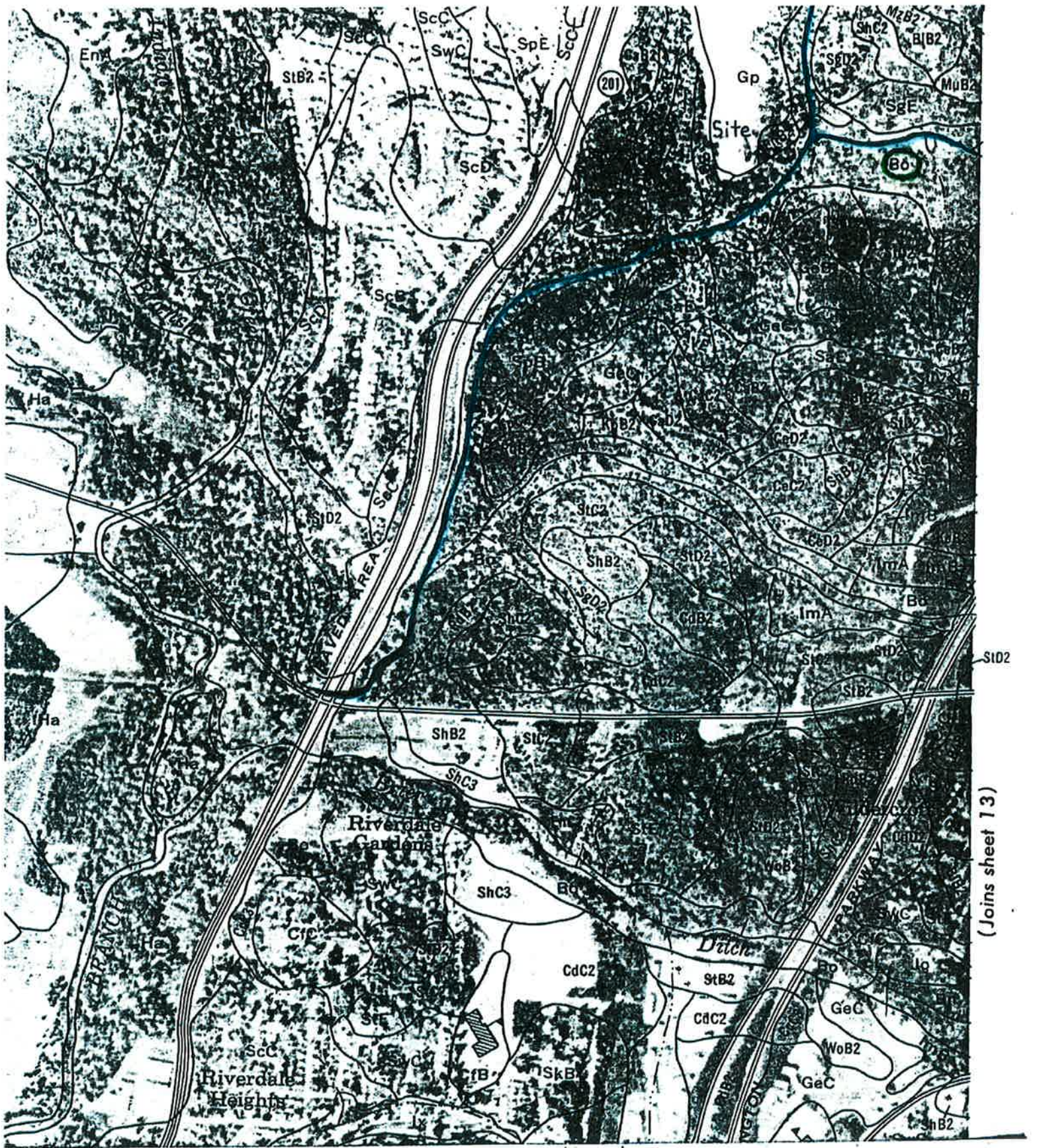
The 100 Year Flood Prone Area shown was derived from existing topography and soils limitation data and is approximate only.

Sources:

U.S.D.A., Soil Conservation Service,
'Soil Survey-Prince Georges Co.,Md.
dated April 1967.

Maryland National Capital Park and Planning
Commission maps for topographic data.

Fig. 4 National Park Service Floodplain Map



(Joins sheet 13)

Fig. 5 Soils Map

