

MANUMUSKIN RIVER

COUNTY: Cumberland

MUNICIPALITY: Maurice River Township, Millville City

PHYSIOGRAPHIC PROVINCE: Outer Coastal Plain

QUAD: Port Elizabeth, Five Points

COORDINATES: Central Point: 39° 20' 00" lat; 75° 58' 04" long.

ACREAGE: 2,788 (approximate)

OWNERSHIP: Private

LAND USE: Generally the land is vacant and undeveloped with the exception of a few homes (Rogers, Golden, and Halpern, 1986). Only nine percent of the land within the Manumuskin River watershed has been developed or cleared for agriculture (O'Connor, 1986). The Pennsylvania Reading Seashore Railroad passes through the central portion of the site. A few roads traverse the area.

REASON FOR INCLUSION OF AREA IN NATURAL AREAS REGISTER:

The Manumuskin River satisfies three of four standards for inclusion of sites within the Register of Natural Areas (fulfillment of only one standard is sufficient for Register consideration):

1. The site supports endangered and threatened New Jersey plant species. The largest global population of one species is found on the banks of the river.

Several rare plant species are extant within the intertidal zones along the river, two of which have been proposed as candidates for listing as endangered or threatened pursuant to the U.S. Endangered Species Act. Aeschynomene virginica, or sensitive joint vetch, grows on the banks. The largest and most viable population of this species globally is found here (Runnels, 1986). Because of its pristine water quality, undeveloped nature and intertidal marsh zones, the Manumuskin River represents one of the best opportunities to preserve and protect the habitat of this globally rare plant. Also proposed for listing by the Federal government and extant on site is Eriocaulon parkeri

(Parker's Pipewort), which is now extirpated from the Delaware River system due to destruction of its estuarine habitat. Additional rare plants of New Jersey which are found on site include Desmodium strictum, Elatine americana and Gratiola virginiana (Niles and Breden, 1987; David B. Snyder, personal communication). O'Connor (1986) indicates an additional seven species in the vicinity of the site.

2. The site contains significant representative wetland and aquatic ecosystems.

The Manumuskin River contains one of the best examples of undisturbed freshwater intertidal marsh in New Jersey. This freshwater to slightly brackish tidal marsh contains three important communities. The first is the sand and gravel shorelines. These usually occur on the undercut slopes of river meanders where sand and gravel sediments have been exposed (Ferren, 1976). The mud flats, a second community, result from the build-up of sediment in enclosed areas on the river. Peaty tidal marshes are a third important community. These are fresh to brackish and support a mixed aquatic vegetation. Plant species diversity in the marsh is high (50 species/acre--Bruderle and Davison, 1984), and water quality has been described as pristine (Betz, Converse and Murdoch, Inc., 1980).

3. The site supports wildlife species officially threatened within New Jersey.

Mid-winter surveys have resulted in numerous sightings of the bald eagle (Haliaeetus leucocephalus) within the Maurice River drainage system, including the Manumuskin and Menantico Rivers (Kell and Niles, 1986). This species is listed as federally endangered throughout its range in the U.S. and is also officially endangered in New Jersey. Two historic eagle nests occurred in the area between the Manumuskin and Menantico Rivers just northeast of the Maurice River. In addition, areas along the Manumuskin within the proposed Register site contain habitat suitable for nesting bald eagles (Niles and Breden, 1987). The New Jersey threatened barred owl (Strix varia) has also been sighted within the area. The northern pine snake (Pituophis melanoleucus melanoleucus) was reported on site in 1986 and the corn snake (Elaphe guttata guttata), although not sighted, is known to occur in the vicinity of Port Elizabeth (Zappalorti, 1986). Species not known from the Register site but which may occur because of suitable habitat include Pine Barrens tree frog (Hyla andersonii), southern gray treefrog (Hyla chrysoscelis) and eastern tiger salamander (Ambystoma tigrinum tigrinum) (Zappalorti, 1986).

References Cited:

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- Niles, L. and T. Breden. 1987. The impact of a proposed hazardous waste storage facility on endangered and threatened species on the Manumuskin and Maurice River drainages. Report prepared for Helen C. Fenske, New Jersey Department of Environmental Protection.
- O'Connor, D. 1986. Cumberland Conservation League letter to New Jersey Natural Heritage Program.
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- Runnels, B. 1986. Testimony to New Jersey Hazardous Waste Siting Commission.
- Zappalorti, R.T. 1986. A habitat evaluation and wildlife survey of the site of the proposed commercial hazardous waste facility, Maurice River Township, Cumberland County, New Jersey. Report prepared by Herpetological Associates, Inc. File No. 86.10. 35 p.

