

1.15 Critical Habitats

The NJDEP Natural Heritage Program has developed a priority site list to identify the best habitats for rare plant and animal species and natural communities through analysis of information in the heritage database. Natural heritage priority sites contain some of the best and most viable occurrences of endangered and threatened species and natural communities, but do not cover all known habitat for endangered and threatened species.

Habitats are ranked according to their significance for biological diversity using a scale developed by The Nature Conservancy and the network of Natural Heritage Programs. The scale ranges from B1 to B5 with sites ranked B1-B3 generally being of global significance and sites ranked B4-B5 being of state significance

B1 - Outstanding significance, generally the "last of the least" in the world, such as the only known occurrence of any element (species or natural community), the best or an excellent occurrence of an element ranked critically imperiled globally, or a concentration (4+) of good or excellent occurrences of elements that are imperiled or critically imperiled globally. The site should be viable and defensible for the elements or ecological processes contained.

B2 - Very high significance, areas that contain an outstanding occurrence of any natural community. Also includes areas containing other occurrences of elements that are critically imperiled globally, a good or excellent occurrence of an element that is imperiled globally, an excellent occurrence of an element that is rare globally, or a concentration (4+) of good occurrences of globally rare elements or viable occurrences of globally imperiled elements.

B3 - High significance, such as any other viable occurrence of an element that is globally imperiled, a good occurrence of a globally rare element, an excellent occurrence of any natural community, or a concentration (4+) of good or excellent occurrences of elements that are critically imperiled in the State.

B4 – Moderate significance, a good occurrence of any natural community, a good or excellent occurrence or only viable state occurrence of an element that is critically imperiled in the State, an excellent occurrence of an element that is imperiled in the State, or a concentration (4+) of good occurrences of elements that are imperiled in the State or excellent occurrences of elements that are rare in the State.

B5 - General biodiversity interest.

Status and Trends

Of the 389 Natural Heritage priority sites identified statewide, watershed management area 4 contains portions of 2 different areas. Plate 1.15-1 depicts these areas ranked by

biodiversity importance. The watershed contains one site that is of very high significance (B2), and 1 site that is of general biodiversity interest (B5).

The highest ranking site, with very high biodiversity significance (B2), in the watershed is the Eastern portion of the Preakness Mountain Macrosite, a large contiguous forest on rolling hills underlain by basalt bedrock, with rock outcrop and glade communities forming on a number of the hill summits located in Wayne Township, Haledon and North Haledon Boroughs. The site contains good occurrences of a globally imperiled natural community and a globally imperiled State Endangered plant species. See Appendix 1.15.1 for listing.

The site of general biodiversity interest (B5), Kearney Marsh, is a remnant glacial lake wetlands complex located in Kearny Town. The site provides habitat for a State endangered bird species, a heron rookery and an additional bird species of special concern) located in Kearny Town.

New Jersey's Landscape Project For the Protection of Rare Species

New Jersey is the most densely populated state in the nation. As people leave the cities to live in the “country”, suburban growth overcomes the “country” setting. Extensive suburban growth results in degradation and loss of critically important wildlife habitats, and the fragmentation and isolation of habitats that remain. Many rare species require large contiguous blocks of habitat to survive. “Small patches of fields, forests and wetlands, interspersed with development provide habitat for some common species, but don’t provide the necessary habitat for most of our rare wildlife. We need to protect large, contiguous blocks of forest, grasslands and wetlands to assure the survival of rare species over the long term.”¹

In 1994 the N.J. Division of Fish and Wildlife adopted a landscape level (large areas, focus on the big picture) approach to protection of rare species under the Endangered and Nongame Species Program (ENSP). The Landscape Project focuses on large areas called landscape regions that have similar plant and animal communities. The State of New Jersey is divided into five (5) Landscape Regions (WMA 4 falls in the Piedmont/Plains Region):

- Skylands
- Piedmont/Plains
- Pinelands
- Coastal
- Delaware Bay

The Landscape Project starts with identification of protected areas and then identifying critical habitats next to the protected areas so that large contiguous blocks of habitat can be identified and protected as appropriate to assure the conservation of rare wildlife for the future. The Project utilized 1995-1997 land use data to identify forests, grasslands

¹ NJDEP, Division of Fish and Wildlife, New Jersey's Landscape Project For the Protection of Rare Species, web site

and wetlands in the State. The identified areas were screened based upon specific criteria for minimum contiguous area, buffers and priority species location information, and parcels were assigned ranking values for further consideration for land preservation. The Landscape Project thus provides data that can be used for proactive planning purposes to take action to preserve important critical areas before activities occur which would threaten or destroy the areas. Landscape Project maps can be obtained through download of GIS coverages from NJDEP's website: www.state.nj.us/dep/fgw. Interactive maps can be viewed over the internet at: www.state.nj.us/dep/gis.

The maps and data available through the Landscape Project can be used in a variety of ways, including:

- Prioritize conservation acquisitions (through Green Acres and other programs)
- Guide regulators and planners
- Provide citizens with conservation tools
- Guide stewardship of already conserved areas – to assist in development of appropriate best management practices and prevent inappropriate modification of conserved public and private lands.

Within WMA 4, the Landscape Project maps show several areas of forest of special concern and forested wetlands of special concern. Several of these sites are located in a band across WMA 4, including sites along the southern borders of Mahwah, and in Ramsey, Allendale and Saddle River.

Regionally Significant Habitats and Habitat Complexes of the New York Bight Watershed

The U.S. Fish and Wildlife Service (U.S. Department of the Interior) has prepared a document presenting the “identification and descriptions of essential habitats of key marine, coastal, and terrestrial species inhabiting the New York Bight watershed study area in order to help guide informed and ecological sound land use decisions and land protection efforts.”² The report is oriented towards the identification of large habitat complexes. The New York Bight watershed includes all areas in New Jersey that discharge flow to the Atlantic Ocean or tributaries thereto except for the Delaware River and Bay. Thus all of the Passaic River Basin is included in the New York Bight watershed.

² U.S Fish and Wildlife Service, Significant Habitats and Habitat Complexes of the New York Bight Watershed, 1996.

The report includes three (3) complexes which are all or partially in the Passaic River Basin:

1. Complex 23 – Preakness Mountain
2. Complex 24 – Passaic Meadows
3. Complex 25 – New York – New Jersey Highlands

Only Complex 23 falls within WMA 4. The following information regarding Complex 23 is abstracted from the New York Bight report.

Complex #23 – Preakness Mountain (Partially in WMA 3 and partially in WMA 4)

Preakness Mountain occurs at the northern end of the Second Watchung Ridge in Bergen and Passaic Counties in northeastern New Jersey, in the municipalities of Franklin Lakes, Haledon, North Haledon, Oakland and Wayne. This habitat contains the largest remaining tract of forested land east of the Highlands in northeastern New Jersey. Most of the mountainous terrain is vegetated with open woodland and dense forest, supporting a remarkable diversity of plants and wildlife. It includes globally rare traprock glade communities and woodland matrix, rare plants, and significant open space for migrating and breeding birds. Traprock glade outcrop communities are dry, grass and forb-dominated openings on south and west-facing slopes of traprock ridges. This complex provides an important buffer of native species to protect the globally rare ecological communities and rare plant species.

Wayne Township, the State of New Jersey, and The Nature Conservancy protect a total of about 1,071 acres through ownership. Other lands within this complex are in a mixture of public and private ownership. The most serious threat to the significant natural resources is the trampling of plants and soil erosion caused by illegal motorized vehicle use on and off the trails. Invasive weeds are also a problem at key access points and on the summit of High Mountain, and appear to be spreading via vehicle tires on the main trails. Other potential threats include encroaching housing developments, herbicide and pesticide applications on adjacent properties, illegal dumping, and animal and plant collectors. Many of the threats arise from the site being the last remaining open space in a heavily developed urban area.

Appendix 1.15.1

Threatened and Endangered Floral Species (taken from USFWS New York Bight Watershed Study)

Species

Dewey's sedge	(<i>Carex deweyana</i>)
Long-awned smoke grass	(<i>Muhlenbergia capillaris</i>)
Large-fruited sanicle	(<i>Sanicula trifoliata</i>)
Small skullcap	(<i>Scutellaria leonardii</i>)
Small-fruited groovebur	(<i>Agrimonia microcarpa</i>)
Basil mountain mint	(<i>Pycnanthemum clinopodioides</i>)
Torrey's mountain mint	(<i>Pycnanthemum torrei</i>)
Climbing fumatory	(<i>Adlumia fungosa</i>)
Virginia snakeroot	(<i>Aristolochia serpentaria</i>)
Whorled milkweed	(<i>Asclepias verticillata</i>)
Cornel-leaved aster	(<i>Aster infirmis</i>)
Willdenow's sedge	(<i>Carex willdenowii</i>)
Purple clematis	(<i>Clematis occidentalis</i>)
Hazel dodder	(<i>Cuscuta coryli</i>)
Wild kidney bean	(<i>Phaseolus polystachios</i>)
Swamp cottonwood	(<i>Populus heterophylla</i>)
Flowered nutrush	(<i>Scleria pauciflora</i>)
Rock spikemoss	(<i>Selaginella rupestris</i>)
Narrow-leaved vervain	(<i>Verbena simplex</i>).

P:\310500 NJDWSC WMA346\Reports\WMA 4\1.15 Critical Habitats rev021104.doc