

## CHAPTER II. ANALYSIS OF THE HIGHLANDS REGION

### Part 1. Natural Resources

#### Subpart d. Critical Habitat

Biodiversity is the variety of plant species, animal species, and all other organisms found in a particular environment and is a critical indicator of ecological integrity. The protection of habitats that are critical to maintaining biodiversity contributes to the protection of rare, threatened, and endangered plant and animal species of the Highlands Region. There are three categories of Critical Habitat in the Highlands Region: 1) Critical Wildlife Habitat (habitat for rare, threatened or endangered species); 2) Significant Natural Areas (regionally significant ecological communities, including habitat for documented threatened and endangered plant species); and 3) Vernal Pools (confined, ephemeral wet depressions that support distinctive, and often endangered, species that are specially adapted to periodic extremes in water pool levels). Critical Wildlife Habitat and Significant Natural Areas are designated based on the presence of, and associated habitat required for the survival and propagation of, the species of concern. Vernal pools are certified by the NJDEP, and to protect and promote the biodiversity of Vernal Pools the Highlands Council has determined that a terrestrial habitat protection buffer of 1,000 feet around Vernal Pools will generally address the habitat requirements of vernal pool-breeding wildlife.

In furtherance of the requirements and goals of the Highlands Act, the Plan seeks to protect the natural resources of the Highlands Region, including the protection needs of the Region's critical habitat. The Highlands Regional Master Plan focuses on three areas of action to address the need to protect critical habitat areas:

- Identify critical habitat areas;
- Develop resource protection measures; and
- Establish guidance for municipal officials and landowners pertaining to critical habitat conservation and management.

Critical habitat was utilized to determine the zones of the Land Use Capability Map and will also be used to evaluate site specific project review at the site plan level. The technical basis and additional background information on critical habitat protection requirements can be found in the Highlands Council's *Ecosystem Management Technical Report*.

#### 1. Critical Wildlife Habitat

The Highlands Council utilized NJDEP's Endangered and Nongame Species Program Landscape Project data to identify potential habitats for rare, threatened, and endangered species wildlife within the Highlands Region. An updated Landscape Project (Version 3) was developed for the Highlands Region to identify habitat ranked by documented occurrences of rare, threatened, or endangered species as follows:

- Landscape Rank 5 - habitat supporting a federally listed threatened or endangered species;
- Landscape Rank 4 – habitat supporting a species designated as State Endangered;
- Landscape Rank 3 – habitat supporting a species designated as State Threatened;
- Landscape Rank 2 – habitat supporting a species designated as Special Concern; and
- Landscape Rank 1 – habitat that meets minimum species habitat suitability needs but does not support a documented occurrence of a special concern, threatened, or endangered species.

A Highlands Conservation Rank index was also assigned to each species occurrence based upon how critical the Highlands Region is to the continued existence of the species within the state. Following are the Highlands Conservation Ranks that were used:

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- Critically Significant (Rank 3) – if habitats in the Highlands Region were lost, that species would not exist in the State;
- Significant (Rank 2) – Highlands Region habitats play a significant role for that species' existence in the State; and
- Low Significance (Rank 1) – Highland Region habitats do not play an important role for that species' existence in the State.

The Highlands Council delineated Critical Wildlife Habitat by utilizing Landscape Project Version 3 to identify areas of habitat for rare, threatened, and endangered species habitat (Landscape Rank 3 through 5 and Landscape Rank 2 with Highlands Conservation Rank of Critically Significant or Significant). Of the Highlands Region's approximately 860,000 acres, approximately 509,500 acres are Critical Wildlife Habitat.

The habitat for rare, threatened, or endangered species in the Highlands Region are shown in the figure *Critical Wildlife Habitat*.