

Maryland Natural Area Criteria August 2012

Natural Areas (NA) are tracts of land or water that represent the best remaining examples of Maryland's natural landscapes. These tracts are characterized by their biological diversity and ecological significance. Natural Areas are different from other protected lands in that they contain outstanding examples of native plant and animal communities, rare species habitats, or significant geological features. Natural Areas are permanently set aside primarily for scientific, educational, and biological diversity conservation. Recognition as a NA represents the highest and best use of these tracts of land and water to ensure the conservation of biological and landscape diversity for the benefit of Maryland's citizens.

Proposed Natural Areas are reviewed using a system developed by the Natural Heritage Program. Each site is evaluated for landscape characteristics, natural community values and species viability. The three evaluated components are each assessed for quality, condition, viability and defensibility. Quality compares the site with others considering such factors as size, maturity, naturalness, and any unique or special biological features. Condition considers negative impacts caused by human or natural disturbances. Viability and defensibility assess the long-term prospects for the continued existence of the site

To be considered as a Natural Area a site must first be in one of the following four categories of lands important to the conservation of biological and landscape diversity within Maryland:

- ❖ Rare natural communities; or
- ❖ Habitats for species of conservation concern, for example habitats essential to rare species, especially those listed as Endangered, Threatened, or In Need of Conservation, or to species of Greatest Conservation Need; or
- ❖ Exemplary common natural communities; or
- ❖ Exemplary geological sites.

Criteria for assessing the relative quality and value of candidate sites within each of the above categories follow.

Rare Natural Communities

Across Maryland there are rare or uncommon natural communities that are regionally, state, or globally significant. These aggregations of plant and animal species, and the natural processes that sustain them, are important biological units essential to the conservation of Maryland's biological diversity. Rare or uncommon natural communities are valuable for scientific, ecological, conservation, and educational purposes.

To be nominated as a rare natural community NA, the site must meet the following criteria.

1. The site contains a globally rare natural community (G1, G2, G3); or
2. the site contains a natural community considered rare or uncommon in Maryland (S1, S2, or S3); or
3. the site contains an old growth forest¹ community; and
4. the site is of sufficient size and quality to be considered sustainable into the foreseeable future, and the site possesses the likelihood that designation will allow necessary management of conservation targets.

Sites meeting these criteria are then referred to the Natural Areas Advisory Committee for evaluation and consideration as NAs.

Habitats for Species of Conservation Concern

Maryland supports numerous species that possess special conservation statuses. Conservation and proper management of sites that include important habitats for rare or declining species is essential to the long-term conservation of these species. Important habitats also include significant animal concentration areas such as vernal pools, waterbird nesting colonies, migration corridors, and migration stopover/staging areas.

To be nominated as a rare species habitat NA, the site must meet the following criteria.

1. The site contains habitat for globally rare (G1, G2, or G3) or federally-listed species; or
2. the site contains habitat for state-listed species or other rare species (S1, S2 or S3); or
3. the site provides significant habitat for a species listed as of “Greatest Conservation Need” in the Maryland Wildlife Diversity Conservation Plan; or
4. the site is a significant animal concentration area, and
5. the site is of sufficient size and quality to be considered sustainable into the foreseeable future and the site possesses the likelihood that designation, along with appropriate management, would adequately protect the rare species.

Sites meeting these criteria are then referred to the Natural Areas Advisory Committee for evaluation and consideration as NAs.

Exemplary Common Natural Communities

To conserve the full complement of Maryland’s biological diversity and best remaining natural landscapes, it is essential to recognize and protect high quality examples of common natural communities. NAs established to conserve exemplary common natural communities also serve as benchmarks of reference conditions on the landscape and are instrumental in improving society’s understanding of ecological systems and the processes that drive them. As

¹ As defined by the Maryland DNR Old Growth Forest Committee 2002.

benchmarks, these NAs provide a historical ecological context that functions as a bridge between the past and the future.

Exemplary common natural community NAs must be determined by the Maryland Natural Heritage Program to be a high quality example of a natural community considered secure in Maryland with a conservation status rank of S4 or S5. Identification of common natural communities being considered as NAs relies on use of the Maryland Natural Community classification system². Common natural community NAs should be spread across Maryland to ensure sufficient regional representation to conserve the diversity exhibited by common natural communities.

To be nominated as an exemplary common natural community NA, the site must meet the following criteria.

1. The site must contain at least one S4 or S5 Ecological Community Group³; and
2. the Ecological Community Group must have a quality rank of “A”, or “B”³; and
3. the site must be of sufficient size and quality to be considered sustainable into the foreseeable future and possess the likelihood that designation will allow any necessary management of conservation targets.

Sites meeting these criteria are then referred to the Natural Areas Advisory Committee for evaluation and consideration as NAs.

Exemplary Geological Sites

Exemplary geological sites are most notable for their exceptional geological features, features that are naturally formed and/or exposed and that range widely in diversity and appeal, from unique stratigraphic type sections or fossil assemblages of interest to scientists and students of geology to spectacular erosional remnants, landforms, or waterfalls of wonder to all. In addition to their geological importance, these sites often support uncommon and/or rare plant and animal species, adding to the natural area value of geological sites. Geological based NA nominations are reviewed by the NHP in cooperation with the Maryland Geological Survey.

To be nominated as a geological NA, the site must:

1. contain a geologic feature that is
 - (a) rare or unique to Maryland or represents one of the best examples of its kind in the State; or
 - (b) be of interest internationally, nationally, or regionally, as evidenced by its inclusion in geologic publications; or
 - (c) be regarded as valuable for
 - Scientific study by professional and amateur geologists,
 - Geologic fieldwork in schools and universities,

² The Natural Communities of Maryland: First Approximation, draft. Harrison 2008. Maryland DNR, NHP.

³ Element Occurrence Ranking Summary for Ecological Communities, draft. Harrison 2008. Maryland DNR, NHP

- Historic interest in the advancement of geological knowledge,
 - Scenic and aesthetic or appeal; and
2. be of sufficient size and quality to be considered sustainable into the foreseeable future and possess the likelihood that designation will allow any management necessary for conservation and protection of the geologic feature.

Sites meeting these criteria are then referred to the Natural Areas Advisory Committee for evaluation and consideration as NAs.