

Appendix E

NH Wildlife Action Plan and the Coastal Plan

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New Hampshire Wildlife Action Plan

In 2001, Congress established a new “State Wildlife Grants” program that provided funds to state wildlife agencies for the conservation of fish and wildlife and their habitats. Each state was charged with developing a Comprehensive Wildlife Conservation Plan--the New Hampshire Wildlife Action Plan--to address the “species in greatest need of conservation.” As part of the Wildlife Action Plan (WAP), NH Fish and Game identified wildlife species at risk—those with low and declining populations, assessed the condition of wildlife habitats, and evaluated risk factors for species and habitats. The compilation of New Hampshire’s wildlife and habitats at risk was based on existing information, including the findings of the NH Ecological Reserve System Project and ongoing work by the NH Natural Heritage Bureau and NH Fish and Game.

NH Fish and Game identified 127 species of greatest conservation concern in the WAP that included freshwater mussels, insects, fish, amphibians, reptiles, birds, mammals and four species of game animals (See Appendix C: NH WAP Table 2-1). The WAP includes a suite of wildlife habitats that the species of concern are dependent on and which represent several scales (see Map 5 and Appendix C: NH WAP Table 2-2). Large-scale habitats are the five matrix forest types in the State; the matrix forests in the Bear-Paw region are Hemlock-Hardwood-Pine Forest and Appalachian Oak-Pine Forest. Watershed groupings were used to guide broad scale conservation of aquatic ecosystems because there is currently no aquatic classification system similar to uplands habitats. Much of Bear-Paw is in the Tidal Coastal Watersheds. Portions of Epsom and Strafford are in the Coastal Transitional Watershed and a small area of Candia lies within the Non-tidal Coastal Watershed. The medium and small-scale analysis includes a set of 14 terrestrial and wetland habitats, 9 of which are found in the Bear-Paw Region.

NH Fish and Game mapped the known distribution of each of the 127 wildlife species in the WAP and assessed the risk factors affecting these populations. The top risk factors for wildlife and habitats were development, scarcity (of the species or habitat), altered hydrology, predation and herbivory, transportation infrastructure, mercury, introduced species, recreation, oil spills, climate change, and non-point pollution, with development ranking at or near the top. NH Fish and Game grouped species of concern and habitats by risk groups (see Appendix C: NH WAP Table 4-1 and 4-2).

The distribution of each of the wildlife habitat types was mapped and the relative condition of each habitat location across the State was assessed based on landscape context, wildlife diversity, human recreation impacts, development and land use, and air and water quality. NH Fish and Game used this analysis and mapping to “filter out” the pieces of the landscape that have the greatest biological diversity and highest value for wildlife. This was then mapped as the “Highest quality wildlife habitat in New Hampshire,” representing the top 10-15% of wildlife habitats in the state, the ones most likely to maintain biological integrity over time, and therefore considered “Tier 1” by NH Fish and Game (Map 6). Approximately xx% of the Bear-Paw region supports this highest quality wildlife habitat.

NH Fish and Game also analyzed habitats of highest quality as compared to all habitats in the same biological region. They used the ecoregions (described above) for terrestrial habitats and watershed groupings for aquatic habitats. This is important because some species and habitats are only found in the southern part of the state and others are only in the north. Another xx% of the Bear-Paw region has highest quality habitat with the ecoregion, considered “Tier 2” habitats. The third component of mapping

the highest quality habitat was to include “supporting landscape,” areas that are important to maintaining the biological integrity of Tier 1 and Tier 2 habitats (Map 6).

The final step by NH Fish and Game was to identify Statewide Conservation Focus Areas—those places that combine several high quality habitats in one area, or co-occurrence of these habitats (Map 7). Statewide and within the ecoregion, Bear-Paw stands out as hugely significant to New Hampshire wildlife, plants, and natural communities.

The Coastal Plan

In 2006, The Nature Conservancy, Society for the Protection of NH Forests, and the Rockingham and Strafford Regional Planning Commissions published The Land Conservation Plan for New Hampshire's Coastal Watersheds ("The Coastal Plan). New Hampshire's coastal watersheds span 990 square miles or approximately 633,000 acres and 46 towns, including much of the Bear-Paw region. The authors identified 75 Conservation Focus Areas that comprise over 190,000 acres or 36% of the coastal watersheds that are of exceptional significance for living resources and water quality. Each Conservation Focus Area comprises a Core Area that contains the primary natural features and habitat for which the focus area was identified. Some focus areas also include Supporting Natural Landscape, which is composed of natural lands that helps safeguard the Core Area while also providing habitat for many common species.

The Conservation Focus Areas were selected based on an analysis of several ecological features that included:

- Best remaining unfragmented forest ecosystems
- Most significant freshwater systems, defined as high quality stream watersheds, riparian zones, and important stream reaches
- Critical plant and wildlife habitat
- Irreplaceable coastal and estuarine resources

The Bear-Paw region contains all or part of 16 of the 75 Conservation Focus Areas. The region includes the two largest Conservation Focus Areas: Pawtuckaway Mountains and Blue Hills. These focus areas include (Map 8):

- Blue Hills (Strafford)
- Upper Isinglass (Strafford)
- Stonehouse Brook (Strafford)
- Saddleback Mountain (Northwood, Deerfield)
- Bumfagging Hill (Nottingham)
- Thurston Pond/Hartford Brook (Deerfield, Epsom)
- Candia Road (Deerfield)
- Pawtuckaway Mountains (Deerfield, Nottingham, Raymond)
- Pawtuckaway River (Raymond)
- Kennard Hill (Nottingham)
- Langley and Cyrus Ponds (Nottingham)
- North River/Rollins Brook (Nottingham)
- Upper North Branch River (Deerfield, Candia)
- Fordway Brook Headwaters (Candia, Raymond)
- Lower Fordway Brook (Raymond)
- Dumplingtown Hill (Raymond)