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# 2006 Forest Plan

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## Hiawatha National Forest

*Alger, Cheboygan, Chippewa, Delta, Mackinac, Marquette  
and Schoolcraft Counties, Michigan*

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USDA Forest Service

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## 2600 Wildlife, Fish and Sensitive Plant Habitat Management

**Desired Conditions:** The Hiawatha National Forest provides habitats that support viable populations of a wide range of existing native and desired non-native wildlife and plant species. Aquatic and terrestrial wildlife habitats on National Forest System lands contribute to ecosystem sustainability and biological diversity of the Great Lakes region.

The Forest provides wildlife habitat with corridors and contiguous tracts to allow for greater distribution of wildlife species. Management activities contribute to the conservation and recovery of federally-listed threatened, endangered and sensitive species.

The Hiawatha monitors four management indicator species and other species of interest to ensure that necessary habitat are maintained or enhanced to support these species, as well as associated species.

### Goals:

1. Diverse, healthy, productive and resilient habitats for aquatic and terrestrial wildlife are provided.
2. Ecological conditions are provided to sustain viable populations of native and desired non-native species and to achieve objectives for management indicator species.
3. Habitat for resident and anadromous fish is maintained or enhanced.
4. Habitat for resident and migratory wildlife species is maintained or enhanced.
5. Provide for self-sustaining populations of desired fish and other aquatic species.
6. Desired fish populations in lakes and streams are achieved through cooperation with the Michigan Department of Natural Resources (MDNR), Tribes and U.S. Fish and Wildlife Service (FWS).

### Objectives:

1. In this planning period, annually restore or enhance 9 to 13 miles of riparian and in-channel stream habitat. This will include 7 to 11 miles of coldwater and coolwater habitat annually.
2. In this planning period, annually restore or enhance conditions for warmwater fish communities in 3 to 5 lakes.

3. In this planning period, annually conduct fishery resource inventories on 7 to 10 lakes and 5 to 8 streams to assess the capability of habitats and fish populations to meet the public need.

### Vegetation Management Standards:

1. Vegetation will be managed within the ecological capabilities of the forest.

### Vegetation Management Guidelines:

1. The maximum size of temporary openings for sharp-tailed grouse and Kirtland's warbler management should not exceed 1,100 acres. In Kirtland's warbler management areas, the 1,100-acre temporary opening guideline may be exceeded by harvesting adjacent blocks after the appropriate stocking density (determined in consultation with the FWS) is achieved and after the third-year stocking review.
2. Deeryards and adjacent uplands should be managed to provide winter thermal cover and browse.
3. Vegetation management activities should encourage intrastand diversity and mast producing species.

### Structural Guidelines:

1. When determining reserves for even-aged managed stands on ELTs 10/20, method A or B, or a combination of both should be used. For all other ELTs, either method A or method B should be used.
  - A. Two to four live trees with diameters greater than or equal to the average stand diameter per acre should be reserved. Preference should be given to live den trees.
  - B. Variable size reserve islands/clumps that total up to a half-acre for every 10 acres should be reserved.
2. For uneven-aged managed stands:
  - A. Up to five live den trees per acre should be reserved, unless they present a safety concern.
  - B. Live den trees felled for safety reasons should be left as coarse woody debris.

3. For reserve snag and down logs in managed stands:
  - A. Two to 10 snags per acre should be reserved, except where additional snags would be beneficial to rare species or unless they present a safety concern or interfere with mechanical site preparation. Additional snags should be recruited from live trees where there are fewer than two snags per acre.
  - B. Snags felled for safety reasons should be left as coarse woody debris.
  - C. Two or more down logs per acre that are equal to or greater than 10 inches in diameter and 8 feet long, should be maintained. In stands where tree diameters are less than 10 inches, down log diameters equal to or greater than the average stand diameter should be provided.

#### Plant Management Guidelines:

1. Indigenous plants of the Hiawatha NF seed zone or those non-native plants identified at project level, should be used in all planting or seeding operations.

### Federal Threatened and Endangered Species (T&E) and Regional Forester Sensitive Species (RFSS)

#### Goals:

1. The Hiawatha National Forest contributes to the conservation and recovery of federal threatened and endangered species and works cooperatively with U.S. Fish and Wildlife Service, Tribes, other state and federal agencies and recovery teams to update and implement threatened and endangered species recovery plans and management strategies.
2. The Hiawatha National Forest contributes to the conservation of Regional Forester Sensitive Species and works cooperatively with state and federal agencies to complete and implement conservation assessments and strategies.

#### Objectives:

1. In this planning period, complete 10 conservation assessments of Regional Forester Sensitive Species.
2. In this planning period, establish at least one new population of:
  - Downy sunflower (*Helianthus mollis*)
  - Prairie dropseed (*Sporobolus heterolepis*)
  - Douglas hawthorn (*Crataegus douglasii*)
  - Lakeside daisy (*Hymenoxys herbacea*)

#### Standards:

1. Signed federal recovery plans for threatened and endangered species will be implemented. Deviations specific to the

Hiawatha National Forest may be allowed after consultation with the U.S. Fish and Wildlife Service.

2. All known populations of threatened and endangered plant species and wildlife nest and denning sites will be protected.

#### Guidelines:

1. Conservation approaches for regional forester sensitive species should be implemented.
2. Non-native invasive plants within element occurrences of threatened and endangered and Regional Forester Sensitive Species should be eliminated or controlled.
3. Adverse impacts to known occurrences of Regional Forester Sensitive Species should be avoided, minimized or mitigated.
4. Prior to implementing management activities, surveys should be conducted for federally listed species and Regional Forester Sensitive Species where suitable habitat exists.
5. For all threatened and endangered species, special closure orders may be used to protect known breeding areas, nests and denning sites.
6. Deference should be afforded to implementing conservation measures for federal threatened and endangered species when and where they conflict with conservation measures for unlisted species.



### American Bittern & Yellow Rail (RFSS)

#### Goals:

1. Graminoid/sedge marshes are maintained or improved to provide suitable habitat conditions.

### American Peregrine Falcon (RFSS)

#### Guidelines:

1. Design management activities to protect active and historic nest sites and to minimize disturbance in primary and secondary zones.

### Black-backed Woodpecker (RFSS)

#### Guidelines:

1. Patches of mature forest should be retained around known black-backed woodpecker breeding sites.

### Black Tern, Common Loon and Trumpeter Swan (RFSS)

#### Guidelines:

1. Inland lakes should have seasonal restrictions to protect active black tern, loon and trumpeter swan nests.

### Canada Lynx (Threatened)

#### Goals:

1. Vegetation is managed to retain, improve, or develop habitat characteristics suitable for snowshoe hare and other important alternate prey in sufficient amounts and distributions so that availability of prey is not limiting lynx recovery.

2. Vegetation is managed to provide for foraging habitat in proximity to denning habitat in amounts sufficient to provide for lynx.
3. Sufficient habitat connectivity is maintained to allow for lynx dispersal and movement. The Forest participates in cooperative efforts to identify, map and maintain or restore, where feasible, linkage areas that provide habitat connectivity sufficient to allow lynx to disperse between disjunct blocks of lynx habitat at larger landscape scales.
4. Well-distributed denning habitat is maintained or promoted.
5. The natural competitive advantage of Canada lynx in deep snow conditions is maintained. Snow compacting activities (such as snowmobiling, snowshoeing, skiing and dogsledding) are planned and accommodated in areas best suited to the activity while maintaining large, interconnected areas of habitat with little or no snow compacting, recreational activities.

#### Guidelines:

1. Sufficient habitat connectivity within east and west units should be maintained to allow for lynx dispersal.
2. Following a disturbance on National Forest System land greater than 20 contiguous acres (such as a blowdown, fire, insect or disease) that could contribute to lynx denning habitat, generally retain a minimum of 10% of the affected area on NFS land unless salvage or prescribed fire is necessary to address human health, safety or scenic integrity.
3. Where additional designated trails for snow compacting activities are desired within lynx habitat, proposed routes should be planned to protect or improve the habitat's integrity and minimize snow compaction. Trail design should strive to:
  - Move recreational use away from more sensitive or better quality lynx habitat
  - Concentrate use within existing developed areas rather than developing new recreational areas in lynx habitat
  - Be located within the right of way of a currently used road and trail system

4. Where existing unplowed roads and regularly-used snow-compacted trail and route densities coincide with lynx habitat, and are greater than 2 miles per square mile (at the LTA scale) where possible or feasible, reduce density through seasonal restrictions or decommissioning to maintain or improve the natural competitive advantage of lynx in deep snow. If reduction of road and/or trail density is not possible or feasible, the density should not be increased above current levels.
5. Denning habitat should be maintained in patches larger than five acres that comprise at least 10% of lynx habitat.

### Hine's Emerald Dragonfly (Endangered)

#### Standards:

1. Known Hine's emerald dragonfly breeding sites will be protected.

### Kirtland's Warbler (Endangered)

#### Goals:

1. Provide for Kirtland's warbler management within forest-wide vegetation goals.
2. Provide a minimum of 6,700 acres of jack pine in the appropriate size class (K2), as determined in consultation with the U. S. Fish and Wildlife Service (FWS), striving to achieve desired Kirtland's warbler stocking levels on ELT 10/20 in MAs 4.4 or 4.2.

#### Objectives:

1. Regenerate an average of 670 acres of jack pine per year in MAs 4.4 or 4.2 on ELT 10/20 to provide Kirtland's warbler habitat.

#### Guidelines:

1. For Kirtland's warbler management, strive to regenerate jack pine stands with the appropriate stem density and non-forested openings, as determined in consultation with the U.S. Fish and Wildlife Service.
2. Pre-commercial thinning or release of jack pine should not occur in areas managed for Kirtland's warbler prior to vegetation achieving the suitable size criterion or until

vegetation exceeds the suitable size criterion for Kirtland's warbler breeding, unless such activity maintains or enhances Kirtland's warbler habitat on the forest, as determined in consultation with the U.S. Fish and Wildlife Service.

### Lake Sturgeon (RFSS)

#### Goals:

1. The Hiawatha National Forest cooperates with State, Tribal and Federal agencies to restore lake sturgeon in the Whitefish and Sturgeon Rivers.

### Northern Goshawk and Red-shouldered Hawk (RFSS)

#### Guidelines:

1. Best available science recognized by Forest biologists, should be used to protect active and historic breeding territories, nesting areas and post-fledged habitat.

### Piping Plover (Endangered)

#### Goals:

1. Nesting habitat is improved by providing nesting structure and controlling non-native invasive species.

#### Standards:

1. Known active piping plover nest sites will be protected with area closures and predator control if necessary.

#### Guidelines:

1. Recreation activities should be discouraged near active and historic piping plover nesting sites.



**Sharp-tailed Grouse** (RFSS)**Objectives:**

1. In this planning period, maintain permanent openings within vegetation goals for habitat suitable for sharp-tailed grouse.

**Dwarf Bilberry***(Vaccinium cespitosum)* (RFSS)**Guidelines:**

1. *Bacillus thuringiensis* (BT) should not be sprayed in the vicinity of dwarf bilberry populations due to the host relationship with the northern blue butterfly.

**Dwarf Lake Iris** (*Iris lacustris*) and  
**Houghton's Goldenrod** (*Solidago houghtonii*) (Threatened)**Guidelines:**

1. Management in Great Lakes shoreline sand dune/sand beach, cobble beach, interdunal wetland communities should be designed to protect element occurrences of Dwarf lake iris and Houghton's goldenrod.

**Hart's Tongue Fern** (*Asplenium scolopendrium v. americanum*) (Threatened)**Guidelines:**

1. Management within Niagara escarpment community should be designed to protect Hart's tongue fern element occurrences.

**Lakeside Daisy***(Hymenoxys herbacea)* (Threatened)**Guidelines:**

1. Management in the Alvar community should be designed to protect Lakeside daisy element occurrences.

**Pitcher's Thistle***(Cirsium pitcheri)* (Threatened)**Guidelines:**

1. Management in Great Lakes shoreline sand dune/sand beach communities should be designed to protect Pitcher's thistle element occurrences.
2. The biological controls used to control non-native thistles should not be used unless it is determined they have no negative effect on Pitcher's thistle.

