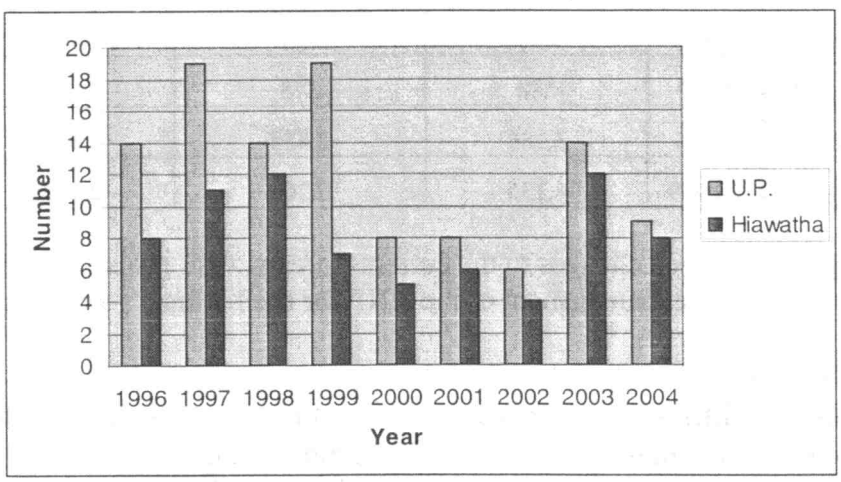
Planning for a Kirtland's Warbler Management Strategy for the Hiawatha NF 4/27-28/2005

KW management provides benefits to the Hiawatha;

- Contribute to the recovery of an endangered species
- Multiple-use approach to resource management
- Support high volume and sustainable jack pine harvest
- Support Healthy Forest Initiative and fuels reduction objectives
- Benefits Hiawatha MIS and many other species of jack pine ecosystems

Essential habitat is defined as *"that land identified as biologically appropriate and necessary for the development of nesting habitat for the Kirtland's warbler"* (Huber et. al. 2001). No essential habitat has been identified for management on the HNF. The *Strategy for Kirtland's Warbler Habitat Management* (Huber et. al. 2001) provides specific direction for land managers on how to manage summer range for the Kirtland's warbler, and protect individuals and nesting habitat.

KW numbers in the UP were highest in the late 1990's due to several wildfires that occurred in the 1980's (Indian Lake Fire, 8-Mile fire, wildfires near Gwin, MI). Limited management efforts on the HNF, designed to create KW habitat, began in the early 1990's and have resulted in KW occupancy of a few managed jack pine stands.



There are four primary sand-outwash ecosystem landtype associations (LTA) on the Hiawatha National Forest; Whitefish Delta, Indian River Uplands/Steuben Outwash/Mint farm, Raco Plains, and Wetmore Outwash. The approximately 46,000 acres of jack pine in these LTA's encompass most of the 10-20 ecological landtype, are allocated to MA 4.2 and 4.4, and would be the most likely areas for KW occupancy (Table xx). There may be suitable KW habitat outside of the 4 outwash LTA's.

Current age class distribution of jack pine on the Hiawatha NF.

Approximate distribution of jack pine acres on HNF

Age Class	Forest Wide	Raco Plains	Wetmore Outwash Plain	Indian River Uplands/Steuben Outwash	Mint Farm (adjacent to Indian River)	Whitefish Delta
0 - 10	12,040	6,964	1,225	1,224	113	1,178
11 - 20.	7,173	1,225	1,436	1,563	361	1,333
21 - 30	7,361	2,229	1,409	697	364	651
31 - 40	4,257	1,113	291	894	62	110
41 - 50	5,312	2,613	588	378	11	72
Over 50	32,123	9,836	3,186	2,450	2,033	375
Total	68,266	23,980	8,135	7,206	2,944	3,719

The following are proposed changes to the current Forests' Plan goals, objectives, Standards and Guidelines relevant to the management of the HNF for the Kirtland's warbler.

Kirtland's Warbler Goals:

- Provide for Kirtland's warbler management within forest-wide vegetation goals.
- Provide a minimum of 10,000 acres of jack pine in the 6 to 20 year age class, striving to achieve desired Kirtland's warbler stocking levels on ELT 10/20 in Management Area 4.4 (*Alternative 2 goal).*
- Provide a minimum of 5,000 acres of jack pine in the 6 to 20 year age class with desired Kirtland's warbler stocking levels on ELT 10/20 in Management Area 4.4 (*Alternative 2 goal).*

Kirtland's Warbler Objectives:

- Regenerate an average of 670 acres of jack pine per year in Management Area 4.4 on ELT 10/20 to provide Kirtland's warbler habitat.

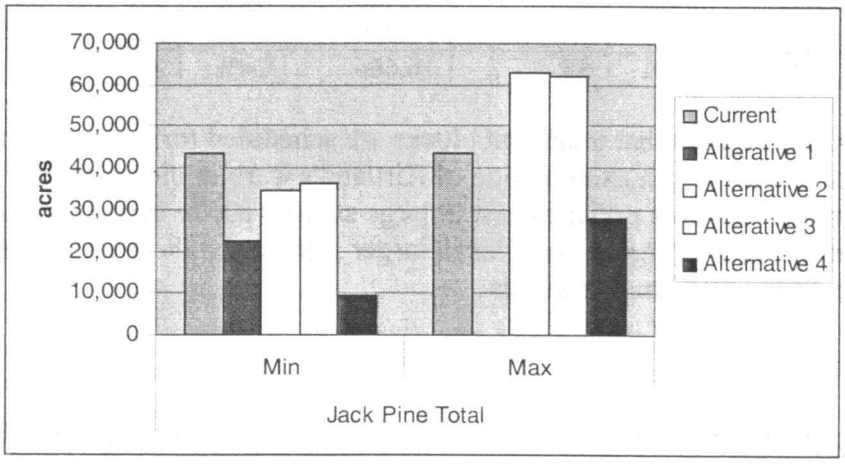
Kirtland's Warbler Guidelines:

- For Kirtland's warbler management, strive to regenerate jack pine stands with a target density of an average of 1,089 trees per acre with small non-forest inclusions.

- Pre-commercial thinning or release of jack pine less than age 20 should not occur in Kirtland's warbler management areas.
- The maximum size of temporary openings for sharp-tailed grouse and Kirtland's warbler management should not exceed 550 acres.
- Two to ten 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.
- In areas managed for timber production, whole-tree timber harvest methods should not be used on sites with inherently low fertility and low organic matter reserves (ELT 10/20, phase 0, 1 and 2; Grayling and Rubicon soil series). Slash will be left evenly distributed across the site.

Kirtland's warbler habitat under all alternatives is constrained by vegetation goals that limit the amount of jack pine habitat. The goals/objectives in Chapter 2 assume a 15 year duration of suitable KW occupancy (age 6-20). KW could be managed in any MA as long as vegetation goals are met. An initial reforestation effort would be made to meet KW stocking density. However, due to concerns about the economic cost of reforestation, follow-up reforestation efforts, if needed to assure KW stocking, would occur on a minimum of ½ of the acres. Acres that are not stocked to suitable KW stocking density would not be considered suitable habitat.

Vegetation goal summary by alternative for jack pine in MA 4.2 and MA 4.4, ELT 10-20



The goals for KW habitat vary by alternative. Actual KW habitat available at any one time could range between 0 and 15,000 acres, with the total amount managed for jack pine between 0 and 50,000 acres. The table column for "Minimum total jack pine managed with KW stocking assured" would represent the HNF contribution to the projected 39,000 acre minimum habitat shortfall.