

MANAGEMENT DIRECTIONS
FOR DESIGNATED CRITICAL HABITAT

The purpose of this section is to define the methods for protecting and improving designated critical nesting habitat for the survival of the Kirtland's Warblers and for compliance with the provisions of Section 7 of the Endangered Species Act, as amended. After acceptance of this plan any proposed deviations from these specified practices shall be subject to the consultation process as required by that Act.

A. Habitat Management

All potential breeding habitat on the State and National Forests (and on adjacent private lands) were identified. After field examination and stand data were analyzed, those stands that were believed to be suitable and manageable for nesting habitat were identified for proposal as critical habitat. Contiguous stands or stands in close proximity were grouped into management areas. Twenty-three areas have been established, 16 on State Forests and seven on the National Forest. Each area was divided into management units which contain between 1,000 and 2,000 acres of designated habitat. Each unit was subdivided into five blocks, with each block containing some 200 or more acres of contiguous stands of habitat. Blocks were laid out so that the stands within a block are as near the same age as possible. Stands that have been identified as critical habitat are to be managed on a 50 year rotation. All stands within a block shall be regenerated within

the same decade, where possible. Where the ages between stands is too widespread, adjustments of treatments must be made to eventually get all stands to the same age. Some adjustments may result in some negative impacts on timber as result of sacrificing immature stands and carrying mature stands beyond rotation age. In some cases an adjustment could result in a reduction of the full potential of the habitat during the first rotation period.

Blocks in each of the units are to be cut sequentially at 10 year intervals, starting with Block I and progressing to Block V during the last decade at the rotation. Exceptions to this will be made where there is a perpendence of older age classes within a unit. In such units both Block I and V should be regenerated the first decade so the stands in Block V are not deferred too long and will be merchantible during the last decade of the rotation period. Where all blocks are of the same age in a unit (e.g. as some of the Pine River and McKinley units), the regeneration of blocks could be at 5 year intervals for the first rotation. During the next rotation, block ages can be adjusted by cutting Block I at age 40 and then cutting the subsequent blocks at ten year intervals. This would mean a high amount of nesting habitat would be available in these units during the first rotation, followed by a probable period of some 10 years where there would be no suitable habitat. Since the number of such units will not be too great and such adjustments will vary somewhat, the overall effect should not be very significant to the total population.

The Mack Lake Unit, which is the dedicated area on the Huron National Forest has been subdivided into 10 blocks which are to be regenerated at five year intervals. This is consistent with the original management plan and allows for more intensive management on this area which has received considerable attention of the ornithological interest.

Silviculture

Final harvest and regeneration: Even-aged silvicultural methods are to be used that will produce the habitat structure necessary for Kirtland's Warbler nesting. The well documented history of warbler nesting based on thousands of observations very strongly indicates that fire is a necessary factor in creating suitable nesting habitat for this species. Research is in progress which should better define the specific impact of burning on nesting habitat and nesting success. Unless it can be demonstrated that productive nesting habitat can be developed without the use of fire, prescribed burning will be the primary tool used in the regeneration process. Any proposals to deviate from this shall receive interdisciplinary review and approval.

1. Prescribed methods are:

- a. Clearcut, prescribe burn for site preparation, and plant jack pine seedlings. (Since natural regeneration of jack pine may fail or require a longer time to become established, planting will be the preferred method for regenerating most stands in the first block in each unit.

Exceptions will be to designate some stands for natural regeneration attempts using method b. or proposals under c.)

b. Seed tree cut (leaving 20-25 jack pine seed trees per acre, or patches or strips of jack pine trees), followed by prescribed burning to prepare the site for natural regeneration and seed release.

c. Proposals to regenerate a stand using any method other than described above shall receive interdisciplinary review and approval. This will include experimental treatments, high hazard conditions, critical timing for planting and other reasonable proposals.

2. Logging Methods: Some mechanized logging methods remove slash or concentrate slash in a logging area. This may adversely affect the results of a burn and not produce suitable habitat. Sale contract provisions shall exclude logging methods which remove tree tops and other slash; or which allow windrowing or concentrating slash; and requires slash be left scattered over the cutting area. Any deviations from such provisions shall require interdisciplinary review and approval

3. Planting: In addition to regenerating the stand, the purpose is to produce a suitable configuration for nesting habitat.

General guides are:

a. Spacing of trees will be 6' x 6' or less.

b. Approximately 25% of the block will be left unplanted in

