

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 perpondence 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

small (about 1/4 to 1/2 acre), well-dispersed openings, or in a strip configuration, planting, 16 rows (99') and leaving the adjacent 33' unplanted, etc. Where the strip configuration is used, the unplanted strip should be broken at 5 chain intervals with cross-planting 5 or 6 rows.

c. Survival checks shall be made:

- 1) In planted areas after the first and third year.
- 2) In natural regeneration areas after the first, third and fifth years. (If it appears that the area may still have a good chance to be regenerated additional checks may be made up to the 10th year after the burn or other treatment.) The decision for the necessity to re-plant shall be made if survival of planting is found to be inadequate after either the first or third year checks of planted areas. Where it appears that natural regeneration has failed after the fifth year it may be determined that planting will be necessary if it appears that an adequate stand will not regenerate.

4. Cultural and Intermediate Treatments: Practices such as the development of openings, overstory removal, thinning, interplanting, etc. shall not lessen the quality of the habitat. Proposals for such work shall:

- a. Be reviewed by the Forest Biologist to assure compatibility with warbler habitat requirements. Should there be possible adverse effects and the Forest wishes

to continue with the proposal, the Forest Supervisor shall request informal consultation as required by the Endangered Species Act.

- b. Be performed prior to when the stand is occupied or after abandonment by Kirtland's Warbler, but not during the year's of occupancy.
- c. Snags are desirable in Kirtland's Warbler habitats, particularly for such cavity nesters as Bluebirds, Kestrel, etc. and should be retained in reasonable numbers. Firewood permits should not be issued for stands during years of occupancy by Kirtland's. Where such permits are issued during non-occupancy years, steps should be taken to retain some snags.

B. Species and Habitat Protection

Other uses of public forest lands can and do have adverse impact on this species and its habitat. Many such uses can be made of these habitats if properly regulated and coordinated. There are some activities that are also essential for insuring the protection of the species and maximum use of its habitat.

1. Fire Management: Although fire is considered essential for the development of this bird's habitat, it can also be a threat to occupied or developing habitat. Therefore, prevention, pre-suppression and suppression plans should, to the extent possible:

- a. Consider critical habitat in ages from one to 21 years as very high value class in preventing fire losses.
- b. Employ compatible methods in hazard and risk reduction. Anything that alters vegetation or habitat should be done prior to occupancy by Kirtland's Warblers.

When critical habitat has reached the stage where it no longer supports warblers, the value class can be changed to whatever is appropriate for the area.

2. Insect and Disease Control: This too can be a threat to warbler habitat, and one which could present quite a dilemma. The use of certain control methods could be very destructive to the birds. Should a significant problem develop in critical habitat, the responsible land manager shall request that the situation be appraised and appropriate action taken. This should require consultation if a chemical insecticide is proposed.
3. Predator Control: At the present time the Fish and Wildlife is controlling cowbirds within nesting areas. These activities are within the scope of the Recovery Plan and are coordinated through the Recovery Team. Any other such activities will be coordinated in this manner. (These activities may be reduced if the population increases significantly.)
4. Recreation: Recreational pursuits by humans can intentionally or inadvertently adversely affect this bird and its habitat.

There is need to regulate recreational use to reduce such impacts.

- a. Occupied habitats shall be closed to public entry during the breeding and nesting season, except through conducted tours. (There may be some relaxation on closures as populations increase and conditions warrant.) Closed areas are to be adequately posted and closed roads within such areas are to be gated where necessary.
 - b. Recreational developments, including trails and roads generally are not to be constructed in or adjacent to critical habitat. Where trails are proposed an interdisciplinary review and approval shall be required. Approval may be contingent upon closing and/or re-routing the trail when a block is regenerated or is occupied by warblers.
 - c. Where critical habitat is adjacent to major roads, a buffer may be developed for visual purposes and for protection of warblers. Where critical habitat occurs along lesser roads some modifications can be made to accommodate visual management as long as it does not significantly block size or disrupt the continuity of the block.
5. Road* Construction and Other Structural Developments: When planning roads and structures, critical habitat should be avoided. If it is felt this can not be done feasibly, then it will be required to request consultation with the Fish and

Wildlife Service. (*This does not include roads that are part of a timber sale package in critical habitat.)

6. Minerals: Gas and oil deposits under critical habitat areas may be developed with the application of certain restrictions.
 - a. Drilling activity may be done from approved locations, including access roads.
 - b. In or adjacent to occupied habitat drilling activities may not be done between May 1 and September 1.
 - c. In occupied habitat a proven well can be operated between Sept. 1 and May 1, but can not be operated between May 1 and September 1 unless it is pumped by a bottom-hole pump and the oil is transported by pipeline. Any well emitting toxic or sour gasses into the air may not be operated during May 1 to September 1.
 - d. Drilling activities may occur in unoccupied critical habitat the year round.
 - e. Oil and gas development in all habitat shall be done in such a manner that the management of habitat through the use of prescribed burning is not precluded. This includes:
 - 1) Taking steps to protect well pads.
 - 2) Burying of pipelines to safe depths.
 - 3) Locating storage facilities outside of critical habitats.
7. All proposals for any other activities within critical habitat not covered above must be reviewed to determine for going into the consultation process.