

# Chapter 4: Future Management Direction: Tomorrow's Vision

## Goals, Objectives and Strategies

The planning team developed goals and objectives for three management alternatives at Kirtland's Warbler WMA. Cooperating agencies, conservation organizations and Seney NWR staff all participated in this endeavor. The three alternatives were:

- Alternative 1: Current Direction of Habitat Management (No Action)
- Alternative 2: Management from an Ecological Perspective
- Alternative 3: Ecological Management and Land Ownership Consolidation (Preferred Alternative)

The preferred alternative, Ecological Management and Land Ownership Consolidation forms the basis for the Kirtland's Warbler WMA CCP and the goals, objectives and strategies presented on the following pages. The planning team established goals for the WMA as a whole, objectives for achieving those goals, and the specific strategies that will be employed by Refuge staff. The goals are organized into the broad categories of wildlife, habitat, and people.

Three goals were established for Kirtland's Warbler WMA:

- Goal 1: Wildlife – Management will play an integral role in the recovery of the Kirtland's Warbler. Kirtland's Warbler WMA lands will support the broad array of wildlife species that are dependent on each seral stage of the jack pine ecosystems (from barrens to mature jack pine).



*Spruce Grouse. U.S. Fish & Wildlife Service photo.*

- Goal 2: Habitat – Manage habitat to support Kirtland's Warblers and associated wildlife species by providing near benchmark conditions across all seral stages of the jack pine ecosystem. Employ sound management practices that emulate patterns of structure and composition resulting from wildfire and other natural disturbances.
- Goal 3: People – Encourage the public to explore jack pine ecosystems and learn about its associated wildlife.

### **Goal 1: Wildlife**

Management will play an integral role in the recovery of the Kirtland's Warbler. Kirtland's Warbler WMA lands will support the broad array of wildlife species that are dependent on each seral stage of the jack pine ecosystems (from barrens to mature jack pine).

#### **Objective 1.1**

Continue to be an active partner in the Kirtland's Warbler recovery effort.



American badger. U.S. Fish & Wildlife Service photo

***Rationale:*** The Kirtland's Warbler WMA was established in 1980, under authority of the Endangered Species Act, to aid in the recovery of the Kirtland's Warbler. Since that time, the Service has been an active participant in a partnership which has brought the Kirtland's Warbler population from the brink of extinction to numbers surpassing the recovery objective for the last 7 years. Guided by the Kirtland's Warbler Recovery Team, this partnership has developed techniques to census the population, limit nest parasitism, and regenerate jack pine to create suitable nesting habitat.

***Strategies:***

1. Participate in the annual Kirtland's Warbler Census to aid in monitoring the population trends.
2. Work with Ecological Services to continue annual trapping efforts to remove Brown-headed Cowbirds from nesting areas and explore new ways to eliminate Cowbirds parasitism of Kirtland's Warbler nests.
3. Coordinate harvest and regeneration of jack pine on Kirtland's Warbler WMA lands with the Michigan DNR to ensure that the Services lands are contributing to the Kirtland's Warbler recovery effort.
4. Conduct and participate in research to better understand the ecology and management of Kirtland's Warbler populations.

**Objective 1.2**

By 2016, implement a monitoring program to track the presence, abundance, population trends, and/or habitat associations of Trust Resources and determine ways to emulate natural species diversity.

***Rationale:*** The jack pine ecosystem is known to support a vast array of wildlife, many of which are listed as Conservation Priority Species in Region 3 of the U.S. Fish & Wildlife Service. Since the creation of the Kirtland's Warbler WMA, recovery of Kirtland's Warbler has been the only goal of its management. Now, with Kirtland's Warbler populations exceeding recovery goals for 7 consecutive years, the Service has an opportunity to manage more from an ecological perspective and benefit species across the seral stages of the jack pine ecosystem. Research should be conducted to determine how to best manage the Kirtland's Warbler WMA for all Trust Species, without diminishing its contribution to Kirtland's Warbler recovery.

***Strategies:***

1. Determine the presence, abundance and habitat associations of Trust Resources currently using Kirtland's Warbler WMA lands.
2. Develop and implement a monitoring program to track population trends, and/or habitat associations of Trust Resources.
3. Conduct annual reviews of trends to determine if there are priorities for research or management.
4. If a Trust Resource research or management issue is identified, initiate action at the local level. If the issue goes beyond the boundary of the Kirtland's Warbler WMA, take the lead role in coordinating with federal, state, and non-government organization partners to develop broader scale projects to resolve issues.

## Goal 2: Habitat

Manage habitat to support Kirtland's Warblers and associated wildlife species by providing near benchmark conditions across all seral stages of the jack pine ecosystem. Employ sound management practices that emulate patterns of structure and composition resulting from wildfire and other natural disturbances.

### Objective 2.1

Continue to manage jack pine stands in conjunction with the Michigan DNR, but place greater emphasis on promoting ecological integrity within managed stands.

*Rationale:* Michigan DNR forest managers have devised a system of intensively managing jack pine that provide suitable nesting habitat for the Kirtland's Warbler. However these plantations are ecologically simplified and lack the diversity of stands produced by the natural disturbance mechanism, wildfire. This loss of structural and compositional diversity has negatively impacted populations of many wildlife species in Michigan.

Future management should consider all seral stages of jack pine ecosystem development, from barrens to mature forest, and strive to emulate natural conditions in each stage. This is important, because each stage offers habitat for a different suite of species, many of which are on the U.S. Fish and Wildlife Service Conservation Priority list. Young stands (grassland and shrubland) can provide breeding habitat for openland birds, including Upland Sandpiper, Prairie Warbler, and Clay-colored Sparrow. Bird species that use later seral stages or the "biological legacies" of these stands include Red Crossbill, Black-backed Woodpecker and Olive-sided Flycatcher.

#### *Strategies:*

1. Work with Federal, State and local officials to garner support for the use of prescribed fire in the management of jack pine to create Kirtland's Warbler nesting habitat.
2. Work with Federal, State and local fire officials to employ prescribed fire as a management tool where it can be applied safely without risk to life and property.
3. Elsewhere, attempt to emulate the compositional and structural patterns of jack pine stands resulting from wildfire through

mechanical treatments (i.e. timber sales). Place increased emphasis on maintaining "legacy" trees (e.g., large red and white pine, red and white oak, etc.) and providing more (and larger) standing snags and coarse woody debris.

4. Parcels that contain habitats other than jack pine will be managed to emulate patterns resulting from natural disturbances.
5. Develop research demonstration sites that exemplify ecologically-based jack pine management and illustrate how emulating natural conditions can provide multiple species benefits.
6. Develop a map and monitor spotted knapweed distribution within and near Kirtland's Warbler WMA parcels. Initiate removal if the species spreads into nesting areas.

### Objective 2.2

Within 5 years of completion of this CCP, develop a land consolidation plan for the Kirtland's Warbler WMA that maintains or increase habitat for the warbler and increases management efficiency for all agencies involved.

*Rationale:* The Kirtland's Warbler WMA consists of 125 separate tracts of land located in eight counties of Michigan's northern Lower Peninsula. Their size ranges from 2 to 600 acres and most tracts are located within larger tracts of land owned by the State of Michigan. There is no local office or dedi-



*Mechanical treatment of mature jack pine to prepare site for replanting of jack pine for Kirtland's Warbler, Kirtland's Warbler WMA.*

cated staff assigned to the Kirtland's Warbler WMA; staff at the Seney NWR, which is located over between 150 and 300 miles from most parcels, is responsible for administrative oversight. Currently, management is accomplished through a cooperative agreement between the Service and the Michigan DNR. Under this agreement, the Service retains ownership and oversight functions on Kirtland's Warbler WMA lands while the Michigan DNR determines when timber on a given parcel should be cut and regenerated. The Service is responsible for the timber harvest and the DNR contracts for replanting services.

Consolidation of Kirtland's Warbler WMA lands is being considered to increase management efficiency. Currently the travel distances between Seney NWR and WMA lands limits administrative oversight and management effectiveness. Due to their small size, WMA lands cannot be managed independent of the surrounding landscape. Therefore a high degree of coordination with the Michigan DNR is required to accomplish any meaningful management.

A consolidation has the potential to increase the amount of land dedicated to Kirtland's Warbler management. Both State and Federal regulations require that lands exchanged be equal, based on an appraisal value, not acreage. Consequently, if the State were to exchange lands not currently managed for the Kirtland's Warbler for Service land with a higher appraised value, there would be a net gain because the Service would manage its new lands for the warbler. This scenario is likely because of the variation in land values from county to county.

The Service has completed many land exchanges with states; including six with the State of Michigan in the last 20 years. The primary purpose of most of these exchanges was to improve management efficiency. The Service will always have the option to retain the Kirtland's Warbler WMA name for any new lands acquired. Thus, if consolidation is achieved, we would effectively be moving the Kirtland's Warbler WMA to a new location. The most significant benefit of consolidation would be increasing habitat to further ensure full recovery and long-term survival the species.

The concept of land consolidation is supported by all agencies involved in Kirtland's Warbler management. In general, the Service, the Michigan DNR, and the U.S. Forest Service would seek lands to

exchange amongst the agencies to consolidate ownership and increase the land base managed for the Kirtland's Warbler habitat. Public input on any exchange proposal would be sought in compliance with the National Environmental Policy Act. All parties recognize that any exchanges may take years to complete, but they agree it will be worth the effort.

*Background:*

The idea of consolidating lands has been discussed since inception of the Kirtland's Warbler WMA more than 25 years ago. In a letter dated November 13, 1979, from Wayne H. Tody, Deputy Director of the Bureau of Resources for the Michigan DNR to Harvey K. Nelson, Regional Director for Region 3 of the Service, land consolidation is listed as a condition for support of a Federal Kirtland's Warbler land acquisition program in Michigan. The 1991 cooperative agreement between the Service and Michigan DNR states that they mutually agree "to exchange interest in land of high nesting habitat capability where necessary for effective management." In addition, we understand that the Michigan DNR is working to implement a Land Consolidation Strategy. We believe that the CCP planning process and the Land Consolidation Strategy make the timing right to fully explore land consolidation.

On February 21, 2007, members of the Kirtland's Warbler Recovery Team met at the Michigan DNR, Gaylord Operations Center, at the Service's request to discuss the CCP and alternatives for future management of the Kirtland's Warbler WMA. Nearly all members of the team attended as well as additional staff from local DNR offices, several Service field stations, and representatives from the U.S. Forest Service and two universities. The primary purpose of this meeting was to explore the possibility of consolidating the widespread land holdings of the Kirtland's Warbler WMA for more efficient management by all agencies that manage land for Kirtland's Warbler habitat.

It was decided at the February meeting that a smaller interagency committee should convene to formulate specific land consolidation proposals. The members of this committee should be land managers or biologists with specific knowledge of affected lands and Kirtland's Warbler management. The pre-

**Table 5: Sites Identified for Potential Exchange**

Location	Concept	Potential Sites
Northern Lower Peninsula	Large acreage of Service lands currently exists. Exchanges would include Michigan DNR and Service lands only and would create fewer and larger parcels.	<ul style="list-style-type: none"> <li>■ Pere Cheney Management Area - Staley Lake Mgmt. Area,</li> <li>■ NW Ogemaw Management Area,</li> <li>■ Leota Management Area,</li> <li>■ Big Creek Management Area</li> </ul>
Northern Lower Peninsula	Create fewer and larger parcels closer to Seney NWR, but still within the northern lower Peninsula. Exchanges would include only Michigan DNR and Service lands.	<ul style="list-style-type: none"> <li>■ Clear Lake</li> </ul>
Northern Lower Peninsula	Consolidate into fewer, larger parcels and include Service, Forest Service and Michigan DNR lands.	<ul style="list-style-type: none"> <li>■ Wurtsmith Block to Forest Service, Michigan DNR gets all Service lands, and Service gets unidentified Forest Service lands (multiple compartments).</li> </ul>
Upper Peninsula	Maintain close proximity to Seney NWR; opportunity to use prescribed fire as a management tool; minimal impact to existing ORV trails. Consolidation will only involve Service and Michigan DNR lands.	<ul style="list-style-type: none"> <li>■ M-94 southwest of Seney NWR,</li> <li>■ M-28 lands north of Seney NWR,</li> <li>■ Danaher Plains Complex,</li> <li>■ Ishpeming Area,</li> <li>■ Big Two-Hearted River Country,</li> <li>■ Private lands purchased in the Upper Peninsula by Michigan DNR going to the Service, Michigan DNR getting northern Lower Peninsula Service lands,</li> <li>■ Baraga Plains,</li> <li>■ Yellow Dog Plains.</li> </ul>

liminary proposals will then be presented to each agency's leadership for review and recommendation.

The interagency committee met on April 10, 2008 in Grayling, Michigan. Attendees included three representatives from Michigan DNR, two from the U.S. Forest Service and three from the U.S. Fish and Wildlife Service. The committee concluded this meeting with a list of ideas for future land consolidation. These ideas are presented in the following paragraphs as a set of guidelines. These guidelines may be refined as individual agency discussions move forward and specific planning continues in the next several years.

*Land Consolidation Guidelines:*

1. Lands must be manageable for Kirtland's Warbler (i.e. sites of sufficient size with jack pine as a major constituent of seral stages).

2. Must improve management efficiency for all agencies involved.
3. No substantial buildings or improvements.
4. Sites do not contain hazardous materials or environmental contaminants.

*Sites Identified for Possible Exchange:*

The sites described in Table 5 were suggested by the interagency committee that met in April 2008 as possibilities to explore for an exchange. These sites are mentioned for illustration purposes only; no official endorsement has been sought or obtained through the U.S. Fish and Wildlife Service, the Michigan DNR or U.S. Forest Service.

*Strategies:*

1. Interagency team will follow land consolidation guidelines to establish priority exchange scenarios

2. Land appraisals, following Federal and State guidelines, will be conducted on all lands identified for exchange.

### **Goal 3: People**

Encourage the public to explore jack pine ecosystems and learn about its associated wildlife.

#### **Objective 3.1: Hunting**

Provide the public with opportunities to hunt on Kirtland's Warbler WMA lands in accordance with state and Federal regulations.

***Rationale:*** Kirtland's Warbler WMA is open for hunting of all legal game species in Michigan per State regulations. However, little is known regarding the statistics regarding hunting use. Due to the nature of the habitats at the Management Area, most hunting is likely confined to white-tailed deer, Wild Turkey, Ruffed Grouse, snowshoe hare, American Woodcock, and black bear. In early successional stands (recent clear cuts waiting regeneration for Kirtland's Warbler) hunting is probably confined to Wild Turkey and white-tailed deer. As stands mature and become close-canopy with more mature trees, more species are hunted and more hunting likely occurs. The use of bait, snowmobiles, or ATVs are prohibited on Service lands.

#### ***Strategies:***

1. Increase law enforcement on Service properties to ensure consistency with Federal hunting regulations (e.g. no deer baiting, permanent blinds, bear hunting with dogs, and off-road vehicle use).
2. In cooperation with the Michigan DNR, produce maps to show the hunting public areas subject to Federal regulations.

#### **Objective 3.2: Wildlife Observation, Wildlife Photography, Environmental Education and Environmental Interpretation**

Within 5 years of approval of the plan, increase opportunities for wildlife observation and photography, environmental education and interpretation to correspond with an increase (from 2008 level) in WMA visitation. The level of knowledge about, and the positive attitude toward, the WMA will increase among visitors throughout the next 15 years.



*Interpretive sign at Kirtland's Warbler WMA. U.S. Fish & Wildlife Service photo.*

***Rationale:*** The majority of the Visitor Services that are provided by the Kirtland's Warbler WMA are interwoven into the yearly Kirtland's Warbler tours conducted by the U.S. Fish and Wildlife Service's East Lansing Field Office, Michigan Audubon Society, and the U. S. Forest Service. According to Service records, during 2008 a total of 775 people from 40 states and three foreign countries attended a tour to see Kirtland's Warbler and hear about habitat management. These tours occur yearly from May 15 to July 4.

Although parcels inhabited by Kirtland's Warbler during the breeding season are closed to entry, uninhabited areas and the network of two-track roads that connect them afford photographers of all skill levels opportunities to photograph wildlife and hiking and biking activities.

#### ***Strategies:***

1. Continue active support of the annual Kirtland's Warbler Festival and Tours.
2. Encourage wildlife-dependent activities on Kirtland's Warbler WMA lands by providing outreach materials, such as brochures and displays, at local public events and in community facilities.