

# **Northwoods Cooperative Weed Management Area Management Plan**

Ratified: June 12, 2014

## **NCWMA MISSION**

Working Together to Protect Northern Wisconsin from Invasive Species.

## **INTRODUCTION**

The Northwoods Cooperative Weed Management Area (NCWMA) is comprised of state and federal agencies, municipalities, tribes, nonprofits, community organizations, and individuals who have come together to combat invasive species in Douglas, Bayfield, Ashland, and Iron counties in northern Wisconsin. Other organizational information can be found in our bylaws, Memorandum of Understanding (MOU) and strategic plan ([www.northwoodscwma.org](http://www.northwoodscwma.org)).

Invasive species can have devastating impacts on native plant communities, fish and wildlife habitat, agricultural yields, recreational and subsistence opportunities, local economy and the services healthy ecosystems provide. The NCWMA works to prevent, reduce and eliminate the impacts of invasive species to the area.

## **NCWMA GEOGRAPHIC DESCRIPTION**

*Location:* The NCWMA is geographically defined as the lands and waters within the geopolitical boundaries of Ashland, Bayfield, Douglas, and Iron counties (Figure 1). This area encompasses over 4,585 square miles, nearly 32% of which is water and borders Lake Superior to the north. The area includes the Apostle Islands and the near-shore habitats of Lake Superior.

Much of the land in the NCWMA is forested, with a large proportion (35-52% by county) in public ownership. A smaller proportion (2-12% by county) of the land is agricultural. Federal land ownerships (U.S. Forest Service, National Park Service, U.S. Fish & Wildlife Service) account for approximately 17%, state lands (parks and forests) account for approximately 5%, county lands (parks and forests) account for approximately 21% and tribal lands account for approximately 5% of the NCWMA area. The Bad River Band of the Lake Superior Tribe of the Chippewa Indians (Ashland Co.), the Red Cliff Band of Lake Superior Chippewa Indians (Bayfield Co.), the Lac Du Flambeau Band of Lake Superior Chippewa (Iron Co.), and the Fond du Lac Band of Lake Superior Chippewa (Douglas Co.) all have Reservations lands in the NCWMA. The entire NCWMA falls within the Ojibwe ceded territories of 1837 and 1842. Ten Ojibwe tribes retained the rights to hunt, fish, and gather on these lands through these treaties.

The four counties served by the NCWMA are relatively rural. County populations from the 2010 census are: Ashland, 16,157; Bayfield, 15,014; Douglas, 44,159; and Iron, 5,916 (U.S. Census Bureau 2010). The largest cities in each county of the NCWMA are Superior, 27,244 (Douglas Co); Ashland, 8,216 (Ashland Co); Washburn, 2,117 (Bayfield Co); and Hurley, 1,547 (Iron Co) (U.S. Census Bureau 2010).

Due to the large amount of public land and waters, outdoor recreation is a driving economic influence in the area. In order to support this economy, healthy ecosystems are essential to provide for these opportunities. Tribes depend on healthy ecosystems to provide for their traditional treaty-reserved lifeways. Invasives degrade ecosystem health, therefore invasive species management is necessary to maintain ecosystems and their services needed by the local area and community.

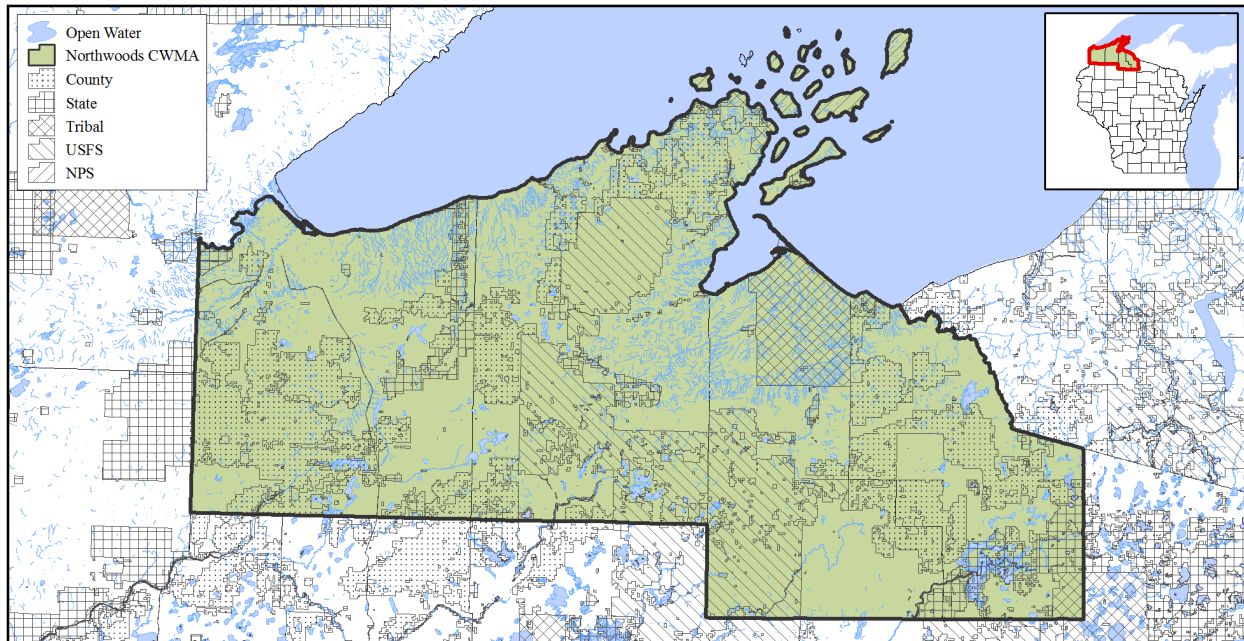


Figure 1. The Northwoods Cooperative Weed Management Area boundary.

*Landscape:* The NCWMA falls within the Laurentian Mixed Forest ecoregion (Bailey 1995) and contains all or part of five of Wisconsin's Ecological Landscapes (Wisconsin DNR 2005). All four counties within the NCWMA border the south shore of Lake Superior. Most of this ecoregion has low relief, but rolling hills occur in many places. Lakes, poorly drained depressions, moraines, drumlins, eskers, outwash plains, and other glacial features are typical of the area, which was entirely covered by glaciers during parts of the Pleistocene. Sandscapes, rock ledges, and old growth forests are some of the unique features found here. Elevations range from 600 ft. (Lake Superior) to 1,872 ft. (Mt. Whittlesey, Ashland County) above sea level. A ridge of volcanic igneous rock, primarily basalt, divides the NCWMA area into two major drainages (Wisconsin DNR 1999). Waters north of this ridgeline flow toward Lake Superior, while those south of the ridge flow to the Wisconsin and St. Croix Rivers, which both lead to the Mississippi River.

*Wildlife.* From the pine barrens in the western half of the area, to the waters of Lake Superior, to the deep forests of hardwoods and conifers, the wildlife found here are as varied as the landscape. Sharp-tailed grouse, bobolinks, badgers, and the prairie skink populate the shrub and grassland communities of the barrens. Lake trout and colonial water birds including the common tern make their homes in and along Lake Superior. The forests of the NCWMA are home to bald eagles, songbirds, wolves, fishers, and numerous small mammals. Beaver, muskrat, and mink are found in the lakes and streams as are trout and sturgeon. The area is heavily impacted by a large deer population.

*Flora.* This ecoregion lies between the boreal forest and the broadleaf deciduous forest zones and is therefore largely transitional (Bailey 1995). In most areas, aspen has become more dominant than it was historically. Northern hardwood forests (sugar maple, basswood, paper birch, and red maple) are common throughout the NCWMA, with pines (white, red, and jack), hemlock, spruce, and balsam fir occurring in scattered patches. Stands of mixed conifers and hardwoods occur closer to Lake Superior and in the eastern half of the NCWMA. Red pine plantations can be found on some industrial timber lands. Open areas in the western half of the area are comprised of jack pine and oak savannas. Active or former agricultural fields occupy large swaths in the north half of the NCWMA, where approximately 1/3 of the land is non-forested (Wisconsin DNR 1999).

*Endangered, Threatened, or Special Concern Species.* There are over 200 species of plants and animals in the NCWMA that are listed by the state of Wisconsin as Endangered, Threatened, or Special Concern. Five of these are also Federally-listed as Endangered or Threatened. Among the listed species are the Piping Plover (*Charadrius melodus*), Canada Lynx (*Lynx canadensis*), Kirtland's Warbler (*Setophaga kirtlandii* (= *Dendroica kirtlandii*)) and two lakeshore plants, Fassett's Locoweed (*Oxytropis campestris* var. *chartacea*) and Dune Thistle (*Cirsium pitcheri*).

#### *Special Features:*

The NCWMA has a wealth of special natural features of regional, national, and international importance. Below are a few examples of the multitude of outstanding resources within the NCWMA.

- State natural areas, wildlife areas, and fisheries areas (<http://dnr.wi.gov/topic/Lands/>)
- Wilderness areas (<http://www.wilderness.net/NWPS/stateView?state=WI>)
- Apostle Islands National Lakeshore (<http://www.nps.gov/apis/index.htm>)
- Tribal National Park (<http://www.brcland.org/frog-bay-tribal-national-park.html>)
- Chequamegon-Nicolet National Forest
- North Country National Scenic Trail
- National wildlife refuges (<http://www.fws.gov/refuges/>)
- Ramsar Wetland of International Importance (<http://www.ramsar.org/>)
- Lake Superior coastal wetlands (<http://dnr.wi.gov/topic/wetlands/coastal/siteListLakeSuperior.html>)
- Wetland Gems (<http://wisconsinwetlands.org/gems.htm>)
- National Wild and Scenic Rivers (<http://www.rivers.gov/>)
- Priority Navigable Waters, Public Rights Features and Areas of Special Natural Resources Interest (<http://dnr.wi.gov/topic/surfacewater/swdv/>)

## **MANAGEMENT GOALS, OBJECTIVES AND TASKS**

**Note: We understand that a number of the specific actions will overlap in between the Goals and Objectives.**

**GOAL 1:** Education and prevention.

*Objective 1:* Raise awareness of the negative impacts of invasive species and how to prevent their spread.

- Action 1: Identify priority audiences, including:
  - Local governments
  - Students
  - Natural resources professionals
  - Land Managers
  - Outdoor groups
  - Landowners
  - General public
- Action 2: Develop and/or acquire outreach materials, including the following topics:
  - Invasive species identification
  - Ecological impacts
  - Equipment cleaning protocols
  - Native landscaping alternatives
  - Best Management Practices (BMPs)
- Action 3: Provide information via easily accessible means to the public at large:
  - Maintain and update the NCWMA website and facebook page
  - Quarterly Newsletter
  - Brochures/fact sheets
  - Conduct presentations, training sessions, and meetings
- Action 4: Identify priority, high visitation areas for educational outreach efforts.

- Boat landings (boat wash)
- Trailheads (signage, boot brushes)

**GOAL 2:** Early detection and rapid response (EDRR)

*Objective 1:* Maintain and enhance the capacity to identify, report, and effectively respond to newly discovered pioneer stands of invasive species.

- Action 1: Identify priority watch list for the management area
- Action 2: Identify priority areas with high visitation rates
- Action 3: Promote the use of data sharing networks (websites) by land managers
  - Contribute data (GISIN)
  - Retrieve records from online networks to inform management efforts
  - Increase awareness of citizens and professionals of how and where to report invasive species occurrences
- Action 4: Maintain and promote the cooperative use of the NCWMA tool shed
- Action 5: Support volunteer monitoring efforts

*Objective 2:* Identify newly discovered pioneer stands of invasive species and control them before they become unmanageable.

- Action 1: Coordinate regular monitoring of high visitation and high priority areas
- Action 2: Coordinate control efforts and follow up as needed

**GOAL 3:** Control and management.

*Objective 1:* Contain and reduce the spread and populations of established invasive species to minimize their harmful impacts.

- Action 1: Identify “established” invasive species within the NCWMA
- Action 2: Coordinate inventory efforts
- Action 3: Use an integrated approach to manage current invasive species populations
- Action 4: Management will be prioritized for species with:
  - High potential for economic impact
  - High potential for ecological impact
  - Low abundance
  - Limited distribution
  - Landowner/partner support
  - Viable control options
  - Consistency with management objectives
  - Available resources
  - NR 40 listing/legal mandates
- Action 5: Document management efforts and identify gaps.
  - Inventory
    - Species
    - Date
    - Location
    - Abundance/area
  - Control
    - Species treated
    - Date treated
    - Location
    - Treatment used (herbicide); measurable quantities
    - Acres treated
- Action 6: Encourage monitoring of the treated sites for effectiveness of the control work.
- Action 7: Encourage restoration where appropriate.

## **PRIORITY SPECIES WITHIN THE NCWMA**

See species list table.

### **NCWMA PARTNERS:**

- Ashland County Land & Water Conservation Department
- Bayfield County Land & Water Conservation Department
- Douglas County Land & Water Conservation Department
- Great Lakes Indian Fish & Wildlife Commission
- Iron County Land & Water Conservation Department
- Bad River Band of Lake Superior Chippewa
- Red Cliff Band of Lake Superior Chippewa
- USDA - Forest Service, Chequamegon-Nicolet National Forest
- USDI - National Park Service, Apostle Islands National Lakeshore
- USDI - National Park Service, St. Croix National Scenic Riverway
- USDI - U.S. Fish & Wildlife Service, Whittlesey Creek NWR
- Wisconsin Department of Natural Resources
- University of Wisconsin-Extension