



Interim Forest Management Plan

Property Identifiers

Property Name and Designation (multiple small properties can be grouped): Mullet Creek Wildlife Area

County(ies): Fond du Lac

Property Acreage: 2,217 acres (827 acres forested)

Forestry Property Code(s): 2070

Master Plan Date: In progress, will be completed in 2013
(if property has one)

Part 1: Property Assessment (1-2 pages maximum)

The following items should be considered during the property assessment. Not all sections may be relevant for all properties.

General Property Description

- Landscape and regional context

The Southeast Glacial Plains Ecological Landscape borders Illinois and covers a large area of southeastern Wisconsin. This landscape is home to some of the world's best examples of landforms resulting from continental glacial activity. Drumlins, eskers, kettle lakes, kames, moraines, and other glacial features are evident throughout the entire area.

The prominent feature for which this region is named is the terminal moraine, a long "ridge" that formed between the Green Bay and Lake Michigan glacial lobes during the Wisconsin Glaciation. Extending from Manitowoc County southward to Walworth County, this area called the "Kettle Moraine," contains some of the country's most impressive glacial features. The unique topography and geology of the Kettle Moraine creates great variation in site characteristics such as soils, slope, sun exposure and drainage. This results in a diverse collection of plant and animal communities, including numerous rare species.

Mullet Creek Wildlife Area consists of a rich array of wetland, forest, grassland and farmland. The Mullet River flows east through the entire property towards the Sheboygan River. The central portion of this property consists of shallow open water with submergent vegetation and a cattail marsh of over 700 acres. Sedge, wild rice, reed canary grass, willow, dogwood, swamp conifers and swamp hardwoods occur in the lowland areas. Oak, aspen and grass fields occur on the upland sites.

Emergent Marsh wetland vegetation is most prominent of the cover types and natural communities. Dominated by cattails (*Typha* spp.) with mixed broad-leaved sedges including lake sedge (*Carex lacustris*), willows (*Salix* spp.) typically are scattered throughout. While this community is low in plant diversity, it is important for providing significant migratory stopover habitat for migratory waterfowl and other wetland bird species.



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Northern Wet-mesic Forests (Swamp conifer) at the southern end of their range occur at Mullet Creek Wildlife Area, dominated by medium-aged northern white-cedar with lesser amounts of tamarack and black ash in the canopy. Northern white-cedar trees range from 6 to 28 inches diameter. Small openings are scattered throughout the forest. The ground flora is fairly diverse and includes wild sarsaparilla (*Aralia nudicaulis*), gold-thread, and fowl manna grass.

- History of land use and past management
- Mullet Creek Wildlife Area is a rich array of wetland, forest, grassland and farmland. Mullet Creek flows through the entire property eventually joining the Sheboygan River. The central portion of the property consists of shallow open water and submergent vegetation and cattail wetland totaling over 700 acres. Mullet Creek was periodically stocked with trout until the mid-1950's. A beaver colony constructed a dam on the creek just west of the Sheboygan county line and flooded an extensive area. The flooded area created by the beaver dam was a haven for waterfowl, primarily mallard, wood duck and blue-winged teal. In 1958 the Wisconsin Conservation Commission designated it a state property. Land acquisition began in 1960 and continues today.
- The 495 acre Mullet Lake State Natural Area is located about ½ mile south of the Wildlife Area. The 200 acre hard-water seepage lake is surrounded by a wetland complex of tamarack, shrub carr, sedge meadow, and swamp forest. The lake and swamp complex is the headwaters of the Mullet River in the property watershed of the Sheboygan River.

Site Specifics

- Major forest types (acres): swamp hardwoods (477), tamarack (104), northern hardwoods (76), white cedar (73), bottomland hardwoods (33), aspen (14) white spruce (5), miscellaneous deciduous (1).
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- The majority of the forest cover types on Mullet Creek WA are wetland associated species. Swamp Hardwoods such as black and green ash make up 58 percent of the forest cover type. Tamarack accounts for 13 percent of the forest acreage, white cedar accounts for 9 percent and bottomland hardwoods (red and silver maple) accounts for 4 percent. Upland forests are a smaller component of this property due to past land uses such as farming. Northern Harwood forests (sugar maple, basswood, ash) make up 9 percent of the total forested area, oak is 5 percent of the forested area, and aspen is 2 percent of the forested area.
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- The tamarack cover type is composed of one large stand in the south central portion of the property and is approximately 100 years old. The tamarack area has been designated a deferral area during the planning process and no forest management will occur in this stand during this planning process. This area has been identified as a High Value Conservation Forest.
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- The two aspen stands were recently regenerated in 2009 in order to maintain the small acreage of this type on the property for its benefits to wildlife. These stands will be regenerated through coppice cuttings.
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- There are three oak stands that range in age from 12 years old to 125 years old. Like many of the oak stands in this area they are slowly converting to more shade tolerant northern hardwoods. Plans are to manage the oak resource that is present to maintain it on the property as long as possible but through management allow the conversion of these stands to northern hardwoods.
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- Most of the swamp hardwood stands are between 60 to 70 years old. Due to the poor access due to very wet soils and the threat of EAB in the future much off this type may be



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lost to non-forested conditions (canary grass, cattails, wetland associated shrubs, etc.) Management to regenerate (coppice and all aged management) the type will occur as weather conditions allow for access into these stands.

The northern hardwood forest will continue to be managed on an all aged basis while retaining the better quality oaks within the stands to maintain oak on the property as much as possible. Both of the northern hardwood stands have been thinned within the past 8 years down to a basal area of 80 to 90 square feet with canopy gaps.

There is one bottomland hardwood stand that is 33 acres in size. 23 acres of this stand has currently been marked for thinning as a part of the management of the stand. Due to the presence of reed canary grass in areas to the south of this stand the basal area of the stand is being maintained at or above 80 square feet per acre. These stands will be managed on an all aged basis to favor red and silver maple.

The white cedar type is 100 years old. An even aged thinning of the stand is scheduled for the year 2020 leaving the basal area near or slightly above 140 square feet per acre. This area also contains a mixture of black and green ash which would be harvested at that time. The ash is distributed throughout the stand.

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- State Natural Area designations – There are no designations but there is an established 495 acre SNA project boundary around Mullet Lake but no acquisition has occurred.
- High Value Conservation Forests (HCVF) or other resources/natural community types limited in the landscape – Yes, the Mullet Creek Forested Wetland has been identified as a HCVF.
- Biotic Inventory status – Yes, the Rapid Ecological Assessment for the Wildlife, Fishery, and State Natural Areas of the Northern Kettle Moraine Region was completed in 2010.
- Deferral/consultation area designations (refer to the following website): Yes, the Mullet Creek Forested Wetland is a deferral primary site.
- Rare species – Three rare species are known to occur on the property, two plants and one animal.
- There are small scattered patches of Garlic Mustard, Dame’s Rocket, Black Locust, and Phragmites. Buckthorn can also be found in some of the wooded areas. The marshy areas are heavily inundated with cattail.
- Soils - Predominantly calcareous loamy tills, with areas of outwash sands and gravel, and silty lacustrine materials. Soils on the moraine uplands and drumlins are formed in brown calcareous sandy loam to loam till. They range from well drained to somewhat poorly drained and generally have silt loam to loam surface textures, moderately rapid to moderate permeability, and moderate available water capacity.
Most lowland soils are very poorly drained non-acid muck, but may also be silty and clayey lacustrine, or loamy till. The major river valleys have soils formed in loamy to silty alluvium or non-acid muck; they range from moderately well-drained to very poorly drained, and have areas subject to periodic flooding.

Cultural and Recreational Considerations

- Cultural and archeological sites (including tribal sites)
There is an area in South East quarter of Section 25 of T15N-R19E which is designated as an historical site.



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- The property is widely used by a variety of hunters and trappers. Especially noted for waterfowl, wild and stocked ring-necked pheasant, wild turkey, cottontail rabbit, gray and fox squirrel, ruffed grouse, woodcock, mourning dove, red fox, coyote, raccoon and deer
- The property is also open to other recreational uses including, bird and wildlife viewing, hiking, canoeing, fishing, cross country skiing, gathering of wild edibles, and a snowmobile trail.
- Of the upland sites there are approximately 152 acres under sharecrop agreements and are currently being used for row crops.

Part 2: IFMP Components (1-2 pages maximum)

Management Objectives (Outline primary forest management objectives):

Oak - Plans are to manage the oak resource that is present on the property as long as possible but through management allow the conversion of these stands to more shade tolerant northern hardwoods.

Aspen – Maintain the small amount of aspen for its benefit to wildlife.

Northern Hardwoods – Manage the stands on an all aged basis while retaining oak as a component of these stands.

Cedar – Maintain the health of the current stand through thinning. Due to the difficulty of regenerating this type it will be unlikely that the acres of white cedar will be increased on the property.

Swamp Hardwoods – Maintain the stands as long as possible prior to the arrival of EAB. In the advent of EAB being found in the nearby area the stands may be harvested to salvage the merchantable timber.

Bottomland Hardwoods – Manage the stand on an all-aged basis to maintain the current acreage of bottom land hardwoods. Due to the threat of EAB this stand will be managed to favor red and silver maple in the long term.



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Property Prescriptions (Identify specific and pertinent prescriptions by area or forest type, including passive management areas, extended rotation, and other information that will help achieve the objectives):

The northern hardwoods and bottomland hardwoods will be managed on an all aged basis to promote a variety of age classes within each of the stand. This management will promote the more shade tolerant maple species in each of the respective forest cover types.

The aspen type will be managed through coppice with standards if oak is present. Aspen is a small component of the total forest cover type on the property.

The oak cover type will slowly be converted to more shade tolerant hardwoods. This has already been occurring through all aged management prescriptions. Most of the oak is associated with northern hardwoods on this property. There is one stand of oak that was planted 17 years ago that can be maintained as an oak cover type.

The white cedar type will not be regenerated in the foreseeable future due to the high deer populations in this area. The stand will have an intermediate thinning applied to maintain good growth rates.

The swamp hardwood types will be maintained as long as possible prior to the arrival of Emerald Ash Borer. A salvage sale may be applied if EAB is found in the immediate area.

The large tamarack stand has been identified as a High Value Conservation Forest and will not be managed. It will be allowed to go through a natural successional process and convert to other forest and non-forest cover types.

Approvals:

District Ecologist Date

Forester Date

Property Manager Date



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Area/Team Supervisor

Date