



Interim Forest Management Plan

Property Identifiers

Property Name: **Remnant Areas of Portage County**

Counties: **Portage**

Property Acreage: **179 Acres**

Forestry Property Code: **5001; compartments 402, 403, 404**

Master Plan Date: **None**

Part 1: Property Assessment

General Property Description

Landscape and Regional Context:

The 3 scattered Remnant Areas located in Portage County lie within three Ecological Landscapes, which include Forest Transition, Central Sand Plains and the Central Sand Hills.

Forest Transition Ecological Landscape

The Forest Transition Landscape was entirely glaciated. This Ecological Landscape extends east-west across much of Wisconsin and the climate is quite variable. Two major river systems drain this Ecological Landscape, the Wolf and Wisconsin Rivers.

In Portage County the Ecological Landscape is dominated by forest and agricultural uses (with most of the historically abundant mesic forest cleared) and a mixture of various lakes.

The entire Forest Transition Ecological Landscape stretches east to west across most of Wisconsin, north of the Tension Zone and is quite heterogeneous. This Ecological Landscape has lost over half of its historic forests (though this is highly variable in different areas), and overall, is one of the most deforested landscapes north of the Tension Zone. Areas to the east remain heavily forested, the central areas are open and intensively farmed, and the western end is a mosaic of agricultural land, forest, and recreational lands.

Important concerns and considerations for this Ecological Landscape include the fragmentation and isolation of major habitats, groundwater withdrawals, ground and surface water contamination and the introduction and spread of invasive species.



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Central Sand Hills Ecological Landscape

A mosaic of small kettle lakes in the outwash areas and headwaters of cold water streams are found originating in the glacial moraines of the Central Sand Hills Ecological Landscape. Some seepage lakes and ponds exhibit dramatic natural water level fluctuations which create important inland beach and marsh habitats. The Wisconsin River flows through this Ecological Landscape.

Current vegetation in the Central Sand Hills portion of Portage and Waupaca County consists of mainly agricultural crops, scattered areas of forests and some areas of marginal grasslands. Large contiguous areas of any of the major natural or surrogate vegetation types are uncommon.

Important concerns and considerations in the Central Sand Hills include the fragmentation and isolation of major habitats, groundwater withdrawals, ground and surface water contamination, hydrologic disruption due to ditching and diking, fire suppression, the loss of fire-dependent habitats and species and the introduction and spread of invasive species. Ground water contamination is also an issue in this Ecological Landscape. Excessive groundwater withdrawals could have serious negative consequences in areas supporting cold water streams and seepage lakes, and within the recharge areas of groundwater-dependent natural communities. Fire suppression has altered successional pathways that maintained savannas, prairies and other fire-adapted or dependent vegetation.

Central Sand Plains Ecological Landscape

An extensive, nearly level expanse of lacustrine and outwash sand that originated from a huge glacial lake characterizes much of the Central Sand Plains. In lower-lying terrain where silty lacustrine material impedes drainage, the water table is very close to the surface. These areas are where soils may be poorly drained with surfaces of peat, muck or mucky peat. Thickness of peat deposits ranges from a few inches to more than 15 feet.

The hydrology of this Ecological Landscape has been greatly disrupted by past drainage, channelization, impoundment construction, and groundwater withdrawal.

The eastern portion of the Central Sand Plains is a mosaic of cropland, managed grasslands and scattered woodlots of pine, oak, and aspen. Many of the historic wetlands in the east were drained early in the 1900s and are now used for agricultural purposes.

Groundwater withdrawals and contamination are concerns due to the sandy soils and high water table. Center pivot irrigation is common east of the Wisconsin River

Use of prescribed fire as a management tool is appropriate for many savanna, grassland, and wetland communities. The spread of invasive plants threatens natural communities and other habitats and is a growing management concern. Commercial cranberry farming has been expanding in recent years; sometimes into upland sites rather than wetlands.

- **History of Land Use:**

Prior to State of Wisconsin ownership, the land use history includes hunting, fishing and marginal timber management. These scattered properties have been purchased to



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protect the streams, manage timber for wildlife as well as to provide public hunting and fishing opportunities.

Site Specifics

- Property Context/Opportunity:**
 This property consists of 3 isolated parcels totaling 179 acres. Compartment 402 (99 acres) is in an area heavily dissected and fragmented with agricultural fields and other open areas and is close to the Buena Vista Wildlife Area. As a result, this area offers excellent management opportunities for early successional forest development to benefit both game and non-game species associated with this type. Additionally, this parcel helps to protect the headwaters of Ten Mile Creek. Compartment 403 (40 acres) is in a heavily forested area offering opportunity to develop old forest to benefit both game and non-game species associated with this type. Additionally, about half the site contains swamp hardwoods and a spring/spring run which bisects the parcel and is the headwaters of a small stream. Compartment 404 (40 acres) is in a mostly forested area with some fragmentation from development and agricultural fields offering opportunities for both older and younger forest development to benefit associated game and non-game species. This parcel also borders Spring Lake and contains a swamp hardwood forest on about half of the portion that borders the lake.
- Current Forest Types:** Current forest types for these scattered properties include aspen, jack pine, oak, red maple, swamp hardwoods as well as grassland and lowland brush.. The timbered areas range in age from year of origin of 1910 – 1991 and in size class from saplings through large sawtimber.

Remnant 5001 Compartment 402, 403, 404

Forest Type	# of Stands	Acres	Acres by Age Classes in 2013		
			0-50	50-100	100+
Aspen	2	13	11	2	
Red maple	1	10		10	
Oak	4	84		84	
Jack pine	1	5		5	
Swamp Hwd	2	39		18	21
Grass	1	16			
LB	1	10			
LM	1	2			
Total		179	11	119	21

- State Natural Areas:** None



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- **High Value Conservation Forests (HCVF) or other resources/natural community types limited in the landscape:** The Stedman Creek parcel features a tamarack seepage area, swamp hardwoods over 100 years old, and a cold, hard spring run. The spring run originates under the boggy turf and frequently goes underground as it flows through the tract. The stream supports a good variety of aquatic insects and brook trout. The uplands support a northern dry-mesic forest close to 100 years in age (typed out in forest recon as oak).
- **Biotic Inventory Status:** A Rapid Ecological Assessment focusing on rare plants, rare animals, and high quality natural communities has not been completed for these two state properties.
- **Deferral/Consultation Area Designations:** Because there has been no Rapid Ecological Assessment completed for these 3 parcels, no subsequent formal (MC 1750.15) deferral or consultation sites occur on either property.
- **NHI/Rare species:** Natural Heritage Inventory screening is conducted before any land management activities are undertaken. Currently there are 4 rare species known from the general vicinity of the 3 properties.
- **Conservation Opportunity Area (COA)/Wildlife Action Plan:** The 99 acre compartment 402 parcel falls within the "Central Wisconsin Grassland" COA as identified within the state's Wildlife Action Plan Implementation document. This area is noted for its open, grassland landscape and associated animals.
- **Invasive Species:** There are several high-priority species found in isolated pockets including buckthorn, prickly ash, autumn olive and Japanese barberry.
- **Soils:** Mainly well drained soils ranging from sand to loamy sand to sandy loam. There are also depressions that contain poorly drained and somewhat poorly drained soils.

Cultural and Recreational Considerations:

- **Cultural and archeological sites:** There are archeological sites that have been identified by the Wisconsin Historical Society on these properties. Prior to any management activity consultation shall occur between property management and/or forestry staff and the Department Archaeologist.
- **Recreational Uses:** Fishing, hunting, trapping and sightseeing are the primary recreational uses of these properties.



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Part 2: IFMP Components

PROPERTY MANAGEMENT OBJECTIVES:

These properties are managed primarily to restore habitat conditions within the stream corridor, protect water quality, and to provide quality wildlife habitat. Additionally, one parcel provides access to Spring Lake. Forest management objectives include maintaining existing forest types and developing a diversity of age classes including both young and old forest areas for both game and non-game species dependent on these types. This will largely be accomplished through sustainable silvicultural systems that will increase the diversity and structural complexity of wildlife habitat while at the same time avoiding disturbance to seepage and riparian areas along the stream corridor.

Property Prescriptions:

Aspen – Maintain aspen cover type by regenerating the stand using a simple coppice system. Rotation age is generally 40 - 45 years. Achieve age-class diversity by flexing rotation age within the compartment as well as across the landscape. Aspen will generally be managed using even-aged silvicultural systems to promote opportunities for early-successional wildlife species and to maintain the aspen type on the landscape.

Grasslands – Comp 402 contains portions of a 16 acre parcel typed out as upland grass (stand #3) which could contain pine/oak barrens and associated species. Because barrens are globally rare, an inspection should be conducted to determine barrens potential at this site prior to any management that will drastically alter ground layer composition (consult District Ecologist or other staff knowledgeable in natural community assessment and management). If it is determined to be barrens, or it is deemed important to tie in to the surrounding open landscape, manage via mechanical/chemical control of woody vegetation/invasive species if funding permits.

Jack pine - Maintain jack pine cover type by regenerating the stand using a clear-cut silvicultural system. Rotation age is generally 40 - 60 years. Comp 402 contains a 5 acre stand that has potential to be a pine barrens natural community. Because barrens are globally rare, an inspection should be conducted to determine barrens potential at this site prior to any management that will drastically alter ground layer composition (consult District Ecologist or other staff knowledgeable in natural community assessment and management). Harvest generally promotes the rarer open barrens type.

Oak – The oak cover type will be managed to regenerate to oak or to slowly convert to more shade tolerant hardwoods or white pine depending each sites specific conditions. Rotation ages vary from 45 – 90 years depending on if it is a scrub oak, black oak, pin oak or red oak site. Oak will generally be managed using even-aged silvicultural systems to promote opportunities for early-successional wildlife species and to maintain the oak type on the landscape. Comp 403- this 19 acre, 93 year old stand will be thinned in 2013-14 with the remaining trees allowed to develop into an older forest (greater than 100 years old). As cavity trees, snags, and large downed course woody debris are an important habitat component, some oak mortality is desired. This older forest will provide unique habitat, including compositional, structural, and functional attributes limited on the surrounding landscape.

Swamp hardwood – Comp 403-allow this 21 acre, 103 year old stand to develop into an older forest (greater than 120 years old). As cavity trees, snags, and large downed course woody debris are an important habitat component, some mortality is desired. This older forest will provide unique habitat, including compositional, structural, and functional attributes limited on the surrounding landscape. Comp 404-thin from below to develop and older forest with large



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diameter trees. Where opportunities exist promote red maple and large diameter white pine and white pine regeneration in anticipation of the arrival of the Emerald Ash Borer. A salvage sale may be applied if EAB (Emerald Ash Borer) is found in the immediate area if consistent with the objectives of this plan.

Red maple - Upland red maple stands will be managed as even aged using an array of silviculturally accepted practices to promote the red maple type and possibly promote a variety of age classes within the stands. Rotation age is generally 40 – 90 years depending on the soil type.

White and red pine –Although no stands type out as white or red pine, a component of sub-canopy to canopy trees may exist within other stands. Where it does occur, promote the growth and development of large diameter trees by thinning dense areas.

All stands

- Utilize BMP's for Water Quality to protect streams and wetlands when conducting timber sales.
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- Identify invasive plant species and implement control practices such as prescribed fire, hand pulling, chemical and mechanical control to eliminate or reduce negative impacts.
- Utilize BMP's for Invasive Species to help limit the introduction and spread of invasive species when conducting timber sales
- Retain reserve/legacy trees as groups or individuals throughout the property within harvested stands
- Identify threatened and endangered species and protect/provide habitat for a variety of game and non-game wildlife species, including aquatic species.
- Endangered Resources Species Guidance documents (those that are complete) will be consulted (ERCOMMON\\Species_Guidance\\Species_Docs) and the management guidance and avoidance sections will be used to determine how and if timber management can occur.

Approvals:

Regional Ecologist West Central Region

Date

Forester Portage County

Date



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Property Manager for Remnant Properties of Portage County

Date

Area/Team Supervisor Portage County

Date