



# Interim Forest Management Plan

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## Property Identifiers

Property Name and Designation: **TAMARACK CREEK WILDLIFE AREA**

County(ies): **TREMPEALEAU**

Property Acreage: **577**

**Property Manager: Mark Rasmussen**

Forestry Property Code(s): **6208**

Master Plan Date: **None, Estimated start date for NR44 compliant Master Plan: 2014**

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## PROPERTY ASSESSMENT

Tamarack Creek Wildlife Area (TCWA) is a state owned property located five miles north of the City of Centerville in Trempealeau County. The property is located in the North Central US Driftless and Escarpment section as well as the Western Coulees and Ridges Ecological Landscape which are both characterized by rolling to hilly topography. The primary objective of the property is to provide public hunting, fishing, and trapping opportunities as well as other outdoor recreational opportunities such as hiking and cross-country skiing. Common game species found on the property include: deer, turkey, ruffed grouse, rabbits, waterfowl, squirrels and stocked pheasants. Maintaining wildlife diversity and healthy game species populations are achieved through habitat management.

<http://dnr.wi.gov/maps/WM/WCR/8635tamarackcreek.pdf>

## LANDSCAPE AND REGIONAL CONTEXT

**Hydrology:** The TCWA lies in the Western Coulee and Ridges Ecological Landscape. Dendritic drainage patterns are well-developed in this mostly unglaciated Ecological Landscape. Natural lakes are restricted to the floodplains of large rivers. Large warm water rivers are especially important here, and include the Wisconsin, Chippewa, and Black. The Mississippi River forms the Ecological Landscapes' western boundary. Numerous spring-fed (coldwater) headwater streams occur here. Cool water streams are also common.

**Current Land Cover:** The Western Coulee and Ridges Ecological Landscape is a mosaic of forest, cropland and grassland with wetlands mostly in the river valleys. Primary forest cover is oak and hickory. Maple and basswood forests, dominated by sugar maple, basswood and red maple, are common in areas that were not burned frequently. Bottomland hardwoods dominated by silver maple, swamp white oak, river birch, ashes, elms and cottonwood are common within the floodplains of the larger rivers. Relict "northern" mesic conifer forests composed of hemlock, white pine and associated hardwoods such as yellow birch are rare but do occur in areas with cool, moist microclimates. Dry rocky bluffs may support xeric stands of native white pine, sometimes mixed with red or even jack pine. Prairies are now restricted to steep south or west



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facing bluffs, unplowed outwash terraces along the large rivers, and a few other sites. They occupy far less than 1% of the current landscape. Mesic tallgrass prairies are now virtually nonexistent except as very small remnants along rights-of-way or in cemeteries.

## HISTORY OF LAND USE AND PAST MANAGEMENT

Acquisition began in 1959 under the Scattered Wetlands Program. The property has since grown to 577 acres in size.

The property has been actively managed through land acquisition, prescribed burning, mowing, and establishment of hunter walking trails. The primary objective is to provide hunting and trapping opportunities; common game species include: deer, turkey, ruffed grouse, rabbits, waterfowl, squirrels and stocked pheasants. Maintaining wildlife diversity and healthy game species populations are achieved through habitat management.

Forest management has included tree and shrub plantings, invasive species control, and timber harvesting.

## PROPERTY CONTEXT/LANDSCAPE

Contextually, Tamarack Creek Wildlife Area is situated in an area that is heavily dissected and fragmented with agricultural fields and other open areas. Additionally, the property itself contains over 50% open, nearly treeless habitat. Subsequently, opportunities for large block old forest development for area sensitive forest interior species is limited. However, this more fragmented setting offers great opportunities for “edge” game species and early successional “Species of Greatest Conservation Need” as identified within the state’s Wildlife Action Plan. See below for species/opportunities.

## WILDLIFE ACTION PLAN/SPECIES OF GREATEST CONSERVATION NEED

The property is listed in the Wildlife Action Plan’s Implementation document for the Western Coulee and Ridges Ecological Landscape (WCREL) for its unmapped Driftless Area Features of Continental Significance (Tamarack (Rich) Swamp). Additionally, Species of Greatest Conservation Need associated with Coldwater streams, early successional Southern Dry-mesic forest, shrublands, wetlands, grasslands and fields of the property include; Bells Vireo (shrubs in open grasslands/wetlands), Blue-winged Warbler, Brown Thrasher, Field Sparrow, Northern Bobwhite Quail, American Woodcock, Willow Flycatcher and Pickerel Frog (all but American Woodcock area High Priority SCGN’s for WCREL).

## CONSERVATION OPPORTUNITY AREA

The property does not fall within a Conservation Opportunity Area as identified within the Wildlife Action Plan.

## NATURAL HERITAGE INVENTORY (NHI)/RARE SPECIES



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The Natural Heritage Inventory database indicates that 1 state threatened and 3 special concern species were identified within the general vicinity of the Wildlife Area.

## HIGH VALUE CONSERVATION FORESTS (HVCF) OR OTHER RESOURCES/NATURAL COMMUNITY TYPES LIMITED IN THE LANDSCAPE

Southern Sedge meadow, Tamarack (rich) swamp, and Alder thicket are all limited in the Western Coulees and Ridges Ecological Landscape.

Additionally, the Tamarack Creek Bog State Natural Area (No. 60) is located within the Wildlife Area:

Tamarack Creek Bog consists of one of the largest tamarack swamps in the Driftless Area outside the Glacial Lake Wisconsin area. The swamp forest and open marsh occur along both sides of Tamarack Creek and its tributaries in a zone 0.25 to 0.5 mile wide and about 6 miles long. The occurrence of this large wetland complex in the ridge and coulee region may be a result of Tamarack Creek aggrading its stream bed when the Mississippi gorge was flooded with glacial melt waters. Numerous species typical of northern Wisconsin bogs are present including many orchids, balsam fir, Canada yew, yellow blue-bead-lily, American starflower, and several violets. Nesting birds are diverse and include the uncommon Bell's vireo (*Vireo bellii*). Many mouse and vole species support such predators as red fox and the least and long-tailed weasels. The best area of tamaracks are in the northern unit. Poison sumac is abundant here. Tamarack Creek Bog is owned by the DNR and was designated a State Natural Area in 1968.

<http://dnr.wi.gov/topic/Lands/naturalareas/index.asp?SNA=60>

## BIOTIC INVENTORY STATUS

Master Plan Biotic Inventory planned for 2015

## CULTURAL AND ARCHEOLOGICAL SITES (INCLUDING TRIBAL SITES)

The property contains an archeological indicator which is protected by wetland habitat maintained for wildlife.

## RECREATIONAL USES

The property receives heavy visitation during the annual gun deer season, other uses include upland bird hunting and hiking. It is especially noted for rabbits, squirrels, deer, waterfowl, turkey, ruffed grouse and stocked pheasants. The property has a Class III trout stream. There are hunter walking trails throughout the area.



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## INVASIVE SPECIES

Leafy Spurge is found at low levels along the road sides of the property. Moderate levels of buckthorn and honeysuckle are located throughout the property. Reed canary grass could be a concern in the lowland swamp and common reed grass is taking over native lowland vegetation.

## SOILS

Most soils in the area are windblown loess of varying thickness, with alluvium in the floodplains. The dominant soils in the uplands are mainly silt loams, with the steep slopes containing mostly sandy loams. Both of these are classified as moderate to well-drained soils. The lower swamp/bog areas of the property are dominated by very poorly drained muck soils. Poorly drained silt loam soils are also present.

## CURRENT FOREST COVER

Of the 577 acres, 64% (361 acres) is in lowland brush and emergent vegetation. Tamaracks (in association with lowland brush) occupy 147 acres or 26% of the total acreage. Central hardwoods make up 37 acres or 7% of the property. Other timber types include oak at 5 acres, aspen at 4 acres, and planted white pines at 8 acres. Oak sawtimber of 15 inches or more in diameter and averaging 110 years of age represent the oldest timber type. Tamarack range in age from 20 to 60 years of age. Diameters range from 5 to 18 inches for this species. Site quality, most notably soil depth to the water table, is one determinant of tree vigor and growth. The future of the tamarack type is questionable due to fluctuating water tables, insect attack, succession to shrubs and hardwoods, and periodic arson fires. Upper slopes support the 30 to 50 year-old aspen and central hardwoods. This timber ranges in diameter from 6 to 12 inches. The two white pine plantations were established in 1969 and 1982. Some of the older pines exhibit diameters exceeding 15 inches; the younger pines average 6 inches in diameter.

## FUTURE MANAGEMENT

### Forest Management Objectives:

The primary forest management objective is to provide younger forest for both game species and early successional Species of Greatest Conservation Need. A second objective is to provide small blocks of old forest and scattered old trees for mast production, cavity trees and snag trees for wildlife benefits. Aspen is somewhat limited on the property, but is an important type for many species of wildlife. Regeneration harvests should focus on to providing new age classes of oak and other early successional species. Scattered pine plantings provide cover for wildlife and offer some aesthetic relief to the hardwood cover types. The pines will be thinned periodically to provide roosting and nesting opportunities. Maintain grass cover types, while minimizing any impact to the wetland shrub cover type. Due to the important wetland habitats on the property, all management activities will carefully consider water quality best management practices.

1. Maintain oak cover types where feasible.
  - a. Diversify age classes with emphasis on developing younger stands
  - b. Crop tree release oak in young stands.



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- c. Regenerate oak stands where feasible and promote oak in young mixed hardwood stands.
      - d. Promote/retain larger diameter trees.
    2. Promote other early successional forest types.
      - a. Promote aspen
      - b. Promote stands of central hardwoods.
    3. Maintain pine plantations.
      - a. Promote large crowned trees for wildlife and aesthetics.
    4. Maintain grass cover type
    5. All stands
      - a. Consider planting opportunities for desirable species such as oak.

**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):

**OAK** - Utilize even-aged rotation age constraints to 100 years to spread oak harvest schedule. Maintain and promote oak through planting, timber stand improvement methods, prescribed fire, thinning, seed tree, shelterwood, clearcut, and other techniques described in the DNR Silviculture and Forest Aesthetics Handbook. Promote the growth and retention of large oak through techniques such as thinning and extended rotation. Reserve/legacy trees should be retained as groups or individuals throughout the property within harvested stands.

**CENTRAL HARDWOODS** – Manage utilizing both even and uneven aged silvicultural methods such as thinning, seed tree, shelterwood, clearcut, as well as timber stand improvement methods and other techniques described in the DNR Silviculture and Forest Aesthetics Handbook to regenerate these stands. Promote tree species for wildlife food sources that produce mast, such as, oaks (red, black, white, bur, and swamp), black cherry, and hickory. Within the degraded central hardwood stands consider harvesting prior to rotation age to improve the quality of this forest cover type. Utilize even aged harvest methods to promote the young forest component on the property; especially adjacent to field edges.

**ASPEN** – Clearcut to regenerate these stands. Excessively wet soil will be the limiting factor in accessing several of the aspen clones.

**RED AND WHITE PINE** – Thin plantations every 8 to 10 years (beginning in 2020). Leave dead and dying pines for cavity and nesting birds and for coarse woody debris.

**UPLAND FIELDS** – Roughly half of acreage is comprised of grasslands or wetlands. Prescribed fire, as well as mechanical and chemical treatment of undesirable species will be used to maintain these areas.

**SHRUB LAYER** – Where appropriate utilize timber harvesting, mechanical and chemical control, or prescribed fire to create a quality shrub transition between grassland and forested habitats.

**WETLANDS** – Wetlands will generally be passively managed except for invasive species control utilizing both mechanical and chemical treatment methods.



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## All stands:

- Utilize BMP's for Water Quality to protect streams and wetlands when conducting timber sales.
- 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
- Follow DNR's Species Guidance Documents:  
<http://dnr.wi.gov/topic/EndangeredResources/guidance.asp>. to protect rare species. In cases where species guidance documents haven't yet been developed, avoidance to rare species will occur via practices such as time of year restrictions, modified harvest boundaries, and/or consultation with rare species experts.
- Identify and protect any Archeological or Historical sites prior to management activities and plan.

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Armond D. Bodz 9/6/16  
Regional Ecologist Date

Daniel G. Dehmer 9/6/16  
Forester Date

Max 9/1/16  
Property Manager Date

Timothy E. Park 9/7/16  
Area/Team Supervisor Date