Property Identifiers

Property Name: Melancthon Creek Fishery Area and Hansell Creek Fishery Area (multiple, small properties can be grouped):

Property Designation or Type: Fishery Area

DNR Property Code(s) (DNR Prop Code Number):
Forestry Property Code(s): 5301 – Melancthon Creek, 5308 – Hansell Creek

Property Location - County(ies): Richland

Property Acreage: ~206 – Melancthon Creek, ~63 – Hansell Creek

Master Plan Date: None (if property has one)

Property Manager: Fisheries: vacant, Wildlife: Dan Goltz

Property Assessment

The following should be considered during the property assessment:

A. Ecological Landscape description and property context:

The Western Coulee and Ridges Ecological Landscape in southwestern and west central Wisconsin is characterized by its highly eroded, driftless topography and relatively extensive forested landscape. Soils are silt loams (loess) and sandy loams over sandstone residuum over dolomite. Several large rivers including the Wisconsin, Mississippi, Chippewa, Kickapoo, and Black flow through or border the Ecological Landscape.

Vegetation

Historical vegetation consisted of southern hardwood forests, oak savanna, scattered prairies, and floodplain forests and marshes along the major rivers. With Euro-American settlement, most of the land on ridgetops and valley bottoms was cleared of oak savanna, prairie, and level forest for agriculture. The steep slopes between valley bottom and ridgetop, unsuitable for raising crops, grew into oak-dominated forests after the ubiquitous presettlement wildfires were suppressed.

Current vegetation is a mix of forest (40%), agriculture, and grassland with some wetlands in the river valleys. The primary forest cover is oak-hickory (51%) dominated by oak species and shagbark hickory. Maple-basswood forests (28%), dominated by sugar maple, basswood, and red maple, are common in areas that were not subjected to repeated presettlement wildfires. Bottomland hardwoods (10%) are common in
the valley bottoms of major rivers and are dominated by silver maple, ashes, elms, cottonwood, and red maple. Relict conifer forests including white pine, hemlock, and yellow birch are a rarer natural community in the cooler, steep, north slope microclimates.

Hydrologic Features
There are no natural lakes in this Ecological Landscape, but there are a number of impoundments. Levels of stream and groundwater pollution are worse than average, according to Wisconsin DNR watershed rankings.

Land Use
The total land area for the Western Coulees and Ridges Ecological Landscape is approximately 2.2 million acres, of which 38% is classified as timberland. Public land ownership includes only 3% of this Ecological Landscape.

Property context:
Contextually, both properties are situated in an area that is moderately dissected and fragmented with agricultural fields and other open areas with approximately 50% of the area in forest cover. Subsequently, opportunities for both old forest development and young forest development exist for suites of species utilizing or depending on these forest age classes as identified within the state’s Wildlife Action Plan. See below for species/opportunities.

B. General property description – management, adjacent land uses, topography, soils, etc.
These properties lie in north-central Richland County and were purchased by the Fisheries Bureau to protect important tributaries to the Pine River. Fisheries staff manage the stream and adjacent banks while Forestry and Wildlife staff manage the adjacent uplands. Richland County is a mosaic of forested hillsides and agriculture on the ridgetops and valley floors. Some commercial tree farms occur in the area. Melancthon Creek is primarily east and north-facing aspects, while Hansell Creek has both south and north-facing aspects. Soils are predominately wind-blown loess with some silt in the drainages.

C. Current forest types, size classes and successional stages

Melancthon Creek Fisheries property: Forest Type
Oak: (45%) 88 acres: date of origin 1894-2000: large saw logs, small saw logs and saplings: Includes 44 acres in Deferral/Consultation.
Aspen: (8%) 15 acres: date of origin 1964: large saw logs, small saw logs and pole timber.
Central hardwoods: (5%) 11 acres: date of origin 1979: pole timber.
Northern Hardwoods: (4 %) 8 acres: date of origin 1914: large saw logs, small saw logs and pole timber: All acreage in Deferral/Consultation.
Red Maple: (2%) 3 acres: date of origin 1976: pole timber.
Non forest cover types: mostly wet land grass with some brush (33%, 66 acres: this type borders the creek on both sides.) Upland Brush (1%, 3 acres)

Hansell Creek Fisheries property: Forest Type
Oak: (34%) 22 acres: date of origin 1916: large saw logs and small saw logs.
Aspen: (8%) 5 acres: date of origin 2011: saplings.
Central hardwoods: (28%) 18 acres: date of origin 1975-79: pole timber.
Northern Hardwoods: (8 %) 5 acres: date of origin 1937: large saw logs, small saw logs and pole timber.

Non forest cover types: Upland Grass (22%, 14 acres this type borders the creek on both sides.)

D. NHI: Endangered, threatened, Special Concern species, Species of Greatest Conservation Need (SGCN):
The Natural Heritage Inventory database indicates that 3 state Threatened, and 3 special concern species were identified within the general vicinity of the 2 properties.

Although the property is not listed in the Wildlife Action Plan’s Implementation document for the Western Coulee and Ridges Ecological Landscape (WCREL), opportunities do exist to manage for Species of Greatest Conservation Need. Species of Greatest Conservation Need associated with Coldwater streams, late successional Southern Mesic forest, early successional forest, wetlands, and fields of the properties include; Acadian Flycatcher, Cerulean Warbler, Hooded Warbler, Kentucky Warbler, Louisiana Waterthrush, Wood Thrush, Yellow-billed Cuckoo, Blue-winged Warbler, Field Sparrow, Northern Bobwhite Quail, American Woodcock, Willow Flycatcher, Whip-poor-will, Pickerel Frog, Four-toed Salamander, Big Brown bat, Eastern red bat, Broad banded forest snail, Cherrystone drop snail, and Dull gloss snail.

E. Wildlife Action Plan Conservation Opportunity Areas (COA):
Neither property falls within a Conservation Opportunity Area as identified within the Wildlife Action Plan.

F. Significant cultural or archeological features.
None known

G. Invasive species:
Garlic mustard is known from Melanchton creek primarily along the valley floor.

H. Existing State Natural Areas (SNA) designations/natural community types limited in the landscape:
Good quality Southern Mesic Forest is rare in Wisconsin.

I. Primary public uses (recreation):
Both properties are favored by trout fisherman, especially those seeking brook trout. There is also some archery hunting for white-tailed deer and more consistent use during the firearm deer seasons. Turkey hunting also occurs on the properties. There are no developed hiking trails, so this is not likely a common use.

J. Biotic Inventory Status:
Completed in 2012-see “Deferral/Consultation area designations” below for more detail.

Both rare species and a high quality natural community identified during the Rapid Ecological Assessment lead to the designation of one “Consultation”. Management considerations identified within the Rapid Ecological Assessment include “promoting and maintaining conditions for mature southern dry-mesic forest and mesic forest, maintaining habitat for forest interior birds and rare terrestrial snails, and monitoring and controlling non-native invasive plants”.

Consultation: Melancthon Creek (48 acres):
It will be important to update prefixes in WisFIRS as soon as possible for the stands that comprise these sites. Consultation sites will get a prefix of “G” in the recon. Deferral areas will get a “GZ” prefix. Following final approval of the master plan by the Natural Resources Board, the prefixes will need to be changed to reflect their new classification from the plan.

IFMP components

Management Objectives: (Outline primary forest management objectives):

The primary forest management objective is to provide mast production (acorns), high canopy closure, and cavity trees and snags for wildlife and other Species of Greatest Conservation Need associated with older forest while at the same time protecting water resources of the property. A second objective is to provide small areas of young/early successional forest for both game species and Species of Greatest Conservation Need associated with younger forest.

1) Manage and maintain oak cover types where feasible
   a) Diversify age classes and successional stages
   b) Thin appropriate timber stands to achieve larger diameter trees.
   c) Crop tree release oak in young stands.

2) Manage to emphasize importance of forest interior songbirds and other old forest wildlife species.
   a) Limit forest habitat fragmentation within forest stands to that needed to regenerate oak.

3) Manage for early successional forest types
   a) Promote aspen where appropriate, looking at the context of each stand. Natural conversion to other hardwoods may be appropriate for interior forest blocks, whereas in other areas aspen regeneration may be favored.
   b) Promote feathered edge along forested - open land transition.

4) Promote northern hardwoods in appropriate areas using uneven-aged management.
   a) Thin appropriate timber stands to achieve larger diameter trees.

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 100-120 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. Stands/individuals for retention should be sited on north slopes/richer sites, and reserve/legacy trees should be retained as groups or individuals throughout the property within harvested stands. Prioritize regeneration harvests where oak regeneration success is greater with the goal of maintaining an oak component on the property.

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, black cherry and hickory. Utilize even aged harvest methods to promote the young forest component on the property in areas adjacent to fields.

**NORTHERN HARDWOODS** - Some of these stands should be managed for extended rotation. This is a sustainable uneven-aged silvicultural system to maintain vigorous growth, manipulate composition and structure, and produce high quality timber. Standard silvicultural systems will be adapted to grow relatively larger and older trees, develop and maintain reserve trees, develop and maintain large standing and downed coarse woody debris, and encourage compositional and structural diversity.

Harvesting will be applied to enhance and accelerate old-forest compositional, functional, and structural attributes. Traditional single-tree selection stocking guides for the most part will not be applied regularly to the management of these stands since these guidelines typically have an upper end maximum diameter limit and are usually entered every 10-15 years. Timber sales that occur will have closer to a 20 year re-entry period and a concerted effort will be in place to develop larger diameter trees sooner.

Canopy gaps will be created during each harvest to regenerate these stands back into northern hardwoods, while trying to encourage more mid tolerant species. These hardwood stands are dominant to sugar maple. Consequently larger gaps will be needed in order to regenerate species other than sugar maple. Promoting mid tolerant species such as oak will increase the resilience of the northern hardwood type to future climate change impacts.

Specific guidance can be found in the WDNR Old-growth and Old Forests Handbook [http://intranet.dnr.state.wi.us/int/mb/handbooks/24805/](http://intranet.dnr.state.wi.us/int/mb/handbooks/24805/)

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

**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.](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.
Summary of Public Involvement and Comments Received

Maps (Optional)

a. Property Boundary and ownership Maps
b. Forest Cover Type Maps