



Interim Forest Management Plan

Property Identifiers

Property Name: **Trout Creek Fishery Area (This plan includes the land near Birch Lake)**

Property Designation or Type: **Fishery Area**

DNR Property Code(s) (DNR Prop Code Number): **2501 and 2510 (Birch Lake area)**

Forestry Property Code(s): **2501 and 2510**

Property Location - County: **Iowa**

Property Acreage: **1,102 acres**

Master Plan Date: None

Property Manager: **Justin Haglund – WDNR Fisheries Biologist (Dodgeville)**

Property Assessment

A. Ecological Landscape description and property context

Trout Creek Fishery Area is a 1,102 acre property in east-central Iowa County. The property can be found in three separate locations stretching across Brigham, Ridgeway and Arena Townships. The property parallels and crosses County Highway T stretching from just south and west of Barneveld all the way to Hyde. Within the Trout Creek Fishery Area lies Trout Creek, Mill Creek and Birch Lake. Surrounding Birch Lake is a recreational facility consisting of a baseball field and shelters for outdoor recreational activities. There is presently an arrangement in place between the Department of Natural Resources and Iowa County which allows the Village of Barneveld to manage the recreational area. The entire Trout Creek Fishery Area lies within the Western Coulee and Ridges Ecological Landscape.

The Western Coulee and Ridges Ecological Landscape is the largest of the 16 Ecological Landscapes. It is located in southwestern and west central Wisconsin within the Driftless Area, a region that escaped glaciation during the last glacial period. The Driftless Area is noted for its steeply dissected terrain, extensive network of streams, and lack of glacial deposits (although glacial outwash materials do occur in river valleys). Several large rivers including the Wisconsin, Mississippi, Chippewa, Kickapoo and Black flow through or border this Ecological Landscape. Historical vegetation consisted of southern hardwood forest, oak savanna, and prairie, along with wetlands (forested and open) along rivers and streams. With Euro-American settlement, most of the level land on ridgetops and in valley bottoms was cleared for agriculture. The untillable steep slopes between valley bottom and ridgetop either remained in forest or grew up into oak-dominated forests when early wildfire-suppression policies were instituted. The early vegetation of Wisconsin was mapped by Robert Finley and published in 1976, and was based on notes and maps for the original public land surveys. Finley's map indicates that Trout Creek Fishery Area was dominated by oak opening, surveyors described the terrain as uneven, rolling, and even "exceedingly hilly, "and described the vegetation as thinly timbered". All of this information points



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towards prairie, oak savanna and oak woodland as the dominant cover types.

Current vegetation of the Western Coulee and Ridges Ecological Landscape is a mix of forest (40% of total cover), agriculture, and grassland, with wetlands mostly restricted to the river valleys. The primary forest cover is oak-hickory, while maple-basswood forests are common in cooler, moister areas. Bottomland hardwoods occur in the valley bottoms of major rivers. Relict conifer stands are rare and associated with steep-faced outcrops with cool microclimates. This Ecological Landscape has few natural lakes, though oxbows and ponds may be found with large river floodplains. Impoundments have been installed on a number of rivers to create man-made lakes.

B. General property description – management, adjacent land uses, topography, soils, etc.

Trout Creek Fishery Area is a 1,102 acre area managed primarily for fishing and hunting opportunities. Trout Creek and Mill Creek and several tributaries, springs, and seeps are located on the property. Trout Creek is classified as both a class 1 and class 2 trout stream, codified as an exceptional resource water. Both Brook and Brown Trout are present in Trout Creek. Additionally, Birch Lake can be found up towards the “headwaters” of Trout Creek. Birch Lake is an 11 acre drainage lake with a maximum depth of 15 feet. Common fish species in Birch Lake include Bluegill, Largemouth Bass and Northern Pike as well as forage species. Hunting opportunities on the property include; deer, wild turkey, and small game. The topography varies from gently rolling to extremely steep. Wooded uplands comprise 68% of the area, while grassy/herbaceous uplands comprise 27% and lowland/wetlands comprises 5%. Agricultural fields total less than 1% of Trout Creek Fishery Area land base. Several small springs and seeps feed into Trout Creek and Mill Creek across the landscape. Much of the upland habitat is managed for woodland or savanna species, however the planted prairies/grasslands and remnant prairies are managed to maintain that habitat type. Prescribed fire is a major land management tool for prairie restoration and maintenance, as well as herbicide use and mowing.

Most soils in the study area are deep, well-drained silt loams. Limestone and sometimes sandstone bedrock lie close to the surface in scattered locations throughout both sites, however, resulting in shallow soils and exposed bedrock (sometimes in the form of cliffs or outcrops). Alluvial deposits occur along stream and river bottoms, yielding poorly-drained soils.

C. Current forest types, size classes and successional stages

The majority of the forest cover types on Trout Creek Fishery Area are upland associated species and comprise about 68% of the land area. The non-forested areas consist mostly of upland grass, brush and some lowland brush/wetlands.

Forested Cover types total 745 acres or 68% of the recon acres.

Oak: 401 acres (54% of the forested acres). Only 16% of the oak resource is younger than 90 years old (and this is 49 acres in the 10-15 year old class), with all the remaining acreage older than 90 years (56% in the 90-110 year class, and 25% older than 115 years).

Central Hardwoods: 187 acres (25% of the forested acres). Only 5% of the central hardwood resource is younger than 50 years old, 35% is found within the 50-70 year old class and the remaining 65% is older than 75 years.

Black Walnut: 91 acres is classified as black walnut cover type (15% of the forested acres). Of these 91 acres, 95% is younger than 40 years in age.

Bottomland Hardwoods: 34 acres is classified as bottomland hardwoods (5% of the forested acres).



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Other tree species: There are 32 acres of miscellaneous minor forest cover types; including Northern Hardwoods, red pine, white pine, and white spruce.

D. NHI: Endangered, threatened, Special Concern species, Species of Greatest Conservation Need (SGCN)

The Natural Heritage Inventory (NHI) reports 41 elements that occur on or near Trout Creek Fishery Area. This list includes 5 Endangered species, 10 Threatened species, and 8 species listed as Special Concern.

E. Wildlife Action Plan Conservation (Conservation Opportunity Areas(COA))

According to the Wisconsin Wildlife Action Plan (WAP) (WDNR 2006a), Trout Creek Fishery Area lies within the larger "Dodgeville and Wyoming Oak Woodland/Savanna" COA, an opportunity identified as having continental significance.

The WAP identifies 37 natural communities for which there are "Major" or "Important" opportunities for protection, restoration, or management in the Western Coulees & Ridges Ecological Landscapes. Thirteen of these natural communities are present on Trout Creek Fishery Area lands and include Southern Dry Forest, Southern Dry-Mesic Forest, Pine relict, Oak Barrens, Shrub Carr, Dry Prairie, Sand Prairie, Surrogate Grasslands, Emergent Marsh, Dry Cliff, Coldwater Stream, Coolwater Stream, and Southern Sedge Meadow.

The WAP also describes Priority Conservation Actions that make effective use of limited resources and address multiple species with each action. Implementing these actions and avoiding activities that may preclude successful implementation of these actions in the future would greatly benefit the SGCN at Trout Creek Fishery Area. Priority Conservation Actions identified in the Wisconsin Wildlife Action Plan (WDNR 2006b) for the Western Coulees & Ridges Ecological Landscapes that apply to Love Creek Fishery Area include:

- Sand prairie and oak barrens restoration and maintenance.
- Grassland bird and wildlife management.
- Restoration and protection of spring-fed cold water streams.
- Preservation of cliff communities, along with cave and bat hibernacula.
- Restoration of rare grassland and oak savanna communities.
- Rare prairie species restoration and management (e.g., Henslow's sparrow, loggerhead shrike, Bell's vireo, prairie bush clover, regal fritillary butterfly, other rare invertebrates, and the Blanchard's cricket frog).
- Protection of pine relicts.

F. Significant cultural or archeological features

Located within the Trout Creek Fishery are multiple areas documented to have significant archeological concern/archeological sites. The Trout Creek Fishery area is a location "rich" in Archeological and Historical history. The general locations of these areas are described below.

All management activities within these specific parcels must be discussed with the State Archeologist and approved prior to initiation.

T07N R04E: Section 13 SwSw; Section 24 NwNw, NwNe, SwNe



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T07N R05E: Section 30 NwSw, SwSw, SeSw

T06N R05E: Section 4 NeSw, SeSw, NwSe; Section 9 NeNw

G. Invasive species

There are many nonnative invasive species present at Trout Creek Fishery Area. Garlic mustard, wild parsnip, Eurasian bush honeysuckle, autumn olive, multiflora rose, common buckthorn, barberry, and reed canary grass are the most abundant. Efforts have been made to control many of these species with herbicide and cutting. Ongoing efforts continue throughout the property during all management activities.

H. Existing State Natural Areas (SNA) designations/natural community types limited in the landscape

No SNAs. There are high quality natural community opportunities on this property, including oak woodland, pine relict, sedge meadow, and remnant prairie. See below.

Exceptional Characteristics and Opportunities

Rare Animals and Plants. Trout Creek Fishery Area supports numerous rare species (see section D above), including 5 State Endangered species, 10 State Threatened species, and 8 Special Concern species.

Oak Savanna Restoration. Oak savannas were historically common in Wisconsin but are now rare throughout the state, thus their restoration is critical to the survival of many rare plants and animals that depend on them. Opportunities exist at Trout Creek Fishery Area to restore Oak Opening, Oak Woodland, and Oak Barrens within a matrix of other habitats.

Older Forest Conservation. Older forests (greater than 100-120 years old) in Wisconsin are rare and declining, largely due to timber harvesting and conversion to other land uses.

Herptile Conservation. The variety of aquatic, wetland, and upland habitats of Trout Creek Fishery Area are well-suited to a number of herptile species. The pickerel frog has been documented in association with springs and spring-fed creeks.

I. Primary public uses (recreation)

Hunting and fishing are the primary recreational uses of the property. Hunting for deer, turkey and small game throughout the uplands and lowlands is most popular. Fishing is also an important use of the streams present on the property. Trout fishing is popular along Trout and Mill creeks and their tributaries flowing throughout the ownership. Fishing Birch Lake is also a popular recreation activity. Other activities practiced on the Trout Creek Fishery area include trapping, bird watching and hiking, berry and mushroom picking, snowshoeing, and cross country skiing.

J. Biotic Inventory Status

A "Rapid Ecological Assessment" of the property was completed in June 2012. This document is available on the Department's website <http://dnr.wi.gov/topic/nhi/nhireports.asp> under DNR Publication PUB-ER-834-2012: https://dnr.wi.gov/files/PDF/pubs/er/ER0836_ext.pdf

Trout Creek Fishery Area was surveyed for Natural Communities, Plants, Breeding Birds, Herptiles, Small Mammals, Terrestrial Snails, and Terrestrial Insects as part of this assessment in 2010-2011.



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K. Deferral/Consultation Sites.

Within Compartment 204 of the Trout Creek Fishery Area is a unique oak woodlands community referred to as the "Trout Creek Uplands". This area is primarily represented by Stand 1 (72 acres). The management objective for this area will be to maintain a native oak community. White oak will be favored within the overstory. Commercial timber harvesting coupled with non-commercial timber stand improvement practices and prescribed fire will be utilized to minimize the presence of undesirable central hardwood species and maple. Management of this area will be a cooperative effort between Fisheries, Wildlife, Natural Heritage Conservation and Forestry.

Within Compartment 203 near the Hyde Church, is a small remnant prairie (Stand 18), surrounded by an area with mature bur and white oak, along with shagbark hickory. Additionally, a second compartment, 205, contains remnant prairie species, with associated mature bur and white oaks in Stand 2 and a portion of Stand 1. Habitat management goals in these two areas will be to restore an oak savanna surrounding the remnant prairies. Timber harvest coupled with prescribed fire will be utilized to reach this goal. See attached map for exact location of these two stands.

IFMP components

Management Objectives: (Outline primary forest management objectives):

1. Manage and maintain oak cover types wherever feasible. The oak cover type will slowly and naturally convert to shade tolerant central and northern hardwood species without active management. The creation of younger forest ages classes via timber sales supported with natural and artificial regeneration will attempt to maintain a significant oak component on the landscape. There are significant younger oak plantings that can be maintained for future oak stands.
2. Central Hardwood type will be managed using even age management techniques with a focus on oak and black walnut whenever possible. The promotion of younger age class oak within the central hardwood type will be a priority when feasible. Black walnut regeneration will be a focus when dominant.
3. Northern Hardwood type will be managed using both even age and uneven age management techniques when applicable. Even age management will be utilized when it may be possible to establish a component of young oak within the northern hardwood type.
4. There is not a significant acreage of aspen, but there are many stands with aspen as a component with smaller clones. Maintain aspen stands and clones within larger cover types through coppice regeneration where appropriate, considering habitat context and adjacent stand management.
5. Restore and maintain native communities including pine relict, oak woodland, and remnant prairie, and restore oak savannas where feasible.



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Property Prescriptions

1. Oak: Aggressively attempt to manage the oak resource that is present on the property when possible and where feasible. Work towards establishing more young oak stands. Utilize even age oak management techniques as patch clearcutting, the shelterwood method, clearcutting and overstory removal to regenerate older oak stands. The establishment of patch clearcuts, shelterwoods, clearcuts and overstory removals ranging in size from at least one acre to much larger will be necessary to achieve oak regeneration success. Utilize all potential tools in the effort to regenerate older oak stands, including mechanical/chemical site prep, prescribed fire, tree planting and timber stand improvement practices.
2. Oak Woodland and Pine Relict Native Communities: Within Compartment 204 Stand 1, a commercial timber sale will be completed. The goal of this harvest will be to minimize the presence of undesirable hardwoods (elm, bitternut hickory, hackberry, red/sugar maple) and low vigor black oak (much of the black oak is 94 years old and dying). Scattered larger openings will be created within the canopy of stand 1 which will release substantial white oak regeneration that is present. A prescribed fire regime will also be introduced to help eliminate shade tolerant trees that are present (red/sugar maple), top kill invasive woody brush (honeysuckle/autumn olive) and restore the native understory.
3. Remnant Prairies and Oak Savannas: Within Compartment 203 near the Hyde Church, is a small remnant prairie (Stand 18), surrounded by an area with mature bur and white oak, along with shagbark hickory. Additionally, a second compartment, 205, contains remnant prairie species, with associated mature bur and white oaks in Stand 2 and a portion of Stand 1. Habitat management goals in these two areas will be to restore an oak savanna surrounding the remnant prairies. Timber harvest coupled with prescribed fire and non-commercial woody species control will be utilized to reach this goal.
4. Central Hardwoods: Some central hardwood stands have minimal oak presence and/or would be very difficult to regenerate into oak stands. Maintain the large oak in these central hardwood stands as long as possible. Maintain a component of scattered oak overstory within these harvest areas for wildlife. Utilize silvicultural techniques that emphasize establishing patch clear-cuts from 1 acre to 5 acres in size when feasible to encourage as much of an oak component as possible. Augment central hardwood natural regeneration with oak planting (400-800 seedlings per acre) to establish an oak component within these areas going forward.
5. Northern Hardwoods: Utilize group selection and patch selection harvesting techniques when completing management activities in these areas. Group and patch size can vary in these areas from 0.25 acres to 5 acres. Augment northern hardwood regeneration with oak seedlings where feasible (400-800 seedlings per acre). Maintain a component of scattered oak overstory within these harvest areas for wildlife.
6. Black Walnut: Black walnut is very valuable and a component of central hardwood stands, oak stands and northern hardwood stands across this property. Individual trees within these areas will be included in the standard management prescriptions. In areas dominated by black walnut, trees will be allowed to grow into the larger size classes (24" dbh and larger). When harvesting these larger trees, regeneration must be addressed by requiring patch clear-cuts, overstory removals or seed tree harvests at least 1 acre in size and larger.
6. Red and White Pine: Commercially thin the red and white pine plantations to rotation age and allow conversion to hardwoods. Red pine that has stagnated due to unsuitable soils



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will be salvaged with natural conversion to hardwoods. Pine relict areas will have no forest management performed.

7. Aspen: The aspen will be managed through coppice regeneration.
8. All Stands: The Wildlife Action Plan describes Priority Conservation Actions that make effective use of limited resources and address multiple species with each action. Implementing these actions and avoiding activities that may preclude successful implementation of these actions in the future would greatly benefit SGCNs at Love Creek Fishery Area. All proposed forestry prescriptions will reference Priority Conservation Actions, Wildlife Action Plan priorities, property objectives and be based on individual stand level needs. Since the property is on the Southwest Grassland and Stream, the open areas need to be managed for grassland nesting birds. Existing cropland will be converted to grassland nesting cover. Savannas need to be maintained and where degraded an effort made to restore them.



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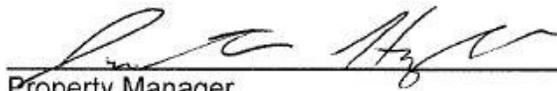
Summary of Public Involvement and Comments Received

No public input was received during the public comment period, which ran from October 14 to 30, 2019.

Maps

- a. Forest Primary Type Maps
 - b. Trout Creek Uplands Consultation Site Maps and Description
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PREPARED BY:



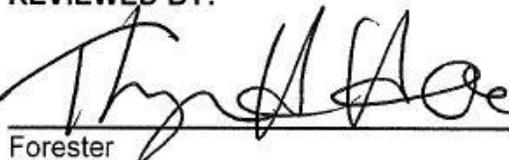
Property Manager 11/14/19
Date

APPROVED:

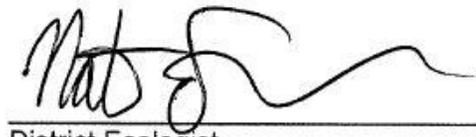


Area Program Supervisor 11/14/19
Date

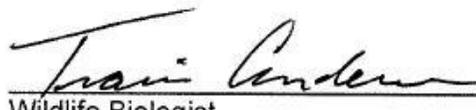
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Forester 11/12/19
Date

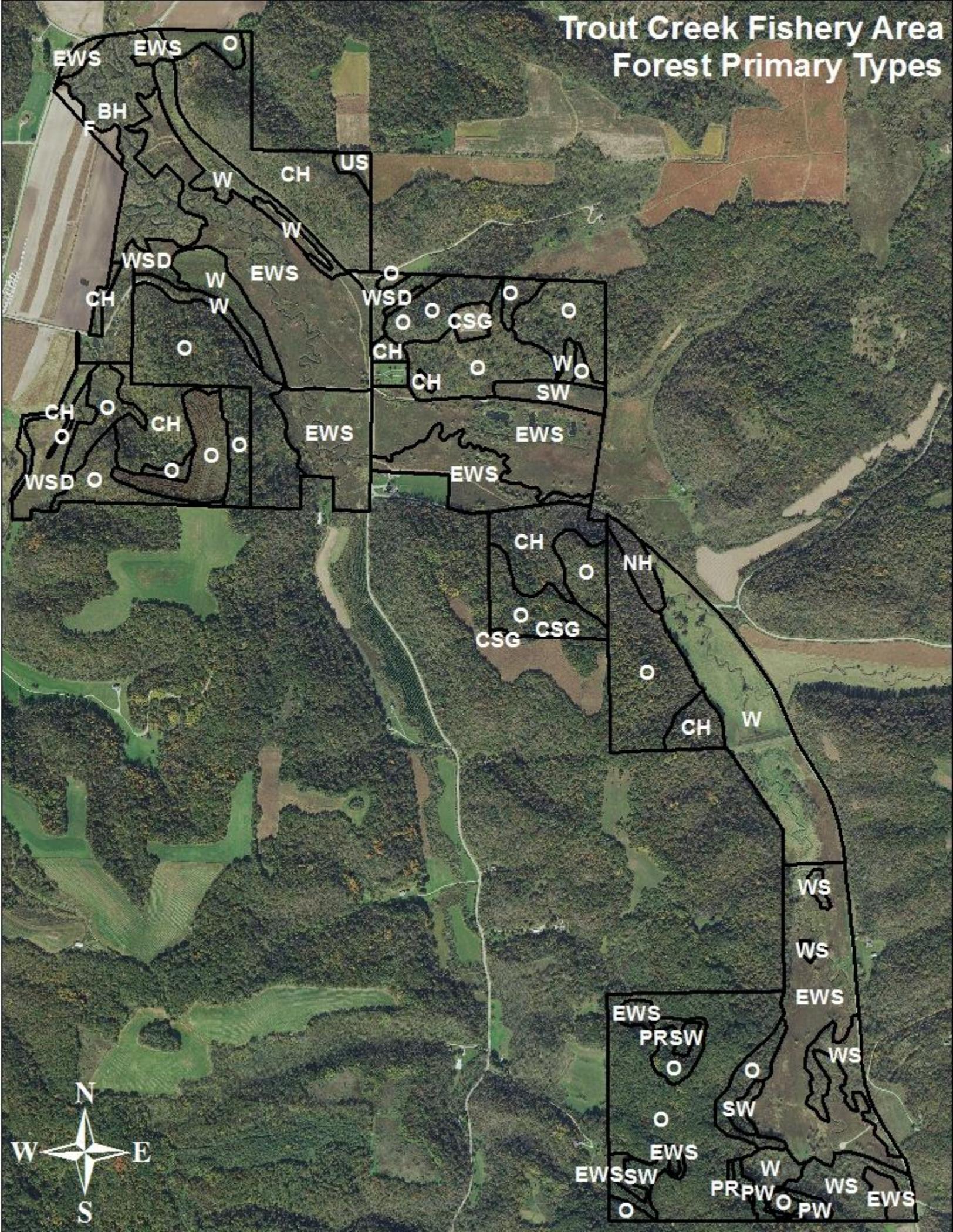


District Ecologist 11/4/19
Date



Wildlife Biologist 11/12/19
Date

Trout Creek Fishery Area Forest Primary Types



EWS EWS O

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Trout Creek Fishery Area Forest Primary Types



ITH



DAS10. TROUT CREEK UPLANDS

Location

Properties:	Trout Creek Fishery Area
County:	Iowa
Landtype Association:	Hills and Valleys - Wisconsin River Drainage (222Lc18)
Approximate Size (acres):	153

Description of Site

This primary site is divided into two disjunct units; they occur on rocky, steep-sided bluffs that rise above Trout Creek. The south unit harbors a diverse habitat matrix of cliffs, Pine Relicts, Oak Barrens, Oak Woodland, and Southern Dry and Dry-mesic Forest. The Pine Relicts here are characterized by red pine and red maple growing from dolomitic sandstone outcrops and very thin soils on the adjoining bluff top. Typical ground layer species include Pennsylvania sedge, huckleberry, and Canada mayflower (*Maianthemum canadense*). The Pine Relicts transition to Oak Barrens as one moves away from the cliff edges. Canopy cover in the Oak Barrens is 50% from white and black oak, while subcanopy cover is 6-25% from white and black oak, and shrub cover is 6-25% from American hazelnut, red raspberry (*Rubus idaeus*), dwarf red raspberry (*R. pubescens*) and huckleberry. The oaks here have stunted and twisted growth forms. The barrens ground layer is moderately diverse with the most common species being Pennsylvania sedge, sand cress (*Arabis lyrata*), huckleberry, and dwarf red raspberry. The flat ridgetop of this site harbors Southern Dry Forest/Oak Woodland, and is dominated by white and black oak that create 76-95% cover. As one moves into the west-facing slopes and draws, one encounters a more closed canopy forest of Southern Dry-mesic Forest; similar forest occurs on the steep east-facing slopes below the cliffs. Canopy cover here is 76-95% here from bigtooth aspen (*Populus grandidentata*), white oak, and red oak, while the shrub layer is sparse with American hazelnut and brambles (*Rubus* spp). The ground layer has moderate diversity, and is dominated by maidenhair fern, interrupted fern, spinulose wood fern (*Dryopteris carthusiana*), and wild geranium. The north unit harbors 38 acres of Southern Dry and Dry-mesic Forest on a shallow-soiled, rocky, north-facing slope with a shallow draw; its structure and composition is comparable to the same cover types described for the south unit.

Significance of Site

Small areas of fair-quality Pine Relict and Oak Barrens are found on this site, two rare community types in Wisconsin. Pine Relict is an extremely rare community type that only occurs within the Driftless Area. Many Midwestern endemics and habitat specialists with limited distribution occur in these settings. Trout Creek Uplands also harbors significant opportunities for Oak Woodland restoration.

The woodlands of both units are large enough to support declining forest interior songbirds, including Acadian flycatcher (State Threatened) and cerulean warbler (State Threatened), along with a number of SGCN: wood thrush (*Hylocichla mustelina*), veery, brown thrasher (*Toxostoma rufum*), black-billed cuckoo, yellow-billed cuckoo, and blue-winged warbler.

A rare plant, lobed spleenwort (*Asplenium pinnatifidum*), is known from this site's cliffs and Pine Relicts.

Management Considerations

North Unit: Threats include natural succession in the absence of fire, erosion along field road, and small amounts of non-native invasive plants including multiflora rose, autumn-olive (*Elaeagnus angustifolia*), non-native bush honeysuckle, and common buckthorn. Allowing the adjoining woodland on this property to mature could provide an opportunity to expand this unit, increasing its long-term viability and habitat potential.

South Unit: In wooded areas on bluffs and steep slopes, non-native invasive plants currently pose a minor threat, and include non-native bush honeysuckle, common buckthorn, autumn-olive, multiflora rose, and garlic mustard. The threat of invasives invading from the interface between the upland primary site and the riparian wetlands is enormous; all of the above species are abundant there, in addition to Japanese hedge-parsley (*Torilis japonica*) and oriental bittersweet (*Celastrus orbiculatus*). Careful survey of high-quality areas for invasives with follow-up control and then ongoing monitoring are needed urgently. Beyond that, the main management need is prescribed fire.



Southern dry-mesic forest at Trout Creek Uplands. By Amy Staffen.

FINAL Deferral / Consultation Site

Planning Group: Driftless Area Streams

Property: Trout Creek Fishery Area

Site: Trout Creek Uplands (DAS10)

Status: Consultation

