Interim Forest Management Plan

Property Identifiers

Property Name: **Totagatic Lake Wildlife Area**

Counties: **Bayfield**

Property Acreage: **911.8 Acres (acquisition is complete)**

Forestry Property Code: **0434, Compartment 101**

Master Plan Date: **8/21/80**

Part 1: Property Assessment

General Property Description

Landscape and Regional Context

The Totagatic Lake Wildlife Area is located in the southwest corner of Bayfield County, adjacent to the northern border of Sawyer County, and within the North Central Forest Ecological Landscape. The property surrounds all sides of the 537 acre Totagatic Lake, and the Totagatic River, a designated Wild and Scenic River flows in and out of the lake, through the property. The nearest community is Cable, located seven miles northeast of the Wildlife Area. Hayward, the County seat of Sawyer County, is 20 miles to the southwest.

The property and surrounding area is heavily forested, primarily with aspen and northern hardwoods, and is split between large ownerships managed for timber production, and smaller private ownerships of residential and recreational properties. The north boundary abuts a large block of industrial forest land, and the west boundary abuts the Bayfield County Forest. The south and east boundaries of the property abut private lands. Lakes recreation and forest tourism are other major economic drivers in this area of Bayfield and Sawyer Counties.

The property is not located within any identified Conservation Opportunity Area and is not associated with any Wisconsin Important Bird Areas.

Site Specifics

History of Land Use:
The recorded history of the property focuses almost entirely on controversy surrounding water levels management of Totagatic Lake and its impact on wild rice stands. From 1880-1932 a logging dam artificially raised and maintained the level of the lake. In 1932, vandals destroyed the dam and an increase in aquatic vegetation and waterfowl use was well documented for the next 19 years. In 1951, an illegal dam was constructed at the

outlet, destroying the wild rice crop. In 1953 the Public Service Commission ruled that the greatest public good depended upon the maintenance of "natural" water levels to ensure continued wild rice harvests and waterfowl hunting. In 1954 they authorized the Wisconsin Conservation Department to remove the dam, and wild rice and wild celery responded immediately. By 1956, wild rice was again abundant enough to harvest.

The Totagatic Lake Wildlife Area began in 1963 with the purchase of a parcel fronting on Totagatic Lake. The following year, three State Land Commission parcels were acquired to gain riparian rights in the event that a legal action should develop over plans to dam the outlet river and raise the water level of the lake. In 1968, the Natural Resources Board approved an acquisition boundary for the Wildlife Area, and the purchase of most private lands progressed rapidly, with 620.14 acres purchased prior to approval of the 1980 Master Plan.

Totagatic Lake is classified as a "wild lake", meaning that no structural developments shall be visible from the water, and man's influence upon the surrounding landscape must not be noticeable. As such, a 400 foot no-cut zone was established around the lake to allow for complete preservation of natural processes. Timber harvesting is permitted outside this zone and emphasis was directed towards maintaining varying age classes of aspen. Hardwood stands were marked to achieve ragged edge, providing the greatest number of wildlife niches. Large, over-mature trees were saved as den sites, and consideration was given to perpetuating mast producing species. Recent timber sales have followed this guidance as well.

There is a 50 acre Scientific Area established in Gov't. Lot 2, Section 29, at the far northern tip of the property, where old growth hemlock and associated hardwoods are left unmanaged. No harvest or land management is allowed in this area.

A looped hunter walking trail is maintained in the southeast portion of the property, and five herbaceous wildlife openings were recently developed along this trail system to provide some permanent early successional habitat to facilitate life stage requirements for various wildlife species.

- **Current forest types, size classes and successional stages**

Type	Diameter/Density	Total Acres	Manageable Acres	Non-Manageable Acres
Aspen	0-5 [3]	70	70	0
	5-11 [3]	21	21	0
White Birch	5-11 [4]	13	0	13
Northern Hardwoods	5-11 [3]	147	92	55
	11-15 [2]	127	127	0
	15+ [3]	138	57	81
Pine (Red and White)	9-15 [4]	28	28	0
Black Spruce and Tamarack	0-5 [1]	118	100	18
	5-9 [3]	138	85	53
Swamp Hardwoods	5-11 [4]	53	28	25
Keg and Lowland Brush		117	5	112
Grass		8	3	5
ROW		2	0	2

- **Current forest types, size classes and successional stages** (continued):

Species	Acres	Percent of total property recon acres
Aspen	91	9%
White Birch	13	1%
Northern Hardwoods	412	42%
Pine (Red and White)	28	3%
Black Spruce and Tamarack	256	27%
Swamp Hardwoods	53	5%
Keg and Lowland Brush	117	12%
Grass	8	1%
ROW	2	0%

- **Biotic Inventory Status** – Biotic Inventory has not taken place.

- **Deferral/Consultation Sites** – None have been designated.

- **High Conservation Value Forest** – Northern Mesic Forest as identified on the NHI.

- **Rare Species** – The property contains Element Occurrences of two Special Concern bird species, one mussel species, one plant and three community types. The NHI database will be screened prior to any management activities.

- **Invasive Species** – Small patches of spotted knapweed have been found along the hunter walking trail loop, and have been controlled by hand removal. No other invasives are known to occur on the property, but a comprehensive survey has not taken place.

Cultural and Recreational Considerations

- **Cultural and archeological sites:** There are no cultural, archeological or historic sites that have been identified by the Wisconsin Historical Society on this property.

- **Recreational Uses:** Wild rice harvesting, fishing, hunting, trapping and sightseeing are the primary recreational uses on this property.

Part 2: IFMP Components

Site Objectives

Create age class and species diversity to maintain and improve wildlife habitat. Maintain the native origin conifer component. Harvest all active management areas where timber sale access is possible and practical. Maintain a 400 foot No-Cut zone around Totagatic Lake to preserve its "wild lake" characteristics.

Management approach

Manage existing pine stands towards a more natural appearance and do not replant. Harvest all aspen stands once they reach rotation age in order to promote a better mix of wildlife habitat and improve grouse hunting opportunities. In the 400 foot No-Cut zone around Totagatic Lake and in the 50 acre Scientific Area at the north end of the lake, allow old forest development through natural processes and passive management.

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):

Timber management activities on this property will be subject to the approval of the Ashland Wildlife Biologist. The Wildlife Biologist should be contacted prior to establishment of timber sales on Totagatic Lake Wildlife Area.

Aspen – This forest type is an early successional species that requires disturbance and abundant sunlight to regenerate. Aspen will be regenerated naturally using coppice regeneration harvesting techniques. Green tree retention will be practiced in these stands and focused on snag and den/cavity tree retention. Retention will be concentrated near and between riparian management zones, where possible. In most cases, all pine, oak, hemlock, and cedar will be retained.

White Birch– This forest type is currently a minor cover type in the Totagatic Lake Wildlife Area. It is in decline region-wide, and will be regenerated using the following approved methods: clearcutting, strip cutting, shelterwood harvest, seed tree harvest, or by modified clear-cuts that open up stands. Create conditions to improve natural regeneration.

Northern Hardwoods – This forest type comprises the majority of the property. Stands contain a mix of sugar maple, basswood, hemlock, yellow birch, white ash, and red maple found as canopy associates. Un-even aged silvicultural management will be practiced, with an emphasis on increasing species diversity, wherever possible. Use selection harvest (single tree or group selection) as the primary management tool, and vary harvest intensity according to site specific conditions and management objectives. Design harvests that will maintain or increase tree species diversity. Management entries will be scheduled at intervals of 15-30 years, with consideration given to wildlife habitat and aesthetics. Snags, cavity trees, and other trees that have significant wildlife value will be retained.

Red and White Pine Dominated Mixed Forest – A natural-origin stands of red and white pine occur in several areas throughout the property.

- Selection harvests will be conducted to maintain the health, vigor, and growth of the forest type. Remove selected individual trees or small groups to maintain species diversity and structural diversity.
- Leave scattered large red pine and white pine in many harvest areas if they are healthy and do not pose a safety hazard (Big Tree Silviculture).
- All pine stands will be left to regenerate naturally. Natural regeneration techniques, such as scarification, should be used when white pine and red pine are a viable understory component.

Forested Wetlands– Productive stands of black spruce, tamarack, and swamp hardwoods capable of producing merchantable timber within their accepted rotation age may be regenerated by limited harvest activities following guidelines outlined in the DNR Silviculture and Forest Aesthetics Handbook. Timber harvests will only be conducted under frozen ground or very dry conditions using techniques and equipment to prevent rutting.

- Due to Emerald Ash Borer (EAB) concerns, alternative management strategies outlined by DNR Forestry management guidelines for EAB will be considered in some swamp hardwoods stands to encourage forest health and diversity, and protect wetland and water quality.

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Approvals:

Forester Bayfield County — Date: 5/17/14

Northern District Ecologist — Date: 5-23-14

Property Manager for Totagatic Lake Wildlife Area — Date: 5/14/14

Area/Team Supervisor — Date: 6/3/14