Interim Forest Management Plan

Property Identifiers

Property Name: **South Shore Lake Superior Fish and Wildlife Area**

Distinct portions of the property are commonly known as:
- Fish Creek Unit
- Sioux River Unit
- Fourmile Creek Unit
- Pikes Creek Unit
- Cranberry River Unit
- Flag River Unit
- Orienta Dam Site

Property Designation or Type: Fisheries Management

DNR Property Code(s): 2370

Forestry Property Code(s): 406

Property Location: Bayfield County

Property Acreage: 7630

Master Plan Date: None

Property Manager: Dave Lindsley

Property Assessment

The following should be considered during the property assessment:

A. Ecological Landscape description and property context
These properties are all found within the Superior Coastal Plain Ecological Landscape. For the most part, the State-ownership of these parcels is linear and follows the stream thread of several tributaries to Lake Superior. Adjacent land ownership varies, including small private parcels, County Forest and State-owned lands under separate designations.

B. General property description
The South Shore Lake Superior Fish and Wildlife Area was created in 1992 to preserve a large, self-sustaining anadromous fishery. The goal of the project is to enhance the stream and coastal habitats to benefit flora and fauna associated with these specific areas. The project also provides public recreation and education opportunities. The Fishery Area spans six distinct stream drainages, including Fish Creek, Sioux River, Pikes Creek, Cranberry River, Flag River, their associated coastal wetlands and the Orienta Dam Site on Iron River. More than 50% of the total self-sustaining anadromous

fishery on the Wisconsin shore of Lake Superior is included within the boundaries of the South Shore Lake Superior Fish and Wildlife Area.

C. Current forest types, size classes and successional stages
Forested cover types account for 82% of the South Shore land base. Non-forested areas comprise the remaining 18%.

Acres by cover type on South Shore Lake Superior Properties

Cover type	Acres Non-Forest	Acres seedling/ sapling	Acres pole-size	Acres Small Saw	Acres Large Saw	Grand Total Acres	% of property
A - ASPEN		438	2482	359		3279	43%
SH - SWAMP HARDWOODS		116	737	128	1	982	13%
PW - WHITE PINE		18		831	17	866	11%
FS - FIR SPRUCE		4	351			355	4.7%
G - UPLAND GRASS	306					306	4.0%
NH - NORTHERN HARDWOODS			224	23		247	3.2%
LBA - LOWLAND BRUSH - ALDER	173					173	2.3%
MR - RED MAPLE			169			169	2.2%
LMS - MINOR STREAM	163					163	2.1%
H - HEMLOCK				145		145	1.9%
KG - LOWLAND GRASS	139					139	1.8%
KEV - EMERGENT VEGETATION	125					125	1.6%
K - MARSH	124					124	1.6%
UB - UPLAND BRUSH	118					118	1.5%
ROW - RIGHT OF WAY	86					86	1.1%
SC - SWAMP CONIFER			83			83	1.1%
LB - LOWLAND BRUSH	76					76	1.0%
L - WATER	64					64	0.8%
C - WHITE CEDAR			30			30	0.4%
T - TAMARACK			27			27	0.4%
I - DEVELOPED USE	23					23	0.3%
PR - RED PINE				22		22	0.3%
SB - BLACK SPRUCE		20				20	0.3%
R - RECREATIONAL	4					4	0.1%
GH - HERBACEOUS VEGETATION	3					3	0.0%
F - FARM LAND	1					1	0.0%
Grand Total	**1405**	**596**	**4103**	**1508**	**18**	**7630**	**100%**
Percent of Property	**18%**	**8%**	**54%**	**20%**	**0.2%**	**100%**	

D. NHI: Endangered, threatened, Special Concern species, Species of Greatest Conservation Need (SGCN)
Any proposed timber management activities will involve NHI review of that parcel and the required buffer area.

E. Wildlife Action Plan Conservation Opportunity Areas (COA),
The Flag River Unit and Cranberry River Unit are both part of the Coastal Headlands and Estuaries COA. Priority Actions for this COA include increasing the representation of conifer-dominated boreal forest, especially in older age classes.

The Fish Creek Unit is part of the Fish Creek COA. Priority Conservation Actions for this COA include preserving and maintaining large expanses of wetland communities, both forested and non-forested.

The list of relevant Priority Species for these COAs includes forest interior birds such as Canada Warbler and Black-throated Blue Warbler, as well as northern flying squirrel and woodland jumping mouse. Species guidance documents are available for these species.

F. Significant cultural or archeological features
This property comprises linear units along major tributaries to Lake Superior. State-owned land is interspersed with private property. An archeological/historical review of the entire project area would misrepresent the impact of management activities on specific parcels. Any proposed timber management activities will involve archeological/historical review of that parcel and adjacent areas that may be impacted.

G. Invasive species
Terrestrial invasive species occur here, but few of them are serious problems at this time. Care needs to be taken to prevent the introduction and spread of invasive species. In forested habitats, plants such as glossy and common buckthorns (*Rhamnus frangula* and *R. cathartica*), nonnative honeysuckles, (e.g., *Lonicera morrowii* and *L. tatarica*), and Japanese barberry (*Berberis thunbergii*) already pose problems. Japanese knotweed *Polygonum cuspidatum*) and giant knotweed (*Polygonum sachalinense*) are present and are spreading from gardens into roadside ditches and ravines (e.g., in and around Bayfield). Garden-heliotrope (*Valeriana officinalis*) is an abundant weed in and around the city of Superior and has the potential to invade the nonforested red clay wetlands. These species may initially colonize disturbed areas and edges, but once established, some can spread into surrounding habitats, including forests. Along roads and in open or partially forested areas, spotted knapweed (*Centaurea biebersteinii*), leafy spurge (*Euphorbia esula*), wild parsnip (*Pastinaca sativa*), common periwinkle (*Vinca minor*), Canada thistle (*Cirsium arvense*), European swamp thistle (*C. palustre*), coral-berry (*Symphoricarpos orbiculatus*), and common tansy (*Tanacetum vulgare*) are present.

H. Existing State Natural Areas (SNA) designations/natural community types limited in the landscape
There are no designated State Natural Areas on any of these properties, although the Flag River Unit and Pikes Creek Unit are both directly adjacent to SNA's. The Sioux River Unit contains wetland communities near Lake Superior that are of State Natural Areas quality.

Conifer-dominated Boreal Forest is an uncommon community type that, where present on these properties, should be considered for special management designation.

Wetland community types on these properties are known to contain uncommon species of both plant and wildlife.

Exposed bedrock and cliff features on some of these properties are known to contain populations of rare plants.

I. Primary public uses (recreation)
Fishing, Hunting, Bird watching, Wildlife viewing, Trapping, Hiking, Snowmobiling trail, Cross-country skiing (no groomed trails)

J. Biotic Inventory Status: South Shore Lake Superior Fish and Wildlife Area has not been inventoried.

K. Deferral/consultation area designations
There are no Deferral or Consultation area designations on these properties

IFMP components

Management Objectives: (Outline primary forest management objectives):
South Shore of Lake Superior Fish and Wildlife Area is managed to enhance the stream and coastal habitats and provide public recreation and education opportunities. Targeted forest management is compatible with this objective but not the primary purpose of the property.

In general the forests on the property are managed to moderate stream flow from rain and snow melt, thus protecting stream morphology from damage due to peak flow conditions. For a number of reasons, forests comprised of long-lived coniferous species (white pine, red pine, white spruce, and northern white cedar) play a key role in stream flow management due to their long rotation lengths, interception of snow, and shading of the forest floor during spring thaw which reduces peak flow by slowing snow melt. Forestry practices are therefore chosen to 1) maintain the present cover of long-lived conifer, 2) promote natural forest succession toward long-lived conifer species where appropriate, and 3) force conversion to long-lived conifer forests via under-planting where appropriate. The intention behind any forced conversion is to establish late-successional, species-rich forest communities that are resilient and self-sustaining in the event of natural disturbance. The establishment of single-species plantations on the property is not the goal of planting.

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)

Aspen comprises 43% of the property (3279 acres), with 76% of aspen being in the mature, pole-sized stage. Even-aged regeneration of aspen stands via coppice harvest would result in increased runoff for a decade or more after the harvest, which is in conflict with the primary property objective of reducing peak flow events. Therefore aspen stands will be targeted as appropriate and as practical for natural or in some cases forced conversion to later-successional species such as long-lived conifers.

Swamp hardwoods, dominated by black ash, yellow birch, and red maple, comprise 13% (982 acres) of the property, with 75% being in the pole-sized stage. Due to fragile soils, swamp hardwoods are normally managed via even-aged methods with alterations in harvest design to avoid swamping (flooding) of the site after a harvest due to reduced evapotranspiration from overstory trees that are no longer on site. On this property, undesirable outcomes such as increased runoff and risk of regeneration failure due to swamping limit the usefulness of clear cutting. Some swamp hardwood stands may be practical to under-plant with long-lived, shade tolerant conifers such as northern white cedar, eastern hemlock, and white pine; however management will typically be passive.

White Pine comprises 11% (866 acres) of the property. Extended rotations for white pine are ideal for the purposes of this property, where harvests are implemented at all.

Fir-Spruce forest types comprise 5% (355 acres). These forests are managed to increase white spruce and white pine components through under-planting and natural regeneration.

Upland Grasslands comprise 4% (306 acres) of the property. Grassy openings provide key wildlife habitat in some situations and are encouraged where appropriate. Some open areas will be allowed to establish with woody species or have trees planted where appropriate.

Northern Hardwood forest, dominated by sugar maple, red maple, basswood, and other species comprise 3% (247 acres) of the property. Northern Hardwoods are typically managed via all-aged thinnings, which is in some cases compatible with the primary property objectives.

Other notable forest cover types include hemlock, cedar, black spruce, and swamp conifer forests. These cover types are already performing the primary function of the property by mitigating runoff especially during peak spring flow. They comprise 278 acres, or 3.7% of the property. These forest types are managed with extended rotations and passive management.

Summary of Public Involvement and Comments Received

Maps (Optional)

a. Property boundary and ownership maps are available online at **dnr.wi.gov** Search keywords "south shore fish and wildlife area"

b. Forest Cover Type maps are available on request.

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