Plan Implementation

Introduction

Implementation of the State Forest Management Plan (SFMP) goals, objectives, and management actions will be accomplished using various strategies and mechanisms. Each management priority may be influenced by programs and processes across multiple Michigan Department of Natural Resources divisions, and each has its own systems in place to help manage that resource. Considering the array of management priorities, affiliated programs and staff that manage them, the plan writing team committed to keeping a core segment together for the planning period that will focus on implementation and monitoring efforts.

The SFMP implementation and monitoring team will consist of the statewide forest planning and modeling specialist (Forest Resources Division), two regional wildlife planner/ecologists (Wildlife Division), and four district-level Forest planning and inventory specialists. Participation from Parks and Recreation planning specialists and Fisheries Division staff will be requested as needed. Team oversight will be led by planning section leaders in FRD and Wildlife.

Implementation strategy

The team will create a database that organizes SFMP goals, objectives, and management actions so that focused effort can be assigned to specific programs and relevant staff. Management actions can be recorded and progress toward desired future conditions can be reported annually to support monitoring needs. Specific metrics listed in each management priority section will be recorded as actions occur.

A significant part of implementation work is focused on commercial timber harvest to create both desired future conditions of forested cover types and wildlife habitat conditions. The SFMP model was created to help ensure that management of state forest land in Michigan creates a long-term sustainable supply of forest products and wildlife habitat while providing recreation opportunities and protecting natural and cultural resources for the people of Michigan. The model generated information for a 150-year planning horizon to create a long-term view of sustainability as it relates to multiple values. The first 10-year period of that horizon is included in this plan.

The harvest levels, by management area, forest management unit, special analysis unit, cover type, age class, basal area class, availability and silvicultural method were extracted from the first period of the overall harvest schedule and allocated to eligible stands in a spatial stands layer. Because each stand is part of a compartment, and each compartment has a designated year of entry, a projected annual harvest schedule could be created representing a feasible implementation solution. The spatial allocation provides an estimated level of harvest for each compartment and year of entry for each cover type in each management area. Individual stand selection may vary depending on other factors the model does not consider, such as spatial juxtaposition of treatments, harvest timing efficiencies, access issues, local area age class diversity and disturbance levels.

Other limitations exist in the “stand selection” performed by the spatial allocation of the harvest schedule to the SFMP stand shape file, especially in the cover types eligible for selection, group

selection, shelterwood, and thinning treatments. The basal area ranges used in the MiFI system of forest inventory resulted in an inability to accurately forecast stands that would be ready for a thinning or selection harvest within the next decade. Because of this, spatial allocation of these types of treatments could fall on stands that are not quite ready for a thinning or a selection harvest. It is fully anticipated that at a compartment level, deviations from projected harvests will occur, but projected harvest levels will be prescribed at a higher scale across the management area each year of entry.

Shelterwood and group selection treatments are projected based on a percentage of anticipated need for the decade. Information necessary to select these treatments at a stand level is not included or evaluated in the SFMP model. The implementation process of spatial allocation will likely not "select" the right stands to receive these harvests. It is expected that the proportion of these types of treatments will be prescribed across the cover types in the management areas in the decade.

Management actions

Implementation of projected harvests is driven by cover type-specific goals for each management area, but those goals are implemented through FRD administrative units. Forest Management Units are each responsible for identifying eligible stands through forest inventory and prescribing a subset of those stands for treatments that align with and implement the goals of the SFMP. The spatial allocation of the Period 1 harvests helps to guide harvest levels ensuring that forest and habitat conditions are moving from current conditions toward desired future conditions.

Implementation guidance is provided at annual compartment review meetings, beginning with a harvest projection at the pre-inventory meeting. This projected harvest schedule allows stand examiners to evaluate potential candidates to receive treatments in both even-aged and uneven-aged systems. Harvest targets provided at the pre-inventory meeting help establish annual regeneration goals for each even-aged cover type, ensuring that annual harvests result in a new age class that contributes to a desired age class distribution. These regeneration harvest goals should be closely followed on an annual basis. Significant deviations should be avoided unless anomalies are documented to justify a change. Partial harvest projections for selection and thinning treatments are meant to be a higher-level expected level of harvest, and treatments should be applied to stands based on inventoried basal area observations and needs.

Pre-review meetings will be used to evaluate prescribed treatments and compare them with projected harvest levels in each cover type and management area. Deviations from projected harvest levels will be recorded and used in subsequent years to adjust harvest levels up or down as necessary. An overall effort should be made to reach decade-level harvest objectives, contributing to the achievement of the desired age and basal area class distributions and associated habitat elements.

The following tables and graphs summarize the annual projected harvest prescriptions to be made across the state forest. Actual acres prepared for harvest will likely average about 3 to 10 percent less than prescribed acres due to several contributing factors. The continued establishment of within-stand retention areas (required by forest certification standards) results in a reduction of 3 to 10 % of most even-aged regeneration harvests. These areas are often used to protect hydrologic features, wildlife habitat elements or recreation influences. They are also frequently used for visual management or aesthetics. Stands prescribed with a soft limiting factor such as survey needed, road needed, portable

bridge needed, also are included in these projections. They do not always get accomplished in the given year of entry, but usually within the decade. Other reductions in areas prepared for treatment can simply be a refinement of stand boundaries. This occurs once field work is completed and stand boundaries are verified on the ground.

Table 1. Annual harvest projections by silvicultural regime.

Year of Entry	Clearcut	Selection	Thinning	Shelterwood	Group Selection	Salvage Clearcut	Salvage Thinning	Total
2025	26,733	10,336	6,249	1,589	987	11,238	2,611	**59,743**
2026	26,699	12,035	6,317	1,442	296	7,492	2,611	**56,892**
2027	24,597	11,972	8,083	1,596	684	2,341	2,611	**51,884**
2028	21,992	12,516	6,425	1,255	495	936	2,089	**45,709**
2029	21,880	9,287	5,920	1,202	624	468	2,089	**41,470**
2030	21,021	8,038	6,493	1,513	294	234	3,655	**41,248**
2031	22,460	6,187	4,578	1,291	798	234	4,700	**40,249**
2032	19,024	8,732	5,662	1,388	769	234	4,439	**40,249**
2033	22,030	7,707	6,492	1,388	1,138	234	1,305	**40,295**
2034	30,226	14,065	7,419	1,567	1,438	-	-	**54,715**
Total	**236,663**	**100,876**	**63,637**	**14,231**	**7,524**	**23,412**	**26,109**	**472,452**

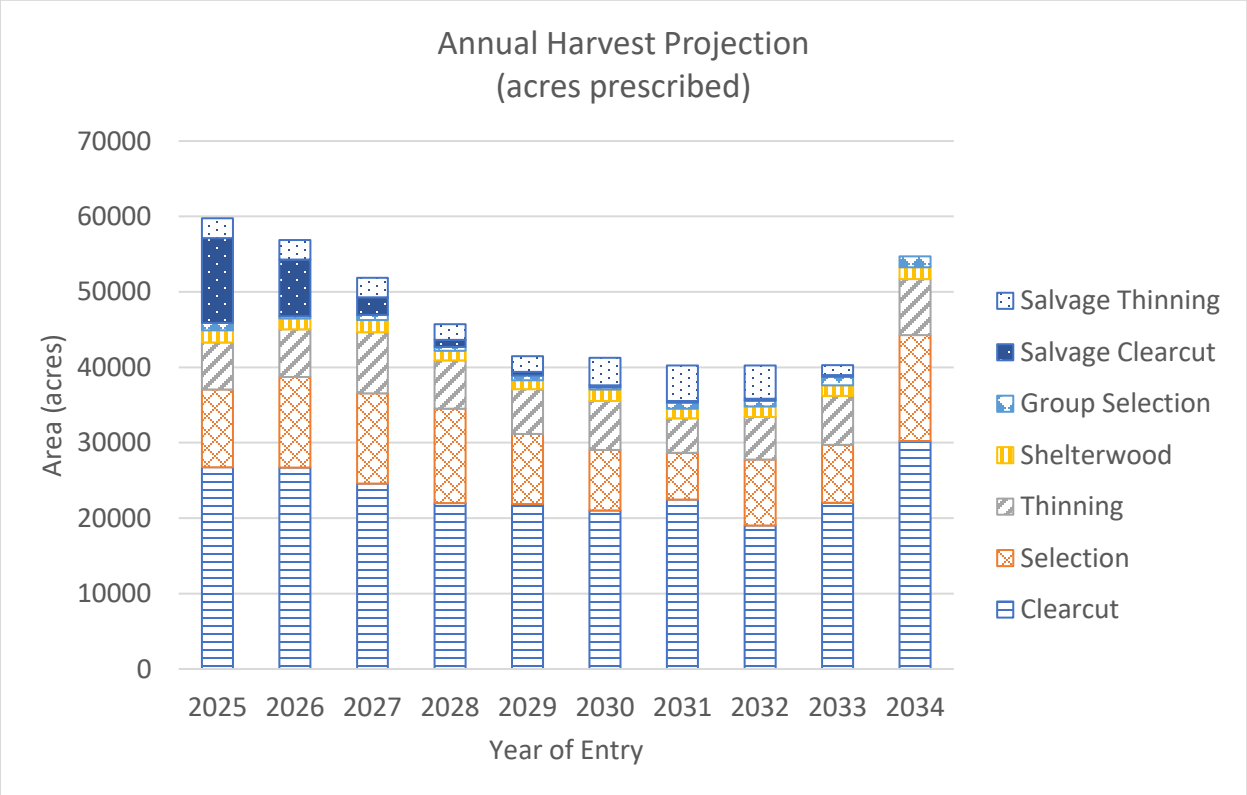

Figure 1. Annual harvest projections by silvicultural regime.

Table 2. 10-year Harvest projections by cover type and silvicultural regime.

Cover type	Clearcut	Selection	Thinning	Group Selection	Shelterwood	Salvage Clearcut	Salvage Thinning	Total
Northern hardwood	1,718	97,277	-	6,604	1,320	6,020	15,571	**128,509**
Aspen	111,480	-	-	-	-	6,115	-	**117,595**
Planted red pine	11,565	-	51,753	-	-	5,054	8,243	**76,615**
Mixed upland deciduous	16,257	2,694	-	-	1,770	249	-	**20,969**
Natural jack pine	15,297	-	-	-	-	2,336	-	**17,633**
Planted jack pine	9,654	-	-	-	-	3,057	-	**12,710**
Lowland conifers	9,624	-	-	-	-	-	-	**9,624**
Northern red oak	7,152	-	343	720	114	290	724	**9,344**
Upland mixed forest	9,064	-	-	-	-	171	-	**9,236**
Lowland aspen	9,139	-	-	-	-	-	-	**9,139**
Natural mixed pines	-	-	3,241	-	3,971	-	754	**7,965**
Black-red hybrid oak	6,957	-	630	-	332	33	-	**7,952**
Upland conifers	6,454	-	9	-	1,168	-	-	**7,631**
Lowland deciduous	4,697	448	-	168	1,655	-	-	**6,967**
Lowland spruce/fir	6,481	-	-	-	-	-	-	**6,481**
Natural white pine	-	-	2,039	-	2,400	-	505	**4,944**
Oak mix	4,142	-	380	-	48	88	-	**4,657**
Planted white pine	472	-	3,198	-	-	-	-	**3,670**
Lowland mixed forest	2,976	-	-	-	-	-	-	**2,976**
Natural red pine	-	-	1,154	-	1,454	-	312	**2,921**
Upland spruce fir	2,507	-	-	-	-	-	-	**2,507**
Planted mixed pine	103	-	890	-	-	-	-	**992**
Tamarack	839	-	-	-	-	-	-	**839**
Hemlock	-	459	-	-	-	-	-	**459**
Cedar	84	-	-	32	-	-	-	**116**
Total	**236,663**	**100,876**	**63,637**	**7,524**	**14,231**	**23,412**	**26,109**	**472,452**

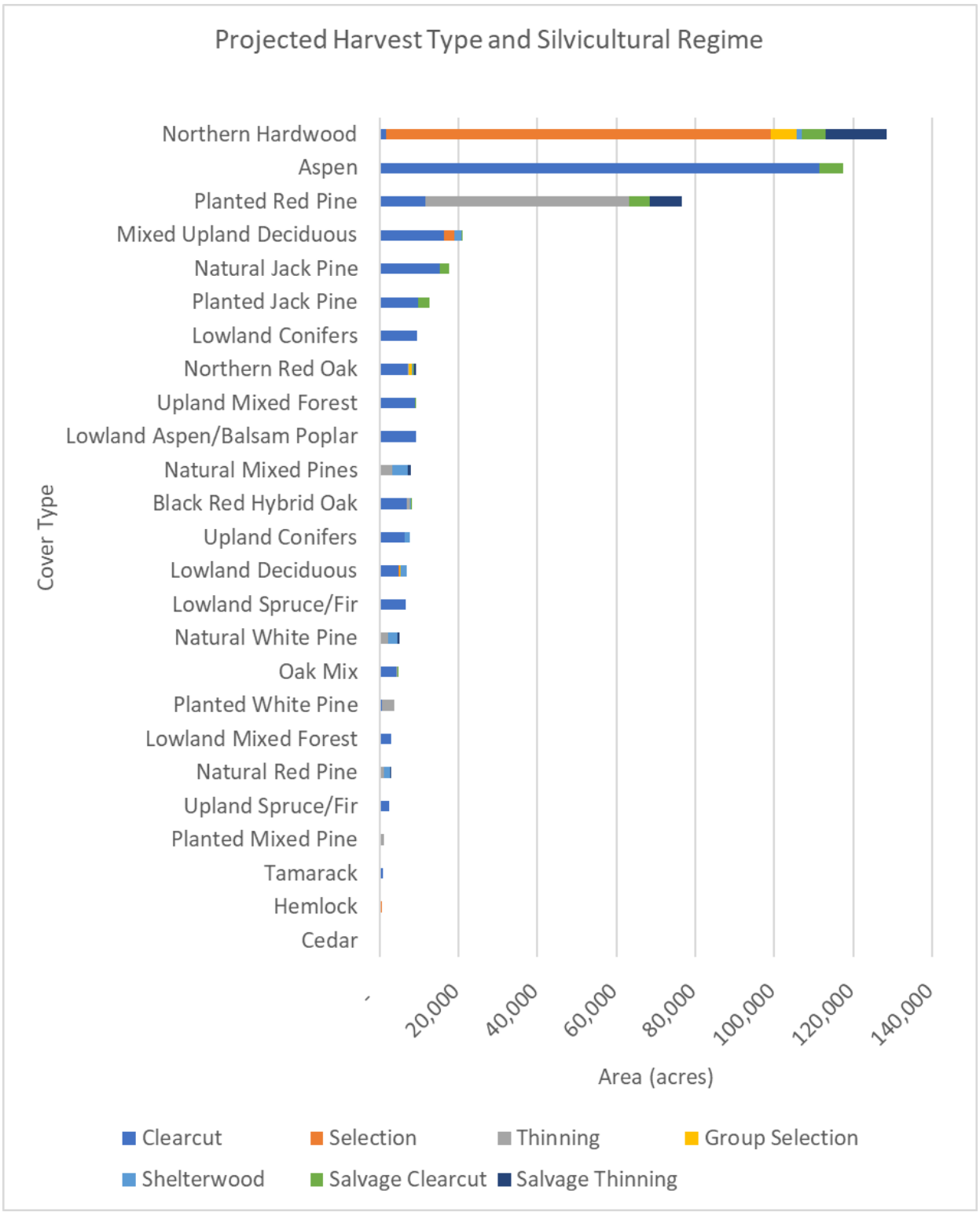

Figure 2. 10-year harvest projections by cover type and silvicultural regime.

Table 3. 10-year harvest projection by district and forest management unit (FMU).

District / FMU	Clearcut	Selection	Thinning	Shelterwood	Group Selection	Salvage Clearcut	Salvage Thinning	Grand Total
ELP Subtotal	**45,171**	**2,245**	**21,394**	**2,507**	**1,319**	**23,412**	**26,109**	**122,158**
Atlanta	18,802	893	4,713	821	260	4,079	3,991	**33,559**
Gaylord	9,957	943	10,159	206	882	8,256	14,822	**45,225**
Grayling	12,486	265	4,664	792	177	8,319	5,131	**31,833**
Pigeon River Country	3,927	144	1,859	689	--	2,758	2,165	**11,541**
EUP Subtotal	**54,396**	**29,115**	**8,812**	**3,683**	**3,845**	**--**	**--**	**99,851**
Newberry	19,920	9,026	2,766	2,428	765	--		**34,904**
Sault Ste. Marie	18,734	9,394	2,615	231	189	--	--	**31,164**
Shingleton	15,742	10,695	3,431	1,025	2,891	--	--	**33,783**
WLP Subtotal	**81,867**	**19,358**	**31,062**	**6,593**	**2,071**	**--**	**--**	**140,950**
Cadillac	20,196	4,133	7,819	919	1,043	--	--	**34,110**
Gladwin	15,795	474	2,905	2,525	207	--	--	**21,907**
Roscommon	25,578	698	4,351	1,632	10	--	--	**32,270**
Traverse City	20,298	14,053	15,986	1,516	811	--	--	**52,664**
WUP Subtotal	**55,229**	**50,159**	**2,370**	**1,447**	**289**	**--**	**--**	**109,493**
Baraga	10,105	23,301	410	296		--	--	**34,112**
Escanaba	26,905	15,029	1,528	616	169	--	--	**44,247**
Gwinn	18,219	11,829	432	535	119	--	--	**31,134**
Grand Total	**236,663**	**100,876**	**63,637**	**14,231**	**7,524**	**23,412**	**26,109**	**472,452**

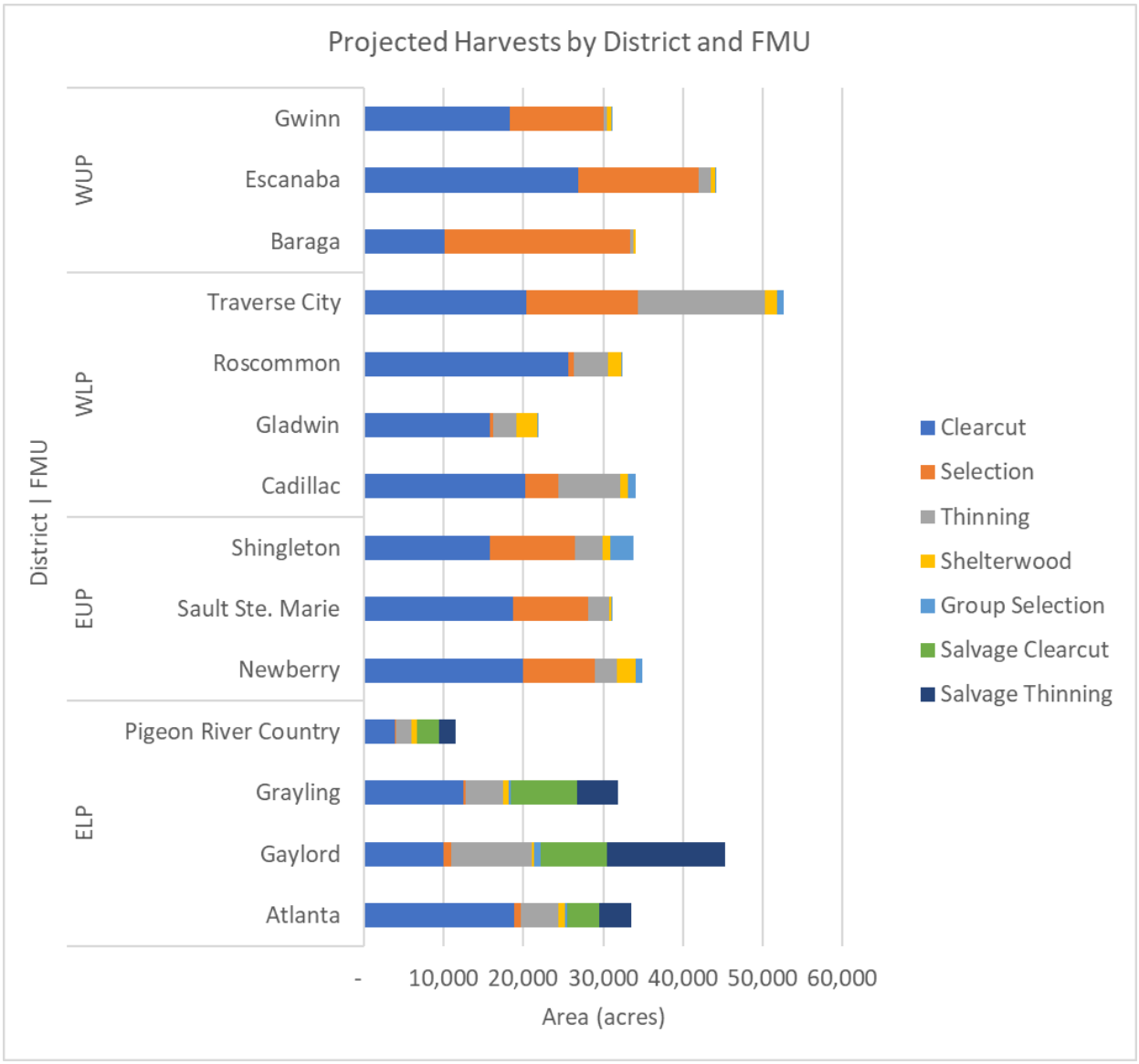

Figure 3. 10-year harvest projection by district and forest management unit (FMU).