

Executive Summary

This subsection forest resource management plan (SFRMP) strategic direction document includes management direction, strategies, and goals for vegetation management on state forestlands administered by the Department of Natural Resources (DNR), divisions of Forestry, Fish and Wildlife, and Trails and Waterways. The North Shore Highlands, Toimi Uplands, and Laurentian Uplands subsections landscape unit is approximately 2.4 million acres. State lands comprise 14 percent (324,000 acres) of the land ownership in these subsections, which includes 24,590 acres in state parks administered by the Division of Parks and Recreation. Of the state lands, 207,000 acres are considered managed timberlands (9 percent of the lands in the subsections), lands suitable and available for timber production.

Under the direction of the Minnesota Forest Resource Council (MFRC) Landscape Program, the Northeast Regional Landscape Committee completed a report in 2003 that included desired future forest conditions for all forestlands in the Northeast Landscape Region, which includes Cook, Lake, St. Louis, and Carlton counties. The goals and strategies in this subsection plan for state-administered forestlands are generally consistent with those recommended by the Northeast Regional Landscape Committee.

Old forest will be maintained on state lands. The long-term goal is to maintain 11 percent of the even-aged managed cover types (e.g., aspen and birch) acreage over the normal rotation age. To achieve this goal, 45 percent of the acres in these cover types have been designated as extended rotation forest (ERF). Old forest conditions will also be provided in uneven-aged managed cover types (e.g., northern hardwoods), ecologically important lowland conifers (EILC), and designated old-growth stands.

Young forest will be maintained on state lands. The 0-30 age classes of aspen, balsam of gilead, birch, and jack pine cover types represent young, early succession forest in this plan. Currently, these four cover types comprise 48 percent of the timberland acres while the long-term goal is that they will comprise 40 percent of the acres. Currently, 46 percent of these cover type acreages is in the 0-30 age classes while the long-term goal is 48 percent.

Upland conifer cover types, including white pine, red (Norway) pine, white spruce, jack pine, upland black spruce, and upland white cedar will increase. Historically, these species were more common in these subsections. To increase these cover types, a decrease will occur in the aspen, balsam of gilead, birch, and balsam fir cover types. Aspen and birch are currently the predominant cover types and that will continue into the future. During the 10-year plan, it is estimated that most stand conversions will occur in stands classified as high-risk, low-volume (HRLV) stands.

Some stands will be managed to maintain or increase within-stand species and structural composition. Long-lived conifers (i.e., white pine, red pine, and white spruce) will be increased as a component in other cover types such as aspen and birch. Many plantations will be comprised of mixed species. Some stands will be managed using techniques such as variable retention and variable density and will retain some trees of species and sizes typically found in older growth stages. Moving northern hardwoods stands toward an uneven-aged structure and providing a multiple-age structure in some white pine and white spruce stands are desired.

Patch management within this forest landscape during this 10-year management plan will emphasize maintaining existing larger (250+ acres) patches and increasing the average patch size over time. Twenty percent of the state lands have been identified as larger patches. Where possible, the state will cooperate with other landowners in patch management to reduce habitat fragmentation.

Vegetation management will provide a broad range of habitats that meet the needs of most game and nongame species (coarse filter approach) while providing specific habitat needs for individual species (fine filter approach) when needed. There are 35 game species and 260 nongame species found in the subsections. The goal is to provide healthy, self-sustaining populations of all native and desirable introduced plant, fish, and wildlife species. Strategies will be used to reduce the negative impacts caused by wildlife species on forest vegetation.

Riparian areas will be managed to provide habitat for fish, wildlife, and plant species. The MFRC's Voluntary Site-Level Forest Management Guidelines will be applied on all state lands. Management of riparian areas along streams is important from a fisheries perspective because the cold-water streams, especially in the North Shore Highlands Subsection, are very important for native and introduced fish species. Forest management strategies to maintain water quality and cold-water temperatures will be implemented.

Minnesota County Biological Survey (MCBS) work is currently being completed in these three subsections. MCBS sites with statewide biodiversity significance rankings of Outstanding, High, and preliminary survey of High were determined to be the greatest concern or importance in this SFRMP plan. Approximately 35 percent of the state's timberland acres are located in these MCBS sites. Strategies have been developed to manage forestland in these MCBS sites while sustaining or minimizing the loss to the biodiversity significance factors on which the MCBS sites were ranked. On all state lands, known locations of rare plants and animals and their habitats and rare native plant communities will be protected, maintained, or enhanced in these subsections.

The treatment level (i.e., harvest, etc.) recommended for the 10-year plan is 4,012 acres per year compared to 3,086 acres during the last planning period. Although this is a 30 percent increase in the acreage treatment level, the estimated volume increase is only 5 percent. Primary reasons for the increase are: the large acreage of high-risk, low-volume stands (1,797 acres per year and it is estimated that approximately 50 percent of these acres will result in timber sales); the goal to move toward a balance age-class distribution in even-aged managed cover types; and the acreage currently over established rotation ages. Based on cover type treatment modeling, the treatment level will decline during the next 10-year harvest period and will fluctuate each decade until the desired age-class distributions are reached in all the cover types. Strategies to increase timber productivity and quality have been developed to increase the average harvestable volume per acre growing on state lands over time.

Other topics addressed in the plan include: protecting wetland and seasonal ponds; limiting damage from insects, disease, and exotic species; minimizing forest management impacts on visual quality; mitigating climate change effects on forestlands; planning of new road access; protecting cultural resources; and evaluating disturbance events (e.g., fire and wind).