Minnesota
Department of Natural Resources

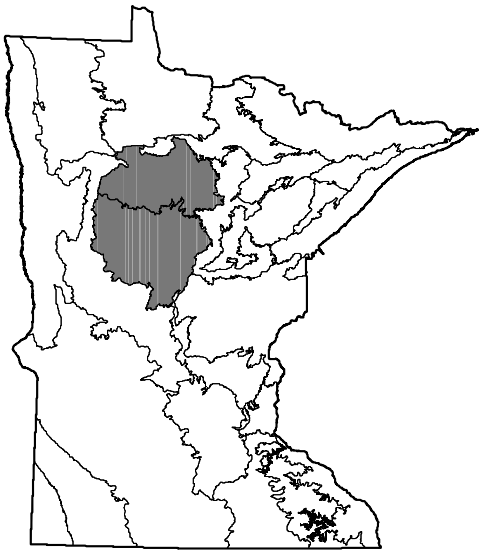
Division of Forestry

Final Plan

Chippewa Plains-Pine Moraines and Outwash Plains

Subsection Forest Resource Management Plan

Fiscal Years 2009 through 2018



Minnesota Department of Natural Resources
February 2009

Executive Summary

This subsection forest resource management plan (SFRMP) includes management direction, strategies, and goals for vegetation management on state forestlands administered by the Department of Natural Resources (DNR), Divisions of Forestry, and Section of Fish and Wildlife. The Chippewa Plains and the Pine Moraines and Outwash Plaines subsection landscape covers approximately 4.6 million acres in north central Minnesota. Of this, State lands comprise approximately 14 percent (682,986 acres) of the land ownership in these subsections. Of the state lands, approximately 59 percent (401,160 acres) is considered managed timberlands or lands suitable and available for timber production.

The CP-PMOP SFRMP takes into consideration all appropriate legislative requirements and DNR directions. In addition, this plan has considered and coordinated with forest management plans of other forest managers, in particular the Minnesota Forest Resources Council's North Central Regional Landscape Plan. The strategies and desired future forest composition as contained in this CP-PMOP Plan for state-administered forestlands are consistent with those identified in the North Central Regional Landscape Plan.

Primary elements of the CP-PMOP SFRMP includes analysis of existing forest conditions, development of desired future forest conditions (DFFCs), and a Stand Exam List which identifies stands to be field visited during the 10-year plan implementation period to determine specific stand treatments. The CP-PMOP SFRMP recommends the following:

1. move toward a balanced age-class distribution;
2. provide a sustainable supply of forest products;
3. identify and maintain old forests;
4. maintain adequate acres of young forests;
5. increase overall timber productivity, consistent with other strategies;
6. increase specific cover types across the landscape;
7. convert specific cover types to conifers;
8. implement specific within-stand management strategies;
9. identify and manage a portion of all cover types as extended rotation forests;
10. designate and manage forest patches, limit visual impacts;
11. implement strategies to maintain wildlife habitat and protect water quality;
12. identify and maintain cultural resources and important plant and animal species; and,
13. consider disturbance events to manage timber harvesting on a sustainable basis.

Old forest will be maintained on state lands. The long-term goal is to maintain 14.8 percent of the even-aged managed cover types (e.g., aspen and birch) acreage over the normal rotation age. 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.

Adequate young forest will be maintained on state lands. The 0-30 age-classes of aspen, balm of Gilead, birch, and jack pine cover types represent young, early succession forest in this plan. Currently, these four cover types comprise 53 percent of the timberland acres while the long-term goal is that they will comprise 48 percent of the total acres.

Of the upland conifers, the 10-year DFFCs are to increase the cover type acres of jack pine and white pine, maintain the current acreage of red pine, and decrease (convert to other cover types) white spruce (short term only) and balsam fir. To increase jack pine and white pine, conversions from the following cover types are recommended: aspen/ balm of Gilead, birch, northern hardwoods and balsam fir, from sites not conducive to balsam fir.

Of the upland hardwoods, the 10-year DFFCs are to decrease (convert to other cover types) total acres of aspen/balm of Gilead, northern hardwoods, and oak. These cover types will be converted primarily to upland conifers. It is recommended that the total cover type acres of birch be maintained during the planning period.

Of the lowland hardwoods and conifers the 10-year DFFCs are to decrease the total cover type acres of ash / lowland hardwoods, and increase total cover type acres of white cedar and tamarack. It is recommended to maintain the current total cover type acres of lowland black spruce.

In addition, some stands will be managed to maintain or increase within-stand species diversity 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 stands across the CP-PMOP landscapes 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 the CP-PMOP subsections, during implementation of this 10-year plan will emphasize maintaining existing larger (101+ acres) patches and increasing the average patch size over time. Sixteen percent of the DNR timberlands addressed by this plan have been designated as components of larger patches. Where possible, the DNR 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 game and nongame species, while providing for the specific habitat needs of individual species when needed. There are 440 wildlife species found in these two subsections. The goal is to provide healthy, self-sustaining populations of all native and desirable introduced plant, fish, and wildlife species. Specific strategies will be implemented that 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. Specific vegetation management strategies are identified for riparian areas, (along all lakes, rivers and streams) to maintain water quality for fisheries and animal habitat, eliminate visual impacts, and provide for erosion control.

Minnesota County Biological Surveys (MCBSs) have been completed for two counties within these two subsections. In addition, nine counties have had MCBS field survey or work completed or started, the results of which were available as the 10-Year Stand Exam List was prepared. 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, thinning, regeneration, prescribed burning, re-inventory, etc.) recommended for the 10-year plan ranges from 104,000 cords to 134,000 cords per year compared to approximately 104,000 cords per year for the period from 1995 –2004. A primary goal is to move toward a balanced age-class distribution in even-aged managed cover types. Harvest levels will fluctuate by cover type for each decade until the desired age-class distributions are reached. Strategies to increase timber productivity and timber quality have been developed in an effort to increase the average harvestable volume per acre on state lands over time.

Other issues 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; monitoring climate change effects on forest lands; protecting cultural resources; and evaluating disturbance events (e.g., fire and wind); and planning of new road access.

The Chippewa Plains – Pine Moraines and Outwash Plains SFRMP and all Appendices are available on the DNR Web site at: *http://www.dnr.state.mn.us/forestry/subsection/cp_pmop/index.html*

Chippewa Plains - Pine Moraines and Outwash Plains Subsection Forest Resource Management Plan (CP-PMOP SFRMP)

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