

**Minnesota
Department of Natural Resources**

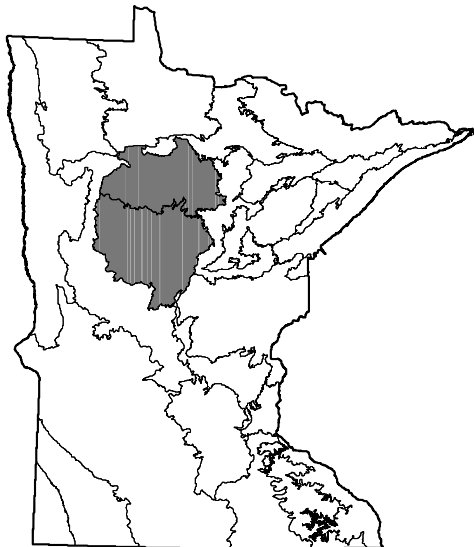
Division of Forestry

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 Plains 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)

Contents

Chapter 1. Introduction

1.1	Planning Area Description	1.1
1.2	Scope of SFRMP	1.5
1.3	SFRMP Process Overview	1.7
1.4	Contents of the CP-PMOP SFRMP	1.7

Chapter 2. SFRMP Issues

2.1	How SFRMP Issues Were Identified	2.1
2.2	Issue Definition	2.1
2.3	Preliminary Issues	2.1
	A. Desired Age-Class Distribution	2.2
	B. Forest Composition, Structure, Spatial Arrangement, Growth Stages, and Plant Community Distributions	2.3
	C. Riparian and Aquatic Areas	2.5
	D. Access to State Timberlands	2.6
	E. Diversity and Complexity	2.7
	F. Wildlife and Plant Species Habitat	2.7
	G. Wildlife Populations Management	2.8
	H. Harvest Level	2.8
	I. Timber Quality / Quantity	2.9
	J. Visual Quality	2.10
	K. Other Statutes	2.11
	L. Cultural Resources	2.11
	M. Rare Features	2.11
	N. Managing Impacts	2.12
2.4	From Preliminary Issues to General Direction Statements, DFFCs and Strategies.....	2.14

Chapter 3. Focused Issues, General Direction Statements, DFFCs and Strategies

3.0	Background	3.1
3.1	Primary Issue Area: Age Classes	3.6
3.2	Primary Issue Area: Forest Composition	3.19
3.3	Primary Issue Area: Riparian / Aquatic Areas	3.33
3.4	Primary Issue Area: Access.....	3.38
3.5	Primary Issue Area: Diversity / Complexity	3.40
3.6	Primary Issue Area: Wildlife Habitat	3.44
3.7	Primary Issue Area: Wildlife Populations	3.49
3.8	Primary Issue Area: Sustainable Harvest	3.50
3.9	Primary Issue Area: Timber Quality and Quantity	3.57
3.10	Primary Issue Area: Visual Quality	3.67
3.11	Primary Issue Area: Other Statutes	3.68
3.12	Primary Issue Area: Cultural Resources	3.69
3.13	Primary Issue Area: Rare Species / Features	3.70
3.14	Primary Issue Area: Managing Impacts	3.74

Chapter 4. Cover Type Management Recommendations

4.1	Introduction	4.1
4.2	Aspen/Balm of Gilead (A/BG)	4.4
	4.2A Current Condition	4.4
	4.2B Future Direction	4.5
	4.2C Stand Management	4.6
	4.2D Cover Type Conversion Management	4.7
	4.2E Stand Selection Criteria	4.8
	4.2F Stand Treatment Summary	4.9
4.3	Paper Birch (Bi)	4.11
	4.3A Current Condition	4.11
	4.3B Future Direction	4.12
	4.3C Stand Management	4.13
	4.3D Cover Type Conversion Management	4.14
	4.3E Stand Selection Criteria	4.14
	4.3F Stand Treatment Summary	4.15
4.4	Ash/Lowland Hardwoods (Ash/LH)	4.17
	4.4A Current Condition	4.17
	4.4B Future Direction	4.18
	4.4C Stand Management	4.19
	4.4D Cover Type Conversion Management	4.19
	4.4E Stand Selection Criteria	4.20
	4.4F Stand Treatment Summary	4.20
4.5	Northern Hardwoods (NH)	4.21
	4.5A Current Condition	4.21
	4.5B Future Direction	4.22
	4.5C Uneven-aged Stand Management	4.23
	4.5D Even-aged Stand Management	4.26
	4.5E Stand Selection Criteria	4.27
	4.5F Stand Treatment Summary	4.27
4.6	Oak (O)	4.28
	4.6A Current Condition	4.28
	4.6B Future Direction	4.29
	4.6C Stand Management	4.31
	4.6D Cover Type Conversion Management	4.32
	4.6E Stand Selection Criteria	4.33
	4.6F Stand Treatment Summary	4.32
4.7	White Pine (WP)	4.37
	4.7A Current Condition	4.37
	4.7B Future Direction	4.37
	4.7C Stand Management	4.39
	4.7D Cover Type Conversion Management	4.40
	4.7E Regeneration Methods	4.41
	4.7F Stand Selection Criteria	4.41
4.8	Red (Norway) Pine (NP)	4.42
	4.8A Current Condition	4.42
	4.8B Future Direction	4.43
	4.8C Stand Management	4.44
	4.8D Stand Selection Criteria	4.46
	4.8E Stand Treatment Summary	4.47
4.9	Jack Pine (JP)	4.49
	4.9A Current Condition	4.49
	4.9B Future Direction	4.50
	4.9C Stand Management	4.51
	4.9D Cover Type Conversion Management	4.52
	4.9E Stand Selection Criteria	4.52

4.9F	Stand Treatment Summary	4.53
4.10	Black Spruce Lowland (BSL)	4.56
4.10A	Current Condition	4.56
4.10B	Future Direction	4.57
4.10C	Stand Management	4.58
4.10D	Stand Selection Criteria	4.59
4.10E	Stand Treatment Summary	4.60
4.11	White Spruce (WS)	4.64
4.11A	Current Condition	4.64
4.11B	Future Direction	4.65
4.11C	Stand Management	4.67
4.11D	Cover Type Conversion Management	4.69
4.11E	Stand Selection Criteria	4.69
4.11F	Stand Treatment Summary	4.71
4.12	Balsam Fir (BF)	4.74
4.12A	Current Condition	4.74
4.12B	Future Direction	4.74
4.12C	Stand Management	4.76
4.12D	Cover Type Conversion Management	4.77
4.12E	Stand Selection Criteria	4.77
4.12F	Stand Treatment Summary	4.78
4.13	Tamarack (T) – on lowland sites	4.80
4.13A	Current Condition	4.80
4.13B	Future Direction	4.80
4.13C	Stand Management	4.81
4.13D	Cover Type Conversion Management	4.82
4.13E	Stand Selection Criteria	4.82
4.13F	Stand Treatment Summary	4.83
4.14	White Cedar (C)	4.85
4.14A	Current Condition	4.85
4.14B	Future Direction	4.86
4.14C	Stand Management	4.86
4.14D	Cover Type Conversion Management	4.87
4.14E	Stand Selection Criteria	4.87
4.15	Stagnant Spruce (Sx)	4.88
4.15A	Current Condition	4.88
4.15B	Future Direction	4.89
4.15C	Stand Management	4.89
4.15D	Stand Selection Criteria	4.89

Chapter 5. Monitoring

5.1	Annual Stand Examination Plan Review among Divisions of DNR	5.1
5.2	Stand Treatments and Site level Monitoring	5.1
5.3	Landscape level monitoring	5.1
5.4	Monitoring Roles and Responsibilities	5.4
5.5	Communicating Results	5.4

Chapter 6. Response to Public Comments from *Preliminary Issues and Assessment document*

6.1	Background	6.1
6.2	Issue Specific Comments	6.1
6.3	General Comments on the Preliminary Issues	6.14
6.4	Comments Considered Beyond the Scope of this Plan	6.15
6.5	List of organizations and individuals that submitted Comments	6.15

Chapter 7. 10-Year Stand Exam List and New Access Needs Lists

7.1	Managed Cover Type Treatment Summary	7.1
7.2	Stand Selection Results	7.3
7.3	Stand Examinations (Field Visits)	7.3
7.4	Maps of 10-Year Stand Exam List and New Access Needs List	7.3
7.5	Stand Evaluations	7.4
7.6	Public Review of Stand Examination Lists	7.4
7.7	Treatment Acres Summary	7.4
7.8	Preliminary Prescriptions Summary	7.6
7.9	Stand Age Summary	7.11
7.10	Stand Selection Summary by Subsection, Forestry Area, and Cover Type	7.13
7.11	New Access Needs	7.13
7.11A	Purpose	7.13
7.11B	Scope	7.14
7.11C	DNR Road Classifications	7.14
7.11D	Interdisciplinary Review of Access Planning	7.15
7.11E	New Access Needs Results	7.15

Appendices

A.	Ecological Classification System (ECS)	A.1
B.	Tree Species in the CP-PMOP	B.1
C.	Key for Main Cover Type Determination	C.1
D.	Process Used to Determine Old Forest Management Complexes (OFMCs)	D.1
E.	Silvicultural Prescription Worksheet	E.1
F.	Ecologically Important Lowland Conifers (EILC) Stand Designation Process	F.1
G.	Process Used to Determine Forest Composition Goals	G.1
H.	10-Year and 50-Year Cover Type Conversion DFFCs	H.1
I.	Standard Codes in SFRMP	I.1
J.	Native Plant Communities	J.1
K.	Stand Scoring System	K.1
L.	Terrestrial, Vertebrate Species List	L.1
M.	Wildlife Habitat Relationships	M.1
N.	Land Type Association (LTA) Assessment and Analysis Documents	N.1
O.	Areas of High or Outstanding Biodiversity	O.1
P.	Special Management Areas and Priority Open Landscapes	P.1
Q.	Patch management in the CP/PMOP	Q.1
R.	Potential Pine Woodland Areas	R.1
S.	Stands with a White Pine Component	S.1
T.	Stand Exam List and New Access Needs List Instructions	T.1
U.	10-Year Stand Exam List and New Access Needs List	U.1
V.	Glossary	V.1
W.	Acronyms	W.1
X.	Responses to Comments from CP-PMOP SFRMP Draft Plan.....	X.1

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Tables

Table 1.1a	Land Ownership – Total Acres by Subsection	1.4
Table 1.3a	SFRMP Process Overview	1.7
Table 2.1a	Focused Issues, General Direction Statements and Strategies Generated from SFRMP Issues	2.15

Table 3.1a	Chippewa Plains/Pine Moraines and Outwash Plains State Timberland Cover Type Acres by Age-Class (2004)	3.7
Table: 3.1b	Cover Type acres by Under Normal Rotation and Over Rotation	3.9
Table: 3.1c	Division of Forestry Recommended Rotation Ages for Forest Stands in the CP-PMOP Subsections	3.11
Table 3.1d	State Timberland ERF by Cover Type	3.12
Table 3.1e	Effective ERF Percent 2007 – 2057	3.12
Table 3.1f	Old Forest: Percent of Managed Acres Over Normal Rotation Age	3.14
Table 3.1g	Designated Old Growth for the CP-PMOP Subsections	3.15
Table 3.1h	Acres by Cover Type of stands affected by an Old Forest Management Complex	3.16
Table: 3.1i	Young Forest Summary: Projected Percent of Cover Type 0-30 Years Old	3.18
Table 3.2a	Desired Cover Type Acreage Changes – 10-years and 50 Years	3.20
Table 3.2b	Cover Type Change Goals (DFFC) and Projected Increases and Decreases	3.25
Table 3.2c	Patch Size Classes for Patch Management in SFRMP	3.26
Table 3.2d	Designated Patch Summary by Age-class and General Forest Type (CP-PMOP Subsections)	3.27
Table 3.2e	Designated Patch Summary by Size Class and General Forest Type (CP-PMOP Subsections)	3.27
Table 3.8a	Managed Cover Type Treatment Summary	3.52
Table 3.8b	10-Year Summary: Average Age of Stands Selected for Treatment for Cover Types Managed Primarily by Even-Aged Harvest Methods	3.53
Table 3.8c	Ecologically Important Lowland Conifer Designation Summary	3.54
Table 3.8d	Balsam Bough Permits by Fiscal Year	3.56
Table 3.8e	Total Special Forest Products Permits by Fiscal Year (except balsam boughs)	3.56
Table 3.9a	10-Year Summary: Preliminary Prescription Acres by Subsection	3.59
Table 3.9b	CP- PMOP: 10-Year Planned Stand Examination Acres by Forestry Area	3.60
Table 3.9c	CP-PMOP Average Volume by Cover Type and Age Class.....	3.63
Table 3.9d	CP-PMOP SFRMP Volume Estimations	3.64
Table 3.9e	CP-PMOP SFRMP Volume Estimations by Cover Type, Walters-Ek method	3.66
Table 3.9f	Summary Estimated CP-PMOP Annual Treatment (cords) compared with Past Area Volumes (cords)	3.67
Table 4.2a	Aspen/BG Cover Type Acres by Subsection	4.4
Table 4.2b	Aspen/BG Cover Type Acres Over Normal Rotation Age by Subsection	4.5
Table 4.2c	Aspen/BG Cover Type Acres Over Maximum Rotation Age by Subsection	4.5
Table 4.2d	Recommended A/BG Cover Type Acres by Subsection by Selected Year.....	4.5
Table 4.2e	Aspen/Balm of Gilead Normal Rotation Ages and Maximum Ages	4.8
Table 4.2f	A/BG ERF Acres (Plan Target Acres) and Maximum Age	4.9
Table 4.2g	Aspen/Balm of Gilead Treatment Summary by Decade for the CP-PMOP	4.9
Table 4.3a	Birch Cover Type Acres by Subsection	4.11
Table 4.3b	Birch Acres over Normal Rotation Age and over Maximum Rotation Age	4.12
Table 4.3c	Recommended Birch Cover Type Acres by Subsection and Selected Year.....	4.12
Table 4.3d	Birch Normal Rotation Ages and Maximum Age	4.14
Table 4.3e	Birch ERF Acres (Plan Target Acres) and Maximum Age	4.15
Table 4.3f	Birch Treatment Summary by Decade for the CP-PMOP	4.15

Table 4.4a	Ash/Lowland Hardwoods Cover Type Acres by Subsection	4.17
Table 4.5a	Northern Hardwood Cover Type Acres by Subsection	4.21
Table 4.5b	Current Condition Class of Northern Hardwoods in CP-PMOP Subsections ..	4.23
Table 4.5c	Desirable Stocking Per Acre of Stems 2-inch DBH and Greater in a Regulated Stand for Good Continuous Growth of Northern Hardwoods Under Uneven-Aged (All-Aged) Management	4.23
Table 4.6a	Oak Cover Type Acres by Subsection	4.28
Table 4.6b	Oak: Normal Rotation Age and Maximum Age	4.32
Table 4.6c	Oak ERF Acres (Plan Target Acres) and Maximum Age	4.33
Table 4.6d	Oak (SI >=60) Treatment Summary by Decade	4.33
Table 4.6e	Oak (SI <60) Treatment Summary by Decade	4.34
Table 4.7a	White Pine Cover Type Acres by Subsection	4.37
Table 4.7b	Recommended White Pine Cover Type Acres in the Subsections by Year	4.38
Table 4.8a	Red Pine Cover Type Acres by Subsection	4.42
Table 4.8b	Recommended Red Pine Cover Type Acres in the Subsections by Year	4.43
Table 4.8c	Red Pine Normal Rotation Age and Maximum Age	4.46
Table 4.8d	Red Pine ERF Acres (Plan Target Acres) and Maximum Age	4.46
Table 4.8e	Red Pine Treatment Summary by Decade	4.47
Table 4.9a	Jack Pine Cover Type Acres by Subsection	4.49
Table 4.9b	Recommended Jack Pine Cover Type Acres in the Subsections by Year	4.50
Table 4.9c	Jack Pine Normal Rotation Age and Maximum Age	4.53
Table 4.9d	Jack Pine ERF Acres (Plan Target Acres) and Maximum Age	4.53
Table 4.9e	Jack Pine Treatment Summary by Decade	4.54
Table 4.10a	Lowland Black Spruce Cover Type Acres by Subsection	4.56
Table 4.10b	Lowland Black Spruce Normal Rotation Age and Maximum Age	4.59
Table 4.10c	Lowland Black Spruce ERF Acres (Plan Target Acres) and Maximum Age	4.60
Table 4.10d	BSL (SI = 40+) Treatment Summary by Decade	4.61
Table 4.10e	BSL (SI = 23-39) Treatment Summary by Decade	4.61
Table 4.11a	White Spruce Cover Type Acres by Subsection	4.64
Table 4.11b	Recommended White Spruce Cover Type Acres by Subsection by Year	4.65
Table 4.11c	White Spruce Normal Rotation Age and Maximum Age	4.69
Table 4.11d	White Spruce ERF Acres (Plan Target Acres) and Maximum Age	4.70
Table 4.11e	Treatment Summary by Decade for the Natural Portion of White Spruce Cover Type	4.71
Table 4.11f	Treatment Summary by Decade for the Planted Portion of White Spruce Cover Type	4.71
Table 4.12a	Balsam Fir Cover Type Acres by Subsection	4.74
Table 4.12b	Recommended Balsam Fir Cover Type Acres in the Subsections by Year	4.75
Table 4.12c	Balsam Fir Normal Rotation Age and Maximum Age	4.77
Table 4.12d	Balsam Fir ERF Acres (Plan Target Acres) and Maximum Age	4.78
Table 4.12e	Balsam Fir Treatment Summary by Decade for the CP-PMOP	4.87
Table 4.13a	Tamarack Cover Type Acres by Subsection	4.80
Table 4.13b	Tamarack Normal Rotation Age and Maximum Age	4.82
Table 4.13c	Tamarack ERF Acres (Plan Target Acres) and Maximum Age	4.83
Table 4.13d	Tamarack Treatment Summary by Decade	4.83
Table 4.14a	Cedar Cover Type Acres by Subsection	4.85
Table 4.14b	Recommended White Cedar Cover Type Acres in the Subsections by Year	4.86
Table 4.15a	Stagnant Spruce Cover Type Acres by Subsection	4.88
Table 5.1	SFRMP Monitoring questions, indicators, outcomes, data sources, frequency, and priority	5.6
Table 7.1a	Managed Cover Type Treatment Summary	7.2
Table 7.7a	10-Year Summary: Cover Type Stand Examination Acres by Subsection	7.5

Table 7.8a	10-Year Summary: Preliminary Prescription Acres by Subsection	7.6
Table 7.8b	10-Year Summary: Preliminary Prescription Acres by Cover Type and Subsection	7.7
Table 7.9a	10-Year Summary: Average Age of Stands Selected for Treatment for Cover Types Managed Primarily by Even-Aged Harvest Methods	7.11
Table 7.9b	10-Year Summary: Average Age of Stands Selected for Treatment for Cover Types Managed Primarily by Selective and Thinning Harvest Methods	7.12
Table 7.10a	CP- PMOP: 10-Year Planned Stand Examination Acres by Forestry Area	7.13
Table 7.11a	New Access Needs Miles by Subsection, Season of Use, and Access Type	7.15

Figures

Figure 1.1a	Land Ownership - Chippewa Plains/Pine Moraines and Outwash Plains	1.4
Figure 1.3a	SFRMP Public Involvement Opportunities	1.8
Figure 3.0a	Forestland, Timberland, and Managed Acres	3.2
Figure 3.1a	Extended Rotation Forest Example	3.13
Figure 3.2a	Generalized Example of an Increase in Mixed Forest Conditions Within an Aspen Stand	3.22
Figure 3.2b	Generalized Example of an Increase in Conifer Cover Type Acres: Aspen Stand Converts to a White Spruce Stand	3.24
Figure 3.8a	Balsam Bough Permits by Fiscal Year	3.56
Figure 3.8b	Total Special Forest Products Permits by Fiscal Year (except balsam boughs)	3.56
Figure 3.9a	Method Used for Estimating Cover Type and Species Volumes for CP/PMOP SFRMP Plan	3.65
Figure 3.13a	Status of Minnesota County Biological Surveys within the CP-PMOP (2007)	3.73
Figure 4.2a	Current and Desired Aspen/Balm of Gilead Age-Class Distribution (2007)	4.4
Figure 4.2b	Desired Age-Class Structure for the Aspen/Balm of Gilead Cover Type	4.6
Figure 4.2c	Projected Aspen/Balm of Gilead Age-Class Distribution in 2017	4.10
Figure 4.2d	Projected Aspen/Balm of Gilead Age-Class Distribution in 2057	4.10
Figure 4.3a	Current and Desired Birch Age-Class Distribution (2007)	4.11
Figure 4.3b	Desired Age-Class Structure for the Birch Cover Type	4.13
Figure 4.3c	Projected Birch Age-Class Distribution in 2017	4.16
Figure 4.3d	Projected Birch Age-Class Distribution in 2057	4.16
Figure 4.4a	Current Ash/LH Age-Class Distribution (2007)	4.18
Figure 4.5a	Northern Hardwoods Cover Type Age-Class Distribution (2007)	4.21
Figure 4.5b	Desirable Stocking for an All-Aged Stand in a Regulated Condition	4.24
Figure 4.6a	Current and Desired High Site Index (>60) Oak Age-Class Distribution (2007)	4.29
Figure 4.6b	Current and Desired Low Site Index (<60) Oak Age-Class Distribution (2007)	4.29
Figure 4.6c	Desired Age-Class Structure for the High Site Index (>60) Portion of the Oak Cover Type	4.30
Figure 4.6d	Desired Age-Class Structure for the Low Site Index (<60) Portion of the Oak Cover Type	4.33
Figure 4.6e	Projected High Site Index (>60) Oak Age-Class Distribution in 2017.....	4.34
Figure 4.6f	Projected Low Site Index (<60) Oak Age-Class Distribution in 2017	4.35
Figure 4.6g	Projected High Site Index (>60) Oak Age-Class Distribution in 2057	4.35
Figure 4.6h	Projected Low Site Index (<60) Oak Age-Class Distribution in 2057	4.36
Figure 4.7a	Current White Pine Age-Class Distribution (2007)	4.37
Figure 4.8a	Current and Desired Red Pine Age-Class Distribution (2007)	4.42

Figure 4.8b	Desired Age-Class Structure for the Red Pine Cover Type	4.43
Figure 4.8c	Projected Red Pine Age-Class Distribution in 2017	4.48
Figure 4.8d	Projected Red Pine Age-Class Distribution in 2057	4.48
Figure 4.9a	Current and Desired Jack Pine Age-Class Distribution (2007)	4.49
Figure 4.9b	Desired Age-Class Structure for the Jack Pine Cover Type	4.50
Figure 4.9c	Projected Jack Pine Age-Class Distribution in 2017	4.54
Figure 4.9d	Projected Jack Pine Age-Class Distribution in 2057	4.55
Figure 4.10a	Current and Desired High Site Index (SI = 40+) BSL Age-Class Distribution (2007)	4.56
Figure 4.10b	Current and Desired Low Site Index (SI = 23-39) BSL Age-Class Distribution (2007)	4.57
Figure 4.10c	Desired Age-Class Structure for the High (SI = 40+) Site Index Portion of the BSL Cover Type	4.57
Figure 4.10d	Desired Age-Class Structure for the Low (SI = 23-39) Site Index Portion of the BSL Cover Type	4.58
Figure 4.10e	Projected BSL (SI = 40+) Age-Class Distribution in 2017	4.62
Figure 4.10f	Projected BSL (SI = 23-39) Age-Class Distribution in 2017	4.62
Figure 4.10g	Projected BSL (SI = 40+) Age-Class Distribution in 2057	4.63
Figure 4.10h	Projected BSL (SI = 23-39) Age-Class Distribution in 2057	4.63
Figure 4.11a	Current and Desired White Spruce (Natural) Age-Class Distribution (2007)	4.64
Figure 4.11b	Current and Desired White Spruce (Planted) Age-Class Distribution (2007)	4.65
Figure 4.11c	Desired Age-Class Structure for the Natural Portion of the White Spruce Cover Type	4.66
Figure 4.11d	Desired Age-Class Structure for the Planted Portion of the White Spruce Cover Type	4.66
Figure 4.11e	Projected White Spruce (Natural) Age-Class Distribution in 2017	4.72
Figure 4.11f	Projected White Spruce (Planted) Age-Class Distribution in 2017	4.72
Figure 4.11g	Projected White Spruce (Natural) Age-Class Distribution in 2057	4.73
Figure 4.11h	Projected White Spruce (Planted) Age-Class Distribution in 2057	4.73
Figure 4.12a	Current and Desired Age-Class Distribution of the Balsam Fir Cover Type (2007)	4.74
Figure 4.12b	Desired Age-Class Structure for the Balsam Fir Cover Type	4.75
Figure 4.12c	Projected Balsam Fir Age-Class Distribution in 2017	4.79
Figure 4.12d	Projected Balsam Fir Age-Class Distribution in 2057	4.79
Figure 4.13a	Current and Desired Tamarack Age-Class Distribution (2007)	4.80
Figure 4.13b	Desired Age-Class Structure for the Tamarack Cover Type	4.81
Figure 4.13c	Projected Tamarack Age-Class Distribution in 2017	4.84
Figure 4.13d	Projected Tamarack Age-Class Distribution in 2057	4.84
Figure 4.14a	Current Age-Class Distribution of the White Cedar Cover Type (2007)	4.85
Figure 4.15a	Current Age-Class Distribution of the Stagnant Spruce Cover Type (2007)	4.88

Maps

Map 1.1a	Chippewa Plains ECS Generalized Cover Types.....	1.2
Map 1.1b	Pine Moraines and Outwash Plains ECS Generalized Cover Types	1.3
Map 7.4.1a	DNR-Administered Lands by Generalized Cover Types – Chippewa Plains ECS Subsection	7.16
Map 7.4.1b	DNR-Administered Lands by Generalized Cover Types – Pine Moraines and Outwash Plains ECS Subsection	7.17
Map 7.4.2a	Old Growth, EILC, and ERF Stands Chippewa Plains	7.18
Map 7.4.2b	Old Growth, EILC, and ERF Stands Pine Moraines and Outwash Plains.....	7.19
Map 7.4.3a	Stands Identified for Treatment by Generalized Cover Type	

		Chippewa Plains (West)	7.20
Map	7.4.3b	Stands Identified for Treatment by Generalized Cover Type	
		Chippewa Plains (East)	7.21
Map	7.4.3c	Stands Identified for Treatment by Generalized Cover Type	
		Pine Moraines and Outwash Plains (West)	7.22
Map	7.4.3d	Stands Identified for Treatment by Generalized Cover Type	
		Pine Moraines and Outwash Plains (East)	7.23
Map	7.4.4a	Stands Identified for Treatment by Preliminary Prescriptions	
		Chippewa Plains (West)	7.24
Map	7.4.4b	Stands Identified for Treatment by Preliminary Prescriptions	
		Chippewa Plains (East)	7.25
Map	7.4.4c	Stands Identified for Treatment by Preliminary Prescriptions	
		Pine Moraines and Outwash Plains (West)	7.26
Map	7.4.4d	Stands Identified for Treatment by Preliminary Prescriptions	
		Pine Moraines and Outwash Plains (East)	7.27
Map	7.4.5a	Patches Greater than 101 Acres and Stand Prescription in Patch	
		Chippewa Plains	7.28
Map	7.4.5b	Patches Greater than 101 Acres and Stand Prescription in Patch	
		Pine Moraines and Outwash Plains.....	7.29
Map	7.11.1a	Stands Requiring New Access	
		Chippewa Plains	7.30
Map	7.11.1b	Stands Requiring New Access	
		Pine Moraines and Outwash Plains.....	7.31

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