

**Crown Five Year Operating Plan
Forest Management Districts 17 and 18
2008-2012**

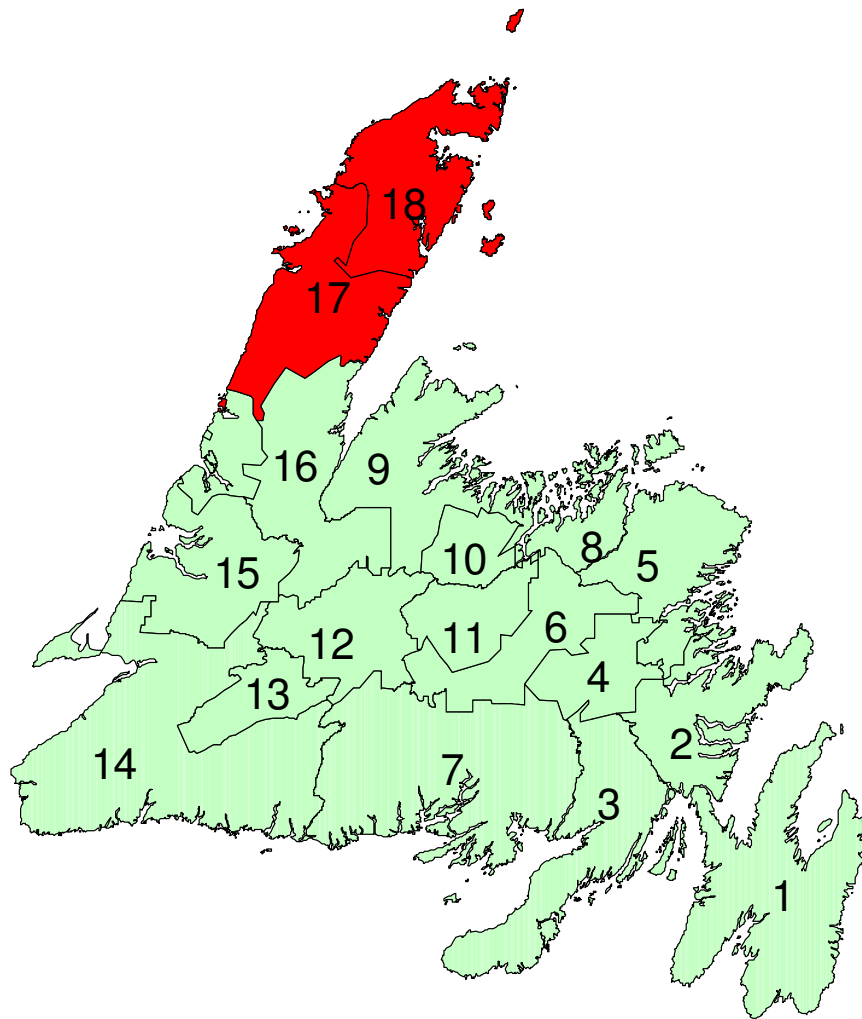


Table of Contents

List of Tables	vii
List of Figures	ix
List of Appendices	x
Introduction	1
Section 1 Description of the Land Base.....	3
1.1 General.....	3
1.1.1 Location	3
1.1.2 History	3
1.1.3 Ownership	3
1.2 Physical	6
1.2.1 Topography and Hydrology	6
1.2.2 Geology	7
1.2.3 Soils	8
1.2.4 Climate	9
1.3 Ecosystems	10
1.3.1 Forest Ecosystems	10
1.3.2 Ecoregions and Subregions	11
1.3.2.1 Northern Peninsula Forest Ecoregion.....	13
1.3.2.1.1 Eastern Long Range Subregion	14
1.3.2.1.2 Coastal Plain Subregion	14
1.3.2.1.3 Northern Coastal Subregion	14
1.3.2.1.4 Beaver Brook Limestone Subregion	14
1.3.2.2 Long Range Barrens Ecoregion	15
1.3.2.2.1 Northern Long Range Subregion	16
1.3.2.3 Strait of Bell Isle Ecoregion	16
1.4 Ecosystem Dynamics	17
1.4.1 Ecosystem Condition and Productivity	17
1.4.1.1 General Characteristics	17
1.4.1.2 Zone Specific Characteristics	18
1.4.1.3 Productivity	20
1.4.1.4 Resilience	21
1.4.1.5 Stability	22
1.4.1.6 Disturbance Regimes and Successional Patterns.....	23
1.4.1.6.1 Harvesting	23
1.4.1.6.2 Fire	24
1.4.1.6.3 Insect	25
1.4.2 Biodiversity	25
1.4.2.1 Species Diversity	26

1.4.2.2 Genetic Diversity	27
1.4.2.3 Landscape Diversity	27
1.4.2.3.1 Old Growth Forests	28
1.5 Forest Characterization	29
1.5.1 Land Classification	29
1.5.2 Age Class	31
1.5.3 Site Class	33
1.5.4 Species and Working Group	34
1.5.5 Forest Disturbances	37
Section 2 Past Activities	38
2.1 District 17	38
2.1.1 Overview	38
2.1.2 Harvesting	39
2.1.2.1 Commercial	39
2.1.2.2 Domestic	40
2.1.3 Silviculture	41
2.1.4 Road Construction	41
2.1.5 Natural Disturbance	42
2.1.5.1 Fire	42
2.1.5.2 Insect	42
2.2 District 18	42
2.2.1 Overview	42
2.2.2 Harvesting	43
2.2.2.1 Commercial	43
2.2.2.2 Domestic	43
2.2.3 Silviculture	45
2.2.4 Road Construction	45
2.2.5 Natural Disturbance	46
2.2.5.1 Fire	46
2.2.5.2 Insect	46
Section 3 Timber Supply Analysis	46
3.1 Introduction	46
3.2 Guiding Principles and Policy Direction	47
3.3 Factors Affecting Timber Supply	47
3.4 Timber Supply Analysis	48
3.4.1 Land Characterization.....	49
3.4.2 Land Availability	49
3.4.2.1. Non-Timber Related	50
3.4.2.1.1 No-Cut Buffer Zones	50
3.4.2.1.2 Pine Marten and Caribou Habitat	50
3.4.2.1.3 Wildlife Corridors	51
3.4.2.1.4 Protected Areas	51
3.4.2.1.5 Watersheds	51
3.4.2.2 Timber Related	51

3.4.2.2.1 Insect/Fire/Disease Losses	52
3.4.2.2.2 Logging Losses	52
3.4.2.2.3 Operational Constraints	52
3.4.3 Growth Forecasting	52
3.4.4 Management Strategies	53
3.4.4.1 Harvest Flow Constraints	54
3.4.4.2 Spatial Analysis	54
3.4.4.3 Planning Horizons	55
3.4.4.4 Operable Growing Stock Buffer	56
3.4.4.5 Old Forest Targets	56
3.4.4.6 Operability Limits	57
3.4.4.7 Silviculture	57
3.5 Inventory Adjustments	58
3.5.1 Fire	58
3.5.2 Insects	58
3.5.3 Timber Utilization	59
3.5.4 Stand Remnants	59
3.6 Results	59
3.6.1 District 17	59
3.6.1.1 Sensitivity Analysis	61
3.6.1.2 Forest Composition and Structure Change	62
3.6.2 District 18	63
3.6.2.1 Sensitivity Analysis	64
3.6.2.2 Forest Composition and Structure Change	65
Section 4 Values	66
4.1 Guiding Principles of Sustainability	66
4.2 Value Description	67
4.2.1 Biotic Values	69
4.2.1.1 Big Game	69
4.2.1.1.1 Moose	69
4.2.1.1.2 Caribou	70
4.2.1.1.2 Black Bear	71
4.2.1.2 Furbearers	72
4.2.1.3 Endangered Species	73
4.2.1.3.1 Pine Marten	73
4.2.1.3.2 Harlequin Duck	75
4.2.1.3.3 Rare Plants	76
4.2.1.3.4 Other Species	77
4.2.1.4 Water Resources	78
4.2.2 Human Values	79
4.2.2.1 Timber Resource	79
4.2.2.2 Agriculture	81
4.2.2.3 Mining	83
4.2.2.4 Historic Resources	84

4.2.2.5 The Greater Gros Morne Ecosystem	86
4.2.2.6 Parks and Protected Areas	88
4.2.2.7 Outfitting	89
4.2.2.8 Recreation	91
4.2.2.9 Tourism	93
Section 5 Public Consultation Process	94
5.1 Planning Objectives	94
5.2 Planning Framework	95
5.3 Planning Team Participation	96
Section 6 Management Objectives and Strategies	97
6.1 Harvesting	97
6.1.1 Commercial	97
6.1.2 Domestic	98
6.2 Silviculture	99
6.2.1 Forest Renewal	99
6.2.2 Forest Improvement	100
6.3 Access Roads	102
6.4 Forest Protection	103
6.4.1 Insects and Disease	103
6.4.2 Fire	104
6.4.3 Wind Throw	105
6.5 Information and Education	105
Section 7 Proposed Activities	106
7.1 District 17	106
7.1.1 Overview	106
7.1.2 Allocation of Timber Supply	107
7.1.2.1 Commercial	108
7.1.2.2 Domestic	110
7.1.2.3 Hardwoods	110
7.1.3 Silviculture	110
7.1.4 Primary Access Roads and Bridges	113
7.1.5 Activities in Protected Water Supply Areas	114
7.1.6 Environmental Protection	115
7.1.6.1 Fire	115
7.1.6.2 Insect and Disease	115
7.1.6.3 General Environment	115
7.1.7 Surveys	116
7.1.8 Information and Education	116
7.2 District 18	116
7.2.1 Overview	116
7.2.2 Allocation of Timber Supply	117
7.2.2.1 Commercial	119
7.2.2.2 Domestic	121
7.2.2.3 Hardwoods	123

7.2.3 Silviculture	123
7.2.4 Primary Access Roads and Bridges	125
7.2.5 Activities in Protected Water Supply Areas	126
7.2.6 Environmental Protection	127
7.2.6.1 Fire	127
7.2.6.2 Insect and Disease	127
7.2.6.3 General Environment	127
7.2.7 Surveys	128
7.2.8 Information and Education	128
 Section 8 Mitigations.....	 128
8.1 District 17.....	128
8.2 District 18	130
 Section 9 Plan Administration	 133
9.1 Monitoring	133
9.1.1 Operational Level	133
9.1.2 Planning Level	133
9.2 Amendments	134
 Section 10 Literature Cited	 136

List of Tables

Table 1 Percentage of Ecoregions and Subregions in Planning Zone 8	13
Table 2 Land Classification by district and ownership in hectares for Planning Zone 8 ...	30
Table 3 Summary of softwood harvest in District 17 by Crown for 2002 to 2007	40
Table 4 Summary of silviculture treatments on Crown land in District 17 from 2002 to 2007	41
Table 5 Summary of access roads built on Crown Land in District 7 from 2002 to 2007 .	42
Table 6 Summary of harvest in District 18 by Crown for 2002 to 2007	44
Table 7 Summary of silviculture treatments on Crown Land in District 18 from 2002 to 2007	45
Table 8 Summary of access roads built on Crown Land in District 18 from 2002 to 2007	46
Table9 Annual Allowable Cut results for Crown Land in District 17	60
Table10 Annual Allowable Cut results for Crown Land in District 18	64
Table11 Proposed harvest on Crown Land in District 17 from 2008-2012	108
Table12 Proposed hardwood harvest on Crown Land in District 17 from 2008-2012	108
Table 13 Summary of commercial harvest by operating area in District 17 for 2008-2012	109
Table 14 Summary of domestic harvest by operating area in District 17 for 2008-2012..	111
Table 15 Summary of primary access road construction in District 17 for 2008-2012....	114
Table 16 Proposed harvest on Crown Land in District 18 from 2008-2012.....	118
Table 17 Proposed hardwood harvest on Crown Land in District 18 from 2008-2012...	119
Table 18 Summary of commercial harvest by operating area in District 18 for 2008-2012.....	120

Table 19 Summary of domestic harvest by operating area in District 18 for 2008-2012... 121

Table 20 Summary of primary access road construction in District 18 for 2008-2012.... 124

List of Figures

Figure 1 Location of Planning Zone 8	4
Figure 2 Ownership map for Planning Zone 8	5
Figure 3 Ecoregions and Subregions in Planning Zone 8.....	12
Figure 4 Land class breakdown for all ownerships in District 17	32
Figure 5 Land class breakdown for all ownerships in District 18	32
Figure 6 Age class distribution for all ownerships in District 17	33
Figure 7 Age class distribution for all ownerships in District 18	34
Figure 8 Site class breakdown for all ownerships in District 17	35
Figure 9 Site class breakdown for all ownerships in District 18	35
Figure 10 Working group breakdown for all ownerships in District 17	36
Figure 11 Working group breakdown for all ownerships in District 18	37
Figure 12 Change in age class structure on Crown Land in District 17 for the 160 year simulation period.....	63
Figure 13 Change in age class structure on Crown Land in District 18 for the 160 year simulation period	65
Figure 14 Overview of proposed operating areas for all ownerships in District 17	Appendix 3
Figure 15 Overview of proposed operating areas for all ownerships in District 18	Appendix 4

List of Appendices

Appendix 1 Environmental Protection Guidelines for Ecologically Based Forest Resource Management

Appendix 2 List of invitees and planning team members for Districts 17 and 18

Appendix 3 Operating area maps and descriptions for District 17

Appendix 4 Operating area maps and descriptions for District 18