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

This chapter of the CP-PMOP SFRMP summarizes the results of the 10-Year Stand Exam List and New Access Needs List selection processes.

7.1 Managed Cover Type Treatment Summary

The CP-PMOP subsection landscape is approximately 4.6 million acres. State timberlands comprise approximately 9 percent (429,229 acres) of the land in the subsections.

Considering both even and uneven-aged managed cover types, of the 429,229 acres of state timberlands, 374,202 acres (87 percent) were considered management pool acres. Management pool acres are defined as timberland acres that are available for potential timber harvest after reserves (e.g., designated old-growth stands) are removed from the forest inventory.

Of the 374,202 management pool acres, 143,616 acres (38 percent) were identified as stand selection pool acres. For even-aged managed cover types the stand selection pool Acres are defined as acres from the management pool that met age criteria based on normal and maximum rotation ages and also met the stand selection criteria specific to each even-aged managed cover type (see Chapter 4 Cover Type Management Recommendations, Stand Selection Criteria). For uneven-aged managed cover types the stand selection pool Acres are defined as acres that met the stand selection criteria specific to each uneven-aged managed cover type (see Chapter 4 Cover Type Management Recommendations, Stand Selection Criteria and Appendix T, *Stand Exam List and New Access Needs List Instructions, Attachment D-3: Management Pool Selective and Thinning Harvest Acres).*

To assist Forestry Areas in selecting the 10-Year Stand Exam List from the stand selection pool acres, a *Stand Scoring System* was developed and used during stand selection (see Appendix K, *Stand Scoring System).* The scoring system assigned scores to stands as priorities that furthered the DFFCs, strategies and Stand Selection Criteria identified in the CP-PMOP Plan. Scoring factors included: cover type conversion opportunities; treatment model priorities; designated patch management; and priority open landscapes.

Of the stand selection pool acres, a total of 96,991 acres (68 percent) were identified for treatment during this 10-year planning period as shown on Table 7.7a. This 96,991 total acres differs from the total acres on Table 7.1a (94,894). This difference is because Table 7.7a includes several cover type designations (e.g., stagnant tamarack, agriculture, upland brush, marsh) that are not included on Table 7.1a. The database does not record actual timbered stands on these cover type designations. However, based on field staff knowledge of these areas, some of these stands were known to exhibit potential for treatment and therefore were included on the 10-Year Stand Exam List.

Table 7.1a Managed Cover Type Treatment Summary

Cover Type	Rotation[1] Class	Planned Rotation Age	Management Pool Acres (all ages)[2]	Stand Selection Pool Acres)[3]	CP-PMOP Planned Treatment Level[4]			Total Plan Stand Exam Acres
					Even	Intermediate Treatment*	Visit	
Ash/Lowland Hardwoods	Un-even-aged	No set rotation age	16,858	3,026	47	1,524	747	**2,318**
Aspen/Balm of Gilead	N	45/40	128,337	36,960	21,117	539	3,235	**31,965**
	ERF	80/75/60	54,932	18,247	5,538	553	983	
Birch	N	50	3,754	2,790	748	10	456	**3,911**
	ERF	65/50	5,711	4,918	1,761	155	781	
Northern Hardwoods	Un-even-aged	No set rotation age	16,163	8,213	296	5,041	831	**6,168**
Jack Pine	N	40	8,307	4,722	1,881	50	272	**4,495**
	ERF	65	6,071	3,554	1,653	292	347	
White Spruce	N	60/50	3,298	452	118	1,430	113	**3,971**
	ERF	90/60	3,782	1,202	258	1,902	150	
Balsam Fir	N	45	3,414	2,217	721	139	312	**2,203**
	ERF	60	4,278	2,855	432	174	425	
Tamarack	N	60/70	26,095	14,692	4,747	37	914	**7,741**
	ERF	105	15,559	11,449	1,771	31	241	
Black Spruce Lowland – Low SI	N	95	9,842	3,925	759	0	360	**2,542**
	ERF	130	11,617	5,150	1,292	0	131	
Black Spruce Lowland - High SI	N	65	1,768	1,018	142	31	158	**542**
	ERF	95	2,236	2,128	166	0	45	
Red Pine	N	100	12,535	1,433	366	7,016	346	**19,531**
	ERF	170	21,646	48	145	11,127	531	
Oak – High SI	N	80	3,650	2,401	1,022	165	108	**1,760**
	ERF	120	2,828	1,875	86	379	0	
Oak - Low SI	N	50	3,541	3,303	1,483	165	343	**4,780**
	ERF	80	5,952	5,553	1,932	121	736	
White Pine	ERF	No set rotation age	2,027	1,485	104	731	121	**956**
Total Acres			**374,204**	**143,616**	**48,636**	**33,150**	**13,108**	**94,894**

* Includes prescriptions such as thinning, selective harvest, uneven-aged management.

[1] Rotation Class: N -managed under normal rotation; ERF –managed as extended rotation forest

[2] Management pool acres are timberland acres that are available for potential timber harvest after reserves (e.g., designated old-growth stands) are subtracted at the beginning of this planning process.

[3] The Management Pool Acres that met the stand selection criteria for treatment and age criteria based on normal and maximum rotation ages. Also refer to Appendix T (*Stand Exam List and New Access Needs List Instructions, Attachment D-3*) for additional acres that were identified as an uneven-aged management pool.

[4] 10-year planned treatment level (acres) for this planning period (includes site visit acres).

7.2 Stand Selection Results

Stands were selected for field examinations and possible treatment based on the: general direction statements, DFFCs and strategies identified in Chapter 3; Cover Type Management Recommendations and Stand Selection Criteria identified in Chapter 4. Appendix T (*Stand Exam List and New Access Needs List Instructions and Attachments*) outlines the stand selection process implemented by each Forestry Area in the CP-PMOP.

Appendix U, *10-Year Stand Examination List and New Access Needs List* identifies the list of stands by subsection, location, cover type, treatment acres, and preliminary prescription selected as a result of the CP-PMOP SFRMP stand selection process.

7.3 Stand Examinations (Field Visits)

Over the 10-year planning period it is anticipated that every stand on the 10-Year Stand Examination List will be field visited to determine the actual management to be implemented. A total of 5,985 stands are identified on the 10-Year Stand Exam List. As stands were selected and placed on the 10-Year Stand Exam List, preliminary prescriptions were assigned. Final management objectives and final prescriptions will be determined as each stand is field visited.

At the time of field visit a *Silvicultural Prescription Worksheet* (Appendix E) will be prepared. As the *Worksheet* is prepared the range of decisions about each stand's management include:

1. Appraise the stand for a timber sale.
2. Defer treatment of the stand to a future year.
3. Update the stand's forest inventory data to reflect current conditions without prescribing a management action at this time.
4. Manage for the understory regeneration without harvesting at this time.
5. Prescribe silviculture treatment (e.g., site preparation and tree planting).
6. Prescribe timber stand improvement (tsi) to enhance stand vigor, diversity, or productivity.

7.4 Maps of 10-Year Stand Exam List and New Access Needs List

The following maps identify the locations of stands placed on the 10-Year Stand Exam List. The maps are included at the end of this chapter.

The following maps identify all lands administered by DNR and shown by generalized cover type and provided here for background:

Map 7.4.1a DNR-Administered Lands by Generalized Cover Types
Chippewa Plains ECS Subsection

Map 7.4.1b DNR-Administered Lands by Generalized Cover Types
Pine Moraines and Outwash Plains ECS Subsection

The following maps identify designated Old Growth, EILC and stands designated as ERF and is provided here for background:

Map 7.4.2a Old Growth, EILC, and ERF Stands
Chippewa Plains

Map 7.4.2b Old Growth, EILC, and ERF Stands
Pine Moraines and Outwash Plains

The following maps display the locations of stands selected for field examinations and possible treatment by generalized cover type:

Map 7.4.3a Stands Identified for Treatment by Generalized Cover Type
Chippewa Plains (West)

Map 7.4.3b Stands Identified for Treatment by Generalized Cover Type
Chippewa Plains (East)

Map 7.4.3c Stands Identified for Treatment by Generalized Cover Type
Pine Moraines and Outwash Plains (West)

Map 7.4.3d Stands Identified for Treatment by Generalized Cover Type
Pine Moraines and Outwash Plains (East)

The following maps display the locations of stands selected for field examinations and possible treatment by preliminary prescription:

Map 7.4.4a Stands Identified for Treatment by Preliminary Prescriptions Chippewa Plains (West)
Map 7.4.4b Stands Identified for Treatment by Preliminary Prescriptions Chippewa Plains (East)
Map 7.4.4c Stands Identified for Treatment by Preliminary Prescriptions Pine Moraines and Outwash Plains (West)
Map 7.4.4d Stands Identified for Treatment by Preliminary Prescriptions Pine Moraines and Outwash Plains (East)

The following maps display the locations of designated patches greater than 101 acres within the subsections and the stands selected for treatment by location and preliminary prescription. Stands which furthered patch management objectives were scored and received priority consideration during the stand selection process:

Map 7.4.5a Patches Greater Than 101 Acres and Stand Prescription in Patch Chippewa Plains
Map 7.4.5b Patches Greater Than 101 Acres and Stand Prescription in Patch Pine Moraines and Outwash Plains

The following maps identify all stands selected that require new access construction as either a temporary access or permanent resource management route:

Map 7.11.1a Stands Requiring New Access Chippewa Plains
Map 7.11.1b Stands Requiring New Access Pine Moraines and Outwash Plains

Note: The maps have been reduced and printed in grayscale in this document. It is recommended that these maps be viewed at a larger scale and in color. The colored maps and this report can be viewed at http://www.dnr.state.mn.us/forestry/subsection/cp_pmop/index.html, and are available in CD format.

7.5 Stand Evaluations

As the stand field visit examinations are completed, all information from the CP-PMOP Plan (e.g., DFFCs, strategies, cover type management recommendations, and all department policy, guidelines and directives, and FIM dataset) will be considered in evaluating the stands and making final prescriptions. The field process will include completion of the *Silvicultural Prescription Worksheet*. For many stands, the SFRMP FIM database includes: preliminary management objectives; comments concerning stand management; identification of special management areas; and, requests for a joint visit among DNR divisions (See Appendix I *Standard Codes in SFRMP*).

During the development of the CP-PMOP 10-Year Stand Exam List, some stands have been identified for joint site visits by staff from the Divisions of Fish and Wildlife or Ecological Resources. Joint site visits allow DNR field staff to achieve consensus concerning stand management that considers the characteristics unique to individual stands and issues of concern in the field based on the goals and objectives for the stand and the surrounding landscape as recommended in the plan. Stands identified for joint site visits are indicated as such on Annual Stand Exam Lists and appraiser stand reports. Results of joint site visits are documented and filed in the timber sale permit file.

7.6 Public Review of Stand Examination Lists

The entire 10-Year Stand Exam List is available for public review at: http//www.dnr.state.mn.us/forestry/subsection/cp_pmop/index.html. Stands will be available for public review again as they are included in Annual Stand Exam Lists prepared by each Forestry Area (i.e., by stand examination year). If stands are added to the Annual Stand Exam list they will receive public review as part of an Annual Plan Addition. For details on these public review processes, see http://www.dnr.state.mn.us/forestry/harvesting/plans.html.

7.7 Treatment Acres Summary

Table 7.7a summarizes the 10-Year Stand Exam acres by cover type and subsection. The total acres on Table 7.7a (96,991) differs from total acres on Table 7.1a (94,894) because several cover type

designations (e.g. stagnant tamarack, agriculture, upland brush, marsh) are not included in the management pool acres due to their non-forested cover type designation. However, based on field staff knowledge of these areas, some of these stands were known to exhibit potential for treatment and therefore were included on the 10-Year Stand Exam List.

Table 7.7a 10-Year Summary: Cover Type Stand Examination Acres by Subsection

Cover type	Chippewa Plains	Pine Moraines & Outwash Plains	Total
Ash	1,198	608	1,806
Lowland Hardwoods	355	69	425
Aspen	8,308	23,011	31,319
Birch	1,429	2,480	3,909
Bam	577	69	646
Northern Hardwoods	3,342	2,845	6,186
Oak	307	6,232	6,539
White Pine	301	684	985
Norway Pine	5,505	15,665	21,170
Jack Pine	1,148	3,346	4,494
White Spruce	1,305	2,664	3,969
Balsam Fir	1,143	1,061	2,204
Lowland Black Spruce	3,038	45	3,083
Tamarack	6,474	1,266	7,740
White Cedar	162	0	162
Stagnant Tamarack*	8	0	8
Stagnant Cedar*	14	0	14
Offsite Oak*	16	124	140
Cut Over Area*	500	452	952
Lowland Grass*	28	11	40
Upland Grass	28	277	304
Lowland Brush*	639	18	657
Upland Brush*	13	82	96
Agriculture*	0	21	21
Industrial Development*	12	8	20
Recreation Development*	0	6	6
Roads*	12	0	12
Marsh*	71	0	71
Total	35,931	61,060	96,991

***** During selection of the 10-Year Stand Exam List, stands were selected and prescriptions recorded under these cover type designations based on field knowledge, experience and air photo interpretation. Final prescriptions will be determined following site visits.

7.8 Preliminary Prescriptions Summary

Based on the stand selection criteria developed in the CP-PMOP Plan, preliminary prescriptions were assigned to stands selected for treatment as the 10-Year Stand Exam Lists were developed. Table 7.8a provides a summary of the preliminary prescriptions by subsection.

Table 7.8a 10-Year Summary: Preliminary Prescription Acres by Subsection

General Prescription	Detailed Prescription[1]	Chippewa Plains	Pine Moraines & Outwash Plains	Total
Even-aged	Clearcut with Reserves	11,245	31,348	42,593
	Clearcut with Reserves - sprouting	0	62	62
	Salvage - Clearcut	0	11	11
	Salvage-w/Rsrv-Clearcut-I&D	0	42	42
Seed Tree	Seed Tree w/Rsrv	179	0	179
	Seed tree	4,437	224	4,661
Shelterwood	Shelterwood	234	866	1,100
Uneven-aged	Uneven-aged Harvest	3,407	2,296	5,703
	Group Selection	0	32	32
	Salvage Cut-Selective Harvest	86	51	137
	Sanitation Cut-Selective Harvest	0	60	60
	Intermediate Harvest	249	0	249
Thinning	Commercial Thinning	6,375	18,996	25,371
	Selective Thinning-Commercial	3	279	283
Manage for Understory	Manage for Understory	527	658	1,185
On-site Visit	On-site Visit	4,951	3,546	8,497
Re-inventory	Re-inventory	4,238	2,589	6,827
	Total	**35,931**	**61,060**	**96,991**

[1] Refer to Appendix I (*Standard Codes in SFRMP*) for prescription definitions

Table 7.8b provides a more detailed summary of the 10-Year Stand Exam List by cover type, prescription, and subsection. Appendix U, *10-Year Stand Examination List and New Access Needs List*, includes the preliminary prescription for each of the stands selected for treatment during the 10-year period.

Table 7.8b 10-Year Summary: Preliminary Prescription Acres by Cover Type and Subsection

Covertype	Prescription	Chippewa Plains	Pine Moraines and Outwash Plains	Total
Ash	Shelterwood	9	0	9
	Uneven-aged Harvest	576	173	749
	Commercial Thinning	0	149	149
	Selective Thinning-Commercial	0	15	15
	Manage for Understory	26	120	146
	On-site Visit	461	135	595
	Re-inventory	127	17	144
	Total	**1,198**	**608**	**1,806**
Lowland Hardwoods				
	Clearcut-with Reserves	0	12	12
	Seed Tree	0	8	8
	Uneven-aged Harvest	163	35	198
	Manage for Understory	6	0	6
	On-site Visit	109	0	109
	Re-inventory	77	14	91
	Total	**355**	**69**	**425**
Aspen	Clearcut-with Reserves	6,103	20,078	26,181
	Clearcut-w/Rsrv-Sprouting	0	62	62
	Seed Tree	12	0	12
	Shelterwood	5	0	5
	Salvage-w/Rsvr-Clearcut-I&D	0	6	6
	Uneven-aged Harvest	41	71	113
	Intermediate Harvest	133	0	133
	Commercial Thinning	225	108	333
	Selective Thinning-Commercial	0	43	43
	Manage for Understory	44	412	456
	On-site Visit	595	1,005	1,601
	Re-inventory	1,149	1,226	2,375
	Total	**8,308**	**23,011**	**31,319**
Birch	Clearcut-with Reserves	385	2,106	2,491
	Shelterwood	18	0	18
	Uneven-aged Harvest	31	102	134
	Commercial Thinning	3	0	3
	Manage for Understory	28	0	28
	On-site Visit	436	147	583
	Re-inventory	528	125	652
	Total	**1,429**	**2,480**	**3,909**
Balm of Gilead	Clearcut-with Reserves	344	45	389
	Manage for Understory	5	9	15
	On-site Visit	75	0	75
	Re-inventory	153	15	168
	Total	**577**	**69**	**646**
Northern Hardwoods	Clearcut-with Reserves	0	157	157
	Shelterwood	15	104	119
	Uneven-aged Harvest	2,328	1,634	3,962
	Group Selection	0	32	32
	Commercial Thinning	262	709	970
	Selective Thinning-Commercial	0	13	13
	Manage for Understory	102	0	102
	On-site Visit	477	66	544
	Re-inventory	158	130	288
	Total	**3,342**	**2,845**	**6,186**

Covertype	Prescription	Chippewa Plains	Pine Moraines and Outwash Plains	Total
Oak	Clearcut-with Reserves	25	3,821	3,846
	Shelterwood	18	659	677
	Uneven-aged Harvest	123	32	155
	Commercial Thinning	10	618	628
	Selective Thinning-Commercial	0	30	30
	Manage for Understory	17	0	17
	On-site Visit	48	1,019	1,067
	Re-inventory	67	53	120
	Total	**307**	**6,232**	**6,539**
White Pine	Clearcut-with Reserves	0	28	28
	Shelterwood	33	43	76
	Uneven-aged Harvest	0	101	101
	Commercial Thinning	152	441	593
	Salvage Cut - Selective Harvest	70	0	70
	Manage for Understory	13	0	13
	On-site Visit	14	60	74
	Re-inventory	19	12	31
	Total	**301**	**684**	**985**
Norway Pine	Clearcut-with Reserves	165	243	407
	Shelterwood	61	40	101
	Uneven-aged Harvest	0	10	10
	Intermediate Harvest	116	0	116
	Commercial Thinning	4,567	14,600	19,167
	Selective Thinning-Commercial	3	179	182
	Salvage Cut - Selective Harvest	0	51	51
	Manage for Understory	46	0	46
	On-site Visit	304	395	699
	Re-inventory	244	148	392
	Total	**5,505**	**15,665**	**21,170**
Jack Pine	Clearcut-with Reserves	527	2,892	3,419
	Seed Tree	20	0	20
	Shelterwood	76	0	76
	Slavage-Clearcut	0	11	11
	Salvage-w/Rsvr-Clearcut-I&D	0	8	8
	Uneven-aged Harvest	4	82	86
	Commercial Thinning	139	15	154
	Sanitation Cut - Selective Harvest	0	60	60
	Manage for Understory	12	30	42
	On-site Visit	184	134	319
	Re-inventory	186	115	301
	Total	**1,148**	**3,346**	**4,494**

Covertype	Prescription	Chippewa Plains	Pine Moraines and Outwash Plains	Total
White Spruce	Clearcut-with Reserves	166	136	302
	Seed Tree	0	74	74
	Uneven-aged Harvest	0	25	25
	Commercial Thinning	963	2,334	3,297
	Manage for Understory	9	0	9
	On-site Visit	142	84	226
	Re-inventory	25	12	37
	Total	**1,305**	**2,664**	**3,969**
Balsam Fir	Clearcut-with Reserves	394	727	1,120
	Seed Tree	5	0	5
	Salvage-w/Rsvr-Clearcut-I&D	0	28	28
	Uneven-aged Harvest	122	32	155
	Commercial Thinning	0	2	2
	Manage for Understory	89	67	156
	On-site Visit	256	149	405
	Re-inventory	277	56	333
	Total	**1,143**	**1,061**	**2,204**
Lowland Black Spruce	Clearcut-with Reserves	2,145	0	2,145
	Seed Tree	144	11	155
	Salvage Cut - Selective Harvest	16	0	16
	Manage for Understory	74	0	74
	On-site Visit	491	4	495
	Re-inventory	167	31	198
	Total	**3,038**	**45**	**3,083**
Tamarack	Clearcut-with Reserves	953	998	1,951
	Seed Tree	4,255	132	4,387
	Seed Tree-with Reserves	179	0	179
	Commercial Thinning	32	0	32
	Manage for Understory	30	6	36
	On-site Visit	638	60	697
	Re-inventory	388	70	457
	Total	**6,474**	**1,266**	**7,740**
White Cedar	Manage for Understory	12	0	12
	On-site Visit	92	0	92
	Re-inventory	58	0	58
	Total	**162**	**0**	**162**
Stagnant Tamarack*	Re-inventory	8	0	8
	Total	**8**	**0**	**8**
Stagnant Cedar*	On-site Visit	14	0	14
	Total	**14**	**0**	**14**
Offsite Oak*	Clearcut-with Reserves	0	91	91
	Shelterwood	0	20	20
	Manage for Understory	0	13	13
	On-site Visit	16	0	16
	Total	**16**	**124**	**140**

Covertype	Prescription	Chippewa Plains	Pine Moraines and Outwash Plains	Total
Cutover Area*	On-site Visit	110	31	141
	Re-inventory	391	421	812
	Total	**500**	**452**	**952**
Lowland Grass*	Uneven-aged Harvest	18	0	18
	On-site Visit	6	0	6
	Re-inventory	4	11	16
	Total	**28**	**11**	**40**
Upland Grass*	Clearcut-with Reserves	0	4	4
	On-site Visit	22	203	225
	Re-inventory	6	70	76
	Total	**28**	**277**	**304**
Lowland Brush*	Clearcut-with Reserves	39	0	39
	Commercial Thinning	22	18	40
	Manage for Understory	15	0	15
	On-site Visit	438	0	438
	Re-inventory	125	0	125
	Total	**639**	**18**	**657**
Upland Brush*	On-site Visit	13	33	46
	Re-inventory	0	50	50
	Total	**13**	**82**	**96**
Agriculture *	On-site Visit	0	21	21
	Total	**0**	**21**	**21**
Industrial Dev*	On-site Visit	12	0	12
	Re-inventory	0	8	8
	Total	**12**	**8**	**20**
Recreation Dev*	Re-inventory	0	6	6
	Total	**0**	**6**	**6**
Roads*	Re-inventory	12	0	12
	Total	**12**	**0**	**12**
Marsh*	Re-inventory	71	0	71
	Total	**71**	**0**	**71**
	Total	**35,931**	**61,060**	**96,991**

***** During selection of the 10-Year Stand Exam List, stands were selected and prescriptions recorded under these cover type designations based on field knowledge, experience and air photo interpretation. Final prescriptions will be determined following site visits.

7.9 Stand Age Summary

Tables 7.9a and 7.9b show the average stand age by cover type at the time of stand selection (2007) for stands selected for treatment during the 10-year plan period.

Table 7.9a 10-Year Summary: Average Age of Stands Selected for Treatment for Cover Types Managed Primarily by Even-Aged Harvest Methods

Cover Type	Rotation Age Type[1]	SFRMP Rotation Ages[1]		Chippewa Plains	Pine Moraines & Outwash Plains	Target (DFFC) Ave. Treatment Age (Both Subsections)	Average for Both Subsections
		CP	PMOP				
Ash	N/A	N/A	N/A	101		N/A	101
Lowland Hardwoods	N/A	N/A	N/A		71	N/A	71
Aspen	Normal	45	40	59	65	42	63
	ERF	80	75	65	71	73	70
Birch	Normal	50	50	79	76	50	77
	ERF	65	60	71	76	62	75
Bam	Normal	40	40	72		42	72
	ERF	60	60	71	80	73	74
Northern Hardwoods	N/A	N/A	N/A	62	85	N/A	81
Oak	Normal	80/50[2]	80/50[2]	101	80	80/50	80
	ERF	120/80[2]	120/80[2]	86	83	113/70	83
White Pine	N/A	N/A	N/A	124	40	N/A	61
Norway Pine	Normal	100	100	114	89	100	105
	ERF	170	170	106	97	154	99
Jack Pine	Normal	40	40	63	60	40	61
	ERF	65	65	68	66	60	66
White Spruce	Normal	60	50	65	68	60/50[3]	66
	ERF	90	60	63	59	80/60[3]	61
Balsam Fir	Normal	45	45	68	68	45	68
	ERF	60	60	75	72	57	73
Lowland Black Spruce	Normal	65/95[2]	65/95[2]	113		95/65[4]	113
	ERF	95/130[2]	95/130[2]	123	122	126/87[4]	123
Tamarack	Normal	60	70	114	112	61	114
	ERF	105	105	113	127	95	117
Stagnant Cedar	N/A	N/A	N/A		58	N/A	58

[1]Rotation ages as determined by Division of Forestry. Rotation ages were only determined for cover types to be managed as even-aged.
[2]Rotation ages are different based on site index for these species. See Table 3.1e , Chapter 3.
[3]First target average treatment age is for natural stands. Second average is for plantations.
[4]Target average treatment age is split between two site index ranges. See Table 3.1e, Chapter 3.

Table 7.9b 10-Year Summary: Average Age of Stands Selected for Treatment for Cover Types Managed Primarily by Selective and Thinning Harvest Methods

Cover Type	Rotation Age Type[1]	SFRMP Rotation Ages[1]		Chippewa Plains	Pine Moraines & Outwash Plains	Average for Both Subsections
Ash	N/A	**CP**	**PMOP**	96	89	94
Lowland Hardwoods	N/A	N/A	N/A	96	87	96
Aspen	Normal	45	40	52	65	60
	ERF	80	75	61	67	64
Birch	Normal	50	50	77	71	76
	ERF	65	60	76	75	76
Bam	Normal	40	40	76	56	75
	ERF	60	60	76	71	74
Northern Hardwoods	N/A	N/A	N/A	81	81	81
Oak	Normal	80/50[2]	80/50[2]	84	79	81
	ERF	120/80[2]	120/80[2]	88	90	89
White Pine	ERF	N/A	N/A	95	63	70
Norway Pine	Normal	100	100	52	39	43
	ERF	170	170	58	45	49
Jack Pine	Normal	40	40	60	60	60
	ERF	65	65	58	63	60
White Spruce	Normal	60	50	31	28	29
	ERF	90	60	42	34	36
Balsam Fir	Normal	45	45	71	79	73
	ERF	60	60	72	71	72
Lowland Black Spruce	Normal	65/95[2]	65/95[2]	97	49	93
	ERF	95/130[2]	95/130[2]	104		104
Tamarack	Normal	60	70	113	92	111
	ERF	105	105	115	119	116
White Cedar	ERF	N/A	N/A	100		100
Stagnant Tamarack	N/A	N/A	N/A	80		80
Stagnant Cedar	N/A	N/A	N/A	140		140
Offsite Oak	Normal	N/A	N/A	96	110	103
	ERF	N/A	N/A	75		75

[1]Rotation ages as determined by Division of Forestry Rotation ages were only determined for cover types to be managed as even-aged.
[2]Rotation ages are different based on site index for these species. See Table 3.1e, Chapter 3.

7.10 Stand Selection Summary by Subsection, Forestry Area, and Cover type

Table 7.10a summarizes by subsection the planned stand examination acres by Forestry Area.

Table 7.10a CP- PMOP: 10-Year Planned Stand Examination Acres by Forestry Area

Covertype	Bemidji	Blackduck	Brainerd	Park Rapids	Detroit Lakes	Deer River	Little Falls	Total
Ash	265	260	273	276	42	689	0	1,806
Lowland Hardwoods	121	121	37	12	8	125	0	425
Aspen	5,145	2,932	7,764	12,520	1,045	1,611	301	31,319
Birch	712	434	1,970	258	44	491	0	3,909
Balm of Gilead	154	146	54	15	0	277	0	646
Northern Hardwoods	2,022	1,317	1,122	739	587	357	42	6,186
Oak	532	30	4,428	998	255	32	265	6,539
White Pine	148	99	422	117	94	60	47	985
Norway Pine	3,675	824	5,284	9,799	254	1,336	0	21,170
Jack Pine	1,107	52	486	2,840	0	9	0	4,494
Scotch Pine	0	0	7	7	0	0	0	14
White Spruce	1,014	251	768	1,501	165	271	0	3,969
Balsam Fir	632	342	323	605	33	269	0	2,204
Lowland Black Spruce	543	1,188	31	0	0	1,322	0	3,083
Tamarack	1,876	1,082	142	792	98	3,594	157	7,740
White Cedar	81	58	0	0	0	23	0	162
Stagnant Tamarack*	8	0	0	0	0	0	0	8
Stagnant Cedar*	0	0	0	0	0	14	0	14
Offsite Oak*	11	0	0	104	0	5	20	140
Cutover Area*	544	0	43	338	6	21	0	952
Lowland Grass*	28	0	0	11	0	0	0	40
Upland Grass*	28	0	0	273	4	0	0	304
Lowland Brush*	106	197	0	18	0	336	0	657
Upland Brush*	13	0	0	82	0	0	0	96
Agriculture*	0	0	0	18	4	0	0	21
Industrial Dev*	0	0	0	8	0	12	0	20
Recreation Dev*	0	0	6	0	0	0	0	6
Roads*	0	0	0	0	0	12	0	12
Marsh*	71	0	0	0	0	0	0	71
Total	**18,837**	**9,333**	**23,157**	**31,330**	**2,639**	**10,864**	**831**	**96,991**

* During selection of the 10-Year Stand Exam List, stands were selected and prescriptions recorded under these cover-type designations based on field knowledge, experience and air photo interpretation. Final prescriptions will be determined following site visits.

7.11 New Access Needs

7.11A Purpose

The primary purpose of identifying new access needs in SFRMP planning is to provide an estimate of general location, miles, and type of new access needed to implement the 10-year plan. The preliminary access needs information also:

- provides a general assessment of new state forest road construction needs for budget development;
- identifies access that will require a USFS (or other public or private) road use permit or special use permit; and

- addresses access, habitat fragmentation, and road density concerns via post-sale access management intentions.

7.11B Scope

The scope of identifying new access needs in the CP-PMOP Plan is limited to:

- estimating the miles of new state forest road and new temporary access needed to access stands identified for treatment in the 10-Year Stand Exam List; and,
- identifying (tagging) stands for which new access is needed.

Developing a comprehensive access plan for all land ownerships within the subsections is beyond the scope of CP-PMOP SFRMP planning. Establishing a guideline for maximum road/trail density in these subsections is also beyond the scope of this plan. The DNR cooperates and coordinates with other landowners on road and trail use and development. This cooperation and coordination will be used to minimize new road/access development, forest fragmentation, and disturbance to wildlife.

Map 7.11.1a and Map 7.11.1b displays those stands identified for treatment during the plan period (FY2009-2018) that require some type of new access construction. See Appendix T (*10-Year Stand Exam List and New Access Needs List Instructions and Attachments)* for definitions and descriptions of types of access.

As part of the *Interdisciplinary Forest Management Coordination Framework,* staff from the Management Section of Wildlife, Forestry and Ecological Resources have an opportunity to review the New Access Needs Lists and advise on the type of access needed and post-use disposition. In addition, as part of annual coordination meetings, prior to completion of the Forestry Area Annual Stand Exam Lists, consultation with the appropriate staff on the location of new access routes will occur where endangered, threatened, or special concern species, rare native plant communities, or other significant non-timber forest resources may be affected.

7.11C DNR Road Classifications

The following DNR forest road classifications were used in identifying new access needs:

System Roads
These roads are the major roads in the forest that provide forest management and recreational access. These roads are open to all motorized vehicles but can be closed temporarily to address seasonal road or fire conditions.

Minimum Maintenance Roads
These roads are used for forest management access on an intermittent, as-needed basis. Recreational users may use them, but the roads are not promoted or maintained for recreation. The roads are open to all motorized vehicles but can be temporarily closed to address road deterioration or fire conditions.

Resource Management Access Routes
These routes are used only during management activity. They are not immediately needed after management activity ends but the corridor is preserved for future management activity. Specific closure methods (e.g., gate, berm, rocks, or felled timber) are determined at the time the route is established. These routes are closed to all motorized recreation use (for hunting, trapping, etc. exceptions, see Minnesota Statutes 84.926).

Temporary Access Routes
If the access route does not fit into one of the first three options, it must be abandoned and the site reclaimed so evidence of a travel route is minimized. Temporary access routes are used only during management activity. They are closed to all motorized recreation use (for hunting, trapping, etc. exceptions, see Minnesota Statutes 84.926).

7.11D Interdisciplinary Review of Access Planning

New access needs were identified by field staff (with interdisciplinary input and/or review) after stands were identified for inclusion on the 10-Year Stand Exam List. Details on the directions provided to field staff for identifying new access needs are included in Appendix T, *Stand Exam List and New Access Needs List Instructions and Attachments.*

The new access needs maps included in this chapter show the stand locations where new access routes are needed. The SFRMP process does not identify, map, or digitize detailed routes for the identified new access needs. Actual route layout will occur on the ground at the time of project implementation.

Note: The maps have been reduced and printed in grayscale in this document. It is recommended that these maps be viewed at a larger scale and in color. The colored maps and this report can be viewed at http://www.dnr.state.mn.us/forestry/subsection/cp_pmop/index.html, and are available in CD format.

7.11E New Access Needs Results

Of the 5,985 total stands on the 10-Year Stand Exam List, 360 stands, or 6 percent required some type of new access designation, permit or construction. The New Access Needs List process identified a need for 139.2 miles of new access in the CP-PMOP subsections. These access routes have been classified as 18.4 miles of Resource Management Access Routes and 120.8 miles of Temporary Access Routes. The road classification, mileage, and closure method will be finalized when field staff completes the actual on-the-ground road layout. Interdisciplinary review will be followed if significant changes or alterations are made following the stand site visits.

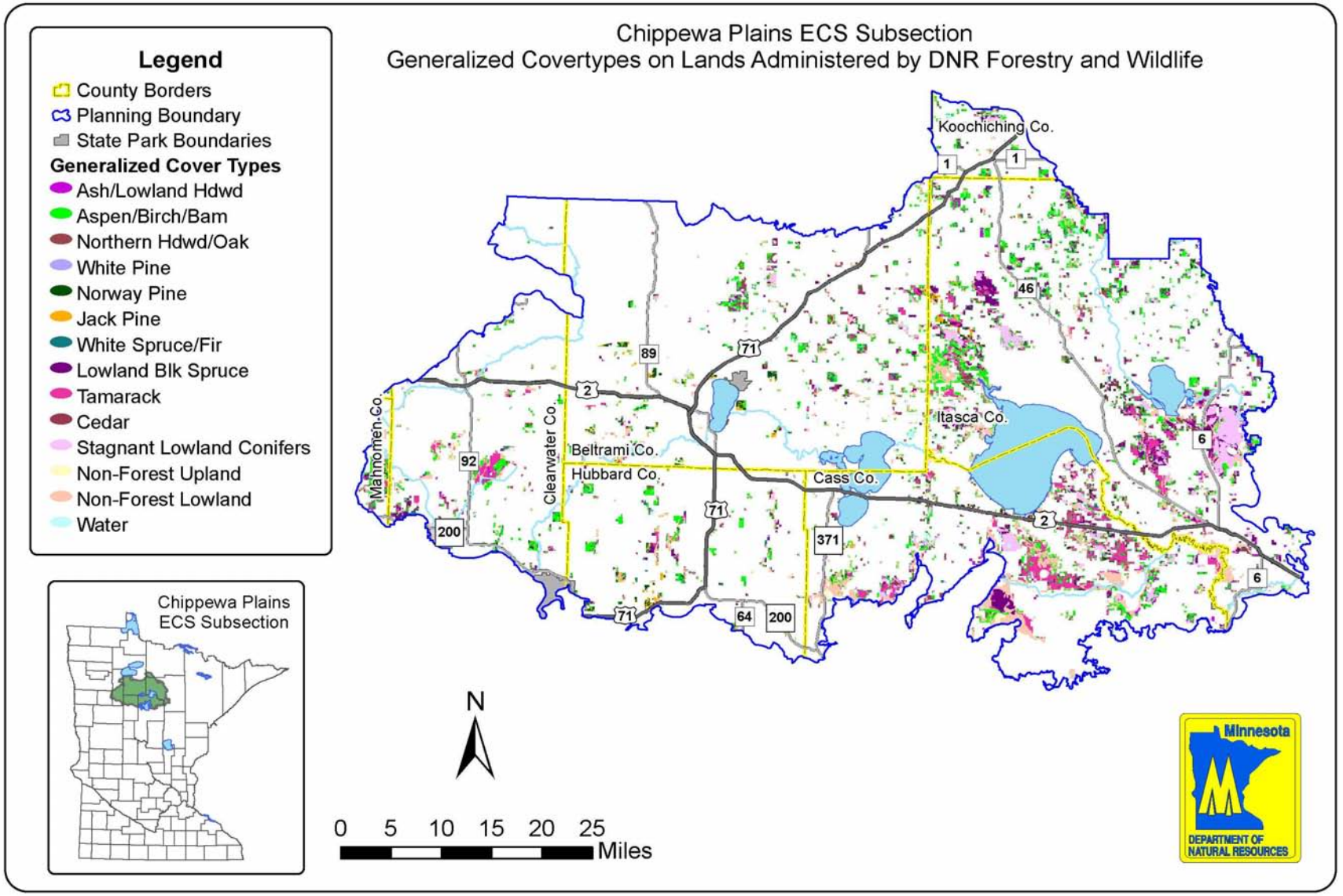
Table 7.11a summarizes the number of miles by new access route type needed to access the stands in the 10-year Stand Exam List for the CP-PMOP subsections.

Map 7.11.1a and Map 7.11b, *Stands Requiring New Access* construction, identifies those stands from the 10-Year Stand Exam List that required new construction as either a Temporary Access Route or a Resource Management Access Route.

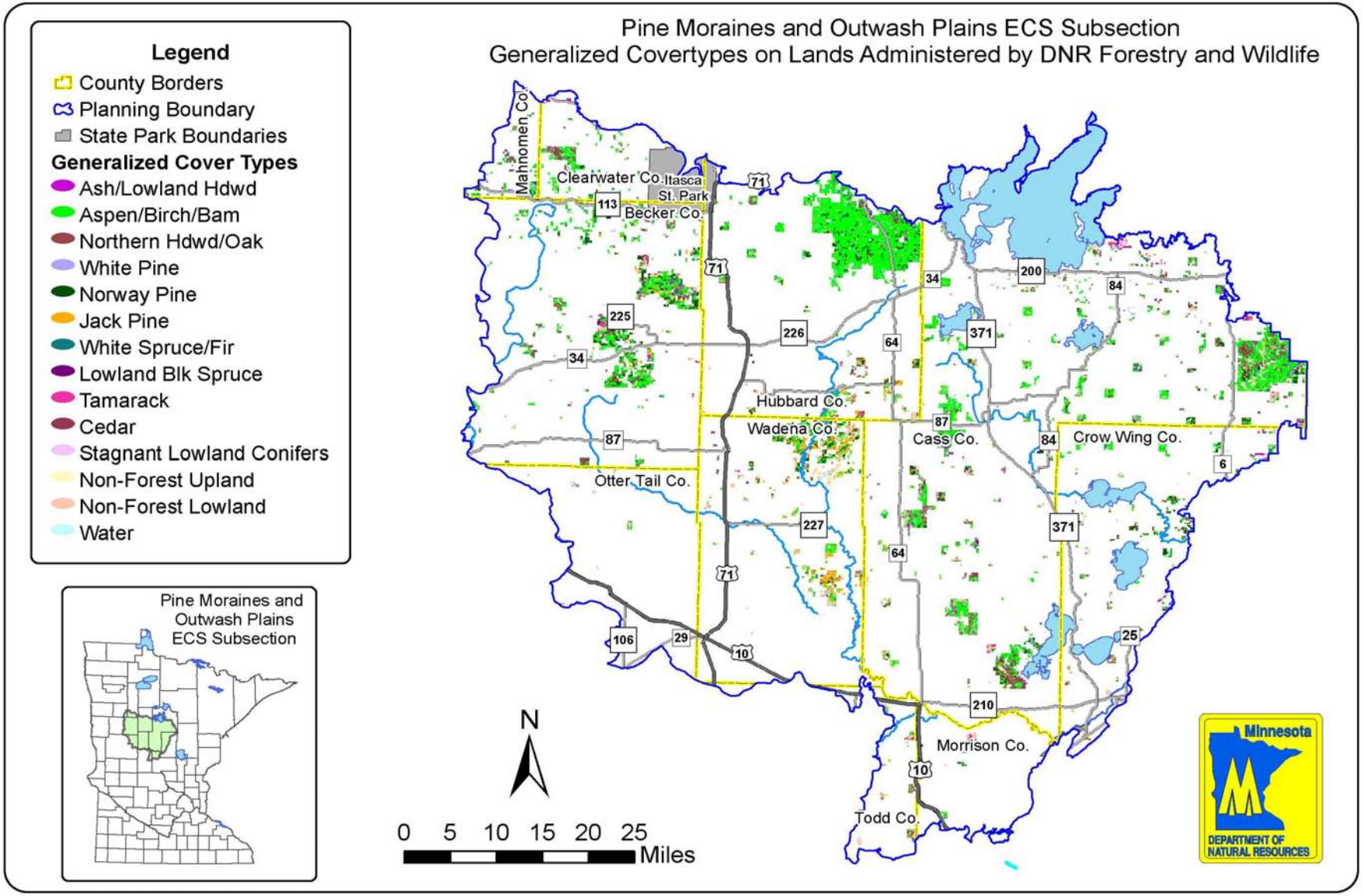
Table 7. 11a New Access Needs Miles by Subsection, Season of Use, and Access Type

Subsection	Season of Use	Miles of Resource Management Access Route	Miles of Temporary Access Route	Total Miles
CP	Summer	0.2	2.2	2.4
	Winter	14.0	49.3	63.3
CP Total		**14.2**	**51.5**	**65.7**
PMOP	Summer	1.6	34.5	36.1
	Winter	2.6	34.8	37.4
PMOP Total		**4.2**	**69.3**	**73.5**
CP-PMOP Total		**18.4**	**120.8**	**139.2**

Map 7.4.1a DNR-Administered Lands by Generalized Cover Types - Chippewa Plains ECS Subsection



Map 7.4.1b DNR-Administered Lands by Generalized Cover Types – Pine Moraines and Outwash Plains ECS Subsection



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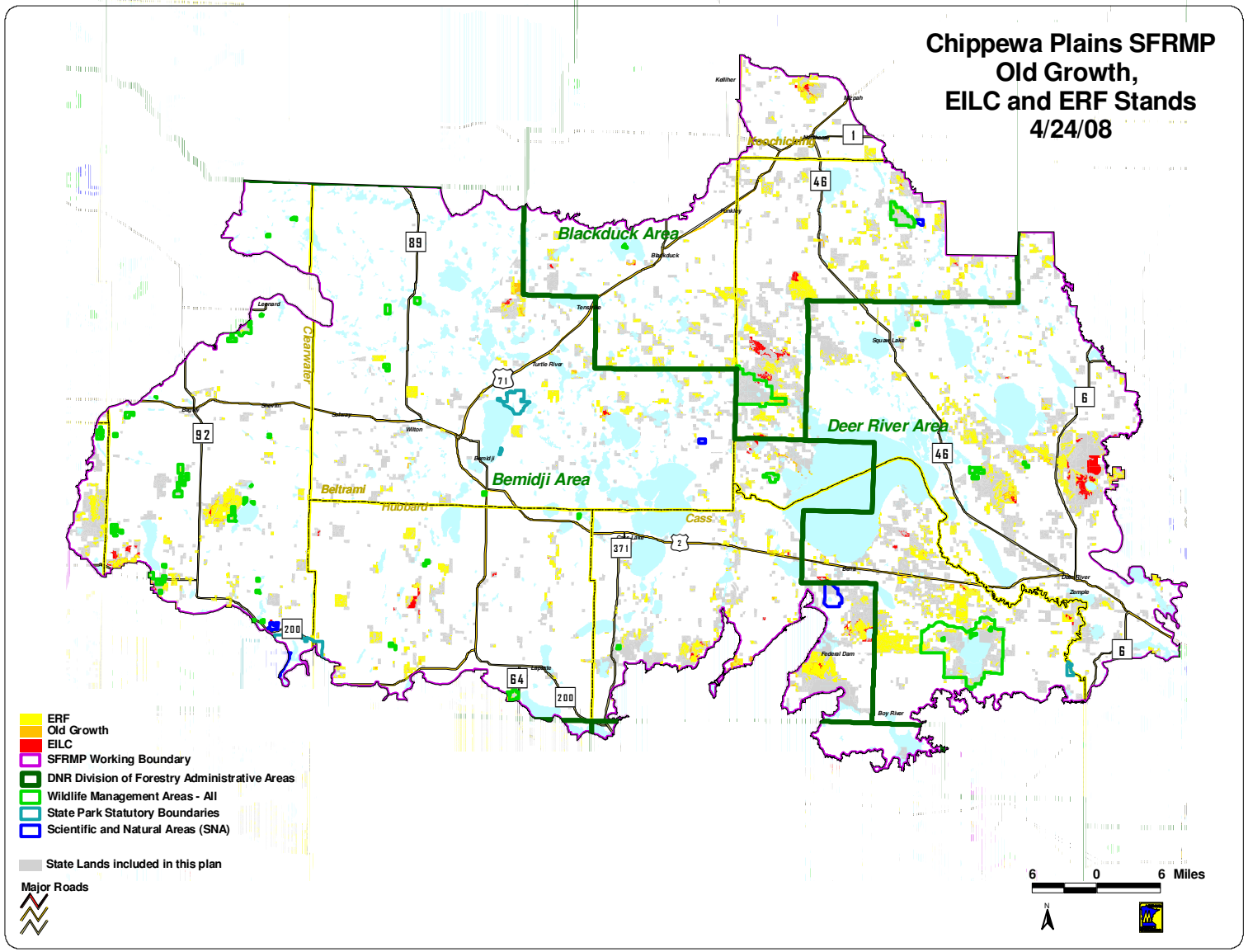
Map 7.4.2a Old Growth, EILC, and ERF Stands - Chippewa Plains



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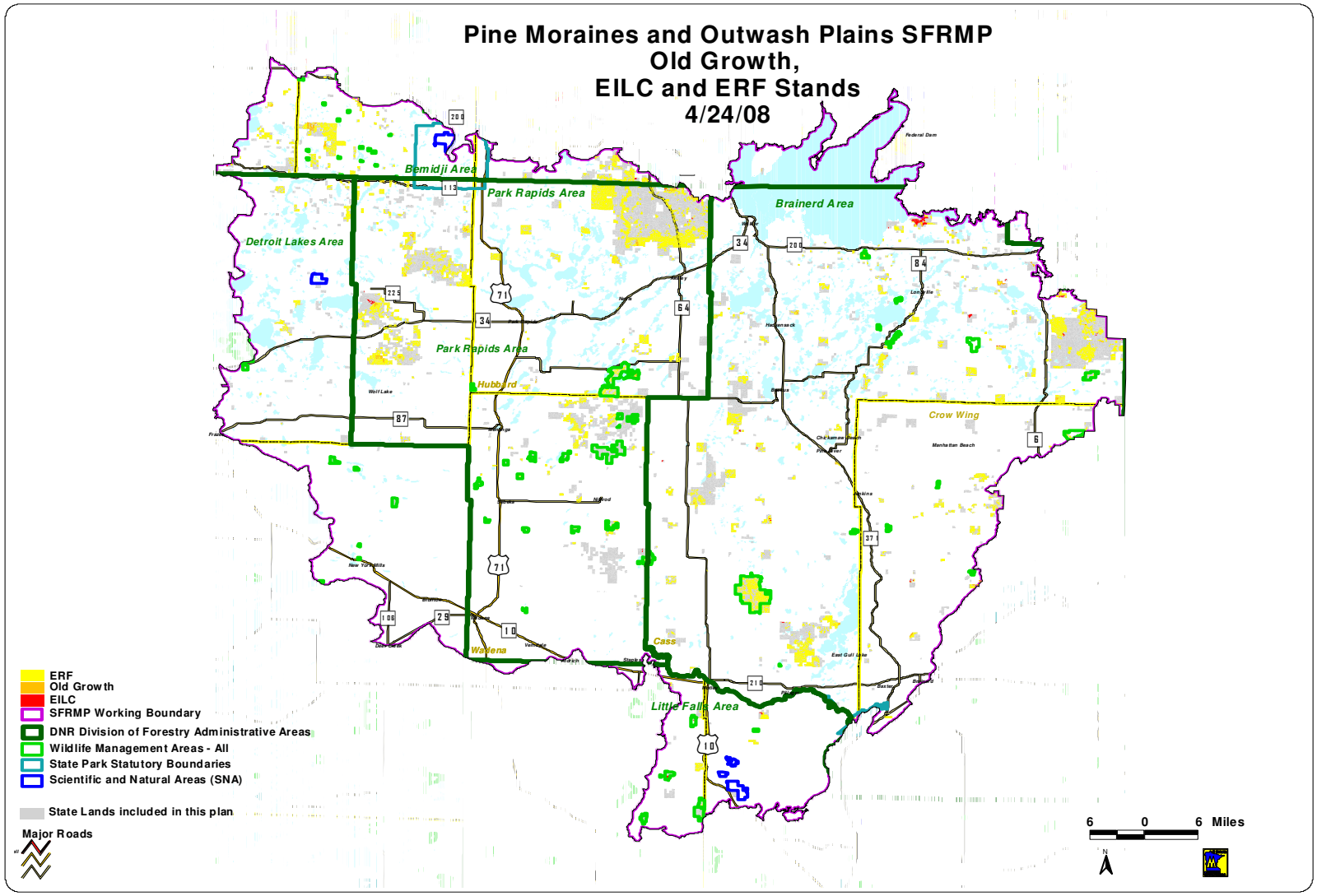
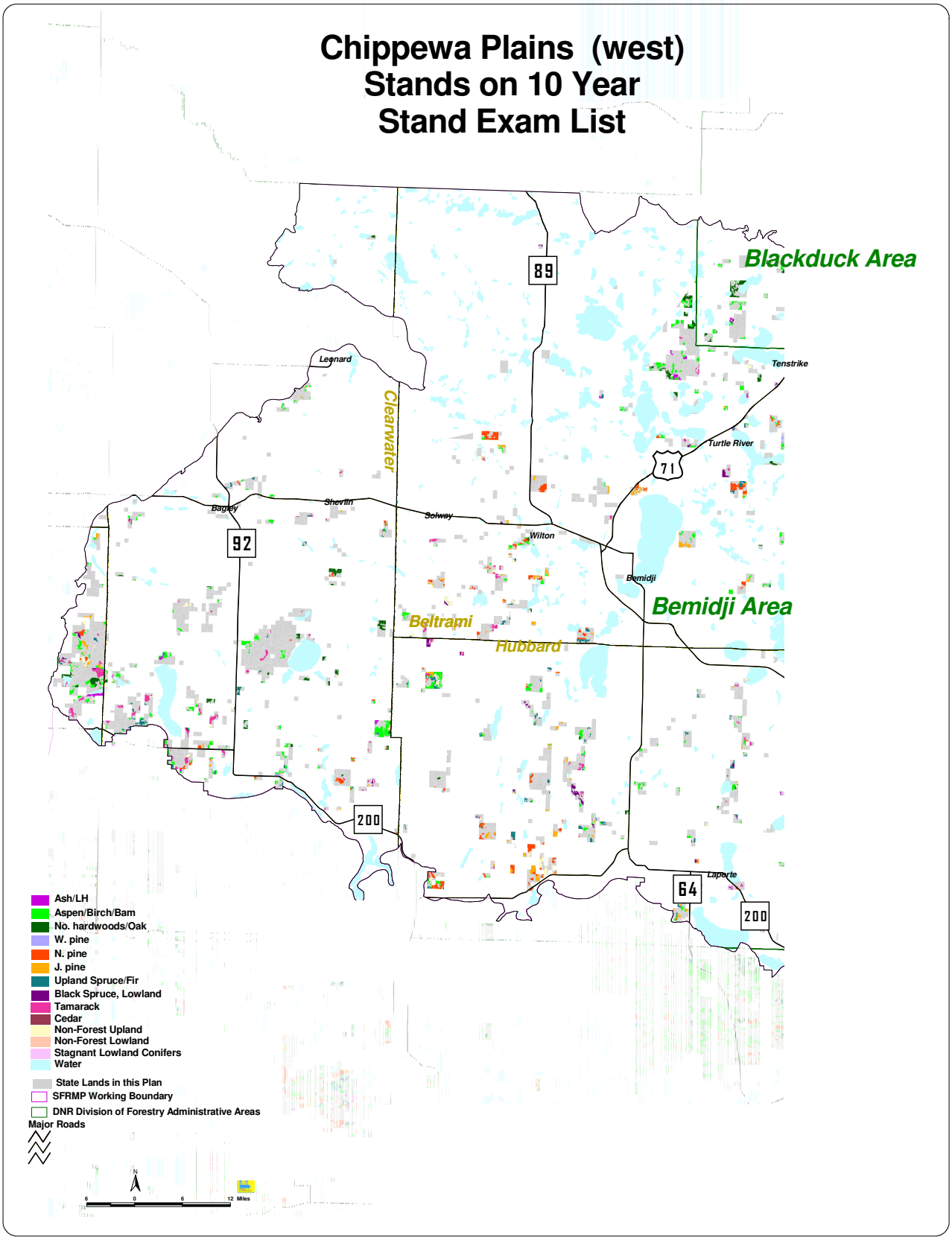
Map 7.4.2b Old Growth, EILC, and ERF Stands - Pine Moraines and Outwash Plains



Map 7.4.3a Stands Identified for Treatment by Generalized Cover Type
Chippewa Plains (West)



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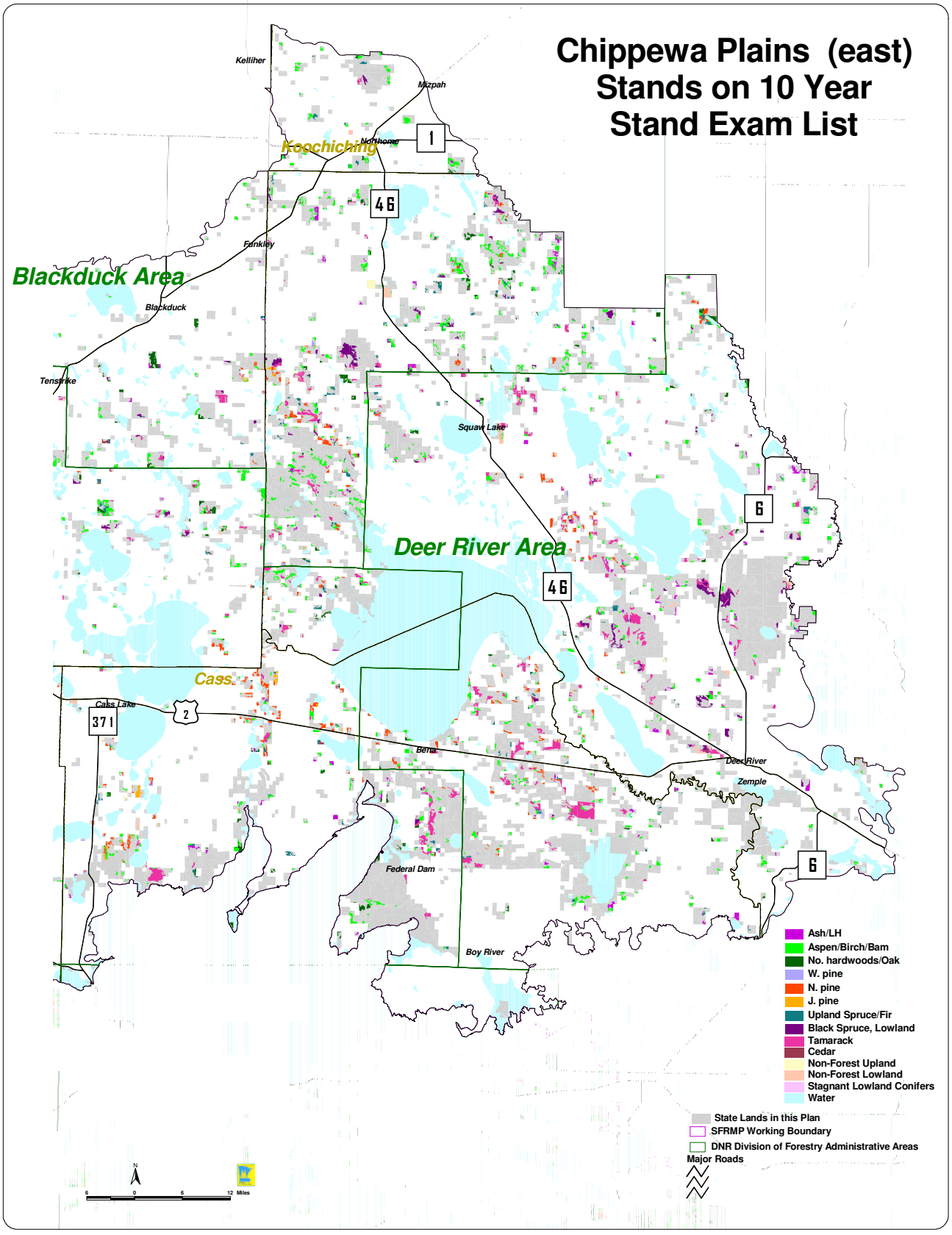
Map 7.4.3b Stands Identified for Treatment by Generalized Cover Type
Chippewa Plains (East)



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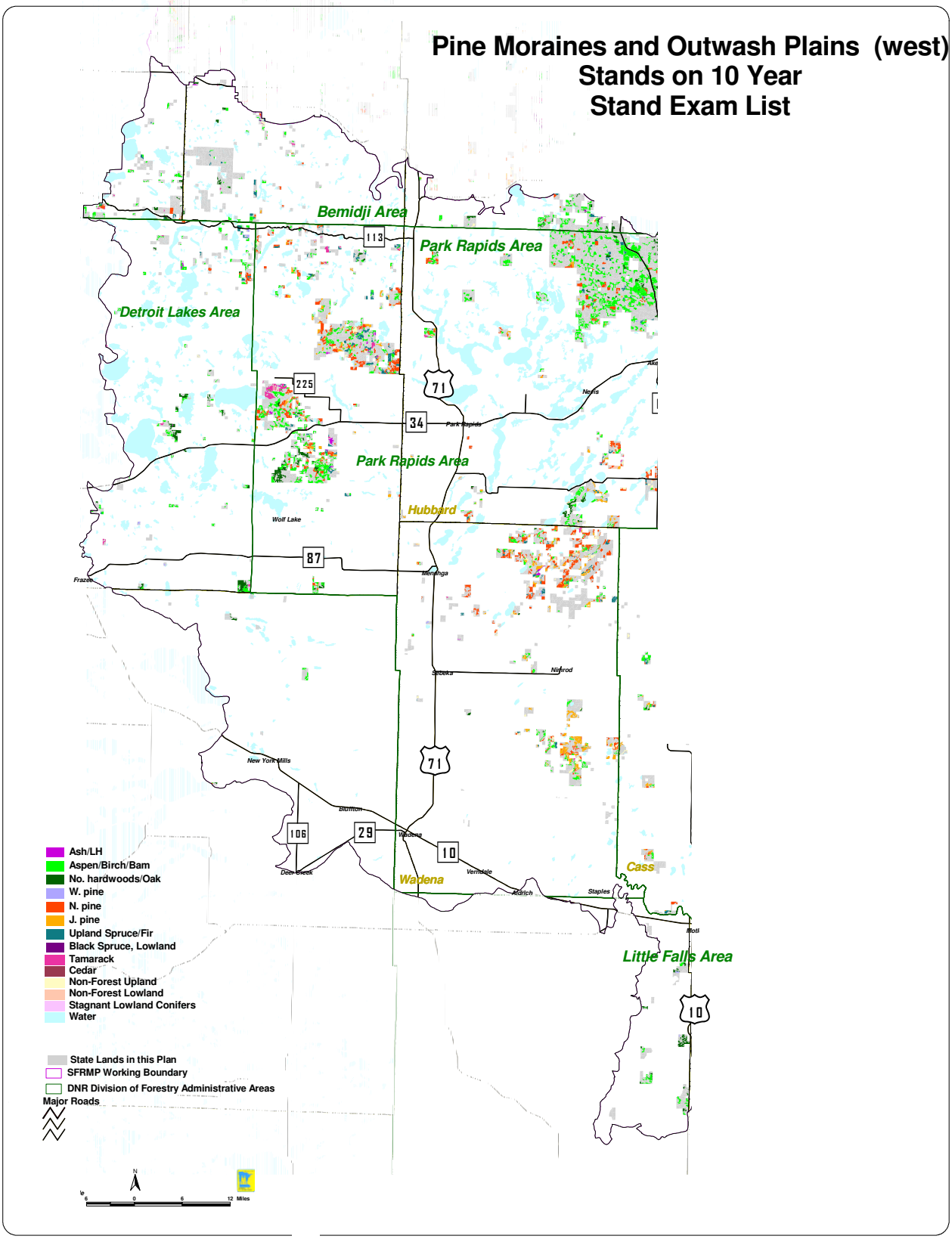
Map 7.4.3c Stands Identified for Treatment by Generalized Cover Type
Pine Moraines and Outwash Plains (West)



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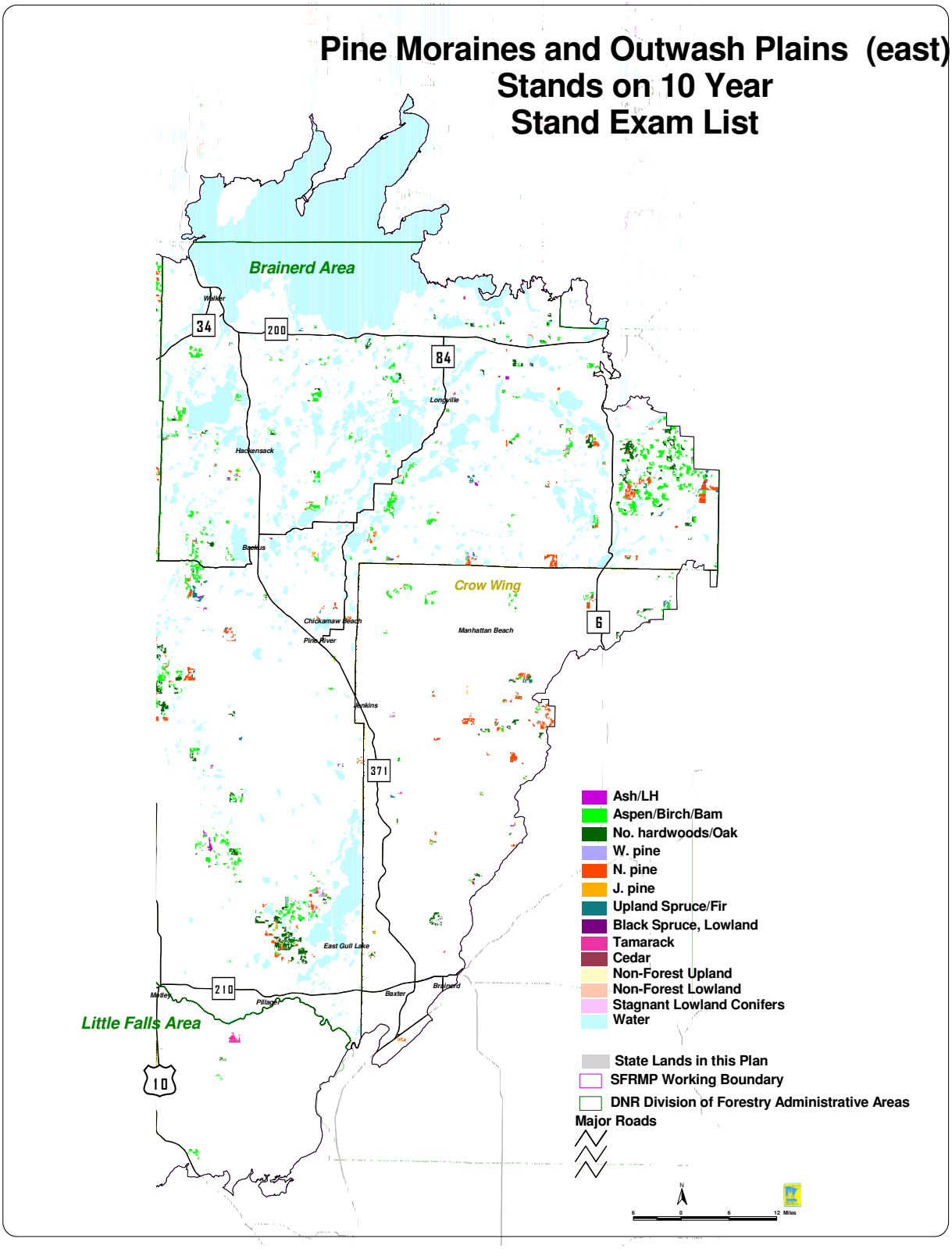
Map 7.4.3d Stands Identified for Treatment by Generalized Cover Type
Pine Moraines and Outwash Plains (East)



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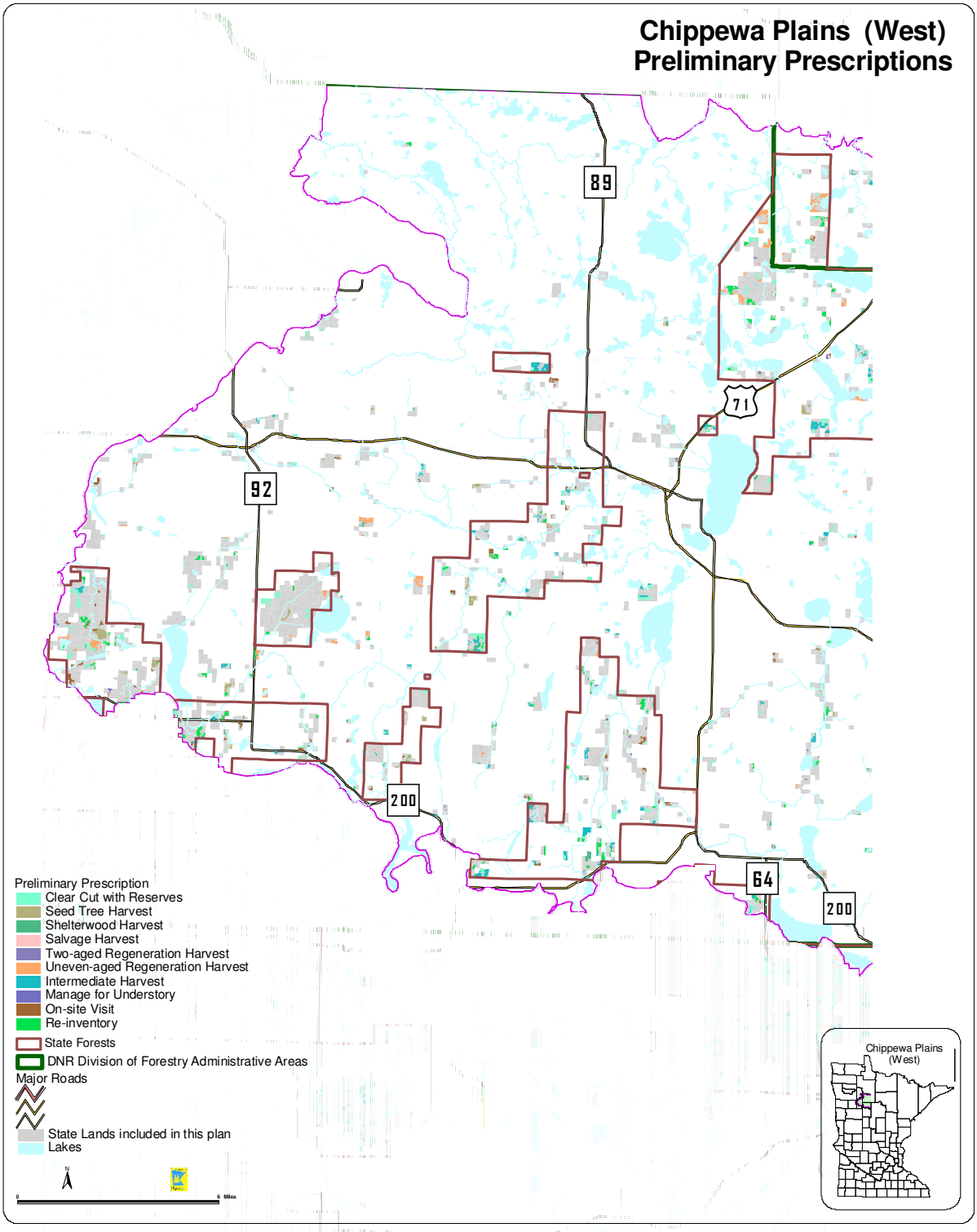
Map 7.4.4a Stands Identified for Treatment by Preliminary Prescriptions Chippewa Plains (West)



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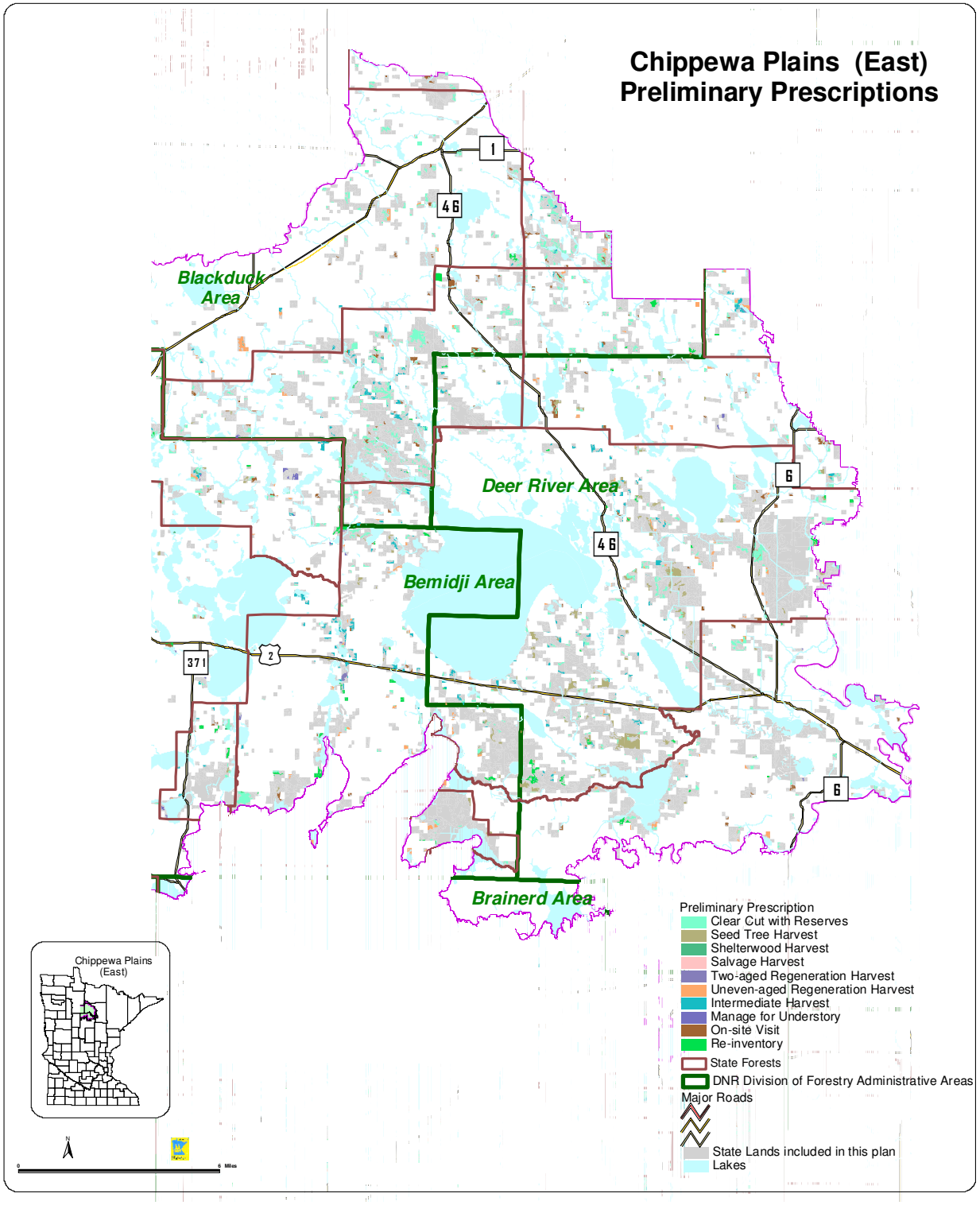
Map 7.4.4b Stands Identified for Treatment by Preliminary Prescriptions
Chippewa Plains (East)



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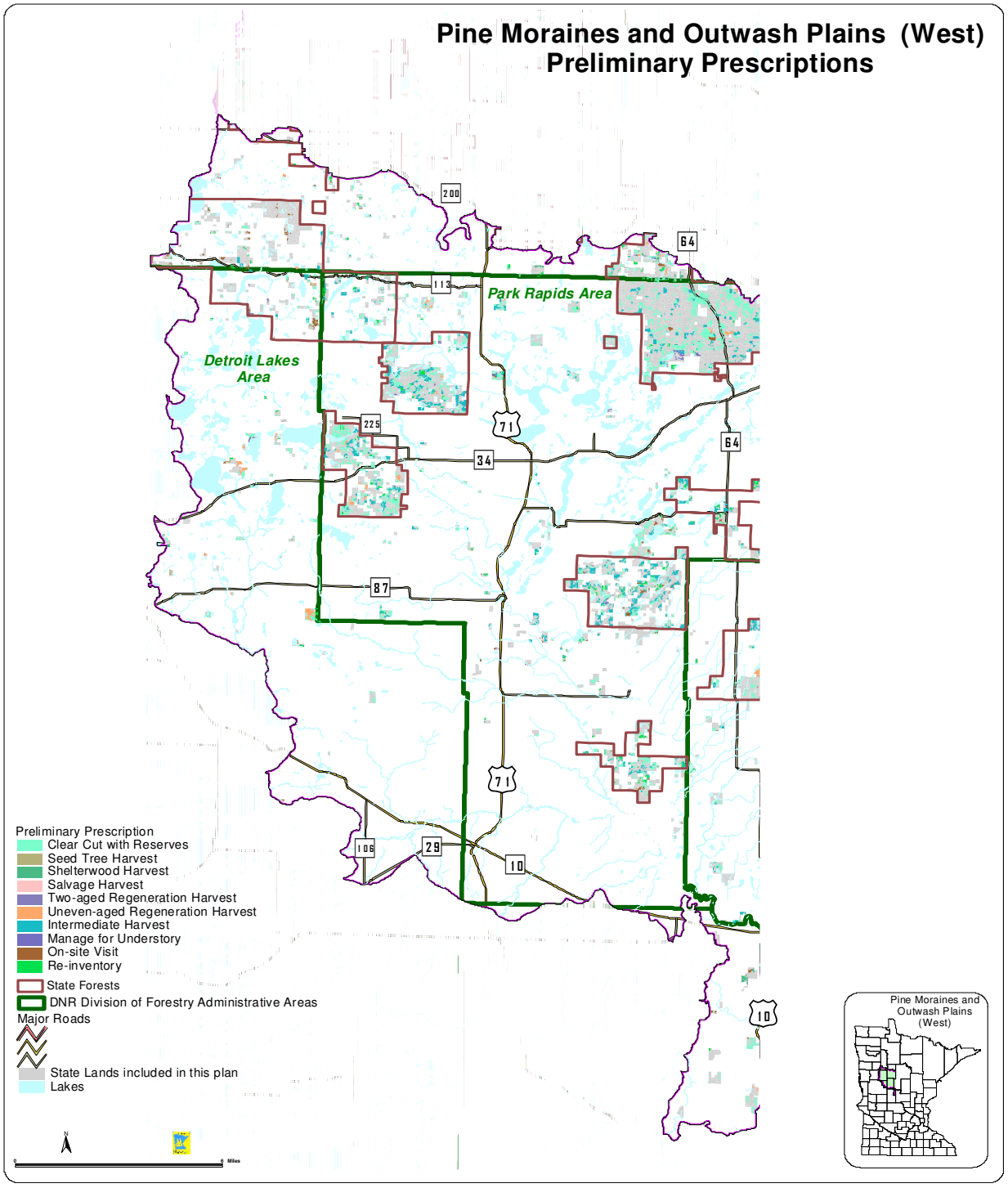
Map 7.4.4c Stands Identified for Treatment by Preliminary Prescriptions
Pine Moraines and Outwash Plains (West)



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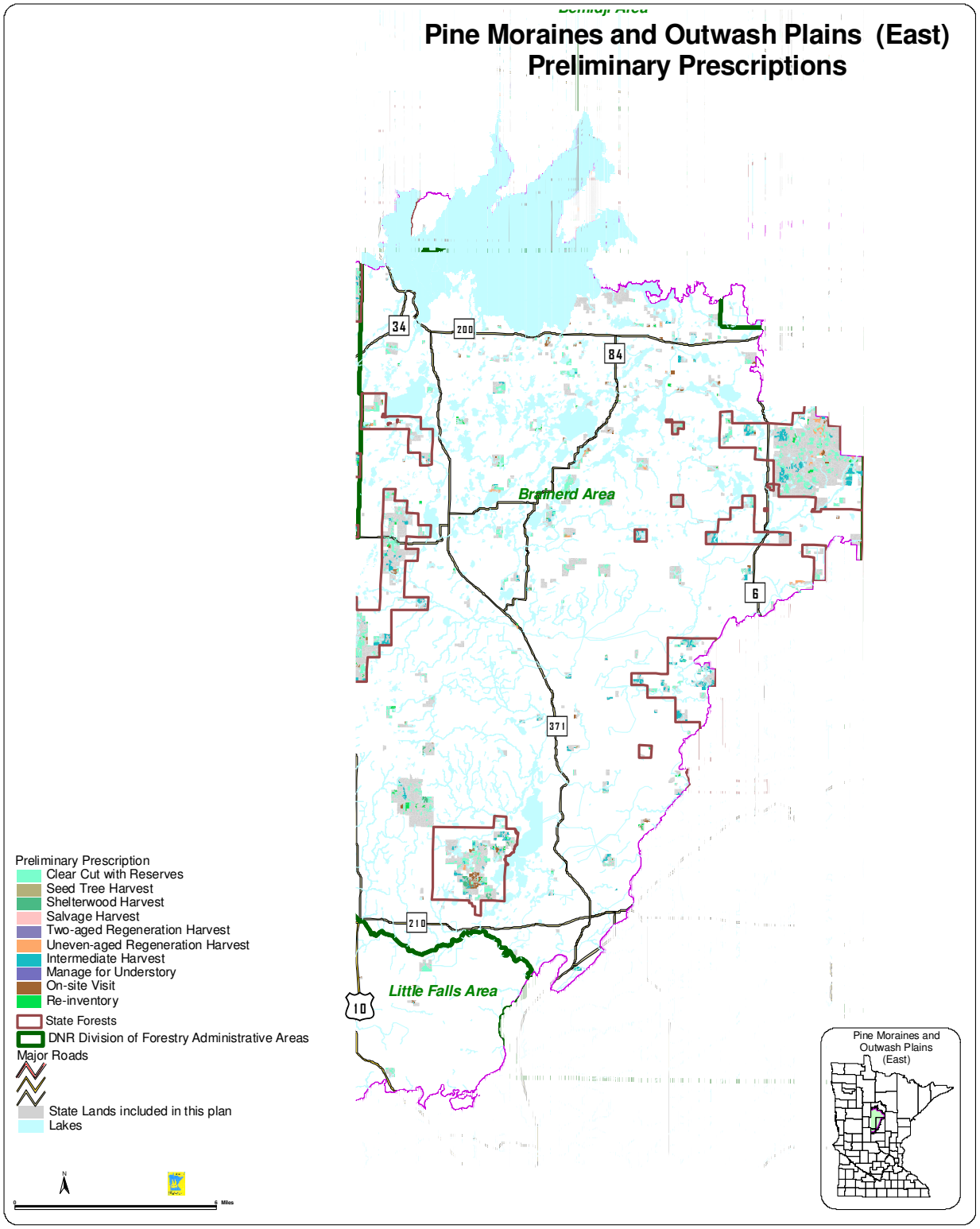
Map 7.4.4d Stands Identified for Treatment by Preliminary Prescriptions
Pine Moraines and Outwash Plains (East)



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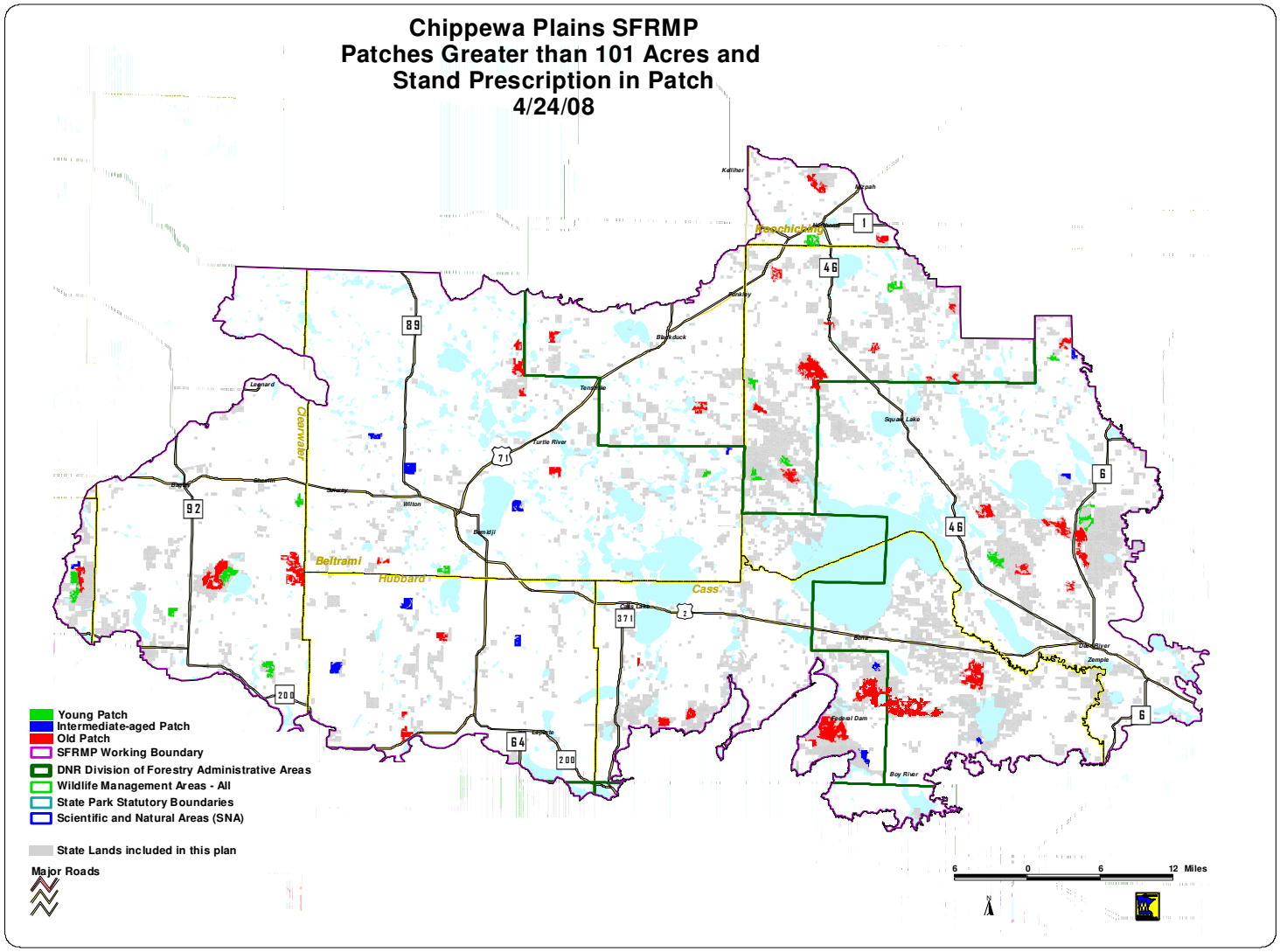
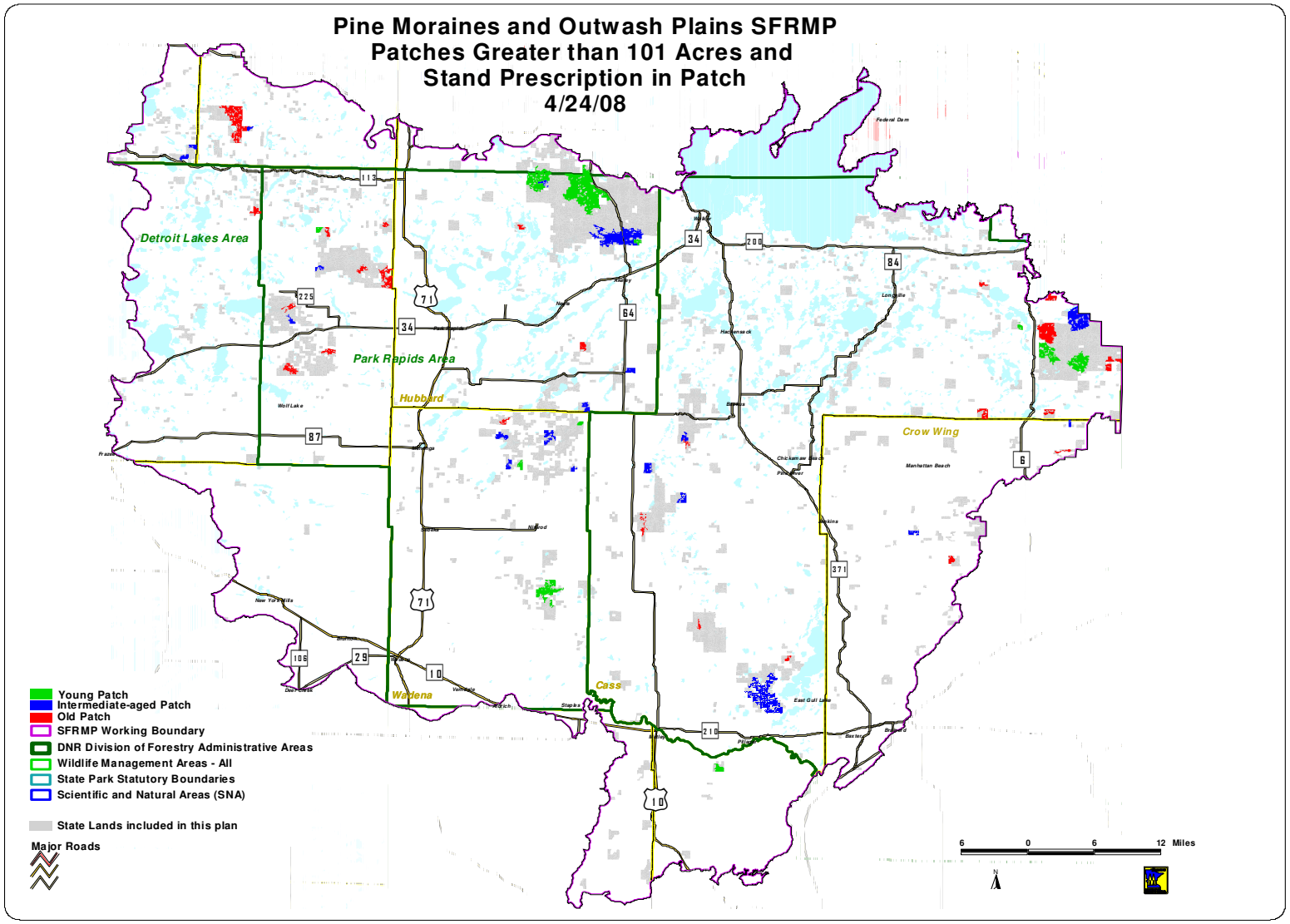
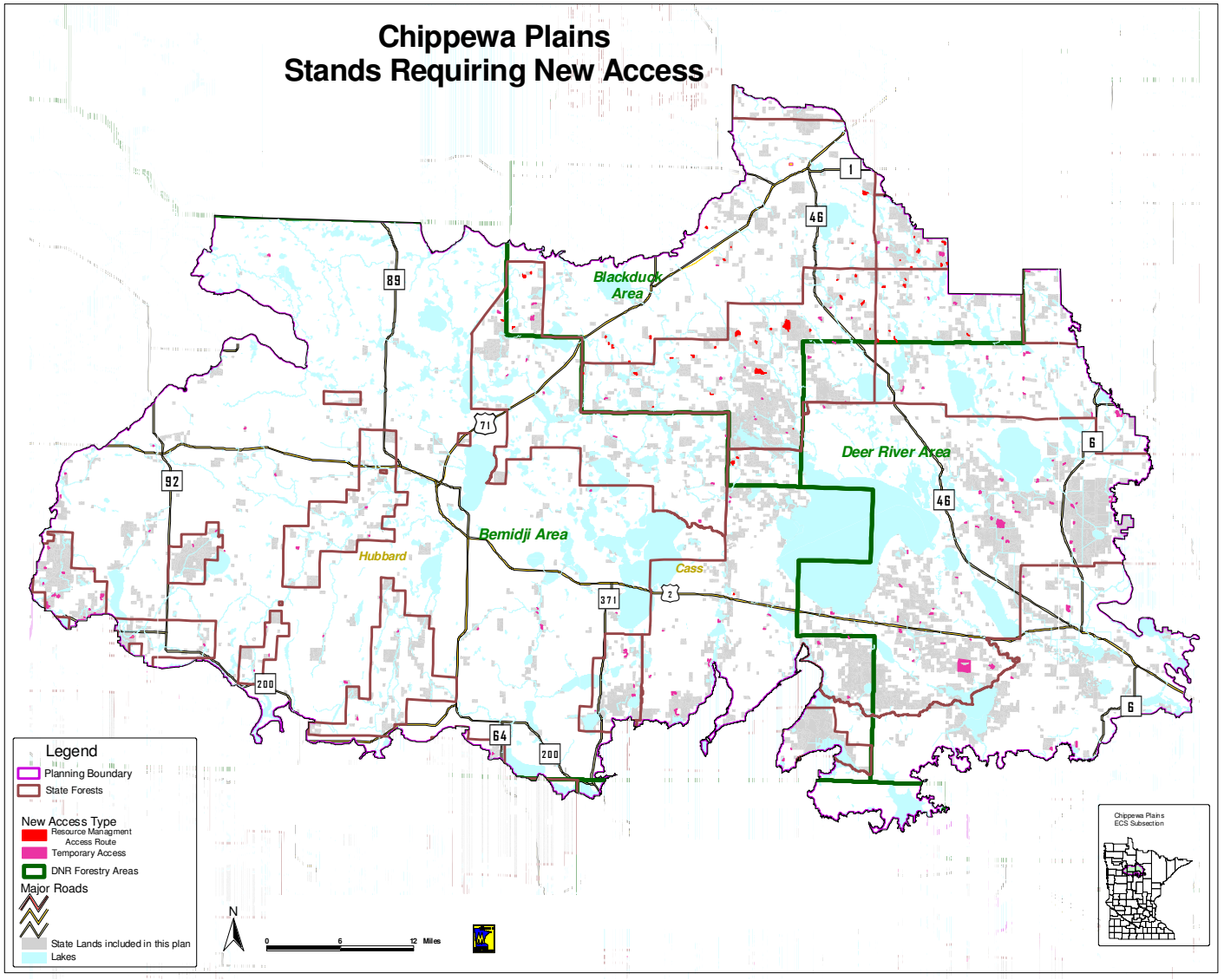
Map 7.4.5a Patches Greater than 101 Acres and Stand Prescription in Patch
Chippewa Plains



Map 7.4.5b Patches Greater than 101 Acres and Stand Prescription in Patch
Pine Moraines and Outwash Plains



Map 7.11.1a Stands Requiring New Access, Chippewa Plains



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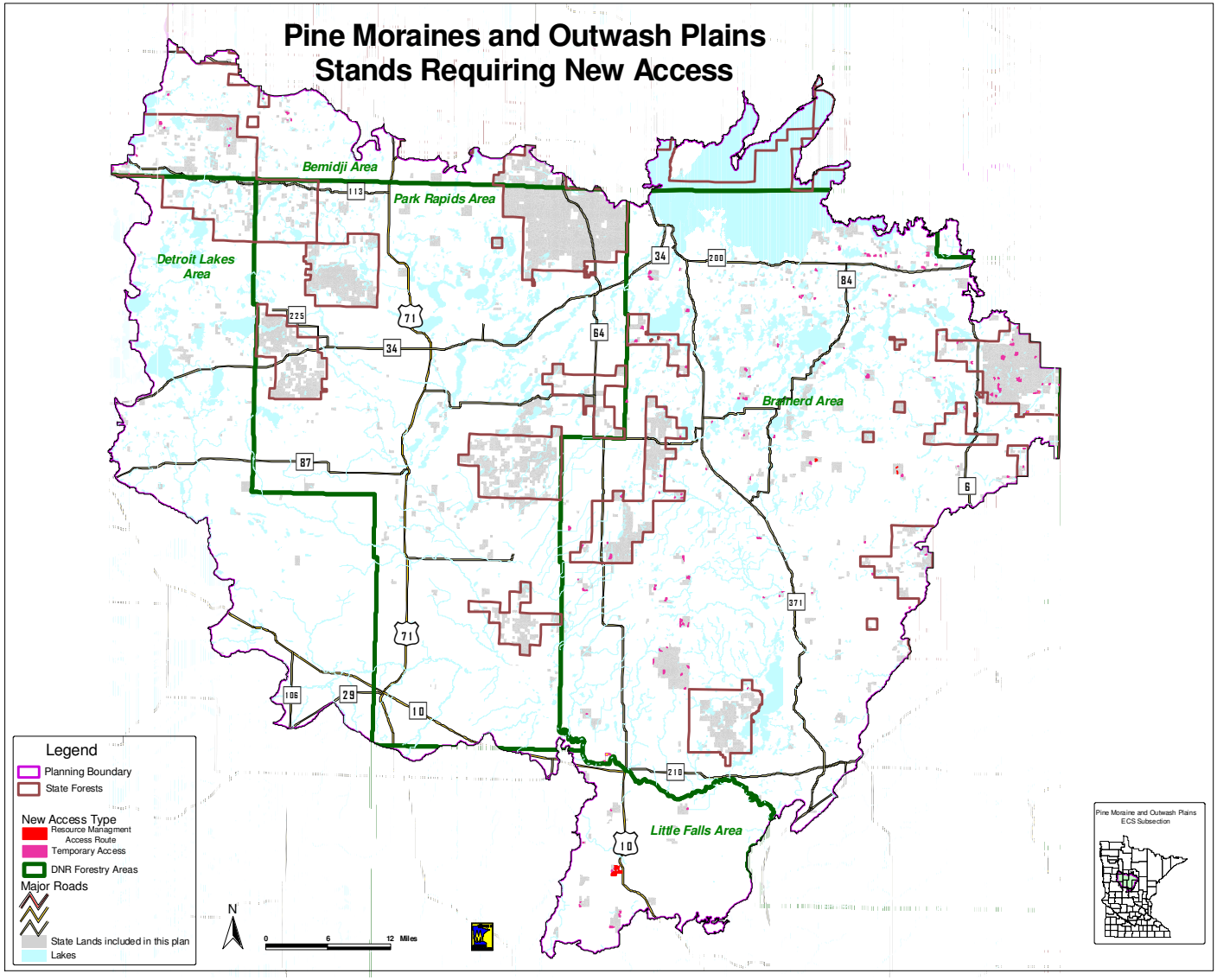
Map 7.11.1b Stands Requiring New Access, Pine Moraines and Outwash Plains



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