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## APPENDIX D. MANAGEMENT INDICATOR HABITATS

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## 1. Description of Management Indicators

Tables DEIS-1 and 2 provide descriptions of the forest types and ages of the management indicators. Management indicators are based on groupings of forest types in different age groupings. The forest type groupings are a coarse filter representation of habitats needed by a majority of species of management concern. Species associated with and represented by the management indicators in Tables 1 and 2 are listed in Chapter 3.3 Tables WLD 1-14.

<b>#</b>	<b>Management Indicator Habitat (DEIS Section 3.3.1 through 3.3.3)</b>	<b>Description and Forest types (Code in Forest Service Data Base)</b>
1	Upland forest	All upland forest types: acres; jack pine (01), red pine (02), white pine (03), balsam fir-aspen-birch (11), spruce-fir (16), black spruce-jack pine (17), northern hardwoods, including oak and maple (50s, 80s), aspen (91), paper birch (92), bigtooth aspen (93), balsam poplar (94), 95 (aspen-spruce-fir)
2	Upland deciduous forest	All upland deciduous and deciduous-dominated mixed forest types: acres: (50s, 80s, 91, 92, 93, 94, 95)
3	Northern hardwood and oak forest	All northern hardwood and oak forest types: (50s, 80s)
4	Aspen-birch and mixed aspen-conifer forest	All aspen, birch, and aspen-dominated aspen-birch-conifer mixed forest types: acres: (91, 92, 93, 94, 95)
5	Upland conifer forest	All upland conifer and conifer-dominated mixed forest types: acres: (01, 02, 03, 11,16, 17)
6	Upland spruce-fir forest	All spruce-fir and spruce-fir-dominated mixed forest types: acres: (11,16, 17)
7	Red and white pine forest	Both red and white pine forest types: acres: (02, 03)
8	Jack pine forest	Jack pine forest type: acres: (01)
9	Lowland black spruce-tamarack forest	All lowland conifer and lowland mixed conifer types dominated by black spruce or tamarack: acres: (12, 15, 18)
10	Upland mature riparian forest	All upland mature or old forest types in Riparian areas; inner zone 0-100 feet and outer zone 100-200 feet: acres: (01, 02, 03, 11,16, 17, 50s, 80s, 91, 92, 93, 94, 95)
11	Management-induced Edge Density Upland forest & Lowland forest	Edge density (miles/sq mile) of young upland (management indicator habitat 1) or lowland forest (management indicator habitat 9). See Table DEIS-2 below for definitions of young age classes. This indicator does not include or measure inherent edge such as edges between forested lands and lakes, streams, non-forested lands: this does not vary among alternatives.
12	Upland Interior forest habitat	Acres of forest interior in all mature and older upland forest patches of any size (see management indicator habitat 1 for forest types in upland forest). All forest patches were buffered inwardly with a 100 meter buffer.

<b>Table DEIS-1. Management Indicator Habitats: forest types.</b>		
<b>#</b>	<b>Management Indicator Habitat (DEIS Section 3.3.1 through 3.3.3)</b>	<b>Description and Forest types (Code in Forest Service Data Base)</b>
13	Large patches of upland mature/old forest	Large (>300 acres) upland mature/old forest patches acres. (See management indicator habitat 1 for forest types in upland forest.).
14	Aquatic habitats	Effects to the wide variety of aquatic habitats are addressed by aquatic and watershed health indicators described in the DEIS in Chapter 3.6

The age groupings are surrogates for ecological successional or vegetative growth stages. Because the ecology of the different forest types, age grouping depends on forest type and was selected to best typify vegetative growth stages.

<b>Table DEIS-2. Management Indicator Habitats: Age groupings for forest types.</b>					
<b>Forest Types and (codes)</b>	<b>YOUNG (Seedling-open)</b>	<b>Sapling/pole</b>	<b>Mature/Old</b>	<b>Old/Old Growth</b>	<b>Old Growth Multi-aged</b>
Jack pine (01)	0-9	10-39	40-59	60-79	80+
Red pine (02)	0-9	10-49	50-119	120-149	150+
White pine (03)	0-9	10-49	50-119	120-149	150+
Lowland black spruce-tamarack dominated conifers (12, 15, 18)	0-19	20-59	60-119	120-149	150+
White cedar (14, 19)	0-19	20-59	60-119	120-149	150+
Spruce/fir (11, 16, 17)	0-9	10-49	50-89	90-149	150+
Upland northern hardwoods (50s & 80s Sup)	0-9	10-59	60-119	120-149	150+
Upland northern hardwoods (80s Chip)	0-9	10-59	60-119	120-149	150+
Oak (50s Chip)	0-9	10-59	60-99	100-149	150+
Lowland northern hardwoods (70s)	0-19	20-59	60-119	120-149	150+
Aspen-birch and aspen-birch-conifer (91,92,93,94, 95)	0-9	10-49	50-79	80+	80+

Table DEIS-3 provides summary of information used to evaluate individual species or groups of species. Refer also to Appendix B: Analysis Processes for additional information on the selection of indicators and analysis processes.

<b>Table DEIS-3. Species of Management Concern Indicators: Threatened species (T); management indicator species (MIS); Region 9 Forester's sensitive species (RFSS).</b>		
<b>#</b>	<b>Management Indicator</b>	<b>Description</b>
<b>Threatened and Endangered Species - (DEIS Section 3.3.4)</b>		
15 16 17	Gray wolf (T and MIS) Canada lynx (T) Bald eagle (T and MIS)	These species were analyzed considering indicators for: management indicator habitats 1, 7, and 9; road and trail indicators (Chapter 3.8, Appendix F); and water quality indicators (Chpt 3.6). Further detail is also found in the Biological Assessment in the Planning Record.
<b>Regional Forester Sensitive Species – (DEIS Section 3.3.5)</b>		
18	Sensitive species (RFSS)	Indicators used to assess impacts to RFSS vary widely by species. Most are covered by management indicators 1-14, but also are addressed by evaluations of non-forested lands (uplands and lowlands); road and trail indicators (Chapter 3.8, Appendix F); and water quality indicators (Chpt 3.6), white cedar forest (14, 19), black ash forest (70s); and others. These are documented in the Biological Evaluation in the planning record.
<b>Other Species of Management Concern (DEIS Section 3.3.6)</b>		
19	Northern goshawk (RFSS, MIS)	<u>Nesting and foraging habitat:</u> mature upland forest (management indicator habitat 1); indicators of stand complexity (described in Chapter 3.2 Vegetation for use of management treatments which increase within-stand complexity); and mature upland forest patches >100 acres (management indicator habitat 1)
20	White pine (MIS)	Acres of white pine forest type and age (03); acres of white pine as a component within other forest types; and acres of even-aged harvesting.
21	American woodcock	<u>Breeding habitat:</u> upland grass-forb-shrub openings (veg types 50, 51,52,53), shrub wetlands (veg types 66), and aspen-birch forest (91,92,93,94,95) under 20 years old
22	White-tailed deer	<u>Thermal cover:</u> all upland and lowland conifer forest types in pole or older age classes <u>Foraging habitat:</u> aspen and birch forest types <25 years old.
23	Ruffed grouse	Habitat quantity and distribution: <u>Brood cover:</u> aspen-birch (91,92,93, 94,95) forest types 4-15 yrs old <u>Spring/Fall cover:</u> aspen-birch types 6-25 yrs old <u>Forage, winter/nesting cover:</u> aspen-birch types >25 yrs old <u>Habitat quality:</u> Acres of small (<40 ac) patches; % conifers in upland forests; Acres of harvest treatment by treatment type.
<b>Non-native invasive species (DEIS Section 3.3.7)</b>		
-	Non-native invasive species	Miles of Objective Maintenance Level 1 and 2 roads (definitions in DEIS Appendix F).

## 2. Data on acres of management indicators 1-10.

This section lists what the management indicator habitats would be by alternative in decades 2, 5, and 10 on the Chippewa and Superior National Forests. For comparison, the RNV values for each MIH are also listed in tables DEIS-5 (Chippewa National Forest) and DEIS-7 9 (Superior National Forest).

**Table DEIS-4: Chippewa National Forest. Management Indicator Habitats (MIH) by Alternative for Decades 2, 5, and 10.**

Decade 2 Chippewa MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
<b>1. Upland Forest</b>										
<b>1a. Young</b>	M ac.	55.5	51.9	59.9	17.2	65.8	16.9	38.2	21.5	29.9
% of upland forest <sup>1</sup>	%	12.2	11.4	13.1	3.8	14.4	3.7	8.4	4.7	6.6
<b>1b. Mature+</b>	M ac.	226.5	217.6	143.3	238.6	128.2	233.3	204.6	231.1	214.8
% of upland forest <sup>1</sup>	%	49.7	47.7	31.4	52.3	28.1	51.2	44.9	50.7	47.1
<b>2. Upland Deciduous-dominated Forest</b>										
<b>2a. Young</b>	M ac.	45.7	40.7	40.1	8.4	47.2	8.7	27.6	8.2	14.6
% of upland forest <sup>1</sup>	%	10.0	8.9	8.8	1.8	10.3	1.9	6.1	1.8	3.2
<b>2b. Mature+</b>	M ac.	163.0	156.9	88.4	149.8	73.2	149.6	123.4	143.6	133.7
% of upland forest <sup>1</sup>	%	35.8	34.5	19.4	32.9	16.1	32.8	27.1	31.5	29.3
<b>3. Upland Northern Hardwood Forest</b>										
<b>3a. Young</b>	M ac.	.8	1.5	.7		5.2		.0	.3	.4
% of upland forest <sup>1</sup>	%	0.2	0.3	0.1	0.0	1.1	0.0	0.0	0.1	0.1
<b>3b. Mature+</b>	M ac.	60.3	55.1	.0	74.9	48.4	71.0	69.2	75.4	66.8
% of upland forest <sup>1</sup>	%	13.2	12.1	.0	16.4	10.6	15.6	15.2	16.5	14.6
<b>4. Aspen / Birch Forest</b>										
<b>4a. Young</b>	M ac.	44.7	38.7	38.1	8.4	41.4	8.7	27.0	7.5	13.8
% of upland forest <sup>1</sup>	%	9.8	8.5	8.4	1.8	9.1	1.9	5.9	1.7	3.0
<b>4b. Mature+</b>	M ac.	100.0	93.1	19.9	65.9	19.0	69.5	46.5	60.0	58.7
% of upland forest <sup>1</sup>	%	21.9	20.4	4.4	14.5	4.2	15.3	10.2	13.2	12.9
<b>4c. Pole/Immature Stage</b>	M ac.	120.5	132.8	19.9	145.3	179.7	142.5	154.5	143.6	150.7
% of upland forest <sup>1</sup>	%	26.4	29.1	4.4	31.9	39.4	31.3	33.9	31.5	33.1
<b>5. Upland Conifer-dominated Forest</b>										
<b>5a. Young</b>	M ac.	9.8	11.2	19.8	8.8	18.6	8.3	10.6	13.3	15.3
% of upland forest <sup>1</sup>	%	2.1	2.5	4.3	1.9	4.1	1.8	2.3	2.9	3.4
<b>5b. Mature+</b>	M ac.	63.2	60.6	54.8	88.8	55.0	83.8	81.2	87.5	81.0
% of upland forest <sup>1</sup>	%	13.9	13.3	12.0	19.5	12.1	18.4	17.8	19.2	17.8
<b>6. Spruce / Fir Forest</b>										
<b>6a. Young</b>	M ac.	2.0	2.5	9.8	.5	6.3	.5	.6	3.1	2.1
% of upland forest <sup>1</sup>	%	0.4	0.6	2.1	0.1	1.4	0.1	0.1	0.7	0.5
<b>6b. Mature+</b>	M ac.	13.4	12.2	8.5	24.0	8.8	20.1	17.1	24.3	20.6
% of upland forest <sup>1</sup>	%	2.9	2.7	1.9	5.3	1.9	4.4	3.7	5.3	4.5
<b>7. Red and White Pine Forest</b>										
<b>7a. Young</b>	M ac.	3.1	3.6	9.1	4.4	10.2	2.6	3.5	6.5	6.7
% of upland forest	%	0.7	0.8	2.0	1.0	2.2	0.6	0.8	1.4	1.5
<b>7b. Mature+</b>	M ac.	40.6	40.7	44.6	58.7	44.3	60.3	61.4	57.0	55.3
% of upland forest <sup>1</sup>	%	8.9	8.9	9.8	12.9	9.7	13.2	13.5	12.5	12.1
<b>8. Jack Pine Forest</b>										
<b>8a. Young</b>	M ac.	4.6	5.0	0.8	3.9	2.2	5.1	6.4	3.6	6.6

Decade 2 Chippewa MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
% of upland forest <sup>1</sup>	%	1.0	1.1	0.2	0.9	0.5	1.1	1.4	0.8	1.4
<b>8b. Mature+</b>	M ac.	9.1	7.8	1.7	6.1	1.8	3.4	2.8	6.2	5.2
% of upland forest <sup>1</sup>	%	2.0	1.7	0.4	1.3	0.4	0.8	0.6	1.4	1.1
<b>9. Lowland Black Spruce /Tamarack Forest</b>										
<b>9a. Young</b>	M ac.	2.6	2.1	15.8	5.2	17.7		6.4	7.6	6.6
% of lowland conifer forest <sup>2</sup>	%	4.1	3.4	25.4	8.4	28.5	0.0	10.3	12.2	10.6
<b>9b. Mature+</b>	M ac.	54.6	55.0	42.1	52.6	40.2	57.9	51.5	50.3	51.3
% of lowland conifer forest <sup>2</sup>	%	87.8	88.5	67.7	84.6	64.6	93.1	82.9	80.9	82.4
<b>10.2. Riparian Upland Forest (zones 0' - 200') inner</b>										
<b>10.2a. Young</b>										
Inner	M ac.	.6	.7	.8		1.2		.0	.2	
% of the upland riparian forest <sup>3</sup>	%	2.7	3.0	3.5	0.0	5.1	0.0	0.0	1.0	0.0
Outer	M ac.	.9	1.0	1.7	.3	1.6	.6	.9	.5	1.0
% of the upland riparian forest <sup>3</sup>	%	4.1	4.2	7.1	1.3	6.8	2.7	4.1	2.3	4.3
<b>10.2b. Mature+</b>										
Inner	M ac.	7.7	7.5	5.8	7.9	5.4	7.9	7.8	7.7	7.9
% of the upland riparian forest <sup>3</sup>	%	33.1	32.2	25.1	34.1	23.3	34.1	33.4	33.1	34.1
Outer	M ac.	8.8	8.5	5.7	9.1	5.2	8.3	7.4	8.5	8.2
% of the upland riparian forest <sup>3</sup>	%	37.9	36.7	24.7	39.2	22.4	35.7	31.7	36.4	35.3
<sup>1</sup> The total upland forest is 455,881 acres.										
<sup>2</sup> The total lowland forest is 62,195 acres.										
<sup>3</sup> The total upland riparian forest is 23,245 acres.										

Decade 5 Chippewa MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
<b>1. Upland Forest</b>										
<b>1a. Young</b>	M ac.	55.5	51.9	71.9	17.3	54.1	9.8	39.5	20.5	29.9
% of upland forest <sup>1</sup>	%	12.2	11.4	15.8	3.8	11.9	2.2	8.7	4.5	6.6
<b>1b. Mature+</b>	M ac.	226.5	217.6	124.0	353.6	140.9	355.6	250.8	336.7	295.6
% of upland forest <sup>1</sup>	%	49.7	47.7	27.2	77.6	30.9	78.0	55.0	73.9	64.8
<b>2. Upland Deciduous-dominated Forest</b>										
<b>2a. Young</b>	M ac.	45.7	40.7	57.5	3.1	40.5	2.8	27.6	5.9	17.9
% of upland forest <sup>1</sup>	%	10.0	8.9	12.6	0.7	8.9	0.6	3.0	1.3	3.9
<b>2b. Mature+</b>	M ac.	163.0	156.9	70.5	226.5	78.2	221.8	141.1	214.0	177.2
% of upland forest <sup>1</sup>	%	35.8	35.4	15.5	49.7	17.2	48.7	31.0	46.9	38.9
<b>3. Upland Northern Hardwood Forest</b>										
<b>3a. Young</b>	M ac.	.8	1.5	9.6		.4		.0	.4	.8
% of upland forest <sup>1</sup>	%	0.2	0.3	2.1	0.0	0.1	0.0	0.0	0.1	0.2
<b>3b. Mature+</b>	%	60.3	55.1	48.2	99.4	52.0	90.5	80.4	99.8	74.1
% of upland forest <sup>1</sup>	M ac.	13.2	12.1	10.6	21.8	11.4	19.8	17.6	21.9	16.2
<b>4. Aspen / Birch Forest</b>										
<b>4a. Young</b>	M ac.	44.7	38.7	47.7	3.1	40.0	2.8	27.6	5.3	17.0
% of upland forest <sup>1</sup>	%	9.8	8.5	10.5	0.7	8.8	0.6	6.1	1.2	3.7

Decade 5 Chippewa MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
<b>4b. Mature+</b>	M ac.	100.0	93.1	17.2	118.0	21.2	122.2	53.9	106.8	95.7
% of upland forest <sup>1</sup>	%	21.9	20.4	3.8	25.9	4.7	26.8	11.8	23.4	21.0
<b>4c. Pole/Immature Stage</b>		120.5	132.8	171.9	30.2	157.5	21.7	106.9	31.1	56.9
% of upland forest <sup>1</sup>	%	26.4	29.1	37.7	6.6	34.5	4.8	23.5	6.8	12.5
<b>5. Upland Conifer-dominated Forest</b>										
<b>5a. Young</b>	M ac.	9.8	11.2	14.3	14.2	13.6	7.0	11.8	14.6	12.0
% of upland forest <sup>1</sup>	%	2.1	2.5	3.1	3.1	3.0	1.5	2.6	3.2	2.6
<b>5b. Mature+</b>	M ac.	63.2	60.6	53.5	127.1	62.7	133.8	109.7	122.7	118.4
% of upland forest <sup>1</sup>	%	13.9	13.3	11.7	27.9	13.7	29.3	24.1	26.9	26.0
<b>6. Spruce / Fir Forest</b>										
<b>6a. Young</b>	M ac.	2.0	2.5	2.6	.6	2.6	.0	.4	.3	.5
% of upland forest <sup>1</sup>	%	0.4	0.6	0.6	0.1	0.6	0.0	0.1	0.1	0.1
<b>6b. Mature+</b>	M ac.	13.4	12.2	9.5	47.0	12.9	37.1	32.5	47.9	41.6
% of upland forest <sup>1</sup>	%	2.9	2.7	2.1	10.3	2.8	8.1	7.1	10.5	9.1
<b>7. Red and White Pine Forest</b>										
<b>7a. Young</b>	M ac.	3.1	3.6	7.4	10.1	6.8	5.1	9.1	11.1	5.2
% of upland forest <sup>1</sup>	%	0.7	0.8	1.6	2.2	1.5	1.1	2.0	2.4	1.1
<b>7b. Mature+</b>	M ac.	40.6	40.7	35.8	69.3	39.6	77.6	62.9	61.7	63.2
% of upland forest <sup>1</sup>	%	8.9	8.9	7.8%	15.2	8.7	17.0	13.8	13.5	13.9
<b>8. Jack Pine Forest</b>										
<b>8a. Young</b>	M ac.	4.6	5.0	4.3	3.5	4.2	1.9	2.3	3.3	6.3
% of upland forest <sup>1</sup>	%	1.0	1.1	0.9	0.8	0.9	0.4	0.5	0.7	1.4
<b>8b. Mature+</b>	M ac.	9.1	7.8	8.2	10.8	10.2	19.1	14.2	13.1	13.5
% of upland forest <sup>1</sup>	%	2.0	1.7	1.8	2.4	2.2	4.2	3.1	2.9	3.0
<b>9. Lowland Black Spruce /Tamarack Forest</b>										
<b>9a. Young</b>	M ac.	2.6	2.1	3.0	4.8	1.9		5.0	4.1	5.1
% of lowland conifer forest <sup>2</sup>	%	4.1	3.4	4.9	7.7	3.0	0.0	8.0	6.7	8.2
<b>9b. Mature+</b>	M ac.	54.6	55.0	38.2	48.7	40.1	61.4	46.9	46.0	46.6
% of lowland conifer forest <sup>2</sup>	%	87.8	88.5	61.5	78.4	64.5	98.7	75.5	74.0	74.9
<b>10.2. Riparian Upland Forest (zones 0' - 200') inner</b>										
<b>10.2a. Young</b>										
Inner	M ac.	.6	.7	.5		.5		.0	.0	
% of the upland riparian forest <sup>3</sup>	%	2.7	3.0	2.0	0.0	2.2	0.0	0.0	0.2	0.0
Outer	M ac.	.9	1.0	1.4	.0	1.1	.1	.4	.3	.1
% of the upland riparian forest <sup>3</sup>	%	4.1	4.2	6.1	0.1	4.7	0.5	1.7	1.2	0.6
<b>10.2b. Mature+</b>										
Inner	M ac.	7.7	7.5	5.8	9.2	5.6	9.2	9.3	8.5	9.2
% of the upland riparian forest <sup>3</sup>	%	33.1	32.2	25.1	39.4	24.0	39.4	39.9	36.4	39.4
Outer	M ac.	8.8	8.5	5.0	11.0	5.2	9.7	8.8	9.9	9.3
% of the upland riparian forest <sup>3</sup>	%	37.9	36.7	21.3	47.3	22.5	41.9	37.9	42.8	39.9
<sup>1</sup> The total upland forest is 455,881 acres.										
<sup>2</sup> The total lowland forest is 62,195 acres.										
<sup>3</sup> The total upland riparian forest is 23,245 acres.										

Decade 10 Chippewa MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
<b>1. Upland Forest</b>										
<b>1a. Young</b>	M ac.	55.5	51.9	71.6	18.2	66.8	9.9	33.5	25.5	33.6
% of upland forest <sup>1</sup>	%	12.2	11.4	15.7	4.0	14.7	2.2	7.3	5.6	7.4
<b>1b. Mature+</b>	M ac.	226.5	217.6	128.6	350.3	162.2	395.4	266.1	325.2	291.6
% of upland forest <sup>1</sup>	%	49.7	66.6	28.2	76.9	35.6	86.7	58.4	71.3	64.0
<b>2. Upland Deciduous-dominated Forest</b>										
<b>2a. Young</b>	M ac.	45.7	40.7	50.1	10.7	49.5	5.6	19.9	11.9	17.7
% of upland forest <sup>1</sup>	%	10.0	8.9	11.0	2.3	10.9	1.2	4.4	2.6	3.9
<b>2b. Mature+</b>	M ac.	1004.0	156.9	66.3	162.4	80.0	170.9	141.4	152.6	134.8
% of upland forest <sup>1</sup>	%	1118.6	1118.6	14.6	35.6	17.5	37.5	31.0	33.5	29.6
<b>3. Upland Northern Hardwood Forest</b>										
<b>3a. Young</b>	M ac.	.8	1.5	.9		9.8		.0	.4	.4
% of upland forest <sup>1</sup>	%	0.2	0.3	0.2	0.0	2.2	0.0	0.0	0.1	0.1
<b>3b. Mature+</b>	%	60.3	55.1	58.0	133.0	69.4	143.5	92.0	137.1	96.6
% of upland forest <sup>1</sup>	M ac.	79.9	79.9	12.7	29.2	15.2	31.5	20.2	30.1	21.2
<b>4. Aspen / Birch Forest</b>										
<b>4a. Young</b>	M ac.	44.7	38.7	48.8	10.7	39.5	5.6	19.7	11.2	17.2
% of upland forest <sup>1</sup>	%	9.8	8.5	10.7	2.3	8.7	1.2	4.3	2.5	3.8
<b>4b. Mature+</b>	M ac.	100.0	93.1	2.1	19.9	4.4	18.0	41.1	7.1	29.2
% of upland forest <sup>1</sup>	%	21.9	20.4	0.5	4.4	1.0	3.9	9.0	1.6	6.4
<b>4c. Pole/Immature Stage</b>	M ac.	120.5	132.8	175.1	27.3	157.2	12.9	96.5	47.6	68.8
% of upland forest <sup>1</sup>	%	26.4	29.1	38.4	6.0	34.5	2.8	21.2	10.4	15.1
<b>5. Upland Conifer-dominated Forest</b>										
<b>5a. Young</b>	M ac.	9.8	11.2	21.4	7.5	17.3	4.3	13.6	13.6	15.9
% of upland forest <sup>1</sup>	%	2.1	2.5	4.7	1.6	3.8	0.9	3.0	3.0	3.5
<b>5b. Mature+</b>	M ac.	63.2	60.6	62.3	187.9	82.2	224.5	124.6	172.6	156.8
% of upland forest <sup>1</sup>	%	13.9	13.3	13.7	41.2	18.0	49.3	27.3	37.9	34.4
<b>6. Spruce / Fir Forest</b>										
<b>6a. Young</b>	M ac.	2.0	2.5	2.8	.4	2.6	1.0	.6	1.9	.5
% of upland forest <sup>1</sup>	%	0.4	0.6	0.6	0.1	0.6	0.2	0.1	0.4	0.1
<b>6b. Mature+</b>	M ac.	13.4	12.2	17.1	78.2	20.9	67.6	45.0	72.9	54.1
% of upland forest <sup>1</sup>	%	2.9	2.7	3.8	17.1	4.6	14.8	9.9	16.0	11.9
<b>7. Red and White Pine Forest</b>										
<b>7a. Young</b>	M ac.	3.1	3.6	14.2	2.0	10.5	.0	9.9	5.7	6.5
% of upland forest <sup>1</sup>	%	0.7	0.8	3.1	0.4	2.3	0.0	2.2	1.2	1.4
<b>7b. Mature+</b>	M ac.	40.6	40.7	37.7	99.0	51.9	130.9	69.7	89.2	81.3
% of upland forest <sup>1</sup>	%	8.9	8.9	8.3	21.7	11.4	28.7	15.3	19.6	17.8
<b>8. Jack Pine Forest</b>										
<b>8a. Young</b>	M ac.	4.6	5.0	4.4	5.1	4.2	3.3	3.0	6.0	8.9
% of upland forest <sup>1</sup>	%	1.0	1.1	1.0	1.1	0.9	0.7	0.7	1.3	1.9
<b>8b. Mature+</b>	M ac.	9.1	7.8	7.4	10.8	9.5	26.1	9.9	10.5	21.5
% of upland forest <sup>1</sup>	%	2.0	1.7	1.6	2.4	2.1	5.7	2.2	2.3	4.7
<b>9. Lowland Black Spruce /Tamarack Forest</b>										
<b>9a. Young</b>	M ac.	2.6	2.1	1.9	4.5	8.9		3.5	5.4	3.7
% of lowland conifer forest <sup>2</sup>	%	4.1	3.4	3.1	7.3	14.3	0.0	5.6	8.6	5.9
<b>9b. Mature+</b>	M ac.	54.6	55.0	54.3	49.8	49.5	62.2	53.4	51.4	50.5
% of lowland conifer	%	87.8	88.5	87.3	80.1	79.5	100.0	85.8	82.7	81.2

Decade 10 Chippewa MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
forest <sup>2</sup>										
<b>10.2. Riparian Upland Forest (zones 0' - 200') inner</b>										
<b>10.2a. Young</b>										
Inner	M ac.	.6	.7	.8		1.2		.0	.2	
% of the upland riparian forest <sup>3</sup>	%	2.7	3.0	3.5	0.0	5.0	0.0	0.0	1.0	0.0
Outer	M ac.	.9	1.0	1.3	.2	1.3	.3	1.0	.6	.6
% of the upland riparian forest <sup>3</sup>	%	4.1	4.2	5.8	1.0	5.5	1.2	4.2	2.4	2.4
<b>10.2b. Mature+</b>										
Inner	M ac.	7.7	7.5	7.5	10.0	7.4	10.0	9.9	9.3	10.0
% of the upland riparian forest <sup>3</sup>	%	33.1	32.2	32.1	42.9	31.7	42.9	42.6	40.1	42.9
Outer	M ac.	8.8	8.5	5.2	11.4	6.1	11.7	9.7	10.3	10.6
% of the upland riparian forest <sup>3</sup>	%	37.9	36.7	22.2	49.2	26.1	50.4	41.9	44.3	45.7
<sup>1</sup> The total upland forest is 455,881 acres.										
<sup>2</sup> The total lowland forest is 62,195 acres.										
<sup>3</sup> The total upland riparian forest is 23,245 acres.										

**Table DEIS-5 – Estimated low, mid, and high RNV values for Chippewa MIHs.**

Chippewa MIH RNVs	M ac.	% <sup>1</sup>
<b>1. Upland Forest</b>		
1a. Young		
Est. low end RNV	18.2	4.0
Est. mid pt RNV	25.5	5.6
Est. high end RNV	32.9	7.2
1b. Mature+		
Est. low end RNV	300.1	65.8
Est. mid pt RNV	325.2	71.3
Est. high end RNV	350.3	76.9
<b>2. Upland Deciduous-dominated Forest</b>		
2a. Young		
Est. low end RNV	10.7	2.3
Est. mid pt RNV	11.9	2.6
Est. high end RNV	13.1	2.9
2b. Mature+		
Est. low end RNV	142.9	31.3
Est. mid pt RNV	152.6	33.5
Est. high end RNV	162.4	35.6
<b>3. Upland Northern Hardwood Forest</b>		
3a. Young		
Est. low end RNV	0.0	0
Est. mid pt RNV	.4	0.1
Est. high end RNV	.8	0.2
3b. Mature+		
Est. low end RNV	133.0	29.2
Est. mid pt RNV	137.1	30.1
Est. high end RNV	141.1	30.9
<b>4. Aspen / Birch Forest</b>		
4a. Young		
Est. low end RNV	10.7	2.3
Est. mid pt RNV	11.2	2.5
Est. high end RNV	11.8	2.7
4b. Mature+		
Est. low end RNV	unk	unk
Est. mid pt RNV	7.1	1.6
Est. high end RNV	19.9	4.4
<b>4c. Pole/Immature Stage</b>	?	?
<b>5. Upland Conifer-dominated Forest</b>		
5a. Young		
Est. low end RNV	7.5	1.6
Est. mid pt RNV	13.6	3.0
Est. high end RNV	19.8	4.4
5b. Mature+		
Est. low end RNV	157.2	34.6
Est. mid pt RNV	172.6	37.9
Est. high end RNV	187.9	41.2
<b>6. Spruce / Fir Forest</b>		

Chippewa MIH RNVs	M ac.	% <sup>1</sup>
6a. Young		
Est. low end RNV	.4	0.1
Est. mid pt RNV	1.9	0.4
Est. high end RNV	3.4	0.7
6b. Mature+		
Est. low end RNV	67.7	14.9
Est. mid pt RNV	72.9	16.0
Est. high end RNV	78.2	17.1
<b>7. Red and White Pine Forest</b>		
7a. Young		
Est. low end RNV	2.0	0.4
Est. mid pt RNV	5.7	1.2
Est. high end RNV	9.4	2.0
7b. Mature+		
Est. low end RNV	79.4	17.5
Est. mid pt RNV	89.2	19.6
Est. high end RNV	99.0	21.7
<b>8. Jack Pine Forest</b>		
8a. Young		
Est. low end RNV	5.1	1.1
Est. mid pt RNV	6.0	1.3
Est. high end RNV	7.0	1.5
8b. Mature+		
Est. low end RNV	10.2	2.2
Est. mid pt RNV	10.5	2.3
Est. high end RNV	10.8	2.4
<b>9. Lowland Black Spruce /Tamarack Forest</b>		
9a. Young		
Est. low end RNV	4.5	7.3
Est. mid pt RNV	5.4	8.6
Est. high end RNV	6.2	10.0
9b. Mature+		
Est. low end RNV	49.8	80.1
Est. mid pt RNV	51.4	82.7
Est. high end RNV	53.0	85.3
<b>10.2. Riparian Upland Forest (zones 0' - 200') inner</b>		
10.2a. Young		
10.2b. Mature+		

<sup>1</sup> RNV values for MIHs 1-8 are the percent of total upland forest (455,881 acres). RNV values for MIH 9 are the percent of total lowland forest (62,195 acres).

**Table DEIS-6: Superior National Forest. Management Indicator Habitats (MIH) by Alternative for decades 2, 5, and 10.**

Decade 2 Superior MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
<b>1. Upland Forest</b>										
<b>1a. Young</b>										
Outside BWCAW	M ac.	128.2	126.6	129.1	46.0	141.8	44.7	101.7	80.0	86.2
% of upland forest outside BWCAW <sup>1</sup>	%	13.3	13.1	13.4	4.8	14.7	4.6	10.6	8.3	8.9
Inside BWCAW	M ac.	111.6	111.6	9.0	9.0	9.0	9.0	9.0	9.0	9.0
% of upland forest inside BWCAW <sup>2</sup>	%	16.3	16.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Combination	M ac.	239.8	238.2	138.2	55.1	150.9	53.8	110.8	89.0	95.2
% of total upland forest <sup>3</sup>	%	14.5	14.5	8.4	3.3	9.2	3.3	6.7	5.4	5.8
<b>1b. Mature+</b>										
Outside BWCAW	M ac.	540.6	528.9	366.1	527.6	306.6	512.0	445.7	473.9	454.6
% of upland forest outside BWCAW <sup>1</sup>	%	56.1	54.9	38.0	54.7	31.8	53.1	46.2	49.2	47.2
Inside BWCAW	M ac.	319.6	319.6	352.2	352.2	352.2	352.2	352.2	352.2	352.2
& of upland forest inside BWCAW <sup>2</sup>	%	46.7	46.7	51.4	51.4	51.4	51.4	51.4	51.4	51.4
Combination	M ac.	860.2	848.5	718.3	879.8	658.8	864.2	797.9	826.1	806.8
% of total upland forest <sup>3</sup>	%	52.2	51.5	43.6	53.4	40.0	52.4	48.4	50.1	48.9
<b>2. Upland Deciduous-dominated Forest</b>										
<b>2a. Young</b>										
Outside BWCAW	M ac.	63.9	60.5	109.4	36.1	103.9	20.0	65.1	56.7	66.7
% of upland forest outside BWCAW <sup>1</sup>	%	6.6	6.3	11.4	3.7	10.8	2.1	6.8	5.9	6.9
Inside BWCAW	M ac.	12.2	12.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
& of upland forest inside BWCAW <sup>2</sup>	%	1.8	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Combination	M ac.	76.1	72.8	112.7	39.3	107.1	23.2	68.4	59.9	70.0
% of total upland forest <sup>3</sup>	%	4.6	4.4	6.8	2.4	6.5	1.4	4.1	3.6	4.2
<b>2b. Mature+</b>										
Outside BWCAW	M ac.	370.2	360.8	187.7	331.6	156.1	274.7	228.3	297.5	273.2
% of upland forest outside BWCAW <sup>1</sup>	%	38.4	37.4	19.5	34.4	16.2	28.5	23.7	30.9	28.3
Inside BWCAW	M ac.	198.8	198.8	181.9	181.9	181.9	181.9	181.9	181.9	181.9
& of upland forest inside BWCAW <sup>2</sup>	%	29.0	29.0	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Combination	M ac.	569.0	559.6	369.7	513.5	338.0	456.7	410.2	479.4	455.1
% of total upland forest <sup>3</sup>	%	34.5	33.9	22.4	31.2	20.5	27.7	24.9	29.1	27.6
<b>3. Upland Northern Hardwood Forest</b>										
<b>3a. Young</b>										
Outside BWCAW	M ac.	.3	.6	.9	.0	3.4	.0	.8	.7	.8
% of upland forest outside BWCAW <sup>1</sup>	%	0.0	0.1	0.1	0.0	0.4	0.0	0.1	0.1	0.1
Inside BWCAW	M ac.	0	0	0	0	0	0	0	0	0

<b>Decade 2 Superior MIH</b>	<b>Units</b>	<b>Exist 2000</b>	<b>Exist 2003</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Mod E</b>	<b>F</b>	<b>G</b>
% of upland forest inside BWCAW <sup>2</sup>	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combination	M ac.	.3	.6	.9	.0	3.4	.0	.8	.7	.8
% of total upland forest <sup>3</sup>	%	0.0	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.0
<b>3b. Mature+</b>										
Outside BWCAW	M ac.	35.4	35.6	34.4	36.1	31.6	37.0	35.4	34.4	34.9
% of upland forest outside BWCAW <sup>1</sup>	%	3.7	3.7	3.6	3.7	3.3	3.8	3.7	3.6	3.6
Inside BWCAW	M ac.	0	0	0	0	0	0	0	0	0
% of upland forest inside BWCAW <sup>2</sup>	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combination	M ac.	35.4	35.6	34.4	36.1	31.6	37.0	35.4	34.4	34.9
% of total upland forest <sup>3</sup>	%	2.1	2.2	2.1	2.2	1.9	2.2	2.1	2.1	2.1
<b>4. Aspen / Birch Forest</b>										
<b>4a. Young</b>										
Outside BWCAW	M ac.	63.5	59.9	108.6	36.1	100.5	20.0	64.3	56.0	65.9
% of upland forest outside BWCAW <sup>1</sup>	%	6.6	6.2	11.3	3.7	10.4	2.1	6.7	5.8	6.8
Inside BWCAW	M ac.	12.2	12.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
% of upland forest inside BWCAW <sup>2</sup>	%	1.8	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Combination	M ac.	75.8	72.1	111.8	39.3	103.8	23.2	67.5	59.2	69.2
% of total upland forest <sup>3</sup>	%	4.6	4.4	6.8	2.4	6.3	1.4	4.1	3.6	4.2
<b>4b. Mature+</b>										
Outside BWCAW	M ac.	334.8	325.1	153.3	295.5	124.5	237.7	192.9	263.1	238.3
% of upland forest outside BWCAW <sup>1</sup>	%	34.7	33.7	15.9	30.7	12.9	24.7	20.0	27.3	24.7
Inside BWCAW	M ac.	198.8	198.8	181.9	181.9	181.9	181.9	181.9	181.9	181.9
% of upland forest inside BWCAW <sup>2</sup>	%	29.0	29.0	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Combination	M ac.	533.6	523.9	335.3	477.4	306.5	419.7	374.8	445.0	420.3
% of total upland forest <sup>3</sup>	%	32.4	31.8	20.3	29.0	18.6	25.5	22.7	27.0	25.5
<b>4c. Pole/Immature Stage</b>										
Outside BWCAW	M ac.	149.2	161.9	286.0	216.3	322.8	191.5	222.6	228.8	243.6
% of upland forest outside BWCAW <sup>1</sup>	%	15.5	16.8	29.7	22.4	33.5	19.9	23.1	23.7	25.3
Inside BWCAW	M ac.	30.3	30.3	54.4	54.4	54.4	54.4	54.4	54.4	54.4
% of upland forest inside BWCAW <sup>2</sup>	%	4.4	4.4	7.9	7.9	7.9	7.9	7.9	7.9	7.9
Combination	M ac.	179.6	192.2	340.4	270.7	377.2	245.9	277.0	283.2	298.0
% of total upland forest <sup>3</sup>	%	10.9	11.7	20.6	16.4	22.9	14.9	16.8	17.2	18.1
<b>5. Upland Conifer-dominated Forest</b>										
<b>5a. Young</b>										
Outside BWCAW	M ac.	64.3	66.1	19.7	10.0	37.9	24.8	36.6	23.3	21.5
% of upland forest outside BWCAW <sup>1</sup>	%	6.7	6.9	2.0	1.0	3.9	2.6	3.8	2.4	2.2
Inside BWCAW	M ac.	99.4	99.4	5.8	5.8	5.8	5.8	5.8	5.8	5.8

<b>Decade 2 Superior MIH</b>	<b>Units</b>	<b>Exist 2000</b>	<b>Exist 2003</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Mod E</b>	<b>F</b>	<b>G</b>
% of upland forest inside BWCAW <sup>2</sup>	%	14.5	14.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Combination	M ac.	163.7	165.4	25.5	15.8	43.7	30.6	42.4	29.2	27.3
% of total upland forest <sup>3</sup>	%	9.9	10.0	1.5	1.0	2.7	1.9	2.6	1.8	1.7
<b>5b. Mature+</b>										
Outside BWCAW	M ac.	170.4	168.1	178.4	196.0	150.6	237.3	217.4	176.4	197.8
% of upland forest outside BWCAW <sup>1</sup>	%	17.7	17.4	18.5	20.3	15.6	24.6	22.6	18.3	20.5
Inside BWCAW	M ac.	319.6	319.6	352.2	352.2	352.2	352.2	352.2	352.2	352.2
% of upland forest inside BWCAW <sup>2</sup>	%	46.7	46.7	51.4	51.4	51.4	51.4	51.4	51.4	51.4
Combination	M ac.	490.0	487.7	530.6	548.2	502.7	589.5	569.6	528.6	550.0
% of total upland forest <sup>3</sup>	%	29.7	29.6	32.2	33.3	30.5	35.8	34.6	32.1	33.4
<b>6. Spruce / Fir Forest</b>										
<b>6a. Young</b>										
Outside BWCAW	M ac.	42.3	41.4	8.9	5.4	25.3	.0	.7	10.1	9.4
% of upland forest outside BWCAW <sup>1</sup>	%	4.4	4.3	0.9	0.6	2.6	0.0	0.1	1.0	1.0
Inside BWCAW	M ac.	75.5	75.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6
% of upland forest inside BWCAW <sup>2</sup>	%	11.0	11.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Combination	M ac.	117.8	117.0	13.5	10.1	29.9	4.6	5.3	14.7	14.0
% of total upland forest <sup>3</sup>	%	7.1	7.1	0.8	0.6	1.8	0.3	0.3	0.9	0.9
<b>6b. Mature+</b>										
Outside BWCAW	M ac.	71.5	71.7	80.6	82.3	56.6	119.7	102.7	75.1	73.9
% of upland forest outside BWCAW <sup>1</sup>	%	7.4	7.4	8.4	8.5	5.9	12.4	10.7	7.8	7.7
Inside BWCAW	M ac.	159.7	159.7	196.0	196.0	196.0	196.0	196.0	196.0	196.0
% of upland forest inside BWCAW <sup>2</sup>	%	23.3	23.3	28.6	28.6	28.6	28.6	28.6	28.6	28.6
Combination	M ac.	231.2	231.4	276.6	278.3	252.6	315.7	298.7	271.1	269.9
% of total upland forest <sup>3</sup>	%	14.0	14.0	16.8	16.9	15.3	19.1	18.1	16.4	16.4
<b>7. Red and White Pine Forest</b>										
<b>7a. Young</b>										
Outside BWCAW	M ac.	12.3	15.0	.8	.0	1.7	1.0	8.4	.8	.3
% of upland forest outside BWCAW <sup>1</sup>	%	1.3	1.6	0.1	0.0	0.2	0.1	0.9	0.1	0.0
Inside BWCAW	M ac.	20.3	20.3	.8	.8	.8	.8	.8	.8	.8
% of upland forest inside BWCAW <sup>2</sup>	%	3.0	3.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Combination	M ac.	32.6	35.3	1.6	.8	2.5	1.8	9.2	1.5	1.0
% of total upland forest <sup>3</sup>	%	2.0	2.1	0.1	0.0	0.2	0.1	0.6	0.1	0.1
<b>7b. Mature+</b>										
Outside BWCAW	M ac.	46.3	44.3	60.4	61.5	59.6	61.5	69.5	60.3	61.1
% of upland forest outside BWCAW <sup>1</sup>	%	4.8	4.6	6.3	6.4	6.2	6.4	7.2	6.3	6.3
Inside BWCAW	M ac.	30.5	30.5	36.7	36.7	36.7	36.7	36.7	36.7	36.7

Decade 2 Superior MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
% of upland forest inside BWCAW <sup>2</sup>	%	4.5	4.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Combination	M ac.	76.8	74.8	97.1	98.2	96.3	98.2	106.2	97.0	97.8
% of total upland forest <sup>3</sup>	%	4.7	4.5	5.9	6.0	5.8	6.0	6.4	5.9	5.9
<b>8. Jack Pine Forest</b>										
<b>8a. Young</b>										
Outside BWCAW	M ac.	9.8	9.6	10.0	4.5	10.9	23.8	27.5	12.5	9.8
% of upland forest outside BWCAW <sup>1</sup>	%	1.0	1.0	1.0	0.5	1.1	2.5	2.9	1.3	1.0
Inside BWCAW	M ac.	3.5	3.5	.4	.4	.4	.4	.4	.4	.4
% of upland forest inside BWCAW <sup>2</sup>	%	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Combination	M ac.	13.3	13.1	10.4	4.9	11.3	24.2	27.9	12.9	10.2
% of total upland forest <sup>3</sup>	%	0.8	0.8	0.6	0.3	0.7	1.5	1.7	0.8	0.6
<b>8b. Mature+</b>										
Outside BWCAW	M ac.	52.5	52.1	37.4	52.2	34.3	56.1	45.3	41.0	46.4
% of upland forest outside BWCAW <sup>1</sup>	%	5.4	5.4	3.9	5.4	3.6	5.8	4.7	4.3	4.8
Inside BWCAW	M ac.	129.5	129.5	119.5	119.5	119.5	119.5	119.5	119.5	119.5
% of upland forest inside BWCAW <sup>2</sup>	%	18.9	18.9	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Combination	M ac.	182.0	181.5	156.9	171.7	153.8	175.6	164.8	160.5	165.9
% of total upland forest <sup>3</sup>	%	11.0	11.0	9.5	10.4	9.3	10.7	10.0	9.7	10.1
<b>9. Lowland Black Spruce /Tamarack Forest</b>										
<b>9a. Young</b>										
Outside BWCAW	M ac.	7.2	6.8	24.4	13.3	61.2	.0	15.0	15.6	10.2
% of lowland forest outside BWCAW <sup>4</sup>	%	3.5	3.3	11.9	6.4	29.8	0.0	7.3	7.6	5.0
Inside BWCAW	M ac.	6.7	6.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4
% of lowland forest inside BWCAW <sup>5</sup>	%	8.6	8.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Combination	M ac.	13.9	13.5	25.9	14.7	62.7	1.4	16.4	17.0	11.6
% of total lowland forest <sup>6</sup>	%	4.9	4.8	9.1	5.2	22.1	0.5	5.8	6.0	4.1
<b>9b. Mature+</b>										
Outside BWCAW	M ac.	172.7	174.5	165.7	176.9	128.9	190.1	175.5	174.5	179.9
% of lowland forest outside BWCAW <sup>4</sup>	%	84.1	84.9	80.6	86.1	62.7	92.5	85.4	84.9	87.6
Inside BWCAW	M ac.	52.1	52.1	52.8	52.8	52.8	52.8	52.8	52.8	52.8
% of lowland forest inside BWCAW <sup>5</sup>	%	67.2	67.2	68.1	68.1	68.1	68.1	68.1	68.1	68.1
Combination	M ac.	224.9	226.6	218.5	229.7	181.7	242.9	228.3	227.3	232.7
% of total lowland forest <sup>6</sup>	%	79.4	80.1	77.2	81.1	64.2	85.8	80.7	80.3	82.2
<b>10 Riparian Upland Forest (zones 0' - 200')</b>										
<b>10a Young</b>										
Inner	M ac.	3.7	3.7	1.3	.0	3.0	.0	.0	.5	.0
% of the upland riparian forest <sup>7</sup>	%	5.3	5.3	1.8	0.0	4.3	0.0	0.0	0.8	0.0

Decade 2 Superior MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
Outer	M ac.	5.3	5.3	3.9	.6	4.9	1.5	2.6	2.5	1.6
% of the upland riparian forest <sup>7</sup>	%	7.6	7.6	5.5	0.9	6.9	2.1	3.7	3.6	2.4
Total Acres	M ac.	9.0	9.1	5.1	.6	7.9	1.5	2.6	3.1	1.6
<b>10b Mature+</b>										
Inner	M ac.	21.2	20.9	18.3	21.3	16.1	21.2	20.9	20.4	21.3
% of the upland riparian forest <sup>7</sup>	%	30.2	29.9	26.2	30.4	22.9	30.3	29.9	29.1	30.4
Outer	M ac.	26.5	26.2	19.6	26.3	17.1	24.3	22.7	22.9	24.9
% of the upland riparian forest <sup>7</sup>	%	37.9	37.4	28.0	37.5	24.5	34.7	32.4	32.8	35.6
Total Acres	M ac.	21.3	21.1	18.5	21.4	16.2	21.4	21.1	20.5	21.4
<sup>1</sup> The total upland forest outside the BWCAW is 963,733 acres.										
<sup>2</sup> The total upland forest inside the BWCAW is 684,673 acres.										
<sup>3</sup> The total upland forest outside and inside the BWCAW is 1,648,406 acres.										
<sup>4</sup> The total lowland forest outside the BWCAW is 205,489 acres.										
<sup>5</sup> The total lowland forest inside the BWCAW is 77,562 acres.										
<sup>6</sup> The total lowland forest outside and inside the BWCAW is 283,051 acres.										
<sup>7</sup> The total upland riparian forest outside the BWCAW is 69,983 acres.										

Decade 5 Superior MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
<b>1. Upland Forest</b>										
<b>1a. Young</b>										
Outside BWCAW	M ac.	128.2	126.6	145.9	46.2	142.3	23.5	97.6	70.3	86.5
% of upland forest outside BWCAW <sup>1</sup>	%	13.3	13.1	15.1	4.8	14.8	2.4	10.1	7.3	9.0
Inside BWCAW	M ac.	111.6	111.6	9.9	9.9	9.9	9.9	9.9	9.9	9.9
% of upland forest inside BWCAW <sup>2</sup>	%	16.3	16.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Combination	M ac.	239.8	238.2	155.7	56.1	152.2	33.4	107.5	80.2	96.3
% of total upland forest <sup>3</sup>	%	14.5	14.5	9.4	3.4	9.2	2.0	6.5	4.9	5.8
<b>1b. Mature+</b>										
Outside BWCAW	M ac.	540.6	528.9	360.4	695.3	322.7	730.9	487.7	578.9	528.4
% of upland forest outside BWCAW <sup>1</sup>	%	56.1	54.9	37.4	72.1	33.5	75.8	50.6	60.1	54.8
Inside BWCAW	M ac.	319.6	319.6	460.9	460.9	460.9	460.9	460.9	460.9	460.9
% of upland forest inside BWCAW <sup>2</sup>	%	46.7	46.7	67.3	67.3	67.3	67.3	67.3	67.3	67.3
Combination	M ac.	860.2	848.5	821.3	1156.1	783.6	1191.8	948.6	1039.8	989.3
% of total upland forest <sup>3</sup>	%	52.2	51.5	49.8	70.1	47.5	72.3	57.5	63.1	60.0
<b>2. Upland Deciduous-dominated Forest</b>										
<b>2a. Young</b>										
Outside BWCAW	M ac.	63.9	60.5	103.7	30.0	102.3	10.9	69.7	45.2	55.1
% of upland forest outside BWCAW <sup>1</sup>	%	6.6	6.3	10.8	3.1	10.6	1.1	7.2	4.7	5.7
Inside BWCAW	M ac.	12.2	12.2	3.4	3.4	3.4	3.4	3.4	3.4	3.4

Decade 5 Superior MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
% of upland forest inside BWCAW <sup>2</sup>	%	1.8	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Combination	M ac.	76.1	72.8	107.2	33.4	105.7	14.3	73.1	48.6	58.6
% of total upland forest <sup>3</sup>	%	4.6	4.4	6.5	2.0	6.4	0.9	4.4	3.0	3.6
<b>2b. Mature+</b>										
Outside BWCAW	M ac.	370.2	360.8	146.4	393.1	137.9	246.1	127.7	326.0	269.1
% of upland forest outside BWCAW <sup>1</sup>	%	38.4	37.4	15.2	40.8	14.3	25.5	13.3	33.8	27.9
Inside BWCAW	M ac.	198.8	198.8	139.8	139.8	139.8	139.8	139.8	139.8	139.8
% of upland forest inside BWCAW <sup>2</sup>	%	29.0	29.0	20.4	20.4	20.4	20.4	20.4	20.4	20.4
Combination	M ac.	569.0	559.6	286.2	532.9	277.7	385.9	267.5	465.8	408.9
% of total upland forest <sup>3</sup>	%	34.5	33.9	17.4	32.3	16.8	23.4	16.2	28.3	24.8
<b>3. Upland Northern Hardwood Forest</b>										
<b>3a. Young</b>										
Outside BWCAW	M ac.	.3	.6	1.3	.0	.8	.0	.7	.8	.2
% of upland forest outside BWCAW <sup>1</sup>	%	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0
Inside BWCAW	M ac.	0	0	0	0	0	0	0	0	0
% of upland forest inside BWCAW <sup>2</sup>	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combination	M ac.	.3	.6	1.3	.0	.8	.0	.7	.8	.2
% of total upland forest <sup>3</sup>	%	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
<b>3b. Mature+</b>										
Outside BWCAW	M ac.	35.4	35.6	33.1	38.1	30.6	43.9	39.2	34.2	35.0
% of upland forest outside BWCAW <sup>1</sup>	%	3.7	3.7	3.4	4.0	3.2	4.6	4.1	3.6	3.6
Inside BWCAW	M ac.	0	0	0	0	0	0	0	0	0
% of upland forest inside BWCAW <sup>2</sup>	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combination	M ac.	35.4	35.6	33.1	38.1	30.6	43.9	39.2	34.2	35.0
% of total upland forest <sup>3</sup>	%	2.1	2.2	2.0	2.3	1.9	2.7	2.4	2.1	2.1
<b>4. Aspen / Birch Forest</b>										
<b>4a. Young</b>										
Outside BWCAW	M ac.	63.5	59.9	102.5	30.0	101.5	10.9	69.0	44.5	55.0
% of upland forest outside BWCAW <sup>1</sup>	%	6.6	6.2	10.6	3.1	10.5	1.1	7.2	4.6	5.7
Inside BWCAW	M ac.	12.2	12.2	3.4	3.4	3.4	3.4	3.4	3.4	3.4
% of upland forest inside BWCAW <sup>2</sup>	%	1.8	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Combination	M ac.	75.8	72.1	105.9	33.4	104.9	14.3	72.4	47.9	58.4
% of total upland forest <sup>3</sup>	%	4.6	4.4	6.4	2.0	6.4	0.9	4.4	2.9	3.5
<b>4b. Mature+</b>										
Outside BWCAW	M ac.	334.8	325.1	113.2	355.0	107.4	202.1	88.5	291.8	234.1
% of upland forest outside BWCAW <sup>1</sup>	%	34.7	33.7	11.7	36.8	11.1	21.0	9.2	30.3	24.3
Inside BWCAW	M ac.	198.8	198.8	139.8	139.8	139.8	139.8	139.8	139.8	139.8

Decade 5 Superior MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
% of upland forest inside BWCAW <sup>2</sup>	%	29.0	29.0	20.4	20.4	20.4	20.4	20.4	20.4	20.4
Combination	M ac.	533.6	523.9	253.0	494.8	247.2	341.9	228.3	431.6	373.9
% of total upland forest <sup>3</sup>	%	32.4	31.8	15.4	30.0	15.0	20.7	13.9	26.2	22.7
<b>4c. Pole/Immature Stage</b>										
Outside BWCAW	M ac.	149.2	161.9	332.2	162.9	339.0	48.2	208.2	211.7	258.8
% of upland forest outside BWCAW <sup>1</sup>	%	15.5	16.8	34.5	16.9	35.2	5.0	21.6	22.0	26.9
Inside BWCAW	M ac.	30.3	30.3	24.5	24.5	24.5	24.5	24.5	24.5	24.5
% of upland forest inside BWCAW <sup>2</sup>	%	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Combination	M ac.	179.6	192.2	356.6	187.4	363.5	72.7	232.7	236.1	283.3
% of total upland forest <sup>3</sup>	%	10.9	11.7	21.6	11.4	22.1	4.4	14.1	14.3	17.2
<b>5. Upland Conifer-dominated Forest</b>										
<b>5a. Young</b>										
Outside BWCAW	M ac.	64.3	66.1	42.1	16.2	40.1	12.6	28.0	25.1	31.3
% of upland forest outside BWCAW <sup>1</sup>	%	6.7	6.9	4.4	1.7	4.2	1.3	2.9	2.6	3.3
Inside BWCAW	M ac.	99.4	99.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5
% of upland forest inside BWCAW <sup>2</sup>	%	14.5	14.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Combination	M ac.	163.7	165.4	48.6	22.7	46.5	19.1	34.4	31.5	37.8
% of total upland forest <sup>3</sup>	%	9.9	10.0	2.9	1.4	2.8	1.2	2.1	1.9	2.3
<b>5b. Mature+</b>										
Outside BWCAW	M ac.	170.4	168.1	214.0	302.2	184.8	484.9	360.0	252.9	259.3
% of upland forest outside BWCAW <sup>1</sup>	%	17.7	17.4	22.2	31.4	19.2	50.3	37.4	26.2	26.9
Inside BWCAW	M ac.	319.6	319.6	460.9	460.9	460.9	460.9	460.9	460.9	460.9
% of upland forest inside BWCAW <sup>2</sup>	%	46.7	46.7	67.3	67.3	67.3	67.3	67.3	67.3	67.3
Combination	M ac.	490.0	487.7	674.9	763.0	645.7	945.8	820.9	713.8	720.2
% of total upland forest <sup>3</sup>	%	29.7	29.6	40.9	46.3	39.2	57.4	49.8	43.3	43.7
<b>6. Spruce / Fir Forest</b>										
<b>6a. Young</b>										
Outside BWCAW	M ac.	42.3	41.4	27.2	4.7	26.1	.0	1.2	9.8	11.6
% of upland forest outside BWCAW <sup>1</sup>	%	4.4	4.3	2.8	0.5	2.7	0.0	0.1	1.0	1.2
Inside BWCAW	M ac.	75.5	75.5	4.8	4.8	4.8	4.8	4.8	4.8	4.8
% of upland forest inside BWCAW <sup>2</sup>	%	11.0	11.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Combination	M ac.	117.8	117.0	32.0	9.4	30.9	4.8	5.9	14.6	16.4
% of total upland forest <sup>3</sup>	%	7.1	7.1	1.9	0.6	1.9	0.3	0.4	0.9	1.0
<b>6b. Mature+</b>										
Outside BWCAW	M ac.	71.5	71.7	91.3	143.8	67.6	274.8	212.9	119.4	115.5
% of upland forest outside BWCAW <sup>19</sup>	%	7.4	7.4	9.5	14.9	7.0	28.5	22.1	12.4	12.0
Inside BWCAW	M ac.	159.7	159.7	332.5	332.5	332.5	332.5	332.5	332.5	332.5

<b>Decade 5 Superior MIH</b>	<b>Units</b>	<b>Exist 2000</b>	<b>Exist 2003</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Mod E</b>	<b>F</b>	<b>G</b>
% of upland forest inside BWCAW <sup>2</sup>	%	23.3	23.3	48.6	48.6	48.6	48.6	48.6	48.6	48.6
Combination	M ac.	231.2	231.4	423.9	476.4	400.1	607.4	545.4	452.0	448.0
% of total upland forest <sup>3</sup>	%	14.0	14.0	25.7	28.9	24.3	36.8	33.1	27.4	27.2
<b>7. Red and White Pine Forest</b>										
<b>7a. Young</b>										
Outside BWCAW	M ac.	12.3	15.0	5.3	.7	4.5	.0	7.9	3.0	3.6
% of upland forest outside BWCAW <sup>1</sup>	%	1.3	1.6	0.6	0.1	0.5	0.0	0.8	0.3	0.4
Inside BWCAW	M ac.	20.3	20.3	.9	.9	.9	.9	.9	.9	.9
% of upland forest inside BWCAW <sup>2</sup>	%	3.0	3.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Combination	M ac.	32.6	35.3	6.2	1.5	5.4	.9	8.8	3.9	4.5
% of total upland forest <sup>3</sup>	%	2.0	2.1	0.4	0.1	0.3	0.1	0.5	0.2	0.3
<b>7b. Mature+</b>										
Outside BWCAW	M ac.	46.3	44.3	80.4	99.8	73.8	106.2	88.9	94.6	94.8
% of upland forest outside BWCAW <sup>1</sup>	%	4.8	4.6	8.3	10.4	7.7	11.0	9.2	9.8	9.8
Inside BWCAW	M ac.	30.5	30.5	48.1	48.1	48.1	48.1	48.1	48.1	48.1
% of upland forest inside BWCAW <sup>2</sup>	%	4.5	4.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Combination	M ac.	76.8	74.8	128.5	147.8	121.9	154.2	136.9	142.7	142.9
% of total upland forest <sup>3</sup>	%	4.7	4.5	7.8	9.0	7.4	9.4	8.3	8.7	8.7
<b>8. Jack Pine Forest</b>										
<b>8a. Young</b>										
Outside BWCAW	M ac.	9.8	9.6	9.6	10.9	9.5	12.6	18.9	12.2	16.0
% of upland forest outside BWCAW <sup>1</sup>	%	1.0	1.0	1.0	1.1	1.0	1.3	2.0	1.3	1.7
Inside BWCAW	M ac.	3.5	3.5	.8	.8	.8	.8	.8	.8	.8
% of upland forest inside BWCAW <sup>2</sup>	%	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Combination	M ac.	13.3	13.1	10.4	11.7	10.3	13.4	19.7	13.0	16.9
% of total upland forest <sup>3</sup>	%	0.8	0.8	0.6	0.7	0.6	0.8	1.2	0.8	1.0
<b>8b. Mature+</b>										
Outside BWCAW	M ac.	52.5	52.1	42.3	58.6	43.4	103.9	58.2	38.8	49.1
% of upland forest outside BWCAW <sup>1</sup>	%	5.4	5.4	4.4	6.1	4.5	10.8	6.0	4.0	5.1
Inside BWCAW	M ac.	129.5	129.5	80.3	80.3	80.3	80.3	80.3	80.3	80.3
% of upland forest inside BWCAW <sup>2</sup>	%	18.9	18.9	11.7	11.7	11.7	11.7	11.7	11.7	11.7
Combination	M ac.	182.0	181.5	122.5	138.8	123.7	184.1	138.5	119.1	129.3
% of total upland forest <sup>3</sup>	%	11.0	11.0	7.4	8.4	7.5	11.2	8.4	7.2	7.8
<b>9. Lowland Black Spruce /Tamarack Forest</b>										
<b>9a. Young</b>										
Outside BWCAW	M ac.	7.2	6.8	14.5	13.4	11.0	.0	13.0	15.7	10.6
% of lowland forest outside BWCAW <sup>4</sup>	%	3.5	3.3	7.0	6.5	5.3	0.0	6.3	7.6	5.1

<b>Decade 5 Superior MIH</b>	<b>Units</b>	<b>Exist 2000</b>	<b>Exist 2003</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Mod E</b>	<b>F</b>	<b>G</b>
Inside BWCAW	M ac.	6.7	6.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0
% of lowland forest inside BWCAW <sup>5</sup>	%	8.6	8.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Combination	M ac.	13.9	13.5	16.5	15.4	13.0	2.0	15.0	17.7	12.6
% of total lowland forest <sup>6</sup>	%	4.9	4.8	5.8	5.5	4.6	0.7	5.3	6.3	4.4
<b>9b. Mature+</b>										
Outside BWCAW	M ac.	172.7	174.5	122.0	169.7	120.9	203.2	166.6	164.1	177.2
% of lowland forest outside BWCAW <sup>4</sup>	%	84.1	84.9	59.4	82.6	58.8	98.9	81.1	79.8	86.2
Inside BWCAW	M ac.	52.1	52.1	55.9	55.9	55.9	55.9	55.9	55.9	55.9
% of lowland forest inside BWCAW <sup>5</sup>	%	67.2	67.2	72.1	72.1	72.1	72.1	72.1	72.1	72.1
Combination	M ac.	224.9	226.6	177.9	225.6	176.8	259.1	222.5	220.0	233.1
% of total lowland forest <sup>6</sup>	%	79.4	80.1	62.8	79.7	62.5	91.5	78.6	77.7	82.4
<b>10 Riparian Upland Forest (zones 0' - 200')</b>										
<b>10a Young</b>										
Inner	M ac.	3.7	3.7	.6	.0	.5	.0	.0	.9	.0
% of the upland riparian forest <sup>7</sup>	%	5.3	5.3	0.8	0.0	0.8	0.0	0.0	1.3	0.0
Outer	M ac.	5.3	5.3	5.3	1.0	5.2	.7	1.7	2.3	2.0
% of the upland riparian forest <sup>7</sup>	%	7.6	7.6	7.5	1.5	7.5	1.0	2.4	3.3	2.9
Total Acres	M ac.	9.0	9.1	5.9	1.0	5.8	.7	1.7	3.2	2.0
<b>10b Mature+</b>										
Inner	M ac.	21.2	20.9	36.5	23.7	16.5	22.9	22.5	21.9	23.7
% of the upland riparian forest <sup>7</sup>	%	30.2	29.9	52.2	33.8	23.6	32.7	32.2	31.2	33.8
Outer	M ac.	26.5	26.2	19.1	32.2	17.7	30.2	24.9	25.8	28.6
% of the upland riparian forest <sup>7</sup>	%	37.9	37.4	27.3	46.0	25.2	43.1	35.6	36.9	40.8
Total Acres	M ac.	21.3	21.1	36.7	23.8	16.7	23.1	22.7	22.0	23.8
<sup>1</sup> The total upland forest outside the BWCAW is 963,733 acres.										
<sup>2</sup> The total upland forest inside the BWCAW is 684,673 acres.										
<sup>3</sup> The total upland forest outside and inside the BWCAW is 1,648,406 acres.										
<sup>4</sup> The total lowland forest outside the BWCAW is 205,489 acres.										
<sup>5</sup> The total lowland forest inside the BWCAW is 77,562 acres.										
<sup>6</sup> The total lowland forest outside and inside the BWCAW is 283,051 acres.										
<sup>7</sup> The total upland riparian forest outside the BWCAW is 69,983 acres.										

Decade 10 Superior MIH	Units	Exist 2000	Exist 2003	A	B	C	D	Mod E	F	G
units		M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.
<b>1. Upland Forest</b>										
<b>1a. Young</b>										
Outside BWCAW	M ac.	128.2	126.6	143.5	57.6	137.9	22.6	94.2	90.5	97.4
% of upland forest outside BWCAW <sup>1</sup>	%	13.3	13.1	14.9	6.0	14.3	2.3	9.8	9.4	10.1
Inside BWCAW	M ac.	111.6	111.6	9.0	9.0	9.0	9.0	9.0	9.0	9.0
% of upland forest inside BWCAW <sup>2</sup>	%	16.3	16.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Combination	M ac.	239.8	238.2	152.6	66.6	146.9	31.6	103.3	99.5	106.4
% of total upland forest <sup>3</sup>	%	14.5	14.5	9.3	4.0	8.9	1.9	6.3	6.0	6.5
<b>1b. Mature+</b>										
Outside BWCAW	M ac.	540.6	528.9	354.9	714.1	366.4	820.0	559.7	599.5	554.1
% of upland forest outside BWCAW <sup>1</sup>	%	56.1	54.9	36.8	74.1	38.0	85.1	58.1	62.2	57.5
Inside BWCAW	M ac.	319.6	319.6	519.1	519.1	519.1	519.1	519.1	519.1	519.1
% of upland forest inside BWCAW <sup>2</sup>	%	46.7	46.7	75.8	75.8	75.8	75.8	75.8	75.8	75.8
Combination	M ac.	860.2	848.5	874.1	1233.2	885.6	1339.1	1078.8	1118.6	1073.2
% of total upland forest <sup>3</sup>	%	52.2	51.5	53.0	74.8	53.7	81.2	65.4	67.9	65.1
<b>2. Upland Deciduous-dominated Forest</b>										
<b>2a. Young</b>										
Outside BWCAW	M ac.	63.9	60.5	94.4	37.4	86.1	4.0	60.2	57.0	60.5
% of upland forest outside BWCAW <sup>1</sup>	%	6.6	6.3	9.8	3.9	8.9	0.4	6.2	5.9	6.3
Inside BWCAW	M ac.	12.2	12.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
% of upland forest inside BWCAW <sup>2</sup>	%	1.8	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Combination	M ac.	76.1	72.8	97.6	40.6	89.4	7.3	63.4	60.3	63.8
% of total upland forest <sup>3</sup>	%	4.6	4.4	5.9	2.5	5.4	0.4	3.8	3.7	3.9
<b>2b. Mature+</b>										
Outside BWCAW	M ac.	370.2	360.8	10.2	50.6	14.0	105.0	122.8	44.8	60.6
% of upland forest outside BWCAW <sup>1</sup>	%	38.4	37.4	1.1	5.2	1.5	10.9	12.7	4.6	6.3
Inside BWCAW	M ac.	198.8	198.8	113.0	113.0	113.0	113.0	113.0	113.0	113.0
% of upland forest inside BWCAW <sup>2</sup>	%	29.0	29.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5
Combination	M ac.	569.0	559.6	123.3	163.6	127.1	218.0	235.8	157.8	173.6
% of total upland forest <sup>3</sup>	%	34.5	33.9	7.5	9.9	7.7	13.2	14.3	9.6	10.5
<b>3. Upland Northern Hardwood Forest</b>										
<b>3a. Young</b>										
Outside BWCAW	M ac.	.3	.6	.3	.0	.3	.0	.8	.9	.5
% of upland forest outside BWCAW <sup>1</sup>	%	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Inside BWCAW	M ac.	0	0	0	0	0	0	0	0	0
% of upland forest inside BWCAW <sup>2</sup>	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

<b>Decade 10 Superior MIH</b>	<b>Units</b>	<b>Exist 2000</b>	<b>Exist 2003</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Mod E</b>	<b>F</b>	<b>G</b>
units		M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.
Combination	M ac.	.3	.6	.3	.0	.3	.0	.8	.9	.5
% of total upland forest <sup>3</sup>	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
<b>3b. Mature+</b>										
Outside BWCAW	M ac.	35.4	35.6	38.9	46.5	39.5	49.3	42.4	43.2	41.1
% of upland forest outside BWCAW <sup>2</sup>	%	3.7	3.7	4.0	4.8	4.1	5.1	4.4	4.5	4.3
Inside BWCAW	M ac.	0	0	0	0	0	0	0	0	0
% of upland forest inside BWCAW <sup>2</sup>	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combination	M ac.	35.4	35.6	38.9	46.5	39.5	49.3	42.4	43.2	41.1
% of total upland forest <sup>3</sup>	%	2.1	2.2	2.4	2.8	2.4	3.0	2.6	2.6	2.5
<b>4. Aspen / Birch Forest</b>										
<b>4a. Young</b>										
Outside BWCAW	M ac.	63.5	59.9	94.4	37.4	86.1	4.0	59.4	57.0	60.5
% of upland forest outside BWCAW <sup>2</sup>	%	6.6	6.2	9.8	3.9	8.9	0.4	6.2	5.9	6.3
Inside BWCAW	M ac.	12.2	12.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
% of upland forest inside BWCAW <sup>2</sup>	%	1.8	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Combination	M ac.	75.8	72.1	97.6	40.6	89.4	7.3	62.6	60.3	63.8
% of total upland forest <sup>3</sup>	%	4.6	4.4	5.9	2.5	5.4	0.4	3.8	3.7	3.9
<b>4b. Mature+</b>										
Outside BWCAW	M ac.	334.8	325.1	10.2	50.6	14.0	105.0	80.4	44.8	60.6
% of upland forest outside BWCAW <sup>2</sup>	%	34.7	33.7	1.1	5.2	1.5	10.9	8.3	4.6	6.3
Inside BWCAW	M ac.	198.8	198.8	113.0	113.0	113.0	113.0	113.0	113.0	113.0
% of upland forest inside BWCAW <sup>2</sup>	%	29.0	29.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5
Combination	M ac.	533.6	523.9	123.3	163.6	127.1	218.0	193.5	157.8	173.6
% of total upland forest <sup>3</sup>	%	32.4	31.8	7.5	9.9	7.7	13.2	11.7	9.6	10.5
<b>4c. Pole/Immature Stage</b>										
Outside BWCAW	M ac.	149.2	161.9	312.1	60.3	304.9	30.0	190.6	124.4	154.4
% of upland forest outside BWCAW <sup>1</sup>	%	15.5	16.8	32.4	6.3	31.6	3.1	19.8	12.9	16.0
Inside BWCAW	M ac.	30.3	30.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
% of upland forest inside BWCAW <sup>2</sup>	%	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Combination	M ac.	179.6	192.2	327.4	75.6	320.2	45.3	205.9	139.7	169.7
% of total upland forest <sup>3</sup>	%	10.9	11.7	19.9	4.6	19.4	2.8	12.5	8.5	10.3
<b>5. Upland Conifer-dominated Forest</b>										
<b>5a. Young</b>										
Outside BWCAW	M ac.	64.3	66.1	48.9	20.2	51.5	18.5	34.0	32.5	36.3
% of upland forest outside BWCAW <sup>2</sup>	%	6.7	6.9	5.1	2.1	5.3	1.9	3.5	3.4	3.8
Inside BWCAW	M ac.	99.4	99.4	5.8	5.8	5.8	5.8	5.8	5.8	5.8
% of upland forest	%	14.5	14.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8

<b>Decade 10 Superior MIH</b>	<b>Units</b>	<b>Exist 2000</b>	<b>Exist 2003</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Mod E</b>	<b>F</b>	<b>G</b>
units		M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.
inside BWCAW <sup>2</sup>										
Combination	M ac.	163.7	165.4	54.7	26.0	57.3	24.3	39.8	38.3	42.1
% of total upland forest <sup>3</sup>	%	9.9	10.0	3.3	1.6	3.5	1.5	2.4	2.3	2.6
<b>5b. Mature+</b>										
Outside BWCAW	M ac.	170.4	168.1	305.8	617.0	312.9	665.7	436.9	511.5	452.4
% of upland forest outside BWCAW <sup>2</sup>	%	17.7	17.4	31.7	64.0	32.5	69.1	45.3	53.1	46.9
Inside BWCAW	M ac.	319.6	319.6	519.1	519.1	519.1	519.1	519.1	519.1	519.1
% of upland forest inside BWCAW <sup>2</sup>	%	46.7	46.7	75.8	75.8	75.8	75.8	75.8	75.8	75.8
Combination	M ac.	490.0	487.7	825.0	1136.1	832.0	1184.9	956.0	1030.6	971.6
% of total upland forest <sup>3</sup>	%	29.7	29.6	50.0	68.9	50.5	71.9	58.0	62.5	58.9
<b>6. Spruce / Fir Forest</b>										
<b>6a. Young</b>										
Outside BWCAW	M ac.	42.3	41.4	24.4	.3	18.0	.0	1.3	.8	.9
% of upland forest outside BWCAW <sup>2</sup>	%	4.4	4.3	2.5	0.0	1.9	0.0	0.1	0.1	0.1
Inside BWCAW	M ac.	75.5	75.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6
% of upland forest inside BWCAW <sup>2</sup>	%	11.0	11.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Combination	M ac.	117.8	117.0	29.0	4.9	22.6	4.6	5.9	5.4	5.5
% of total upland forest <sup>3</sup>	%	7.1	7.1	1.8	0.3	1.4	0.3	0.4	0.3	0.3
<b>6b. Mature+</b>										
Outside BWCAW	M ac.	71.5	71.7	213.2	449.9	185.2	406.5	274.4	360.4	278.6
% of upland forest outside BWCAW <sup>2</sup>	%	7.4	7.4	22.1	46.7	19.2	42.2	28.5	37.4	28.9
Inside BWCAW	M ac.	159.7	159.7	423.4	423.4	423.4	423.4	423.4	423.4	423.4
% of upland forest inside BWCAW <sup>2</sup>	%	23.3	23.3	61.8	61.8	61.8	61.8	61.8	61.8	61.8
Combination	M ac.	231.2	231.4	636.5	873.2	608.5	829.9	697.8	783.7	702.0
% of total upland forest <sup>3</sup>	%	14.0	14.0	38.6	53.0	36.9	50.3	42.3	47.5	42.6
<b>7. Red and White Pine Forest</b>										
<b>7a. Young</b>										
Outside BWCAW	M ac.	12.3	15.0	15.4	3.1	15.6	.0	15.7	5.8	9.5
% of upland forest outside BWCAW <sup>2</sup>	%	1.3	1.6	1.6	0.3	1.6	0.0	1.6	0.6	1.0
Inside BWCAW	M ac.	20.3	20.3	.8	.8	.8	.8	.8	.8	.8
% of upland forest inside BWCAW <sup>2</sup>	%	3.0	3.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Combination	M ac.	32.6	35.3	16.2	3.8	16.4	.8	16.5	6.6	10.2
% of total upland forest <sup>3</sup>	%	2.0	2.1	1.0	0.2	1.0	0.0	1.0	0.4	0.6
<b>7b. Mature+</b>										
Outside BWCAW	M ac.	46.3	44.3	61.7	116.2	80.9	153.3	101.6	107.1	95.5
% of upland forest outside BWCAW <sup>1</sup>	%	4.8	4.6	6.4	12.1	8.4	15.9	10.5	11.1	9.9
Inside BWCAW	M ac.	30.5	30.5	50.4	50.4	50.4	50.4	50.4	50.4	50.4

<b>Decade 10 Superior MIH</b>	<b>Units</b>	<b>Exist 2000</b>	<b>Exist 2003</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Mod E</b>	<b>F</b>	<b>G</b>
units		M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.
% of upland forest inside BWCAW <sup>2</sup>	%	4.5	4.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Combination	M ac.	76.8	74.8	112.1	166.6	131.3	203.7	152.0	157.5	145.9
% of total upland forest <sup>3</sup>	%	4.7	4.5	6.8	10.1	8.0	12.4	9.2	9.6	8.9
<b>8. Jack Pine Forest</b>										
<b>8a. Young</b>										
Outside BWCAW	M ac.	9.8	9.6	9.1	16.8	17.9	18.5	17.0	25.9	2.1
% of lowland forest outside BWCAW <sup>4</sup>	%	1.0	1.0	0.9	1.7	1.9	1.9	1.8	2.7	0.2
Inside BWCAW	M ac.	3.5	3.5	.4	.4	.4	.4	.4	.4	.4
% of upland forest inside BWCAW <sup>2</sup>	%	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Combination	M ac.	13.3	13.1	9.5	17.3	18.3	18.9	17.4	26.3	2.5
% of total upland forest <sup>3</sup>	%	0.8	0.8	0.6	1.0	1.1	1.1	1.1	1.6	0.2
<b>8b. Mature+</b>										
Outside BWCAW	M ac.	52.5	52.1	30.9	50.9	46.8	105.9	60.9	44.1	8.9
% of lowland forest outside BWCAW <sup>4</sup>	%	5.4	5.4	3.2	5.3	4.9	11.0	6.3	4.6	0.9
Inside BWCAW	M ac.	129.5	129.5	45.4	45.4	45.4	45.4	45.4	45.4	45.4
% of upland forest inside BWCAW <sup>2</sup>	%	18.9	18.9	6.6	6.6	6.6	6.6	6.6	6.6	6.6
Combination	M ac.	182.0	181.5	76.3	96.3	92.2	151.3	106.2	89.4	54.3
% of total upland forest <sup>3</sup>	%	11.0	11.0	4.6	5.8	5.6	9.2	6.4	5.4	3.3
<b>9. Lowland Black Spruce /Tamarack Forest</b>										
<b>9a. Young</b>										
Outside BWCAW	M ac.	7.2	6.8	3.3	10.1	13.6	.0	13.0	14.6	11.0
% of lowland forest outside BWCAW <sup>4</sup>	%	3.5	3.3	1.6	4.9	6.6	0.0	6.3	7.1	5.4
Inside BWCAW	M ac.	6.7	6.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4
% of upland forest inside BWCAW <sup>2</sup>	%	8.6	8.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Combination	M ac.	13.9	13.5	4.7	11.6	15.1	1.4	14.4	16.1	12.4
% of total lowland forest <sup>6</sup>	%	4.9	4.8	1.7	4.1	5.3	0.5	5.1	5.7	4.4
<b>9b. Mature+</b>										
Outside BWCAW	M ac.	172.7	174.5	189.2	170.0	179.4	205.5	166.4	160.3	174.1
% of lowland forest outside BWCAW <sup>4</sup>	%	84.1	84.9	92.1	82.7	87.3	100.0	81.0	78.0	84.7
Inside BWCAW	M ac.	52.1	52.1	57.2	57.2	57.2	57.2	57.2	57.2	57.2
% of lowland forest inside BWCAW <sup>5</sup>	%	67.2	67.2	73.7	73.7	73.7	73.7	73.7	73.7	73.7
Combination	M ac.	224.9	226.6	246.3	227.2	236.6	262.6	223.6	217.5	231.2
% of total lowland forest <sup>6</sup>	%	79.4	80.1	87.0	80.3	83.6	92.8	79.0	76.8	81.7
<b>10 Riparian Upland Forest (zones 0' - 200')</b>										
<b>10a Young</b>										
Inner	M ac.	3.7	3.7	2.0	.0	2.0	.0	.0	.7	.0
% of the upland	%	5.3	5.3	2.9	0.0	2.9	0.0	0.0	1.1	0.0

<b>Decade 10 Superior MIH</b>	<b>Units</b>	<b>Exist 2000</b>	<b>Exist 2003</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Mod E</b>	<b>F</b>	<b>G</b>
units		M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.	M ac.
riparian forest <sup>7</sup>										
Outer	M ac.	5.3	5.3	5.0	.8	4.5	.5	2.6	3.1	2.5
% of the upland riparian forest <sup>7</sup>	%	7.6	7.6	7.2	1.1	6.5	0.8	3.8	4.4	3.6
Total Acres	M ac.	9.0	9.1	7.1	.8	6.5	.5	2.6	3.8	2.5
<b>10b Mature+</b>										
Inner	M ac.	21.2	20.9	22.8	27.5	22.8	27.5	27.1	26.6	27.5
% of the upland riparian forest <sup>7</sup>	%	30.2	29.9	32.6	39.3	32.5	39.3	38.7	38.0	39.3
Outer	M ac.	26.5	26.2	21.3	35.0	21.3	35.6	30.8	28.7	31.8
% of the upland riparian forest <sup>7</sup>	%	37.9	37.4	30.5	50.0	30.5	50.9	44.0	41.0	45.5
Total Acres	M ac.	21.3	21.1	22.9	27.7	22.9	27.7	27.3	26.7	27.7

<sup>1</sup> The total upland forest outside the BWCAW is 963,733 acres.

<sup>2</sup> The total upland forest inside the BWCAW is 684,673 acres.

<sup>3</sup> The total upland forest outside and inside the BWCAW is 1,648,406 acres.

<sup>4</sup> The total lowland forest outside the BWCAW is 205,489 acres.

<sup>5</sup> The total lowland forest inside the BWCAW is 77,562 acres.

<sup>6</sup> The total lowland forest outside and inside the BWCAW is 283,051 acres.

<sup>7</sup> The total upland riparian forest outside the BWCAW is 69,983 acres.

**Table DEIS-7 – Estimated low, mid, and high RNV values for Superior MIHs.**

<b>Superior MIH RNV Values</b>	<b>M ac.</b>	<b>%<sup>1</sup></b>
<b>1. Upland Forest</b>		
1a. Young		
Est. low end RNV	66.6	4.0
Est. mid pt RNV	99.5	6.0
Est. high end RNV	132.4	8.0
1b. Mature+		
Est. low end RNV	1,004.0	60.9
Est. mid pt RNV	1,118.6	67.9
Est. high end RNV	1,233.2	74.8
<b>2. Upland Deciduous-dominated Forest</b>		
2a. Young		
Est. low end RNV	40.6	2.5
Est. mid pt RNV	60.3	3.7
Est. high end RNV	79.9	4.8
2b. Mature+		
Est. low end RNV	152.1	9.2
Est. mid pt RNV	157.8	9.6
Est. high end RNV	163.6	9.9
<b>3. Upland Northern Hardwood Forest</b>		
3a. Young		
Est. low end RNV	.0	0.0
Est. mid pt RNV	.9	0.0
Est. high end RNV	1.9	0.1
3b. Mature+		
Est. low end RNV	39.9	2.4
Est. mid pt RNV	43.2	2.6
Est. high end RNV	46.5	2.8
<b>4. Aspen / Birch Forest</b>		
4a. Young		
Est. low end RNV	40.6	2.5
Est. mid pt RNV	60.3	3.7
Est. high end RNV	79.9	4.8
4b. Mature+		
Est. low end RNV	152.1	9.2
Est. mid pt RNV	157.8	9.6
Est. high end RNV	163.6	9.9
4c. Pole/Immature Stage		
Est. mid pt RNV	139.7	8.5
<b>5. Upland Conifer-dominated Forest</b>		
5a. Young		
Est. low end RNV	26.0	1.6
Est. mid pt RNV	38.3	2.3
Est. high end RNV	50.7	3.1
5b. Mature+		
Est. low end RNV	925.1	56.1
Est. mid pt RNV	1030.6	62.5
Est. high end RNV	1136.1	68.9
<b>6. Spruce / Fir Forest</b>		
6a. Young		

<b>Superior MIH RNV Values</b>	<b>M ac.</b>	<b>%<sup>1</sup></b>
Est. low end RNV	4.9	0.3
Est. mid pt RNV	5.4	0.3
Est. high end RNV	6.0	0.4
6b. Mature+		
Est. low end RNV	694.2	42.1
Est. mid pt RNV	783.7	47.5
Est. high end RNV	873.2	53.0
<b>7. Red and White Pine Forest</b>		
7a. Young		
Est. low end RNV	3.8	0.2
Est. mid pt RNV	6.6	0.4
Est. high end RNV	9.3	0.6
7b. Mature+		
Est. low end RNV	148.3	9.0
Est. mid pt RNV	157.5	9.6
Est. high end RNV	166.6	10.1
<b>8. Jack Pine Forest</b>		
8a. Young		
Est. low end RNV	17.3	1.0
Est. mid pt RNV	26.3	1.6
Est. high end RNV	35.4	2.1
8b. Mature+		
Est. low end RNV	82.6	5.0
Est. mid pt RNV	89.4	5.4
Est. high end RNV	96.3	5.8
<b>9. Lowland Black Spruce /Tamarack Forest</b>		
9a. Young		
Est. low end RNV	11.6	4.1
Est. mid pt RNV	16.1	5.7
Est. high end RNV	20.6	7.3
9b. Mature+		
Est. low end RNV	207.8	73.4
Est. mid pt RNV	217.5	76.8
Est. high end RNV	227.2	80.3
<b>10 Riparian Upland Forest (zones 0' - 200')</b>		
10a. Young		
Est. low end RNV	0.0	0.0
Est. mid pt RNV	0.7	1.1
Est. high end RNV	1.5	2.1
10b. Mature+		
Est. low end RNV	25.6	36.6
Est. mid pt RNV	26.6	38.0
Est. high end RNV	27.5	39.3

<sup>1</sup> RNV values for MIHs 1-8 are the percent of total upland forest (1,648,406 acres). RNV values for MIH 9 are the percent of total lowland forest (283,051 acres). RNV values for MIH 10 are the percent of total upland riparian forest (69,983 acres).

### 3. Species of concern and interest considered in the Forest Plan Revision.

Tables DEIS-8 and 11 provide the status of a comprehensive list of animal and plant species considered in the Forest Plan Revision. Numerous agencies and groups give a variety of special status designations to species. In addition to those that are displayed in these tables, the planning record also includes information on other designations including those identified in Appendix B, Identification of wildlife management indicator species and habitats.

Tables DEIS-9 and 12 provide a crosswalk of a comprehensive list of animal and plant species of concern and interest considered in the Forest Plan Revision to associated Management Indicator Habitats (MIHs). The species/MIH associations displayed in these tables do not reflect all habitats that a species might use, but rather identifies the species primary habitat associations. More comprehensive habitat association information can be found in the planning record.

Tables DEIS 10 and 13 provide a crosswalk of a comprehensive list of animal and plant species of concern and interest considered in the Forest Plan Revision to other associated habitat of interest or concern. As with tables 9 and 12, the species/other habitats of concern associations displayed in these tables do not reflect all habitats that a species might use, but rather identifies the species primary habitat associations. More comprehensive habitat association information can be found in the planning record.

**Table DEIS-8. Status of Animal Species of Interest or Concern Considered in Forest Plan Revision.**

ANIMAL SPECIES	COMMON NAME	STATUS										
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans:Priority Species/Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU
<b>MAMMALS</b>												
<i>Canis lupus</i>	gray wolf	T	SC	x	x				S			
<i>Castor canadensis</i>	beaver			x	x					x		
<i>Lynx canadensis</i>	Canada lynx	T		x	x				E			
<i>Lynx rufus</i>	bobcat			o	o					x		
<i>Martes americana</i>	American marten			o	o				S	x		
<i>Microtus chrotorrhinus</i>	rock vole		N		x							
<i>Mustela nivalis</i>	least weasel		SC	x	x							
<i>Myotis septentrionalis</i>	northern myotis		SC	o	o				S			
<i>Phenacomys intermedius</i>	heather vole		SC	p	R				S			
<i>Rangifer tarandus</i>	caribou		N	Ex	Ex							
<i>Sorex fumeus</i>	smokey shrew		SC		x							
<i>Sorex palustris</i>	water shrew			o	o							

ANIMAL SPECIES	COMMON NAME	STATUS										
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU
<i>Synaptomys borealis</i>	northern bog lemming		SC	R	p				S			
<i>Lepus americanus</i>	snowshoe hare			x	x					x		
<i>Vulpes vulpes</i>	red fox			x	x					x		
<i>Gulo gulo</i>	Wolverine			Ex	Ex							
<i>Martes pennanti</i>	fisher			x	x					x		
<i>Mustela vison</i>	mink			x	x					x		
<i>Ondatra zibethicus</i>	muskrat			x	x					x		
<i>Lutra canadensis</i>	river otter			o	o					x		
<i>Canis latrans</i>	coyote			x	x					x		
<i>Odocoileus virginianus</i>	white-tailed deer			x	x					x		
<i>Alces alces</i>	moose			x	x					x		
<i>Ursus americanus</i>	black bear			o	o					x		
<i>Felis concolor</i>	Cougar		SC	Ex	Ex				E			
<i>Glaucomys sabrinus</i>	no flying squirrel			x	x							
<i>Sciurus hudsonicus</i>	red squirrel			x	x							
<i>Sciurus carolinensis</i>	gray squirrel			x	x					x		
<b>BIRDS</b>												
<i>Gavia immer</i>	common loon	RCP		o	o	19						
<i>Podiceps auritus</i>	horned grebe		T	m	m				T			
<i>Pelecanus erythrorhynchos</i>	American white pelican		SC	m	m	19			S			
<i>Ardea herodias</i>	great blue heron			x	x				S			
<i>Botaurus lentiginosus</i>	American bittern	RCP	N	x	x	21			S			
<i>Cygnus buccinator</i>	trumpeter swan	RCP	T	R		25**			E			
<i>Anas rubripes</i>	American black duck	RCP		x	x	23**				x		
<i>Aythya collaris</i>	ring-necked duck			x	x	19				x		
<i>Aythya valisineria</i>	canvasback	RCP		x	m					x		
<i>Aythya americana</i>	redhead			x	m	19				x		
<i>Lophodytes cucullatus</i>	hooded merganser			x	x	22				x		

ANIMAL SPECIES	COMMON NAME	STATUS											
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU	
<i>Mergus merganser</i>	common merganser			x	x						x		
<i>Mergus serrator</i>	red-breasted merganser			x	x						x		
<i>Oxyura jamaicensis</i>	ruddy duck			x	m	19					x		
<i>Aix sponsa</i>	wood duck	RCP		x	x						x		
<i>Anas platyrhynchos</i>	mallard	RCP		x	x						x		
<i>Aythya affinis &amp; Aythya marila</i>	lesser & greater scaup	RCP		x	m						x		
<i>Bucephala albeola</i>	bufflehead			m	m						x		
<i>Bucephala clangula</i>	goldeneye			x	x						x		
<i>Accipiter gentilis</i>	northern goshawk	RCP	N	R	R	19				E			
<i>Circus cyaneus</i>	northern harrier	RCP		o	o								
<i>Buteo lineatus</i>	red-shouldered hawk	RCP	SC	R						T			
<i>Buteo jamaicensis</i>	red-tailed hawk			x	x								
<i>Accipiter cooperii</i>	Cooper's hawk			x									
<i>Buteo platypterus</i>	broad-winged hawk			x	x								
<i>Haliaeetus leucocephalus</i>	bald eagle	T	SC	x	x					T			
<i>Pandion haliaeetus</i>	osprey		N	x	x					S			
<i>Falco columbarius</i>	merlin			x	x								
<i>Falco peregrinus</i>	peregrine falcon	RCP	T		R								
<i>Falcipennis Canadensis</i>	spruce grouse			R	o	19					x		
<i>Bonasa umbellus</i>	ruffed grouse			x	x	19					x		
<i>Tympanuchus phasianellus</i>	sharp-tailed grouse			R	R								
<i>Grus canadensis</i>	sandhill crane		N	x	x	20**				S			
<i>Coturnicops noveboracensis</i>	yellow rail	RCP	SC	R	R	25**	Wet-lands			S			

ANIMAL SPECIES	COMMON NAME	STATUS											
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU	
<i>Charadrius melodus</i>	Pipping Plover	M		m		27	Wet-lands						
<i>Tringa melanoleuca</i>	Greater Yellowlegs	RCP		m									
<i>Bartramia longicauda</i>	upland sandpiper	RCP		o	o	19							
<i>Tringa solitaria</i>	solitary sandpiper	RCP		x	x	19							
<i>Phalaropus tricolor</i>	Wilson's phalarope	RCP	T	R	R	23			S				
<i>Philohela minor</i>	American woodcock	RCP		x	x	24				x			
<i>Gallinago gallinago</i>	common snipe			x	x					x			
<i>Larus argentatus</i>	herring gull			x	x								
<i>Sterna hirundo</i>	common tern	RCP	T	R					T				
<i>Sterna caspia</i>	Caspian tern			R									
<i>Chlidonias niger</i>	black tern	RCP		R	o	19			S				
<i>Sterna fosteri</i>	Forster's tern	RCP		x		19			S				
<i>Coccyzus erythrophthalmus</i>	black-billed cuckoo	RCP		x	x	21							
<i>Coccyzus americanus</i>	yellow-billed cuckoo			x		19					x		
<i>Surnia ulula</i>	northern hawk owl				x	19							
<i>Strix varia</i>	barred owl			x	x								
<i>Strix nebulosa</i>	great gray owl			R	R	19							
<i>Asio otus</i>	Long-eared owl	RCP		x	x								
<i>Asio flammeus</i>	Short-eared owl	RCP	SC	o					S				
<i>Aegolius funereus</i>	boreal owl				R	19							
<i>Aegolis acadicus</i>	Northern saw-whet owl			x	x								
<i>Caprimulgus vociferus</i>	whip-poor-will	RCP		x	x	21							
<i>Megaceryle alcyon</i>	belted kingfisher			x	x	19							
<i>Drycopus pileatus</i>	pileated woodpecker			x	x						x		

ANIMAL SPECIES	COMMON NAME	STATUS										
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU
<i>Melanerpes erythrocephalus</i>	red-headed woodpecker	RCP		x	x	20						
<i>Sphyrapicus varius</i>	yellow-bellied sapsucker			x	x			CNF D** SNF NS			x	x
<i>Picoides arcticus</i>	bl-backed woodpecker			R	o	20						
<i>Colaptes auratus</i>	Northern Flicker	RCP		X	X							
<i>Picoides tridactylus</i>	three-toed woodpecker				R							
<i>Contopus borealis</i>	olive-sided flycatcher	RCP		R	R	20		CNF NS			x	
<i>Contopus virens</i>	eastern wood-pewee			x	x	20		CNF D** SNF D**			x	x
<i>Empidonax flaviventris</i>	yellow-bellied flycatcher			o	o	21		CNF NS SNF NS			x	x
<i>Empidonax alorum</i>	alder flycatcher			x	x			CNF NS SNF NS				x
<i>Empidonax minimus</i>	least flycatcher			x	x	21		CNF I** SNF NS				x
<i>Myiarchus crinitus</i>	great crested flycatcher			x	x			CNF D**			x	
<i>Tyrannus tyrannus</i>	eastern kingbird			x	x							
<i>Progne subis</i>	purple martin			x	x							
<i>Stelgioptreryx ruficollis</i>	n. rough-winged swallow			x	x	19						
<i>Tachycineta bicolor</i>	tree swallow			x	x							
<i>Riparia riparia</i>	bank swallow			x	x							
<i>Perisoreus Canadensis</i>	gray jay			x	x			CNF NS SNF NS			x	x
<i>Poecile hudsonicus</i>	boreal chickadee			x	x							
<i>Sitta canadensis</i>	red-breasted nuthatch			x	x			CNF NS SNF NS			x	x
<i>Sitta carolinensis</i>	white-breasted nuthatch			x	x			CNF I**			x	

ANIMAL SPECIES	COMMON NAME	STATUS										
		FEDERAL	State of MIN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU
<i>Certhia Americana</i>	brown creeper			x	x			CNF D** SNF NS			x	x
<i>Troglodytes troglodytes</i>	winter wren			x	x			CNF D** SNF D**			x	
<i>Cistophorus palustris</i>	marsh wren			x		19						
<i>Cistophorus platensis</i>	sedge wren	RCP		x	x	22**	Grass-land					
<i>Regulus satrapa</i>	golden-crowned kinglet			x	x			CNF NS SNF NS			x	x
<i>Regulus calendula</i>	ruby-crowned kinglet			x	x			SNF D**				x
<i>Toxostoma rufum</i>	brown thrasher			x	x	19						
<i>Catharus fuscescens</i>	veery			x	x	22**	Decid Forest	CNF D* SNF D**				x
<i>Sialia sialis</i>	eastern bluebird			x	x							
<i>Catharus ustulatus</i>	Swainson's thrush			o	o			SNF NS				x
<i>Catharus cattatus</i>	hermit thrush			x	x			CNF D** SNF NS				x
<i>Hylocichla mustelina</i>	wood thrush	RCP		x	x	23**	Decid Forest					
<i>Turdus migratorius</i>	American robin			x	x			CNF NS SNF NS				x
<i>Lanius excubitor</i>	northern shrike			x	x							
<i>Dumetella carolinensis</i>	gray catbird			x	x			CNF I**			x	
<i>Vireo solitarius</i>	blue-headed vireo			x	x			CNF I* SNF NS			x	x
<i>Vireo flavifrons</i>	yellow-throated vireo			x	x	19		CNF NS			x	
<i>Vireo philadelphicus</i>	Philadelphia vireo				x	20		SNF NS				
<i>Vermivora chrysoptera</i>	golden-winged warbler	RCP		x	x	27**	Scrub-Shrub	CNF NS SNF NS			x	
<i>Vermivora ruficapilla</i>	Nashville warbler			x	x	20		CNF D** SNF NS				
<i>Parula americana</i>	northern parula			x	x			CNF NS SNF I**			x	x
<i>Dendroica petechia</i>	yellow warbler			x	x			CNF D**				

ANIMAL SPECIES	COMMON NAME	STATUS										
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU
<i>Dendroica pensylvanica</i>	chestnut-sided warbler			x	x	21		CNF I** SNF NS			x	x
<i>Dendroica tigrina</i>	Cape May warbler	RCP		x	x	22						
<i>Dendroica magna</i>	Magnolia warbler			x	x			CNF NS SNF I*				
<i>Dendroica caerulescens</i>	bl-thr blue warbler	RCP	N	R	R	24**		SNF I**				x
<i>Dendroica virens</i>	bl-thr green warbler			x	x	19		CNF NS SNF D**			x	x
<i>Dendroica fusca</i>	Blackburnian warbler			x	x	20		CNF D* SNF I*			x	x
<i>Dendroica pinus</i>	pine warbler			x	x			CNF NS SNF I*			x	x
<i>Dendroica palmarum</i>	palm warbler			x	x			CNF I*			x	
<i>Dendroica castanea</i>	bay-breasted warbler			R	R	22						
<i>Mniotilta varia</i>	black-and-white warbler			x	x			CNF I** SNF NS				x
<i>Setophaga ruticilla</i>	American redstart			x	x			CNF I** SNF I**			x	
<i>Seiurus aurocapillus</i>	ovenbird			x	x	19		CNF D** SNF D**				
<i>Seiurus novaboracensis</i>	northern waterthrush			x	x			SNF D88			x	x
<i>Opornis agilis</i>	Connecticut warbler	RCP		R	R	21**	Scrub-Shrub	CNF D**			x	x
<i>Opornis Philadelphia</i>	mourning warbler			x	x	21		CNF NS SNF D*			x	x
<i>Gephylypis trichas</i>	Common yellowthroat			x	x			CNF D* SNF D*				x
<i>Wilsonia Canadensis</i>	Canada warbler	RCP		x	x	25**	Conif Forest	CNF NS SNF NS			x	x
<i>Piranga olivacea</i>	scarlet tanager			x	x			CNF D* SNF D*			x	x
<i>Pheucticus ludovicianus</i>	rose-breasted grosbeak			x	x	21**	Decid Forest	CNF NS SNF D**			x	x
<i>Passerina cyanea</i>	indigo bunting			x	x			CNF I*			x	
<i>Spizella pallida</i>	clay-colored sparrow			x	x	19						
<i>Spizella pusilla</i>	Field sparrow	RCP		x		20**						

ANIMAL SPECIES	COMMON NAME	STATUS											
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU	
<i>Ammodramus savannarum</i>	Grasshopper sparrow	RCP		x									
<i>Ammodramus leconteii</i>	LeConte's sparrow	RCP		R	R	22**	Grass-land						
<i>Ammodramus nelsoni</i>	Nelson's sharp-tailed sparrow	RCP	SC	R		25**	Grass-land		S				
<i>Melospiza melodia</i>	song sparrow			x	x			CNF D* SNF NS					x
<i>Melospiza georgiana</i>	Swamp sparrow			x	x			SNF NS					
<i>Melospiza lincolnii</i>	Lincoln's sparrow			x	x								x
<i>Zonotrichia albicollis</i>	white-throated sparrow			x	x			CNF D** SNF D**					
<i>Junco hyemalis</i>	dark-eyed junco			x	x						x		
<i>Sturnella magna</i>	Eastern Meadowlark	RCP		x	x								
<i>Sturnella neglecta</i>	Western Meadowlark	RCP		x									
<i>Euphagus carolinus</i>	Rusty blackbird	RCP			x								
<i>Molothrus ater</i>	Brown-headed cowbird			x	x			CNF D*					
<i>Icterus galbula</i>	Baltimore oriole			x	x	19							
<i>Carpodacus purpureus</i>	purple finch			x	x	19		CNF NS					x
<i>Loxia leucoptera</i>	white-winged crossbill			x	x								
<i>Dolichonyx oryzivorus</i>	bobolink	RCP		o	o	20							
<b>AMPHIBIANS and REPTILES</b>													
<i>Ambystoma laterale</i>	blue-spotted salamander			x	x								
<i>Chelydra serpentina</i>	snapping turtle		SC	x	x				S				
<i>Clemmys insculpta</i>	wood turtle		T		R								
<i>Emydoidea blandingii</i>	Blanding's turtle		T	R					S				
<i>Diadophis punctatus</i>	ringneck snake				x								
<i>Hemidactylium scutatum</i>	four-toed salamander		SC	R	p				S				

ANIMAL SPECIES	COMMON NAME	STATUS										
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU
<i>Heterodon nasicus</i>	western hognose snake		SC	x								
<i>Plethodon cinereus</i>	red-backed salamander			x	x							
<i>Rana clamitans</i>	green frog			x	x							
<i>Rana sylvatica</i>	wood frog			x	x							
<b>FISH</b>												
<i>Acipenser fulvescens</i>	lake sturgeon		SC		R							
<i>Coregonus zenithicus</i>	shortjaw cisco		SC		R							
<i>Etheostoma microperca</i>	least darter			x								
<i>Ichthyomyzon fossor</i>	northern brook lamprey		SC		R							
<i>Notropis anogenus</i>	pugnose shiner		SC	R					S			
<i>Moxostoma valenciennesi</i>	greater redhorse			R								
<i>Stizostedion viterum</i>	walleye			x	x					x		
<i>Salvelinus namaycush</i>	lake trout			x	x					x		
<i>Salvelinus fontinalis</i>	brook trout			x	x					x		
<i>Esox masquinongy</i>	muskie			x	x					x		
<i>Perca falvescens</i>	yellow perch			x	x					x		
<i>Pomoxis nigromaculatus</i>	black crappie			x	x					x		
<i>Micropterus dolmieu salmoides</i>	smallmouth bass			x	x					x		
<i>Micropterus</i>	largemouth bass			x	x					x		
<i>Esox lucius</i>	northern pike			x	x					x		
<i>Coregonus culpeaformis</i>	whitefish			x	x				CS	x		
<b>MOLLUSKS</b>												
<i>Lasmigona compressa</i>	creek heelsplitter		SC	R	R							
<i>Lasmigona costata</i>	fluted-shell mussel		SC	R	o							
<i>Ligumia recta</i>	black sandshell		SC	R	R							

ANIMAL SPECIES	COMMON NAME	STATUS										
		FEDERAL	State of MN	CNF	SNF	Audubon Watch list & PIF total score $\geq 19$	Boreal Hwd Trans: Priority Species/ Habitat	NRRI Songbird Trends	Leech Lake	Species commonly hunted, fished, trapped	NRRI Bird Indicator DLP	NRRI Bird Indicator NSU
<b>BUTTERFLIES</b>												
<i>Erebia disa Mancinus</i>	disa alpine		SC		R							
<i>Erebia discoidalis</i>	red-disked alpine				R				S			
<i>Lycaeides idas nabokovi</i>	Nabokov's northern blue		SC		R							
<i>Oenis jutta ascerta</i>	Jutta arctic				R				S			
<i>Pyrgus centaureae freija</i>	grizzled skipper		SC		R							
<b>BETLES</b>												
<i>Cicindela denikei</i>	tiger beetle species		T		R							
<i>Cicindela hirticollis rhodensis</i>	tiger beetle species		SC		x							
<i>Cicindela patruela patruela</i>	tiger beetle species		SC	x								
<b>OTHER INSECTS</b>												
<i>Ceraclea vertreesi</i>	Vertree's caddisfly			R								
<i>Hydroptila novicola</i>	caddisfly species		SC		x							
<i>Hydroptila tortosa</i>	caddisfly species		SC		x							
<i>Ophiogomphus anomalus</i>	extra-striped snaketail				p							

<b>Table DEIS-8 KEY</b>
<b>FED T, E</b> (Applies to either National Forests) FED (federal)/MN (Jul 1, 1996): E = endangered; T = threatened; M = species use forest habitat during migration and offered protection under ESA. RCP = US Fish and Wildlife Service Resource Conservation Priorities 2002 (includes USFWS: Birds of Conservation Concern 2002 in Boreal Hwd Transition, and Prairie Pothole Bird Conservation Regions)
<b>State of MN SC</b> = State special concern (1996); N = no status, but tracked by MN DNR because of relative rarity or conservation concern.
<b>CNF and SNF</b> -CNF = Chippewa National Forest; SNF=Superior National Forest; R = US Forest Service Regional Forester's Sensitive Species (Feb 29, 2000); o = species is RFSS on another NF; and occurs, but is not listed RFSS; x = species occurs, is not RFSS; p = species is RFSS on another NF, not known to occur, but has a very strong potential to occur. m = occurs on Forest during migration, EX = extirpated.
<b>Audubon Watch List &amp; PIF total score <math>\geq 19</math></b> – Partners in Flight 2001 scores $\geq 19$ (range of scores 8-27), MN-Audubon Watch List 2000 = ** (high priority)
<b>Boreal Hwd Trans: Priority Species/ Habitat</b> - Partners in Flight priority habitats/species in the Boreal Hardwoods Transition physiographic region.
<b>NRRI Songbird trends</b> - NRRI trends detected in 10 year monitoring program on NFs (based on linear regression). I = significantly increasing, D = significantly decreasing. * = P # 0.05, ** = P # 0.01. (2003 Report).
<b>Leech Lk TES/CS</b> - Leech Lake Band listed species (1997): T = threatened, E = endangered, S = sensitive, CS = culturally sensitive, CC = cultural concern
<b>Species commonly hunted, fished, trapped</b> - Species identified in evaluation for management indicator species as "commonly hunted, fished or trapped" per 36 CFR 219.19 (a)(1). Project Analysis File.
<b>NRRI Bird Indicator DLP &amp; NRRI Bird Indicator NSU</b> - NRRI-proposed indicators of ecosystem sustainability. DLP - Drift and Lakes Plains Section (Chippewa); NSU = Northern Superior Uplands Section (Superior).

Table DEIS-9. Crosswalk to Animal Species Association with Management Indicator Habitats

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hdwd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<b>MAMMALS</b>															
<i>Canis lupus</i>	gray wolf	x	x			x									
<i>Castor canadensis</i>	beaver	x									m				x
<i>Lynx canadensis</i>	Canada lynx	x	x			x				m					
<i>Lynx rufus</i>	bobcat	x	x		x	x				x					
<i>Martes americana</i>	American marten					x				m					
<i>Microtus chrotorrhinus</i>	rock vole					x					x				
<i>Myotis septentrionalis</i>	northern myotis		m												
<i>Phenacomys intermedius</i>	heather vole					x	m	m	m	y		x			
<i>Rangifer tarandus</i>	caribou					m									
<i>Sorex fumeus</i>	smokey shrew		m			m					m				
<i>Sorex palustris</i>	water shrew										x				x
<i>Synaptomys borealis</i>	northern bog lemming									x					
<i>Lepus americanus</i>	snowshoe hare		x		x	x	x	x		x					
<i>Vulpes vulpes</i>	red fox		y	y		y					x				
<i>Gulo gulo</i>	Wolverine	x													
<i>Martes pennanti</i>	fisher	m	m			m				m					
<i>Mustela vison</i>	mink														x
<i>Ondatra zibethicus</i>	muskrat														x
<i>Lutra canadensis</i>	river otter														x
<i>Canis latrans</i>	coyote	x								x		x			
<i>Odocoileus virginianus</i>	white-tailed deer	x								x		x			
<i>Alces alces</i>	moose	x				x				x					x

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<i>Ursus americanus</i>	black bear		x			x				m	x				
<i>Felis concolor</i>	Cougar	x													
<i>Glaucomys sabrinus</i>	no flying squirrel		m		m	m				m					
<i>Sciurus hudsonicus</i>	red squirrel					m				m					
<i>Sciurus carolinensis</i>	gray squirrel		m		m						x				
<b>BIRDS</b>															
<i>Gavia immer</i>	common loon														x
<i>Podiceps auritus</i>	horned grebe														x
<i>Pelecanus erythrorhynchos</i>	American white pelican														x
<i>Ardea herodias</i>	great blue heron										m				x
<i>Cygnus buccinator</i>	trumpeter swan														x
<i>Anas rubripes</i>	American black duck														x
<i>Aythya collaris</i>	ring-necked duck														x
<i>Aythya valisineria</i>	canvasback														x
<i>Aythya americana</i>	redhead														x
<i>Lophodytes cucullatus</i>	hooded merganser		m		m						m				x
<i>Mergus merganser</i>	common merganser		m		m						m				x
<i>Mergus serrator</i>	red-breasted merganser														x
<i>Oxyura jamaicensis</i>	ruddy duck														x
<i>Aix sponsa</i>	wood duck		m		m						m				x
<i>Anas platyrhynchos</i>	mallard														x
<i>Aythya affinis</i>	Lesser scaup														x

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
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<i>Aythya marila</i>	greater scaup														x
<i>Bucephala albeola</i>	bufflehead														x
<i>Bucephala clangula</i>	goldeneye		m		m										x
<i>Accipiter gentilis</i>	northern goshawk		m	m	m	m	m	m	m				m		
<i>Buteo lineatus</i>	red-shouldered hawk		m	m								m		m	
<i>Buteo jamaicensis</i>	red-tailed hawk		m		m							x			
<i>Accipiter cooperii</i>	Cooper's hawk		x		x				m						
<i>Buteo platypterus</i>	broad-winged hawk		x	m	m										
<i>Haliaeetus leucocephalus</i>	bald eagle		m			m			m			m			x
<i>Falco peregrinus</i>	peregrine falcon														x
<i>Pandion halieatus</i>	osprey		m			m					m				x
<i>Falco columbarius</i>	merlin					m	m								
<i>Falcapennis canadensis</i>	spruce grouse					m				m	x				
<i>Bonasa umbellus</i>	ruffed grouse		x		x										
<i>Tringa solitaria</i>	solitary sandpiper														x
<i>Charadrius melodus</i>	Piping Plover														x
<i>Philohela minor</i>	American woodcock		y									m	x		
<i>Larus argentatus</i>	herring gull														x
<i>Sterna hirundo</i>	common tern														x
<i>Sterna caspia</i>	Caspian tern														x

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
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<i>Chlidonias niger</i>	black tern														x
<i>Sterna fosteri</i>	Forster's tern														x
<i>Coccyzus erythrophthalmus</i>	black-billed cuckoo		x			y					m	x			
<i>Coccyzus americanus</i>	yellow-billed cuckoo		m								m	x			
<i>Surnia ulula</i>	northern hawk owl					m				y		x			
<i>Strix varia</i>	barred owl		m	m	x						m		m	x	
<i>Strix nebulosa</i>	great gray owl									m			m	x	
<i>Asio otus</i>	Long-eared owl		y		m	x									
<i>Aegolius funereus</i>	boreal owl				m	x				m				x	
<i>Aegolis acadicus</i>	Northern saw-whet owl				m	x		m							
<i>Caprimulgus vociferus</i>	whip-poor-will		m			y								x	
<i>Megaceryle alcyon</i>	belted kingfisher										x				x
<i>Drycopus pileatus</i>	pileated woodpecker		m	m	m								m	x	
<i>Melanerpes erythrocephalus</i>	red-headed woodpecker		m	m	m							x			
<i>Sphyrapicus varius</i>	yellow-bellied sapsucker		m	m	m				m						
<i>Picoides arcticus</i>	bl-backed woodpecker					m	m		m	m					
<i>Picoides tridactylus</i>	three-toed woodpecker					m									
<i>Colaptes auratus</i>	northern flicker		m		m	m									
<i>Contopus borealis</i>	olive-sided flycatcher									x	m	x			
<i>Contopus virens</i>	eastern wood-pewee				m			m	m				m	m	

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<i>Empidonax flaviventris</i>	yellow-bellied flycatcher					m				x					
<i>Empidonax alnorum</i>	alder flycatcher								y						
<i>Empidonax minimus</i>	least flycatcher			m				m	m						
<i>Myiarchus crinitus</i>	great crested flycatcher		m	m	m			m		x		x			
<i>Tyrannus tyrannus</i>	eastern kingbird		y												
<i>Progne subis</i>	purple martin														x
<i>Stelgioptreryx ruficollis</i>	n. rough-winged swallow														x
<i>Tachycineta bicolor</i>	tree swallow				x							x			x
<i>Riparia riparia</i>	bank swallow										x				x
<i>Perisoreus canadensis</i>	gray jay							m	m						
<i>Poecile hudsonicus</i>	boreal chickadee					x			m						
<i>Sitta canadensis</i>	red-breasted nuthatch							m	m	m					
<i>Sitta carolinensis</i>	white-breasted nuthatch		m	m	m							x			
<i>Certhia americana</i>	brown creeper		m			m	m		m						
<i>Troglodytes troglodytes</i>	winter wren					m				m					
<i>Regulus satrapa</i>	golden-crowned kinglet					m					x				
<i>Regulus calendula</i>	ruby-crowned kinglet					m					m		m		
<i>Toxostoma rufum</i>	brown thrasher		y									x			
<i>Catharus fuscescens</i>	veery		x	x	x	x									

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<i>Sialia sialis</i>	eastern bluebird		y								x			
<i>Catharus ustulatus</i>	Swainson's thrush		x		x	x	x							
<i>Catharus cattatus</i>	hermit thrush		x		x	x		x	x	m				
<i>Hylocichla mustelina</i>	wood thrush		m	m										
<i>Turdus migratorius</i>	American robin		x		x	x					x			
<i>Lanius excubitor</i>	northern shrike		y			m					x			
<i>Dumetella carolinensis</i>	gray catbird		y		y						x			
<i>Vireo solitarius</i>	blue-headed vireo		m			m		m	m	x				
<i>Vireo flavifrons</i>	yellow-throated vireo		x		x									
<i>Vireo philadelphicus</i>	Philadelphia vireo		x		y									
<i>Vermivora chrysoptera</i>	golden-winged warbler		x		x									
<i>Vermivora ruficapilla</i>	Nashville warbler		x		x	x				m	x			
<i>Parula americana</i>	northern parula		m		m	m				x				
<i>Dendroica petechia</i>	yellow warbler										x			
<i>Dendroica pensylvanica</i>	Chestnut-sided warbler		x		x	x								
<i>Dendroica tigrina</i>	Cape May warbler					m				x				
<i>Dendroica magnolia</i>	Magnolia warbler					x	x			x				
<i>Dendroica caerulescens</i>	bl-thr blue warbler		m	m	m	m	m							
<i>Dendroica virens</i>	bl-thr green warbler		m	m	m	m	x			m				
<i>Dendroica fusca</i>	Blackburnian warbler		m		m	m	m	m	m					

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hdwd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<i>Dendroica pinus</i>	pine warbler					m		m	m	m					
<i>Dendroica palmarum</i>	palm warbler									x					
<i>Dendroica castanea</i>	bay-breasted warbler					x	x			m					
<i>Mniotilta varia</i>	black-and-white warbler		x	x	x	x						m			
<i>Setophaga ruticilla</i>	American redstart		x		x				m		x				
<i>Seiurus aurocapillus</i>	ovenbird		x			x									
<i>Seiurus novaboracensis</i>	northern waterthrush									x	x				
<i>Opornis agilis</i>	Connecticut warbler					x			x	x		m			
<i>Wilsonia canadensis</i>	Canada warbler		x		x				m			x			
<i>Opornis philadelphia</i>	Mourning warbler		x		x	x									
<i>Gephylypis trichas</i>	Common yellowthroat		y						y	y					
<i>Piranga olivacea</i>	scarlet tanager		m	m	x				m						
<i>Pheucticus ludovicianus</i>	rose-breasted grosbeak		x		x							x			
<i>Passerina cyanea</i>	indigo bunting		y		y							x			
<i>Spizella pallida</i>	Clay-colored sparrow					y									
<i>Melospiza melodia</i>	song sparrow								y		x	x			
<i>Melospiza lincolni</i>	Lincoln's sparrow								y		x	y			
<i>Zonotrichia albicollis</i>	white-throated sparrow		x			x	x				x				
<i>Junco hyemalis</i>	dark-eyed junco										x				
<i>Euphagus carolinus</i>	Rusty blackbird											x			x

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hdwd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<i>Icterus galbula</i>	Baltimore oriole		m	m							m				
<i>Carpodacus purpureus</i>	purple finch				x		x					x			
<i>Loxia leucoptera</i>	white-winged crossbill					x	m			m					
<i>Molothrus ater</i>	brown-headed cowbird		x			x					x				
<b>AMPHIBIANS and REPTILES</b>															
<i>Ambystoma laterale</i>	blue-spotted salamander		m		m						m				x
<i>Chelydra serpentina</i>	snapping turtle														x
<i>Clemmys insculpta</i>	wood turtle		m								m				x
<i>Emydoidea blandingii</i>	Blanding's turtle														x
<i>Diadophis punctatus</i>	ringneck snake		x												
<i>Hemidactylium scutatum</i>	four-toed salamander		x	m						m					
<i>Heterodon nasicus</i>	western hognose snake										y				
<i>Plethodon cinereus</i>	red-backed salamander		m	m											
<i>Rana clamitans</i>	green frog										m				x
<i>Rana sylvatica</i>	wood frog		m			m					m				x
<b>FISH</b>															
<i>Acipenser fulvescens</i>	lake sturgeon										m				x
<i>Coregonus zenithicus</i>	shortjaw cisco														x
<i>Etheostoma microperca</i>	least darter										m				x

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hdwld For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<i>Ichthyomyzon fossor</i>	northern brook lamprey										m				x
<i>Notropis anogenus</i>	pugnose shiner										m				x
<i>Moxostoma valenciennesi</i>	greater redhorse										m				x
<i>Stizostedion vitreum</i>	walleye										m				x
<i>Salvelinus namaycush</i>	lake trout														x
<i>Salvelinus fontinalis</i>	brook trout										m				x
<i>Esox masquinongy</i>	muskie														x
<i>Perca falvenscens</i>	yellow perch										m				x
<i>Pomoxis nigromaculatus</i>	black crappie										m				x
<i>Micropterus dolmieu salmoides</i>	smallmouth bass										m				x
<i>Micropterus</i>	largemouth bass										m				x
<i>Esox lucius</i>	northern pike														x
<i>Coregonus culpeaformis</i>	whitefish														x
<b>MOLLUSKS</b>															x
<i>Lasmigona compressa</i>	creek heelsplitter										m				x
<i>Lasmigona costata</i>	fluted-shell mussel										m				x
<i>Ligumia recta</i>	black sandshell										m				x
<b>BUTTER-FLIES</b>															
<i>Erebia disa mancinus</i>	disa alpine										m				
<i>Lycaeides idas nabokovi</i>	Nabokov's northern blue					y									
<b>BEETLES</b>															
<i>Cicindela denikei</i>	tiger beetle species			m						m					

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hwdwd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<i>Cicindela hirticollis rhodensis</i>	tiger beetle species							y							
<i>Cicindela patruela patruela</i>	tiger beetle species							y							
<b>OTHER INSECTS</b>															
<i>Ceraclea vertreesi</i>	Vertree's caddisfly									m					x
<i>Hydroptila novicola</i>	caddisfly species														x
<i>Hydroptila tortosa</i>	caddisfly species														x
<i>Ophiogomphus anomalus</i>	extra-striped snaketail									m					x
m = prefers mature, old, old-growth, or multi-aged forest conditions; y = prefers young forest conditions; x = age not relevant															
Source: Species Viability Evaluation Process, Project analysis File. Refer also to Appendix B: Wildlife Section: Identification of wildlife management indicator species and habitats.															

**Table DEIS-10. Crosswalk to Animal Species Association with other Habitats of Concern.**

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest upland	Non-forest low-land	Riparian Non-forest	Micro-habit Feature ‡	Large landscape wide variety*	Low road density	Old growth associates
<b>MAMMALS</b>										
<i>Canis lupus</i>	gray wolf		m	x				x	x	
<i>Castor canadensis</i>	beaver		y			x		x		
<i>Lynx canadensis</i>	Canada lynx		m					x	x	x
<i>Lynx rufus</i>	bobcat		m					x		
<i>Martes americana</i>	American marten									x
<i>Mustela nivalis</i>	Least weasel			x	x					
<i>Phenacomys intermedius</i>	heather vole			x	x					
<i>Sorex palustris</i>	Water shrew				x					
<i>Synaptomys borealis</i>	Northern bog lemming				x					
<i>Lepus americanus</i>	Snowshoe hare		x		x					
<i>Vulpes vulpes</i>	Red fox		x	y						
<i>Martes pennanti</i>	Fisher		m							
<i>Mustela vison</i>	mink				x	x				
<i>Alces alces</i>	moose		y	x	x	x				
<i>Ursus americanus</i>	black bear		x	x				x		
<i>Sciurus carolinensis</i>	Gray squirrel		m							
<b>BIRDS</b>										
<i>Gavia immer</i>	common loon							x		
<i>Podiceps auritus</i>	Horned grebe					x				
<i>Ardea herodias</i>	great blue heron		m			x			x	
<i>Botaurus lentiginosus</i>	American bittern				x					
<i>Cygnus buccinator</i>	trumpeter swan				x				x	
<i>Anas rubripes</i>	American black duck					x				
<i>Aythya collaris</i>	ring-necked duck				x	x				
<i>Aythya valisineria</i>	canvasback					x				

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest upland	Non-forest low-land	Riparian Non-forest	Micro-habit Feature ‡	Large landscape wide variety*	Low road density	Old growth associates
<i>Aythya americana</i>	redhead					x				
<i>Lophodytes cucullatus</i>	hooded merganser		m			x				
<i>Mergus merganser</i>	common merganser					x				
<i>Mergus serrator</i>	red-breasted merganser					x				
<i>Oxyura jamaicensis</i>	ruddy duck					x				
<i>Aix sponsa</i>	wood duck		m			x				
<i>Anas platyrhynchos</i>	mallard			x		x				
<i>Aythya affinis</i>	Lesser scaup					x				
<i>Bucephala clangula</i>	goldeneye		m			x				
<i>Accipiter gentilis</i>	northern goshawk			x				x		m
<i>Circus cyaneus</i>	northern harrier			x	x					
<i>Buteo lineatus</i>	red-shouldered hawk	m	m	x				x		
<i>Buteo jamaicensis</i>	red-tailed hawk			x						
<i>Accipiter cooperii</i>	Cooper's hawk		m							
<i>Buteo platypterus</i>	broad-winged hawk		m	x				x		
<i>Haliaeetus leucocephalus</i>	bald eagle		m							m
<i>Falco peregrinus</i>	peregrine falcon			x	x					
<i>Falco columbarius</i>	merlin			x	x					
<i>Falci pennis canadensis</i>	spruce grouse				x				x	
<i>Tympanuchus phasianellus</i>	sharp-tailed grouse			x	x					
<i>Grus canadensis</i>	sandhill crane			x	x					
<i>Coturnicops noveboracensis</i>	yellow rail			x	x					
<i>Tringa melanoleuca</i>	Greater Yellowlegs			x	x					
<i>Bartramia longicauda</i>	upland sandpiper			x						

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest upland	Non-forest low-land	Riparian Non-forest	Micro-habit Feature ‡	Large landscape wide variety*	Low road density	Old growth associates
<i>Tringa solitaria</i>	solitary sandpiper					x				
<i>Phalaropus tricolor</i>	Wilson's phalarope				x					
<i>Philohela minor</i>	American woodcock		y	x	x	x				
<i>Gallinago gallinago</i>	common snipe			x	x	x				
<i>Chlidonias niger</i>	black tern				x					
<i>Coccyzus erythrophthalmus</i>	black-billed cuckoo		m							
<i>Coccyzus americanus</i>	yellow-billed cuckoo		x							
<i>Surnia ulula</i>	northern hawk owl			x	x					
<i>Strix varia</i>	barred owl		m	x				x		
<i>Strix nebulosa</i>	great gray owl		m	x	x			x		
<i>Asio flammeus</i>	Short-eared owl			x						
<i>Aegolius funereus</i>	boreal owl				x			x	x	
<i>Caprimulgus vociferus</i>	whip-poor-will			x				x		
<i>Megaceryle alcyon</i>	belted kingfisher			x		x	x			
<i>Drycopus pileatus</i>	pileated woodpecker	x	m					x		m
<i>Melanerpes erythrocephalus</i>	red-headed woodpecker		m	x						m
<i>Sphyrapicus varius</i>	Yellow-bellied sapsucker		m							
<i>Picoides arcticus</i>	bl-backed woodpecker	m	m							m
<i>Picoides tridactylus</i>	three-toed woodpecker	m								
<i>Colaptes auratus</i>	Northern flicker			x						
<i>Contopus borealis</i>	olive-sided flycatcher			x						m
<i>Contopus virens</i>	Eastern wood-peewee		m							
<i>Empidonax alnorum</i>	alder flycatcher				x					

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest upland	Non-forest low-land	Riparian Non-forest	Micro-habit Feature ‡	Large landscape wide variety*	Low road density	Old growth associates
<i>Empidonax minimus</i>	least flycatcher		m	x						
<i>Myiarchus crinitus</i>	great crested flycatcher		m							
<i>Tyrannus tyrannus</i>	eastern kingbird			x	x					
<i>Progne subis</i>	purple martin			x						
<i>Troglodytes troglodytes</i>	winter wren		y		x					
<i>Cistophorus palustris</i>	marsh wren				x					
<i>Cistophorus platensis</i>	sedge wren			x	x					
<i>Stelgioptreryx ruficollis</i>	N. rough-winged swallow			x						
<i>Tachycineta bicolor</i>	Tree swallow			x	x					
<i>Riparia riparia</i>	Bank Swallow			x	x	x				
<i>Poecile hudsonicus</i>	Boreal chickadee				x					
<i>Sitta carolinensis</i>	White-breasted nuthatch		x							
<i>Certhia americana</i>	Brown creeper		m							
<i>Regulus calendula</i>	Ruby-crowned kinglet			x						
<i>Toxostoma rufum</i>	Brown thrasher				x					
<i>Catharus fuscescens</i>	Veery		m	x	x					
<i>Sialia sialis</i>	Eastern bluebird			x						
<i>Catharus ustulatus</i>	Swainson's thrush			x						
<i>Catharus cattatus</i>	Hermit thrush			x						
<i>Hylocichia mustelina</i>	Wood thrush		m							
<i>Dumetella carolinensis</i>	gray catbird		y	x	x					

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest upland	Non-forest low-land	Riparian Non-forest	Micro-habit Feature ‡	Large landscape wide variety*	Low road density	Old growth associates
<i>Vireo flavitrons</i>	Yellow-throated vireo		x		x					
<i>Vireo philadelphicus</i>	Philadelphia vireo			x						
<i>Vermivora chrysoptera</i>	golden-winged warbler			x	x					
<i>Vermivora ruficapilla</i>	Nashville warbler			x	x					
<i>Dendroica petechia</i>	yellow warbler			x	x					
<i>Dendroica pensylvanica</i>	chestnut-sided warbler			x	x					
<i>Dendroica caerulescens</i>	bl-thr blue warbler							x	x	
<i>Dendroica palmarum</i>	palm warbler			x	x			x		
<i>Mniotilta varia</i>	black-and-white warbler		x	x	x			x		
<i>Turdus migratorius</i>	American Robin		x	x	x					
<i>Setophaga ruticilla</i>	Redstart		x	x						
<i>Seiurus</i>	Ovenbird		m							
<i>Seiurus novaboracensis</i>	northern waterthrush		m		x					
<i>Opornis agilis</i>	Connecticut warbler			x	x			x		
<i>Opornis philadelphia</i>	mourning warbler			x	x	x				
<i>Gephylypis trichas</i>	Common yellowthroat				x	x				
<i>Wilsonia canadensis</i>	Canada warbler		x	x	x					
<i>Piranga olivacea</i>	Scarlet tanager		m							
<i>Pheucticus ludovicianus</i>	Rose-breasted grosbeak		x							
<i>Passerina cyanea</i>	Indigo bunting			x						
<i>Spizella pallida</i>	clay-colored sparrow			x	x					
<i>Spizella pusilla</i>	Field sparrow			x	x					

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest upland	Non-forest low-land	Riparian Non-forest	Micro-habit Feature ‡	Large landscape wide variety*	Low road density	Old growth associates
<i>Ammodramus savannarum</i>	Grasshopper sparrow			x	x					
<i>Ammodramus leconteii</i>	LeConte's sparrow			x	x			x	x	
<i>Ammodramus nelsoni</i>	Nelson's sharp-tailed sparrow			x	x				x	
<i>Melospiza melodia</i>	song sparrow			x	x					
<i>Melospiza georgiana</i>	Swamp sparrow				x	x				
<i>Melospiza lincolni</i>	Lincoln's sparrow			x	x	x		x		
<i>Zonotrichia albicollis</i>	White-throated sparrow			x	x					
<i>Junco hyemalis</i>	Dark-eyed junco			x						
<i>Euphagus carolinus</i>	Rusty blackbird		x	x	x					
<i>Sturnella magna</i>	Eastern Meadowlark			x	x					
<i>Sturnella neglecta</i>	Western Meadowlark			x	x					
<i>Dolichonyx oryzivorus</i>	bobolink			x	x					
<i>Molothrus ater</i>	Brown-headed cowbird		y	x						
<i>Icterus galbula</i>	Baltimore oriole		m							
<i>Cardinalis purpureus</i>	Purple finch				x					
<b>AMPHIBIANS and REPTILES</b>										
<i>Ambystoma laterale</i>	blue-spotted salamander		m		x					
<i>Chelydra serpentina</i>	snapping turtle				x					
<i>Clemmys insculpta</i>	wood turtle		m		x					
<i>Emydoidea blandingii</i>	Blanding's turtle			x						
<i>Diadophis punctatus</i>	ringneck snake		x							
<i>Hemidactylium scutatum</i>	four-toed salamander		x		x					
<i>Heterodon nasicus</i>	western hognose snake					x				

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest upland	Non-forest low-land	Riparian Non-forest	Micro-habit Feature ‡	Large landscape wide variety*	Low road density	Old growth associates
<i>Rana clamitans</i>	green frog				x					
<i>Rana sylvatica</i>	Wood frog		x		x					
<b>BUTTERFLIES</b>										
<i>Erebia discoidalis</i>	red-disked alpine				x					
<i>Oenis jutta ascerta</i>	Jutta arctic				x					
<i>Pyrgus centaureae freija</i>	grizzled skipper						x			
<b>BEETLES</b>										
<i>Cicindela denikei</i>	tiger beetle species			x						
m = prefers mature, old, old-growth, or multi-aged forest conditions; y = prefers young forest conditions; x = age not relevant										
‡ No MIH link										
* Includes area sensitive species										
Source: Species Viability Evaluation Process, Project analysis File. Refer also to Appendix B: Wildlife Section: <i>Identification of wildlife management indicator species and habitats.</i>										

Table DEIS-11. Status of Plant Species of Interest or Concern Considered in Forest Plan Revision

SPECIES	COMMON NAME	STATUS				
		FED T, E, & SC	State of MN	CNF	SNF	Leech Lk TES
<b>VASCULAR</b>						
<i>Actaea pachypoda</i>	white baneberry		N		x	
<i>Adoxa moschatellina</i>	moschatel		SC		R	
<i>Agrostis geminata</i>	twin bentgrass		SC		x	
<i>Agrostis hyemalis</i>	ticklegrass		N		x	
<i>Allium schoenoprasum</i> v <i>sibiricum</i>	wild chives		T		h	
<i>Anemone multifida</i>	Anemone		N			
<i>Arabis holboellii</i> v. <i>retrofracta</i>	Holboell's rockcross		T		x	
<i>Arethusa bulbosa</i>	dragon's-mouth		N	x	x	S
<i>Arnica lonchophylla</i>	long-leaved arnica		T		R	
<i>Artemisia campestris</i>	Canadian wormwood		N		x	
<i>Asplenium trichomanes</i>	maidenhair spleenwort		T		R	
<i>Astragalus alpinus</i>	alpine milk-vetch		E		R	
<i>Betula alleghenensis</i>	yellow birch (regen)			x	x	
<i>Bidens discoidea</i>	bur marigold		N		R	
<i>Botrychium acuminatum</i>	pointed moonwort		N		R	
<i>Botrychium dissectum</i>	cutleaf grapefern		N	x	x	T
<i>Botrychium lanceolatum</i>	triangle moonwort		T	R	R	T
<i>Botrychium lunaria</i>	common moonwort		T		R	
<i>Botrychium matricariifolium</i>	matricary grapefern		N	x	x	
<i>Botrychium michiganense</i>	moonwort		N		R	
<i>Botrychium minganense</i>	mingan moonwort		SC	x	x	T
<i>Botrychium mormo</i>	goblin fern		SC	R	R	E
<i>Botrychium oneidense</i>	blunt-lobed grapefern		E	R		E
<i>Botrychium pallidum</i>	pale moonwort		E	R	R	T
<i>Botrychium rugulosum</i>	ternate grapefern		T	R	R	T
<i>Botrychium simplex</i>	least moonwort		SC	R	R	T
<i>Calamagrostis lacustris</i>	marsh reedgrass		SC		o	
<i>Calamagrostis purpurascens</i>	purple reedgrass		SC		x	
<i>Callitriche heterophylla</i>	larger water- starwort		SC		x	
<i>Caltha natans</i>	floating marsh- marigold		E		R	
<i>Calypso bulbosa</i>	fairy slipper			R	R	T
<i>Cardamine praetensis</i> v. <i>palustris</i>	cuckoo flower		N		x	
<i>Carex exilis</i>	coastal sedge		SC		x	
<i>Carex flava</i>	yellow sedge		SC		x	
<i>Carex garberi</i>	Garber's sedge		T			
<i>Carex gynandra</i>	sedge species		N		x	
<i>Carex katahdinensis</i>	Katahdin sedge		T		R	
<i>Carex media</i>	intermediate sedge		N		x	

SPECIES	COMMON NAME	STATUS				
		FED T, E, & SC	State of MN	CNF	SNF	Leech Lk TES
<i>Carex michauxiana</i>	Michaux's sedge		SC		x	
<i>Carex novae angliae</i>	New England sedge				R	
<i>Carex ormostachya</i>	necklace spike sedge		N	x	x	
<i>Carex pallescens</i>	Pale sedge		E			
<i>Carex praticola</i>	prairie sedge		SC		x	
<i>Carex rossii</i>	Ross's sedge		N		R	
<i>Carex scirpoidea</i>	no. single-spiked sedge		SC		o	
<i>Carex supina v. spaniocarpa</i>	weak arctic sedge		SC		x	
<i>Carex xerantica</i>	dry sedge		SC		x	
<i>Carex woodii</i>	wood's sedge		SC		x	
<i>Carpinus caroliniana</i>	musclewood					S
<i>Carya cordiformis</i>	bitternut hickory			x		S
<i>Caulophyllum thalictroides</i>	blue cohosh			x	x	
<i>Castilleja septentrionalis</i>	Northern paintbrush		E		x	
<i>Celtis occidentalis</i>	hackberry			x		S
<i>Cladium mariscoides</i>	twig-rush		SC		x	
<i>Claytonia caroliniana</i>	Carolina spring-beauty		SC		x	
<i>Comptonia peregrina</i>	sweetfern				x	S
<i>Crataegus douglasii</i>	black hawthorn		T		R	
<i>Cynoglossum virginianum v. boreale</i>	no. wild comfrey			o	o	
<i>Cypripedium arietinum</i>	ram's-head lady's slipper		T	R	R	T
<i>Deschampsia flexuosa</i>	Slender hairgrass		SC		x	
<i>Disporum trachycarpum</i>	rough-fruited fairy bells		N		R	
<i>Draba arabisans</i>	rock whitlow-grass		SC		x	
<i>Draba cana</i>	hoary whitlow grass				x	
<i>Draba norvegica</i>	Norwegian whitlow grass		SC		x	
<i>Drosera anglica</i>	English sundew		E			
<i>Drosera linearis</i>	slenderleaf sundew		SC			
<i>Drosera intermedia</i>	Spatulate leaved sundew				x	S
<i>Dryopteris goldiana</i>	Goldie's fern		SC	R		T
<i>Elatine triandra</i>	waterwort		N		x	
<i>Eleocharis nitida</i>	neat spike-rush		T		R	
<i>Eleocharis olivacea</i>	olivaceous spike-rush		T	R		T
<i>Eleocharis quinqueflora</i>	few-flowered spike-rush		SC	R	o	S
<i>Eleocharis rostellata</i>	beaked spike rush		T			
<i>Empetrum eamesii</i>	Purple crowberry		E			
<i>Empetrum nigrum</i>	Black crowberry		E			
<i>Erythronium albidum</i>	white trout-lily			R		T

SPECIES	COMMON NAME	STATUS				
		FED T, E, & SC	State of MN	CNF	SNF	Leech Lk TES
<i>Euphrasia hudsoniana</i>	Hudson Bay eyebright		SC		x	
<i>Fimbristylis autumnalis</i>	autumn fimbristylis		SC	x		
<i>Gymnocarpium robertianum</i>	limestone oak fern			R		S
	<i>Guild of spring ephemeral</i>			x	x	
<i>Geocaulon lividum</i>	northern comandra		SC		o	
<i>Hierochloe odorata</i>	sweetgrass			x	x	S
<i>Juglans cinerea</i>	butternut		SC			S
<i>Juncus subtilis</i>	rush species		N		R	
<i>Juncus stygius v. americanus</i>	moor rush		SC		R	
<i>Juncus vaseyi</i>	Vasey's rush				R	
<i>Juniperus horizontalis</i>	creeping juniper		SC		x	
<i>Larix laricina</i>	tamarack			x	x	
<i>Listera auriculata</i>	auricled twayblade		E		R	
<i>Listera convallariodes</i>	broad-lipped twayblade		SC		h	
<i>Littorella uniflora</i>	American shore- plantain		SC		R	
<i>Luzula parviflora ssp. Melanocarpa</i>	small-flowered woodrush		SC		x	
<i>Malaxis paludosa</i>	bog adder's- mouth		E	p		E
<i>Malaxis monophyllos v. brachypoda</i>	white adder's- mouth		SC	R	o	T
<i>Mitchella repens</i>	partridge berry					S
<i>Moehringia macrophylla</i>	big-leaved sandwort		T		R	
<i>Muhlenbergia uniflora</i>	one-flowered muhly		SC		R	
<i>Myriophyllum tenellum</i>	water milfoil		N		x	
<i>Najas gracillima</i>	slender naiad		SC	x	x	S
<i>Nymphaea leibergii</i>	small white waterlily		T		R	
<i>Orobanche uniflora</i>	one-flowered broomrape		SC	R		T
<i>Oryzopsis Canadensis</i>	Canada ricegrass				x	
<i>Osmorhiza berteroi</i>	Chilean sweet cicely		T		R	
<i>Osmorhiza depauperata</i>	blunt-fruited sweet cicely		SC		x	
<i>Oxytropis viscida</i>	sticky locoweed		E		R	
<i>Phacelia franklinii</i>	Franklin's phacelia		SC		x	
<i>Picea mariana</i>	black spruce			x	x	
<i>Pinguicula vulgaris</i>	butterwort		SC		x	
<i>Pinus strobus</i>	white pine (regen)			x	x	S
<i>Platanthera clavellata</i>	club-spur orchid		SC	R	R	T
<i>Poa alpine</i>	Alpine bluegrass					
<i>Poa wolfii</i>	wolf's bluegrass		SC			

SPECIES	COMMON NAME	STATUS				
		FED T, E, & SC	State of MN	CNF	SNF	Leech Lk TES
<i>Polemonium occidentale s. lacustre</i>	western Jacob's-ladder		E		R	
<i>Polygonum viviparum</i>	alpine bistort		SC		x	
<i>Polystichum braunii v. purshii</i>	Braun's holly fern		E		R	
<i>Potamogeton vaginatus</i>	sheathed pondweed		SC		x	
<i>Potamogeton vaseyi</i>	Vasey's pondweed		SC		x	
<i>Pyrola minor</i>	small shinleaf		SC		R	
<i>Ranunculus gmelini</i>	sm. yell water crowfoot		N		x	
<i>Ranunculus lapponicus</i>	Lapland buttercup		SC	o	o	T
<i>Rhynchospora fusca</i>	sooty-colored beak-rush		SC	o	o	
<i>Rubus chamaemorus</i>	cloudberry		T		R	
<i>Sagina nodosa ssp. borealis</i>	knotty pearlwort		E		x	
<i>Sagittaria graminea</i>	grass-like arrowhead		N		x	
<i>Salix pellita</i>	satiny willow		SC			
<i>Saxifraga cernua</i>	nodding saxifrage		E		R	
<i>Saxifraga paniculata</i>	encrusted saxifrage		T		R	
<i>Scirpus clintonii</i>	Clinton's bulrush		SC		x	
<i>Scirpus pedicellatus</i>	woolgrass		N		x	
<i>Selaginella selaginoides</i>	northern spikemoss		E			
<i>Senecio indecorus</i>	gray ragwort		SC		x	
<i>Sparganium glomeratum</i>	clustered bur-reed		SC	R	R	T
<i>Subularia aquatica</i>	awlwort		T	R	R	
<i>Taxus canadensis</i>	Canada yew			R	R	S
<i>Thuja occidentalis</i>	white cedar (regen)			x	x	
<i>Tofieldia pusilla</i>	small false asphodel		E		R	
<i>Torreyochloa pallida</i>	Torrey's manna-grass		SC	o	o	S
<i>Triglochin palustris</i>	arrowgrass		N			
<i>Tsuga canadensis</i>	eastern hemlock		SC			
<i>Ulmus americana</i>	American elm			o	o	S
<i>Ulmus rubra</i>	Red (slippery) elm			x		S
<i>Utricularia gibba</i>	bladderwort		N		x	S
<i>Utricularia purpurea</i>	purple bladderwort		SC			S
<i>Utricularia resupinata</i>	lavender bladderwort		SC		x	
<i>Vaccinium uliginosum</i>	alpine bilberry		T			
<i>Viola lanceolata</i>	lance-leaved violet		T		R	
<i>Viola novae-angliae</i>	New England violet			x	x	S
<i>Waldsteinia fragarioides</i>	barren strawberry		SC	o	R	S
<i>Woodsia alpina</i>	alpine woodsia		SC		x	

SPECIES	COMMON NAME	STATUS				
		FED T, E, & SC	State of MN	CNF	SNF	Leech Lk TES
<i>Woodsia glabella</i>	smooth woodsia		T		R	
<i>Woodsia oregana v. cathcartiana</i>	Oregon woodsia		N		x	
<i>Woodsia scopulina</i>	Rocky Mountain woodsia		T		x	
<i>Xyris montana</i>	montane yellow-eyed grass		SC		x	
<i>Zizania aquatica</i>	wild rice			x	x	x
<b>LICHENS</b>						
<i>Arctoparmelia centrifuga</i>	lichen				R	
<i>Arctoparmelia subcentrifuga</i>	lichen				R	
<i>Caloplaca parvula</i>	lichen		E		R	
<i>Cetraria aurescens</i>	lichen		SC		R	
<i>Cetraria oakesiana</i>	lichen		T			
<i>Cladonia wainoi</i>	lichen		SC		R	
<i>Coccocarpia palmicola</i>	lichen		T			
<i>Lobaria quercizans</i>	lichen		SC			
<i>Menegazzia terebrata</i>	port-hole lichen				R	
<i>Parmelia stictica</i>	lichen		E			
<i>Parmelia stuppea</i>	lichen		T			
<i>Peltigera venosa</i>	lichen		SC		R	
<i>Pseudocyphellaria crocata</i>	lichen		E		R	
<i>Ramalina thrausta</i>	lichen				R	
<i>Stereocaulon pileatum</i>	lichen					
<i>Sticta fuliginosa</i>	lichen		SC		R	
<i>Usnea longissima</i>	lichen				R	
<b>MOSSES</b>						
<i>Schistostega pennata</i>	luminous moss		E		x	
<i>Sphagnum compactum</i>	moss				x	
<i>Tomenthypnum falcifolium</i>	moss		SC		x	
<b>FED T, E, &amp; SC and State of MN</b> - FED (federal)/MN (Jul 1, 1996): E = endangered; T = threatened; SC = special concern (Federal "Special Concern" from 1995 List); N = no status, but tracked by MN DNR because of relative rarity or conservation concern.						
<b>CNF and SNF</b> - CNF = Chippewa National Forest; SNF= Superior National Forest - R = US Forest Service Regional Forester's Sensitive Species (Feb 29, 2000); o = species is RFSS on another NF; and occurs, but is not listed RFSS; x = species occurs, is not RFSS; p = species is RFSS on another NF, not known to occur, but has a very strong potential to occur; h=historic occurrence.						
<b>Leech Lk TES</b> - Leech Lake Band listed species: T = threatened, E = endangered, and S = sensitive						

Table DEIS-12. Crosswalk to Plant Species Association with Management Indicator Habitats

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hwdwd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<b>VASCULAR</b>															
<i>Actaea pachypoda</i>	white baneberry			m											
<i>Adoxa moschatellina</i>	moschatel			m											
<i>Agrostis hyemalis</i>	ticklegrass								x						
<i>Arethusa bulbosa</i>	dragon's-mouth								x						
<i>Betula alleghensis</i>	yellow birch (regen)	x		x											
<i>Botrychium acuminatum</i>	pointed moonwort										x				
<i>Botrychium dissectum</i>	cutleaf grapefern										x				
<i>Botrychium lanceolatum</i>	triangle moonwort			m							x				
<i>Botrychium lunaria</i>	common moonwort										x				
<i>Botrychium matricariifolium</i>	matricary grapefern										x				
<i>Botrychium michiganense</i>	moonwort										x				
<i>Botrychium minganense</i>	mingan moonwort										x				
<i>Botrychium mormo</i>	goblin fern			m											
<i>Botrychium oneidense</i>	blunt-lobed grapefern			m											
<i>Botrychium pallidum</i>	pale moonwort										x				
<i>Botrychium rugulosum</i>	ternate grapefern										x				
<i>Botrychium simplex</i>	least moonwort										x				
<i>Callitriche heterophylla</i>	larger water-starwort														x
<i>Caltha natans</i>	floating marsh-marigold														x
<i>Calypso bulbosa</i>	Fairy slipper										m				

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hwdwd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<i>Cardamine praetensis v. palustris</i>	cuckoo flower									x					
<i>Carex novae angliae</i>	New England sedge	m		m											
<i>Carex ormostachya</i>	necklace spike sedge	x	x	x	x							x			
<i>Carex pallescens</i>	Pale sedge											x			
<i>Carex woodii</i>	wood's sedge			x											
<i>Carya cordiformis</i>	bitternut hickory	x		x											
<i>Caulophyllum thalictroides</i>	blue cohosh	x	x	x	x	x	x	x	x						
<i>Claytonia caroliniana</i>	Carolina spring-beauty			x											
<i>Comptonia peregrina</i>	sweetfern					x		x	x						
<i>Crataegus douglasii</i>	Black hawthorn											x			
<i>Cynoglossum virginianum v. boreale</i>	no. wild comfrey	x	x	x	x	x	x								
<i>Cypripedium arietinum</i>	ram's-head lady's slipper					x		x	x	x					
<i>Disporum trachycarpum</i>	rough-fruited fairy bells					m			m						
<i>Dryopteris goldiana</i>	Goldie's fern			m											
<i>Elatine triandra</i>	waterwort														x
<i>Erythronium albidum</i>	white trout-lily			m											
<i>Gymnocarpium robertianum</i>	limestone oak fern									m					
	<i>Guild of spring ephemeral</i>			m											
<i>Geocaulon lividum</i>	northern comandra									x					
<i>Juglans cinerea</i>	butternut			x											
<i>Juncus subtilis</i>	Rush species														x

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hdw'd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<i>Larix laricina</i>	tamarack									x					
<i>Listera auriculata</i>	Auricled twayblade														x
<i>Listera convallariodes</i>	broad-lipped twayblade					m	m								
<i>Littorella uniflora</i>	American shore-plantain														x
<i>Luzula parviflora</i> ssp. <i>Melanocarpa</i>	small-flowered woodrush									x					
<i>Malaxis paludosa</i>	bog adder's-mouth									m					
<i>Malaxis monophyllos</i> v. <i>brachypoda</i>	white adder's-mouth									m					
<i>Myriophyllum tenellum</i>	water milfoil														x
<i>Najas gracillima</i>	slender naiad														x
<i>Nymphaea leibergii</i>	small white waterlily														x
<i>Orobanche uniflora</i>	one-flowered broomrape			x											
<i>Oryzopsis Canadensis</i>	Canadian ricegrass					x		x	x						
<i>Osmorhiza berteroi</i>	Chilean sweet cicely			m											
<i>Picea mariana</i>	black spruce								x	x					
<i>Pinus strobus</i>	white pine (regen)	x		x	x	x		x							
<i>Polemonium occidentale</i> s. <i>lacustre</i>	western Jacob's-ladder									y					
<i>Polystichum braunii</i> v. <i>purshii</i>	Braun's holly fern			m											
<i>Potamogeton vaginatus</i>	sheathed pondweed														x
<i>Potamogeton vaseyi</i>	Vasey's pondweed														x
<i>Pyrola minor</i>	small shinleaf									m					

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hwd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<i>Ranunculus gmelini</i>	sm. yell water crowfoot														x
<i>Ranunculus lapponicus</i>	Lapland buttercup									m					
<i>Rubus chamaemorus</i>	cloudberry									m					
<i>Sagittaria graminea</i>	grass-like arrowhead														x
<i>Salix pellita</i>	satiny willow														
<i>Scirpus clintonii</i>	Clinton's bulrush	y	y	y	y										
<i>Senecio indecorus</i>	gray ragwort						x			x					
<i>Subularia aquatica</i>	awlwort														x
<i>Taxus canadensis</i>	Canada yew	m	m	m	m					m					
<i>Thuja occidentalis</i>	white cedar (regen)	x				x				x					
<i>Tsuga canadensis</i>	eastern hemlock				x										
<i>Ulmus americana</i>	American elm										x				
<i>Ulmus rubra</i>	Red (slippery) elm			x											
<i>Utricularia gibba</i>	bladderwort														x
<i>Utricularia purpurea</i>	purple bladderwort														x
<i>Utricularia resupinata</i>	lavender bladderwort														x
<i>Waldsteinia fragarioides</i>	barren strawberry	x													
<i>Zizania aquatica</i>	wild rice														x
<b>LICHENS</b>															
<i>Cetraria aurescens</i>	lichen									m					
<i>Cetraria oakesiana</i>	lichen							m							
<i>Coccocarpia palmicola</i>	lichen							m							
<i>Lobaria quercizans</i>	lichen			m											

SPECIES	COMMON NAME	MANAGEMENT INDICATOR HABITAT (MIH)													
		MIH 1, Upland For.	MIH 2, Upland Deciduous For.	MIH 3, Upland No. Hwdwd For.	MIH 4, Aspen-birch-dominated For.	MIH 5, Upland Coniferous For.	MIH 6, Upland Spruce-fir dominated For.	MIH 7, Red & White Pine dominated For.	MIH 8, Jack Pine For.	MIH 9, Lowland Black Spruce-tamarack & Mixed Lowland Conifer Forest	MIH 10, Upland Riparian For.	MIH 11, Upland Edge Habitat (management-induced)	MIH 12, Interior For., Upland & Lowland	MIH 13, Large Upland Patches of Forest	MIH 14, Aquatic-Lake, Stream, & Pond
<i>Parmelia stippea</i>	lichen									m					
<i>Ramalina thrausta</i>	lichen									m					
<i>Usnea longissima</i>	lichen									m					
<b>MOSSES</b>															
<i>Tomenthypnum falcifolium</i>	moss									x					
m = prefers mature, old, old-growth, or multi-aged forest conditions; y = prefers young forest conditions; x = age not relevant.															
Source: Species Viability Evaluation Process - Project Analysis File. Refer also to Appendix B: Wildlife Section: <i>Identification of wildlife management indicator species and habitats.</i>															

Table DEIS-13. Crosswalk to Plant Species Association with other Habitats of Concern

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest up-land	Non-forest low-land	Riparian – Non-forest	Micro-habit Feature ‡	Large landscape - wide variety *	Low road density	Old growth associates
<b>VASCULAR</b>										
<i>Agrostis geminata</i>	twin bentgrass						x			
<i>Agrostis hyemalis</i>	ticklegrass				x	x	x			
<i>Allium schoenoprasum v sibiricum</i>	wild chives						x			
<i>Anemone multifida</i>	Anemone						x			
<i>Arabis holboellii v. retrofracta</i>	Holboell's rockcress						x			
<i>Arethusa bulbosa</i>	dragon's-mouth	x			x	x				
<i>Arnica lonchophylla</i>	long-leaved arnica						x			
<i>Artemisia campestris</i>	Canadian wormwood						x			
<i>Asplenium trichomanes</i>	maiden-hair spleenwort						x			
<i>Astragalus alpinus</i>	alpine milk-vetch					x				
<i>Bidens discoidea</i>	bur marigold				x	x				
<i>Botrychium acuminatum</i>	pointed moonwort			x						
<i>Botrychium dissectum</i>	cutleaf grapefern			x						
<i>Botrychium lanceolatum</i>	Triangle moonwort			x						
<i>Botrychium lunaria</i>	common moonwort			x						
<i>Botrychium matricariifolium</i>	matricary grapefern			x						
<i>Botrychium michiganense</i>	moonwort			x						
<i>Botrychium minganense</i>	mingan moonwort			x						
<i>Botrychium pallidum</i>	pale moonwort			x						
<i>Botrychium rugulosum</i>	ternate grapefern			x						
<i>Botrychium simplex</i>	least moonwort			x						
<i>Calamagrostis lacustris</i>	marsh reedgrass				x	x				

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest up-land	Non-forest low-land	Riparian – Non-forest	Micro-habit Feature ‡	Large landscape - wide variety *	Low road density	Old growth associates
<i>Calamagrostis purpurascens</i>	purple reedgrass						x			
<i>Caltha natans</i>	Floating marsh-marigold					x				
<i>Calypso bulbosa</i>	fairy slipper	m								
<i>Cardamine praetensis v. palustris</i>	cuckoo flower				x					
<i>Carex exilis</i>	coastal sedge				x					
<i>Carex flava</i>	yellow sedge				x	x				
<i>Carex garberi</i>	Garber's sedge				x	x				
<i>Carex gynandra</i>	sedge species				x	x				
<i>Carex katahdinensis</i>	Katahdin sedge					x				
<i>Carex media</i>	intermediate sedge					x	x			
<i>Carex michauxiana</i>	Michaux's sedge				x	x				
<i>Carex pallescens</i>	Pale sedge			x	x					
<i>Carex praticola</i>	prairie sedge						x			
<i>Carex rossii</i>	Ross's sedge						x			
<i>Carex scirpoidea</i>	no. single-spiked sedge						x			
<i>Carex supina v. spaniocarpa</i>	weak arctic sedge						x			
<i>Carex xerantica</i>	dry sedge						x			
<i>Castilleja septentrionalis</i>	Northern paintbrush						x			
<i>Cladium mariscoides</i>	twig-rush				x	x				
<i>Comptonia peregrina</i>	sweetfern						x			
<i>Crataegus douglasii</i>	black hawthorn			x		x				
<i>Cypripedium arietinum</i>	ram's-head lady's slipper	x								
<i>Deschampsia flexuosa</i>	Slender hairgrass						x			

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest up-land	Non-forest low-land	Riparian – Non-forest	Micro-habit Feature ‡	Large landscape - wide variety *	Low road density	Old growth associates
<i>Draba arabisans</i>	rock whitlow-grass						x			
<i>Draba cana</i>	hoary whitlow grass						x			
<i>Draba norvegica</i>	Norwegian whitlow grass						x			
<i>Drosera anglica</i>	English sundew				x					
<i>Drosera linearis</i>	slender-leaf sundew				x					
<i>Drosera intermedia</i>	Spatulate leaved sundew				x					
<i>Eleocharis nitida</i>	neat spike-rush				x	x				
<i>Eleocharis olivacea</i>	olivaceous spike-rush				x	x				
<i>Eleocharis quinqueflora</i>	few-flowered spike-rush				x	x				
<i>Eleocharis rostellata</i>	beaked spike rush				x	x				
<i>Empetrum eamesii</i>	Purple crowberry						x			
<i>Empetrum nigrum</i>	Black crowberry						x			
<i>Erythronium albidum</i>	white trout-lily									
<i>Euphrasia hudsoniana</i>	Hudson Bay eyebright						x			
<i>Fimbristylis autumnalis</i>	autumn fimbriatylis				x	x				
<i>Gymnocarpium robertianum</i>	limestone oak fern	m								
<i>Geocaulon lividum</i>	northern comandra				x					
<i>Hierochloe odorata</i>	sweet-grass				x					
<i>Juncus subtilis</i>	rush species					x				
<i>Juncus stygius v. americanus</i>	moor rush				x					
<i>Juncus vaseyi</i>	Vasey's rush				x	x				
<i>Juniperus horizontalis</i>	creeping juniper			x			x			
<i>Listera auriculata</i>	auricled twayblade					x				

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest up-land	Non-forest low-land	Riparian – Non-forest	Micro-habit Feature ‡	Large landscape - wide variety *	Low road density	Old growth associates
<i>Malaxis paludosa</i>	bog adder's-mouth				x					
<i>Malaxis monophyllos v. brachypoda</i>	white adder's-mouth	m	m							
<i>Moehringia macrophylla</i>	big-leaved sandwort						x			
<i>Muhlenbergia uniflora</i>	one-flowered muhly				x	x				
<i>Nymphaea leibergii</i>	Small white waterlily					x				
<i>Oxytropis viscida</i>	Sticky locoweed						x			
<i>Phacelia franklinii</i>	Franklin's phacelia						x			
<i>Pinguicula vulgaris</i>	butterwort					x	x			
<i>Platanthera clavellata</i>	club-spur orchid				x					
<i>Poa alpina</i>	alpine bluegrass						x			
<i>Poa wolfii</i>	wolf's bluegrass						x			
<i>Polemonium occidentale s. lacustre</i>	western Jacob's-ladder	y								
<i>Polygonum viviparum</i>	alpine bistort						x			
<i>Ranunculus lapponicus</i>	Lapland buttercup				x					
<i>Rhynchospora fusca</i>	sooty-colored beak-rush				x					
<i>Sagina nodosa ssp. borealis</i>	knotty pearlwort						x			
<i>Salix pellita</i>	satiny willow					x				
<i>Saxifraga cernua</i>	nodding saxifrage						x			
<i>Saxifraga paniculata</i>	encrusted saxifrage						x			
<i>Scirpus pedicellatus</i>	woolgrass					x				
<i>Selaginella selaginoides</i>	northern spikemoss						x			
<i>Senecio indecorus</i>	gray ragwort				x					
<i>Sparganium glomeratum</i>	clustered bur-reed				x	x				

SPECIES	COMMON NAME	OTHER HABITATS OF CONCERN								
		White cedar	Low-land deciduous	Non-forest up-land	Non-forest low-land	Riparian – Non-forest	Micro-habit Feature ‡	Large landscape - wide variety *	Low road density	Old growth associates
<i>Taxus canadensis</i>	Canada yew	m	m							
<i>Thuja occidentalis</i>	white cedar (regen)	x								
<i>Tofieldia pusilla</i>	small false asphodel						x			
<i>Torreyochloa pallida</i>	Torrey's manna-grass					x				
<i>Triglochin palustris</i>	arrow-grass					x				
<i>Vaccinium uliginosum</i>	alpine bilberry						x			
<i>Viola lanceolata</i>	lance-leaved violet				x	x				
<i>Viola novae-angliae</i>	New England violet						x			
<i>Woodsia alpina</i>	alpine woodsia						x			
<i>Woodsia glabella</i>	smooth woodsia						x			
<i>Woodsia oregana v. cathcartiana</i>	Oregon woodsia						x			
<i>Woodsia scopulina</i>	Rocky Mountain woodsia						x			
<i>Xyris montana</i>	montane yellow-eyed grass				x	x				
<b>LICHENS</b>										
<i>Arctoparmelia centrifuga</i>	lichen						x			
<i>Arctoparmelia subcentrifuga</i>	lichen						x			
<i>Caloplaca parvula</i>	lichen		m							
<i>Cetraria aurescens</i>	lichen	m								
<i>Cladonia wainoi</i>	lichen						x			
<i>Menegazzia terebrata</i>	port-hole lichen	m								
<i>Parmelia stictica</i>	lichen						x			
<i>Parmelia stuppea</i>	lichen	m	m							
<i>Peltigera venosa</i>	lichen						x			

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<i>Pseudocyphellaria crocata</i>	lichen						x			
<i>Ramalina thrausta</i>	lichen	m								
<i>Stereocaulon pileatum</i>	lichen						x			
<i>Sticta fuliginosa</i>	lichen	m	m							
<i>Usnea longissima</i>	lichen	m								
<b>MOSSES</b>										
<i>Schistostegia pennata</i>	luminous moss						x			
<i>Sphagnum compactum</i>	moss						x			
<i>Tomenthypnum falcifolium</i>	moss				x					
m = prefers mature, old, old-growth, or multi-aged forest conditions; y = prefers young forest conditions; x = age not relevant. ‡ No MIH link * Includes area sensitive species Source: Species Viability Analysis Project Analysis File. Refer also to Appendix B: Wildlife Section: <i>Identification of wildlife management indicator species and habitats.</i>										

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