

Appendix I

Management Indicator Habitats

Management Indicator Habitats (MIHs) represent the major biological communities on the National Forest that are affected by management. MIHs are identified in the Forest Plan to represent the types, ages, amounts, and function of habitats within landscape ecosystems (LE) for evaluating a broad spectrum of species. “A key assumption we apply in evaluating MIHs 1 through 10 is that ecological conditions are likely to provide for species viability and maintain well-distributed habitats if there is an adequate representation of the range of habitats that would have been present under the range of natural variability” (Forest Plan FEIS, p. 3.3.1-2). Landscape ecosystems usually cover a broader geographic area than a project area such as Clara and therefore, at the project-level, changes to MIHs may or may not meet Forest Plan objectives. Therefore, changes to MIHs in the Mesic Birch-Aspen-Spruce-Fir landscape ecosystem (MBA LE) are analyzed forest-wide to determine if they meet Forest Plan objectives instead of at the Clara Project level. The data for MIHs at the project level is available in the Clara Project Record on the Tofte Ranger District.

MIHs were analyzed using the year 2014 to allow for comparisons to the Forest Plan Final Environmental Impact Statement (FEIS) predictions and identify whether the Forest Plan objectives are being accomplished. The cumulative effects were compared to the existing condition in 2008. Site specific information from Clara and other past and ongoing Forest projects is incorporated into the analysis to assess effects at the landscape level (see Appendix G, Table G-3 for list of projects).

The Mesic Birch-Aspen-Spruce-Fir LE encompasses approximately 71 percent of the project area (Chapter 1, Table 1.1: Landscape Ecosystems in the Clara Project Area.). The changes to the MBA LE forest-wide are shown in Table I-1.

Comparison of the alternatives to the Forest Plan’s FEIS predicted trends are discussed below. MIHs 1-3, and 6-10 are not discussed because there is no proposed treatment in the MIHs and/or changes are too minor to substantially alter any habitat or they are represented because they are subsets of those MIH that are analyzed.

Cumulative Effects

Several vegetation management proposals and projects across the Superior National Forest would affect Mesic Birch-Aspen-Spruce-Fir LE Management Indicator Habitats. These projects are listed in Appendix G, Table G-3.

The cumulative effects from the Clara proposed management activities and other vegetation management projects would move MBA LE MIHs 4 and 5 (young, mature, old/old growth, and multi-aged) toward Forest Plan forest-wide objectives for Alternative 1 - No Action and Alternatives 2 and 3. In MIH 5 mature, existing conditions and all

alternatives are higher than the 2004 levels; however, the change is trending toward Forest Plan objectives.

Table I-1: Cumulative effects on the Mesic Birch-Aspen-Spruce-Fir Landscape Ecosystem

Management Indicator Habitat	Existing Condition 2008		Alternative 1 2014		Alternative 2 2014		Alternative 3 2014		Forest Plan	
	Acres ²	% ¹	Acres ²	% ¹	Acres ²	% ¹	Acres ²	% ¹	Objectives Decade 1	2004
										%
MIH 4: Aspen-Birch and Mixed Aspen-Conifer Forest										
Young	8165	2.7	9718	3.3	11985	4.0	10984	3.7	+	7.1
Pole	57,715	19.4	61576	20.7	61597	20.7	61669	20.8	n/a	15.4
Mature	51,296	17.3	28687	9.7	28202	9.5	28348	9.5	-	21.4
Old/Old Growth and Multi-Aged	59,159	19.9	66579	22.4	65779	22.2	66598	22.4	+	15.9
Totals:	176,334	59.3	166,559	56.1	167,563	56.4	167,600	56.4		
MIH 5: Upland Conifer Forest										
Young	5441	1.8	4358	1.5	4975	1.7	4782	1.6	-	7.7
Pole	48,271	16.3	52532	17.7	52139	17.6	52139	17.6	n/a	16.2
Mature	37,162	12.5	34397	11.6	34191	11.5	34347	11.6	-	8.5
Old/Old Growth and Multi-Aged	16,371	5.5	25656	8.6	24634	8.3	24634	8.3	+	3.5
Totals:	107,246	36.1	116,942	39.4	115,938	39.1	115,902	39.1		

Data Source: Queries for MBA LE MIH 1-10, forest-wide. This includes existing condition through 2008 and all decisions and proposals, including Alt. 1-No Action and Alt. 3 through 2014, 09/19/08. It includes Table BEIS-11- Superior NF LEs: Jack Pine-Black Spruce , Dry Mesic Red & White Pine, Mesic Red & White Pine, Birch-Aspen-Spruce-Fir, Upland within Lowland Conifer, Succession Modeling Rules for the Dualplan Harvest Model, pp. B-17 and B-18.

¹Table MBA-4. Management Indicator Habitat Objectives for MBA LE, Forest Plan, July 2004, p. 2-72.

²Acres, percentages, and total percentages have been rounded to the nearest tenth and hundredth. Percents represent % of total upland forest on NF system lands (total acres in MIH 1: Existing Condition) in models for MIHs 1-8.