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Appendices

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VEGETATION MANAGEMENT AND CONNECTED ACTION TABLES

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Abbreviations Used in the Alternative Tables

TSD = Forest Survey Type-Size/Density

FS Type (Forest Survey Type)

2	Red Pine
3	White Pine
5	Hemlock
11	Balsam Fir-Spruce-Aspen-Paper Birch
14	Wetland Northern White Cedar
16	White Spruce
18	Mixed Swamp Conifer
81	Hardwoods-Yellow Birch
82	Hardwoods Basswood
85	Sugar Maple
87	Sugar Maple-Beech-Yellow Birch/Red Spruce
89	Mixed Upland Hardwoods
91	Quaking Aspen
93	Bigtooth Aspen
95	Aspen-Birch-White Spruce-Balsam Fir

Size Density (Stand Size Density)

0	Nonstocked (less than 16% stocked)
1	Seedling-Sapling (16%-39% stocked)
2	Seedling-Sapling (40%-69% stocked)
3	Seedling-Sapling (over 69% stocked)
4	Poletimber Stand (16%-39% stocked)
5	Poletimber Stand (40%-69% stocked)
6	Poletimber Stand (over 69% stocked)
7	Sawtimber Stand (16%-39% stocked)
8	Sawtimber Stand (40%-69% stocked)
9	Sawtimber Stand (over 69% stocked)

Silvicultural Treatment

113	Stand Clearcutting
113R	Stand Clearcutting with Residual Trees
131	Seed Cut-Shelterwood
143	Removal Cutting
151	Individual Tree Selection
210	Improvement Cutting
220	Commercial Thinning

Operating Season

Winter Only = Unit should be logged in the winter during frozen conditions only.

Winter/Summer = Unit may be logged either during frozen winter conditions or dry summer conditions

Table B-1. Alternative 2-Proposed Commercial Treatment Compartment/Stand Data.

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	84	9	91-9	33	113R	91-0	Baltimore Album	Winter/Summer
	84	12	91-8	23	113R	91-0	Baltimore Album	Winter Only
	84	16	91-9	10	113R	91-0	Baltimore Album	Winter/Summer
	84	27	89-9	17	143	89-9	Baltimore Album	Winter/Summer
	136	9	89-6	65	220	89-6	Baltimore Album	Winter/Summer
	136	10	89-6	10	220	89-6	Baltimore Album	Winter/Summer
	136	14	91-9	32	113R	91-0	Baltimore Album	Winter Only
	136	18	89-9	47	131 plant	95-7	Baltimore Album	Winter/Summer
	136	22	89-9	40	131 plant	89-8	Baltimore Album	Winter/Summer
	136	42	89-8	22	131 plant	3-7	Baltimore Album	Winter/Summer
	136	43	95-8	16	131 plant	3-7	Baltimore Album	Winter/Summer
Ontonagon	136	24	95-9	7	113	95-0	Boardwalk	Winter Only
	136	26	91-9	24	113	91-0	Boardwalk	Winter/Summer
	136	31	91-9	5	113	91-0	Boardwalk	Winter Only
	136	34	91-9	50	113R	91-0	Boardwalk	Winter Only
	136	46	91-9	45	113	91-0	Boardwalk	Winter/Summer
	142	1	91-9	14	113	91-0	Boardwalk	Winter Only
	142	2	91-9	32	113	91-0	Boardwalk	Winter/Summer
	142	3	91-9	15	113	91-0	Boardwalk	Winter/Summer
	142	5	91-9	11	113	91-0	Boardwalk	Winter/Summer
	142	10	91-9	23	113	91-0	Boardwalk	Winter Only
	142	25	91-9	30	113	91-0	Boardwalk	Winter Only
	142	30	91-9	10	113	91-0	Boardwalk	Winter/Summer
	142	32	91-9	31	113	91-0	Boardwalk	Winter/Summer
142	34	91-9	27	113	91-0	Boardwalk	Winter/Summer	
	142	45	91-9	6	113	91-0	Boardwalk	Winter/Summer
Ontonagon	72	1	91-6	15	220	89-6	East Carriage	Winter Only
	72	6	91-9	38	113	91-0	East Carriage	Winter Only
	72	7	91-9	42	113	91-0	East Carriage	Winter Only
	72	10	91-9	27	113	91-0	East Carriage	Winter Only
	72	14	91-9	16	113	91-0	East Carriage	Winter Only
	72	17	89-9	4	151	89-9	East Carriage	Winter Only
	83	22	91-9	21	113	91-0	East Carriage	Winter Only

Table B-1. Alternative 2-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	134	14	91-9	22	113R	91-0	East Lathrop	Winter Only
	134	15	95-9	13	113R	95-0	East Lathrop	Winter Only
	134	16	91-9	26	113R	91-0	East Lathrop	Winter Only
	134	21	91-9	12	113	91-0	East Lathrop	Winter/Summer
	134	24	91-9	31	113R	91-0	East Lathrop	Winter Only
	134	27	95-9	19	113R	95-0	East Lathrop	Winter Only
Bergland	104	1	91-9	20	113R	91-0	Flat-Lander	Winter Only
	104	3	91-9	11	113R	91-0	Flat-Lander	Winter Only
	104	5	89-5	30	113	95-0	Flat-Lander	Winter/Summer
	104	7	89-6	14	220	89-6	Flat-Lander	Winter/Summer
	104	8	11-9	14	113R	95-0	Flat-Lander	Winter Only
	104	9	91-9	15	113R	91-0	Flat-Lander	Winter Only
	104	11	89-6	28	220	89-6	Flat-Lander	Winter/Summer
	104	12	81-6	118	220	81-6	Flat-Lander	Winter/Summer
	104	13	91-9	30	113R	91-0	Flat-Lander	Winter Only
	104	17	89-6	30	220	89-6	Flat-Lander	Winter/Summer
	104	23	82-6	42	220	82-6	Flat-Lander	Winter/Summer
	104	24	91-6	11	113	91-0	Flat-Lander	Winter Only
	105	14	95-9	15	113R	95-0	Flat-Lander	Winter Only
	105	30	91-9	9	113R	91-0	Flat-Lander	Winter Only
	105	31	95-9	25	113	95-0	Flat-Lander	Winter Only
105	48	11-9	22	113R	95-0	Flat-Lander	Winter Only	
105	69	95-9	12	113	95-0	Flat-Lander	Winter/Summer	
Ontonagon	142	16	87-9	23	220	87-9	Gauthier	Winter/Summer
	142	17	87-9	25	151	87-9	Gauthier	Winter/Summer
	142	24	87-9	31	151	87-9	Gauthier	Winter/Summer
	142	39	89-9	6	220	82-9	Gauthier	Winter/Summer
	142	48	87-9	13	151	5-9	Gauthier	Winter/Summer
	142	50	87-9	17	151	87-9	Gauthier	Winter/Summer
	143	1	89-6	30	220	89-6	Gauthier	Winter/Summer
	143	2	89-9	67	220	89-9	Gauthier	Winter/Summer
	143	5	91-9	20	113R	91-0	Gauthier	Winter Only
	144	6	95-9	14	113R	95-0	Gauthier	Winter Only
	144	30	91-9	35	113	91-0	Gauthier	Winter/Summer
	144	31	89-9	31	220	82-9	Gauthier	Winter/Summer
	144	34	91-9	22	113	91-0	Gauthier	Winter Only
	144	36	91-9	17	113R	91-0	Gauthier	Winter/Summer
144	39	91-9	23	113R	91-0	Gauthier	Winter Only	
144	40	95-9	13	113R	95-0	Gauthier	Winter/Summer	

Table B-1. Alternative 2-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Bergland	103	18	85-6	24	220	85-6	North Burma	Winter/Summer
	103	20	81-6	95	220	89-6	North Burma	Winter/Summer
	103	33	89-6	21	220	89-6	North Burma	Winter/Summer
	103	62	89-6	14	220	89-6	North Burma	Winter/Summer
	103	63	91-9	18	113R	91-0	North Burma	Winter Only
	104	6	89-6	37	220	89-6	North Burma	Winter/Summer
	104	15	89-6	99	220	89-6	North Burma	Winter/Summer
	104	26	91-9	34	113	91-0	North Burma	Winter Only
	104	31	91-9	39	113	91-0	North Burma	Winter/Summer
	105	26	3-9	8	151	3-9	North Burma	Winter/Summer
	105	44	95-9	1	113R	95-0	North Burma	Winter Only
	105	45	11-8	5	113/plant	16-3	North Burma	Winter/Summer
	105	46	91-9	7	113R	91-0	North Burma	Winter Only
	105	50	11-9	13	113R	95-0	North Burma	Winter Only
	105	65	95-9	27	113	95-0	North Burma	Winter Only
	105	73	95-8	5	113	95-0	North Burma	Winter Only
	105	89	95-9	16	113	95-0	North Burma	Winter/Summer
	105	90	95-9	15	113R	95-0	North Burma	Winter Only
105	92	95-9	8	113	95-0	North Burma	Winter/Summer	
105	93	91-9	24	113	91-0	North Burma	Winter Only	
Ontonagon	85	8	89-9	55	143	89-9	Three Rapids	Winter/Summer
	134	4	89-9	12	143	89-9	Three Rapids	Winter/Summer
	134	6	91-9	7	113R	91-0	Three Rapids	Winter Only
	134	28	18-8	49	113R	95-0	Three Rapids	Winter/Summer
	134	29	91-9	47	113R	91-0	Three Rapids	Winter Only
	134	32	91-9	11	113R	91-0	Three Rapids	Winter Only
	134	35	91-8	15	113R	91-0	Three Rapids	Winter Only
	134	60	91-9	6	113	91-0	Three Rapids	Winter Only
	134	62	91-9	8	113	91-0	Three Rapids	Winter Only
	135	8	91-8	10	113	91-0	Three Rapids	Winter Only
	135	14	11-9	12	113	95-0	Three Rapids	Winter/Summer
	135	16	91-9	11	113	91-0	Three Rapids	Winter/Summer
135	17	11-9	11	113R	95-0	Three Rapids	Winter/Summer	
Ontonagon	83	8	91-9	76	113	91-0	Thumper	Winter/Summer
	83	12	91-9	59	113	91-0	Thumper	Winter Only
	83	15	91-8	18	113	91-0	Thumper	Winter Only
	83	32	91-9	13	113	91-0	Thumper	Winter/Summer
	137	11	91-9	12	113	91-0	Thumper	Winter/Summer
	137	23	91-9	22	113	91-0	Thumper	Winter/Summer
	137	25	91-9	18	113	91-0	Thumper	Winter/Summer
	137	26	95-8	11	113	95-0	Thumper	Winter/Summer
	139	4	91-6	12	113	91-0	Thumper	Winter Only
	139	68	91-9	14	113	91-0	Thumper	Winter/Summer

Table B-1. Alternative 2-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	139	10	91-9	14	113	91-0	Winterfest	Winter/Summer
	139	13	91-8	8	113	91-0	Winterfest	Winter/Summer
	139	15	91-9	14	113	91-0	Winterfest	Winter/Summer
	139	17	91-9	11	113	91-0	Winterfest	Winter/Summer
	139	24	91-9	37	113	91-0	Winterfest	Winter/Summer
	139	34	91-6	25	113	91-0	Winterfest	Winter/Summer
	139	35	91-6	21	131 plant	91-7	Winterfest	Winter/Summer
	139	55	91-6	24	131 plant	91-7	Winterfest	Winter/Summer
	139	57	91-8	42	131 plant	91-7	Winterfest	Winter/Summer
	139	62	91-8	50	113R	91-0	Winterfest	Winter Only
	139	73	91-9	24	131 plant	91-7	Winterfest	Winter/Summer
	139	75	95-9	28	113	95-0	Winterfest	Winter/Summer
139	77	91-8	32	220	89-5	Winterfest	Winter Only	
139	78	91-8	54	131 plant	91-7	Winterfest	Winter/Summer	

Table B-2. Alternative 3-Proposed Commercial Treatment Compartment/Stand Data.

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Bergland	103	18	89-6	24	151	85-6	Aspen Johnson	Winter/Summer
	103	20	81-6	95	151	89-6	Aspen Johnson	Winter/Summer
	103	33	89-6	21	210	89-6	Aspen Johnson	Winter/Summer
	103	69	89-6	39	210	89-6	Aspen Johnson	Winter/Summer
	104	14	91-9	9	113	91-0	Aspen Johnson	Winter Only
	104	15	89-6	93	220/113	89-6	Aspen Johnson	Winter Only
	104	26	91-9	34	113	91-0	Aspen Johnson	Winter Only
	104	31	91-9	39	113	91-0	Aspen Johnson	Winter/Summer
Ontonagon	104	64	91-9	16	113R	91-0	Aspen Johnson	Winter Only
	139	41	91-5	10	113	91-0	Aspen Johnson	Winter Only
	139	51	91-8	24	113	91-0	Aspen Johnson	Winter Only
	139	52	95-5	19	113	95-0	Aspen Johnson	Winter Only
	139	55	91-6	24	113	91-0	Aspen Johnson	Winter/Summer
	140	2	95-9	7	113	95-0	Aspen Johnson	Winter Only
	140	3	91-9	15	113	91-0	Aspen Johnson	Winter Only
	140	16	91-9	16	113	91-0	Aspen Johnson	Winter Only
	140	23	91-9	19	113	91-0	Aspen Johnson	Winter Only
	140	28	95-9	11	113	95-0	Aspen Johnson	Winter/Summer
	140	33	95-9	8	113	95-0	Aspen Johnson	Winter/Summer
	140	35	95-9	11	113R	95-0	Aspen Johnson	Winter/Summer
140	36	91-9	13	113	91-0	Aspen Johnson	Winter Only	
140	39	91-9	19	113	91-0	Aspen Johnson	Winter Only	

Table B-2. Alternative 3-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	84	3	91-5	23	113	91-0	Baltimore Album	Winter/Summer
	84	9	91-9	33	113R	91-0	Baltimore Album	Winter/Summer
	84	12	91-8	23	113R	91-0	Baltimore Album	Winter/Summer
	84	16	91-9	10	113R	91-0	Baltimore Album	Winter/Summer
	84	27	89-9	17	210	89-9	Baltimore Album	Winter/Summer
	136	9	89-6	65	210	89-6	Baltimore Album	Winter/Summer
	136	10	89-6	10	210	89-6	Baltimore Album	Winter/Summer
	136	14	91-9	32	113R	91-0	Baltimore Album	Winter/Summer
	136	18	89-9	47	210	89-5	Baltimore Album	Winter/Summer
	136	22	89-9	40	210	89-5	Baltimore Album	Winter/Summer
	136	40	95-6	24	210	11-5	Baltimore Album	Winter/Summer
	136	42	89-8	22	131 plant	3-7	Baltimore Album	Winter/Summer
	136	43	95-8	16	131 plant	3-7	Baltimore Album	Winter/Summer
Ontonagon	136	24	95-9	7	113	95-0	Boardwalk	Winter Only
	136	26	91-9	24	113	91-0	Boardwalk	Winter/Summer
	136	31	91-9	5	113	91-0	Boardwalk	Winter Only
	136	34	91-9	50	113R	91-0	Boardwalk	Winter Only
	136	46	91-9	45	113	91-0	Boardwalk	Winter/Summer
	142	1	91-9	14	113	91-0	Boardwalk	Winter Only
	142	2	91-9	32	113	91-0	Boardwalk	Winter/Summer
	142	3	91-9	15	113	91-0	Boardwalk	Winter/Summer
	142	5	91-9	11	113	91-0	Boardwalk	Winter/Summer
	142	10	91-9	23	113	91-0	Boardwalk	Winter Only
	142	25	91-9	30	113	91-0	Boardwalk	Winter Only
	142	30	91-9	10	113	91-0	Boardwalk	Winter/Summer
	142	32	91-9	31	113	91-0	Boardwalk	Winter/Summer
	142	34	91-9	27	113	91-0	Boardwalk	Winter/Summer
	142	36	91-9	22	113	91-0	Boardwalk	Winter/Summer
	142	44	91-9	4	113	91-0	Boardwalk	Winter/Summer
142	45	91-9	6	113	91-0	Boardwalk	Winter/Summer	

Table B-2. Alternative 3-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	72	1	91-6	15	113R	91-0	East Carriage	Winter Only
	72	6	91-9	38	113	91-0	East Carriage	Winter Only
	72	7	91-9	42	113	91-0	East Carriage	Winter Only
	72	10	91-9	27	113	91-0	East Carriage	Winter Only
	72	14	91-9	16	113	91-0	East Carriage	Winter Only
	72	17	89-9	4	210	89-9	East Carriage	Winter Only
	72	18	91-8	12	113R	91-0	East Carriage	Winter Only
	72	20	91-6	10	113R	91-0	East Carriage	Winter Only
	82	8	95-6	23	210	11-5	East Carriage	Winter/Summer
	82	10	95-6	40	113R	95-0	East Carriage	Winter Only
	82	30	91-6	29	113	91-0	East Carriage	Winter/Summer
	82	31	91-9	28	113	91-0	East Carriage	Winter/Summer
	82	74	91-8	8	113	91-0	East Carriage	Winter Only
	82	80	91-5	28	113R	91-0	East Carriage	Winter Only
	82	81	91-9	11	113	91-0	East Carriage	Winter Only
	82	82	91-6	16	113R	91-0	East Carriage	Winter/Summer
82	89	91-9	35	113R	91-0	East Carriage	Winter Only	
Ontonagon	134	14	91-9	22	113R	91-0	East Lathrop	Winter Only
	134	15	95-9	13	113R	95-0	East Lathrop	Winter Only
	134	16	91-9	26	113R	91-0	East Lathrop	Winter Only
	134	21	91-9	12	113	91-0	East Lathrop	Winter/Summer
	134	24	91-9	31	113R	91-0	East Lathrop	Winter Only
	134	27	95-9	19	113R	95-0	East Lathrop	Winter Only
	144	48	95-9	6	113R	95-0	East Lathrop	Winter/Summer
Bergland	101	3	95-9	12	113	95-0	Flannigan Rapids	Winter Only
	101	11	95-8	18	113	95-0	Flannigan Rapids	Winter Only
	101	16	11-6	13	113	95-0	Flannigan Rapids	Winter Only
	101	17	95-5	6	113	95-0	Flannigan Rapids	Winter Only
	101	20	95-9	6	113R	95-0	Flannigan Rapids	Winter/Summer
	101	23	95-9	14	113R	95-0	Flannigan Rapids	Winter Only
	101	25	95-8	7	113R	95-0	Flannigan Rapids	Winter/Summer
	101	40	95-8	29	113R	95-0	Flannigan Rapids	Winter Only
	101	45	95-8	20	113R	95-0	Flannigan Rapids	Winter Only
	101	46	11-8	21	113	95-0	Flannigan Rapids	Winter Only
	102	6	95-9	4	113	95-0	Flannigan Rapids	Winter Only
	102	8	95-9	16	113R	95-0	Flannigan Rapids	Winter Only
	102	10	95-9	4	113R	95-0	Flannigan Rapids	Winter Only
	102	45	95-9	5	113	95-0	Flannigan Rapids	Winter/Summer
	102	53	95-9	21	113R	95-0	Flannigan Rapids	Winter Only
	102	54	95-9	8	113R	95-0	Flannigan Rapids	Winter/Summer
	102	82	95-9	10	113R	95-0	Flannigan Rapids	Winter/Summer
	105	7	95-8	18	113R	95-0	Flannigan Rapids	Winter Only
	105	8	95-8	18	113R	95-0	Flannigan Rapids	Winter Only
105	97	95-9	12	113R	95-0	Flannigan Rapids	Winter/Summer	

Table B-2. Alternative 3-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Bergland	103	64	95-8	5	113R	95-0	Flat-Lander	Winter Only
	103	76	91-9	4	113R	91-0	Flat-Lander	Winter Only
	104	1	91-9	20	113R	91-0	Flat-Lander	Winter Only
	104	3	91-9	11	113R	91-0	Flat-Lander	Winter Only
	104	6	89-6	37	210	89-6	Flat-Lander	Winter/Summer
	104	7	89-6	14	210	89-6	Flat-Lander	Winter/Summer
	104	8	11-9	14	113R	95-0	Flat-Lander	Winter Only
	104	9	91-9	15	113R	91-0	Flat-Lander	Winter Only
	104	11	89-6	28	210	89-6	Flat-Lander	Winter/Summer
	104	12	81-6	118	210	81-6	Flat-Lander	Winter/Summer
	104	13	91-9	30	113R	91-0	Flat-Lander	Winter Only
	104	15	89-6	6	210/113	89-6	Flat-Lander	Winter Only
	104	17	89-6	30	210	89-6	Flat-Lander	Winter/Summer
	104	19	95-9	10	113R	95-0	Flat-Lander	Winter/Summer
	104	23	82-6	42	210	82-6	Flat-Lander	Winter/Summer
	104	24	91-9	11	113	91-0	Flat-Lander	Winter Only
	104	39	91-9	23	113R	91-0	Flat-Lander	Winter Only
	104	40	91-9	23	113R	91-0	Flat-Lander	Winter Only
	104	53	91-9	4	113R	91-0	Flat-Lander	Winter Only
	104	57	89-6	180	210/113	89-6	Flat-Lander	Winter Only
	104	60	89-6	42	210	89-6	Flat-Lander	Winter/Summer
	104	65	95-9	10	113R	95-0	Flat-Lander	Winter Only
	105	1	11-8	10	113R	95-0	Flat-Lander	Winter Only
	105	2	95-6	10	113R	95-0	Flat-Lander	Winter/Summer
	105	14	95-9	15	113R	95-0	Flat-Lander	Winter Only
	105	28	89-6	21	113	95-0	Flat-Lander	Winter Only
	105	30	91-9	9	113R	91-0	Flat-Lander	Winter Only
	105	31	95-9	25	113	95-0	Flat-Lander	Winter Only
	105	32	11-5	12	113	95-0	Flat-Lander	Winter Only
	105	41	89-6	10	210	89-6	Flat-Lander	Winter/Summer
	105	48	11-9	22	113R/plant	16-3	Flat-Lander	Winter Only
	105	69	95-9	12	113	95-0	Flat-Lander	Winter/Summer
	105	424	91-6	5	113	91-0	Flat-Lander	Winter Only
Ontonagon	140	4	91-9	25	113	91-0	Flat-Lander	Winter Only
	140	27	95-9	21	113	95-0	Flat-Lander	Winter/Summer
	140	37	91-9	21	113	91-0	Flat-Lander	Winter Only
Bergland	102	35	95-9	47	113R	95-0	Fluttering Aspen	Winter Only
	102	43	95-9	22	113R	95-0	Fluttering Aspen	Winter Only
	102	49	95-7	17	113	95-0	Fluttering Aspen	Winter Only
	102	65	91-9	10	113R	91-0	Fluttering Aspen	Winter/Summer
	66	8	91-9	20	113	91-0	Fluttering Aspen	Winter/Summer
	67	7	95-8	25	113	95-0	Fluttering Aspen	Winter Only
	67	10	95-6	45	113	95-0	Fluttering Aspen	Winter Only
	67	29	95-9	150	113	95-0	Fluttering Aspen	Winter/Summer
	102	6	95-9	5	113	95-0	Fluttering Aspen	Winter Only

Table B-2. Alternative 3-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	141	5	95-9	13	113	95-0	Gauthier	Winter/Summer
	141	61	95-9	10	113	95-0	Gauthier	Winter/Summer
	142	16	87-9	23	210	87-9	Gauthier	Winter/Summer
	142	17	87-9	25	210	5-9	Gauthier	Winter/Summer
	142	24	87-9	31	210	87-9	Gauthier	Winter/Summer
	142	39	89-9	6	210	82-9	Gauthier	Winter/Summer
	142	48	87-9	13	210	5-9	Gauthier	Winter/Summer
	142	50	87-9	17	210	87-9	Gauthier	Winter/Summer
	143	1	89-6	30	210	89-6	Gauthier	Winter/Summer
	143	2	89-9	67	210	89-9	Gauthier	Winter/Summer
	143	4	89-6	6	210	89-6	Gauthier	Winter/Summer
	143	5	91-9	20	113R	91-0	Gauthier	Winter Only
	143	7	82-9	4	210	87-9	Gauthier	Winter/Summer
	143	8	91-9	10	113	91-0	Gauthier	Winter Only
	143	9	91-9	11	113	91-0	Gauthier	Winter Only
	144	6	95-9	14	113R	95-0	Gauthier	Winter Only
	144	30	91-9	35	113	91-0	Gauthier	Winter/Summer
	144	31	89-9	31	210	82-9	Gauthier	Winter/Summer
	144	33	91-9	22	113R	91-0	Gauthier	Winter/Summer
	144	34	91-9	22	113	95-0	Gauthier	Winter Only
	144	36	91-9	17	113R	91-0	Gauthier	Winter/Summer
	144	39	91-9	23	113R	91-0	Gauthier	Winter Only
	144	40	95-9	13	113R	95-0	Gauthier	Winter/Summer
144	71	93-5	11	113R	91-0	Gauthier	Winter Only	
144	72	87-9	3	210	5-9	Gauthier	Winter/Summer	
144	73	95-9	10	113R	95-0	Gauthier	Winter Only	
Bergland	105	6	3-8	12	131 plant	3-7	North Burma	Winter/Summer
	105	15	3-9	7	131 plant	3-7	North Burma	Winter/Summer
	105	16	91-6	12	113R	91-0	North Burma	Winter/Summer
	105	18	3-9	38	131 plant	3-9	North Burma	Winter/Summer
	105	26	3-9	8	131 plant	3-9	North Burma	Winter/Summer
	105	33	89-6	16	113	95-0	North Burma	Winter Only
	105	41	89-6	55	210	89-6	North Burma	Winter/Summer
	105	44	95-9	1	113R	95-0	North Burma	Winter Only
	105	45	11-8	5	113/plant	16-3	North Burma	Winter/Summer
	105	46	91-9	7	113R	91-0	North Burma	Winter Only
	105	50	11-9	13	113R	95-0	North Burma	Winter Only
	105	55	95-8	3	113	95-0	North Burma	Winter Only
	105	65	95-9	27	113	95-0	North Burma	Winter Only
	105	73	95-8	5	113	95-0	North Burma	Winter Only
	105	89	95-9	16	113	95-0	North Burma	Winter/Summer
	105	90	95-9	15	113R	95-0	North Burma	Winter Only
	105	92	95-9	8	113	95-0	North Burma	Winter/Summer
105	93	91-9	24	113	91-0	North Burma	Winter Only	

Table B-2. Alternative 3-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Bergland	66	3	95-9	6	113	95-0	Oriole	Winter/Summer
	66	4	89-9	193	151	89-9	Oriole	Winter/Summer
	66	6	95-9	15	113R	95-0	Oriole	Winter/Summer
	66	20	91-9	24	113R	91-0	Oriole	Winter Only
	102	12	91-9	15	113R	91-0	Oriole	Winter/Summer
	102	26	89-6	20	210	89-6	Oriole	Winter/Summer
	102	28	89-6	19	210	89-6	Oriole	Winter/Summer
	102	40	11-9	23	113	95-0	Oriole	Winter Only
	102	47	95-9	20	113R	95-0	Oriole	Winter Only
	102	48	95-9	10	113R	95-0	Oriole	Winter Only
	102	73	91-9	13	113R	91-0	Oriole	Winter/Summer
	102	85	89-6	6	210	89-6	Oriole	Winter/Summer
	103	7	89-8	16	113	95-0	Oriole	Winter Only
	103	14	89-6	25	210	89-6	Oriole	Winter/Summer
	103	21	95-9	11	113R	95-0	Oriole	Winter/Summer
	103	62	89-6	14	210	89-6	Oriole	Winter/Summer
	103	63	91-9	18	113R	91-0	Oriole	Winter Only
Ontonagon	85	8	89-9	55	210	89-9	Three Rapids	Winter/Summer
	134	4	89-9	12	210	89-9	Three Rapids	Winter/Summer
	134	6	91-9	7	210	14-9	Three Rapids	Winter/Summer
	134	28	18-8	49	131 plant	18-8	Three Rapids	Winter/Summer
	134	29	91-9	47	131 plant	18-7	Three Rapids	Winter/Summer
	134	32	91-9	11	113R	91-0	Three Rapids	Winter Only
	134	35	91-8	15	113R	91-0	Three Rapids	Winter Only
	134	38	91-9	13	113R	91-0	Three Rapids	Winter Only
	134	39	91-6	19	113R	91-0	Three Rapids	Winter/Summer
	134	60	91-9	6	113	91-0	Three Rapids	Winter Only
	134	62	91-9	8	113	91-0	Three Rapids	Winter Only
	135	8	91-8	10	113	91-0	Three Rapids	Winter Only
	135	14	11-9	12	113	95-0	Three Rapids	Winter Only
	135	16	91-9	11	113	91-0	Three Rapids	Winter/Summer
	135	17	11-9	11	113R	95-0	Three Rapids	Winter/Summer

Table B-2. Alternative 3-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	82	1	91-7	20	113	91-0	Thumper	Winter Only
	82	2	91-5	18	113R	91-0	Thumper	Winter Only
	82	16	91-9	33	113R	91-0	Thumper	Winter Only
	82	61	91-6	16	113	91-0	Thumper	Winter Only
	82	92	91-6	8	113	91-0	Thumper	Winter/Summer
	83	3	95-5	19	113	95-0	Thumper	Winter Only
	83	8	91-9	76	113	91-0	Thumper	Winter/Summer
	83	12	91-9	59	113	91-0	Thumper	Winter Only
	83	15	91-8	18	113	91-0	Thumper	Winter Only
	83	18	91-5	15	113	91-0	Thumper	Winter Only
	83	32	91-9	13	113	91-0	Thumper	Winter/Summer
	137	11	91-9	12	113	91-0	Thumper	Winter/Summer
	137	23	91-9	22	113	91-0	Thumper	Winter/Summer
	137	25	91-9	18	113	91-0	Thumper	Winter/Summer
	137	26	95-8	11	113	95-0	Thumper	Winter/Summer
	139	4	91-6	12	113	91-0	Thumper	Winter Only
	139	68	91-9	14	113	91-0	Thumper	Winter/Summer
	139	81	91-8	10	113	91-0	Thumper	Winter Only
139	87	91-6	8	113	91-0	Thumper	Winter Only	
Bergland	103	1	95-9	11	113	95-0	Winterfest	Winter/Summer
Ontonagon	82	74	91-8	7	113	91-0	Winterfest	Winter Only
	138	78	91-9	15	113	91-0	Winterfest	Winter/Summer
	138	79	91-9	23	113	91-0	Winterfest	Winter/Summer
	139	10	91-9	14	113	91-0	Winterfest	Winter/Summer
	139	11	91-9	27	113	91-0	Winterfest	Winter Only
	139	13	91-8	8	113	91-0	Winterfest	Winter/Summer
	139	15	91-9	14	113	91-0	Winterfest	Winter/Summer
	139	17	91-9	11	113	91-0	Winterfest	Winter/Summer
	139	24	91-9	37	113	91-0	Winterfest	Winter/Summer
	139	34	91-6	25	113	91-0	Winterfest	Winter/Summer
	139	62	91-8	50	113R	91-0	Winterfest	Winter Only
	139	73	91-9	24	113R	91-0	Winterfest	Winter Only
	139	75	95-9	28	113	95-0	Winterfest	Winter/Summer
	139	77	91-8	32	113	91-0	Winterfest	Winter Only
139	78	91-8	54	113	91-0	Winterfest	Winter/Summer	

Table B-3. Alternative 3-Proposed *Non-commercial* Treatment Compartment/Stand Data.

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Associated Timber Sale Name	Recommended Operating Season
Ontonagon	141	21	95-9	10	113	95-0	Aspen Johnson	Winter/Summer
Ontonagon	83	22	91-9	21	113	91-0	East Carriage	Winter Only
Bergland	105	19	3-9	17	131 plant	3-9	North Burma	Winter/Summer
Ontonagon	82	58	91-8	8	113	91-0	Thumper	Winter/Summer

Table B-4. Alternative 4-Proposed Commercial Treatment Compartment/Stand Data.

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Bergland	103	18	89-6	24	151	85-6	Aspen Johnson	Winter/Summer
	103	20	81-6	95	210	89-6	Aspen Johnson	Winter/Summer
	103	33	89-6	21	210	89-6	Aspen Johnson	Winter/Summer
	103	69	89-6	39	210	89-6	Aspen Johnson	Winter/Summer
	104	14	91-9	9	113	91-0	Aspen Johnson	Winter Only
	104	15	89-7	93	210/113	89-6	Aspen Johnson	Winter Only
	104	26	91-9	34	113	91-0	Aspen Johnson	Winter Only
	104	31	91-9	39	113	91-0	Aspen Johnson	Winter/Summer
	104	64	91-9	16	113R	91-0	Aspen Johnson	Winter Only
Ontonagon	139	41	91-5	10	143	95-3	Aspen Johnson	Winter Only
	139	55	91-6	24	131 plant	91-7	Aspen Johnson	Winter/Summer
	140	2	95-9	7	113	95-0	Aspen Johnson	Winter Only
	140	3	91-9	15	113	91-0	Aspen Johnson	Winter Only
	140	16	91-9	16	113	91-0	Aspen Johnson	Winter Only
	140	23	91-9	19	113	91-0	Aspen Johnson	Winter Only
	140	28	95-9	11	113	95-0	Aspen Johnson	Winter/Summer
	140	33	95-9	8	113	95-0	Aspen Johnson	Winter/Summer
	140	35	95-9	11	143	11-5	Aspen Johnson	Winter/Summer
	140	36	91-9	13	113	91-0	Aspen Johnson	Winter Only
140	39	91-9	19	113	91-0	Aspen Johnson	Winter Only	

Table B-4. Alternative 4-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	84	3	91-5	23	210	11-5	Baltimore Album	Winter/Summer
	84	9	91-9	33	210	11-3	Baltimore Album	Winter/Summer
	84	12	91-8	23	210	95-5	Baltimore Album	Winter/Summer
	84	16	91-9	10	113R	91-0	Baltimore Album	Winter/Summer
	84	27	89-9	17	210	89-9	Baltimore Album	Winter/Summer
	136	9	89-6	65	210	89-6	Baltimore Album	Winter/Summer
	136	10	89-6	10	210	89-6	Baltimore Album	Winter/Summer
	136	14	91-9	32	113R	91-0	Baltimore Album	Winter/Summer
	136	18	89-9	47	210	89-8	Baltimore Album	Winter/Summer
	136	22	89-9	40	210	89-6	Baltimore Album	Winter/Summer
	136	40	95-6	24	210	11-5	Baltimore Album	Winter/Summer
	136	42	89-8	22	131 plant	3-7	Baltimore Album	Winter/Summer
136	43	95-8	16	131 plant	3-7	Baltimore Album	Winter/Summer	
Ontonagon	136	24	95-9	7	113	95-0	Boardwalk	Winter Only
	136	26	91-9	24	113	91-0	Boardwalk	Winter/Summer
	136	31	91-9	5	113	91-0	Boardwalk	Winter Only
	136	34	91-9	50	131 plant	91-7	Boardwalk	Winter/Summer
	136	46	91-9	45	113	91-0	Boardwalk	Winter/Summer
	142	1	91-9	14	131 plant	91-7	Boardwalk	Winter/Summer
	142	2	91-9	32	113	91-0	Boardwalk	Winter/Summer
	142	3	91-9	15	131 plant	91-7	Boardwalk	Winter/Summer
	142	5	91-9	11	113	91-0	Boardwalk	Winter/Summer
	142	10	91-9	23	113	91-0	Boardwalk	Winter Only
	142	25	91-9	30	113	91-0	Boardwalk	Winter Only
	142	30	91-9	10	113	91-0	Boardwalk	Winter/Summer
	142	32	91-9	31	113	91-0	Boardwalk	Winter/Summer
	142	34	91-9	27	113	91-0	Boardwalk	Winter/Summer
	142	36	91-9	22	113	91-0	Boardwalk	Winter/Summer
	142	44	91-9	4	113	91-0	Boardwalk	Winter/Summer
142	45	91-9	6	113	91-0	Boardwalk	Winter/Summer	

Table B-4. Alternative 4-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	72	1	91-6	15	210	89-6	East Carriage	Winter Only
	72	6	91-9	38	143	89-5	East Carriage	Winter Only
	72	7	91-9	42	143	95-5	East Carriage	Winter Only
	72	10	91-9	27	143	95-5	East Carriage	Winter Only
	72	14	91-9	16	143	89-3	East Carriage	Winter Only
	72	17	89-9	4	210	89-9	East Carriage	Winter Only
	72	18	91-8	12	210	89-9	East Carriage	Winter/Summer
	72	20	91-6	10	210	89-6	East Carriage	Winter/Summer
	82	8	95-6	23	210	11-5	East Carriage	Winter/Summer
	82	10	95-6	40	143	11-3	East Carriage	Winter/Summer
	82	12	91-9	5	210	95-5	East Carriage	Winter Only
	82	30	91-6	29	113	91-0	East Carriage	Winter/Summer
	82	31	91-9	28	143	11-6	East Carriage	Winter/Summer
	82	74	91-8	8	210	89-6	East Carriage	Winter/Summer
	82	80	91-5	28	143	95-3	East Carriage	Winter Only
	82	81	91-9	11	143	95-5	East Carriage	Winter Only
	82	82	91-6	16	143	95-5	East Carriage	Winter/Summer
82	89	91-9	35	143	89-5	East Carriage	Winter/Summer	
Ontonagon	134	14	91-9	22	113R	91-0	East Lathrop	Winter Only
	134	15	95-9	13	210	11-5	East Lathrop	Winter/Summer
	134	16	91-9	26	113R	91-0	East Lathrop	Winter Only
	134	21	91-9	12	113	91-0	East Lathrop	Winter/Summer
	134	24	91-9	31	113R	91-0	East Lathrop	Winter Only
	134	27	95-9	19	143	11-3	East Lathrop	Winter/Summer
	144	48	95-9	6	210	11-6	East Lathrop	Winter/Summer
Bergland	101	3	95-9	12	143	11-3	Flannigan Rapids	Winter/Summer
	101	11	95-8	18	143	11-3	Flannigan Rapids	Winter/Summer
	101	16	11-6	13	143	11-3	Flannigan Rapids	Winter/Summer
	101	17	95-5	6	210	11-5	Flannigan Rapids	Winter/Summer
	101	20	95-9	6	113R	95-0	Flannigan Rapids	Winter/Summer
	101	23	95-9	14	210	11-3	Flannigan Rapids	Winter/Summer
	101	25	95-8	7	210	11-5	Flannigan Rapids	Winter/Summer
	101	40	95-8	29	113R	95-0	Flannigan Rapids	Winter Only
	101	45	95-8	20	113R	95-0	Flannigan Rapids	Winter Only
	101	46	11-8	21	113	95-0	Flannigan Rapids	Winter Only
	102	6	95-9	4	113	95-0	Flannigan Rapids	Winter Only
	102	8	95-9	16	113R	95-0	Flannigan Rapids	Winter Only
	102	10	95-9	4	113R	95-0	Flannigan Rapids	Winter Only
	102	45	95-9	5	143	11-3	Flannigan Rapids	Winter/Summer
	102	53	95-9	21	210	11-3	Flannigan Rapids	Winter/Summer
	102	54	95-9	8	143	11-3	Flannigan Rapids	Winter/Summer
	102	82	95-9	10	113R	95-0	Flannigan Rapids	Winter/Summer
	105	7	95-8	18	113R	95-0	Flannigan Rapids	Winter Only
	105	8	95-8	18	113R	95-0	Flannigan Rapids	Winter Only
105	97	95-9	12	143	11-3	Flannigan Rapids	Winter/Summer	

Table B-4. Alternative 4-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Bergland	103	64	95-8	5	113R	95-0	Flat-Lander	Winter Only
	103	76	91-9	4	113R	91-0	Flat-Lander	Winter Only
	104	1	91-9	20	143	89-6	Flat-Lander	Winter/Summer
	104	3	91-9	11	143	89-6	Flat-Lander	Winter/Summer
	104	6	89-6	37	210	89-6	Flat-Lander	Winter/Summer
	104	7	89-6	14	210	89-6	Flat-Lander	Winter/Summer
	104	8	11-9	14	210	89-6	Flat-Lander	Winter/Summer
	104	9	91-9	15	113R	91-0	Flat-Lander	Winter Only
	104	11	89-6	28	210	89-6	Flat-Lander	Winter/Summer
	104	12	81-6	118	210	81-6	Flat-Lander	Winter/Summer
	104	13	91-9	30	113R	91-0	Flat-Lander	Winter Only
	104	15	89-6	6	210/113	89-6	Flat-Lander	Winter Only
	104	17	89-6	30	210	89-6	Flat-Lander	Winter/Summer
	104	19	95-9	10	113R	95-0	Flat-Lander	Winter/Summer
	104	23	82-6	42	210	82-6	Flat-Lander	Winter/Summer
	104	24	91-9	11	113	91-0	Flat-Lander	Winter Only
	104	39	91-9	23	210	89-5	Flat-Lander	Winter/Summer
	104	40	91-9	23	210/113	89-6	Flat-Lander	Winter Only
	104	57	89-6	180	210	89-6	Flat-Lander	Winter/Summer
	104	60	89-6	42	210	89-6	Flat-Lander	Winter/Summer
	104	65	95-9	10	113R	95-0	Flat-Lander	Winter Only
	105	1	11-8	10	113R	95-0	Flat-Lander	Winter Only
	105	2	95-6	10	113/plant	11-3	Flat-Lander	Winter/Summer
	105	14	95-9	15	143	89-6	Flat-Lander	Winter/Summer
	105	28	89-6	21	113	95-0	Flat-Lander	Winter Only
	105	30	91-9	9	113R	91-0	Flat-Lander	Winter Only
	105	31	95-9	25	113	95-0	Flat-Lander	Winter Only
	105	32	11-5	12	113	95-0	Flat-Lander	Winter Only
	105	41	89-6	10	210	89-6	Flat-Lander	Winter/Summer
	105	48	11-9	22	131 plant	11-3	Flat-Lander	Winter/Summer
105	69	95-9	12	113	95-0	Flat-Lander	Winter/Summer	
105	424	91-6	5	113	91-0	Flat-Lander	Winter Only	
Ontonagon	140	4	91-9	25	143	11-5	Flat-Lander	Winter/Summer
	140	27	95-9	21	143	11-5	Flat-Lander	Winter/Summer
	140	37	91-9	21	113	91-0	Flat-Lander	Winter Only
Bergland	66	8	91-9	20	113	91-0	Fluttering Aspen	Winter/Summer
	67	7	95-8	25	210	11-3	Fluttering Aspen	Winter/Summer
	67	10	95-6	45	210	11-3	Fluttering Aspen	Winter/Summer
	67	29	95-9	150	143	11-6	Fluttering Aspen	Winter/Summer
	102	6	95-9	5	113	95-0	Fluttering Aspen	Winter Only
	102	35	95-9	47	143	11-6	Fluttering Aspen	Winter/Summer
	102	43	95-9	22	113R	95-0	Fluttering Aspen	Winter Only
	102	49	95-7	17	113	95-0	Fluttering Aspen	Winter Only
	102	65	91-9	10	113R	91-0	Fluttering Aspen	Winter/Summer

Table B-4. Alternative 4-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	141	5	95-9	13	113	95-0	Gauthier	Winter/Summer
	141	61	95-9	10	113	95-0	Gauthier	Winter/Summer
	142	16	87-9	23	210	87-9	Gauthier	Winter/Summer
	142	17	87-9	25	210	5-9	Gauthier	Winter/Summer
	142	24	87-9	31	210	87-9	Gauthier	Winter/Summer
	142	39	89-9	6	210	82-9	Gauthier	Winter/Summer
	142	48	87-9	13	210	5-9	Gauthier	Winter/Summer
	142	50	87-9	17	210	87-9	Gauthier	Winter/Summer
	143	1	89-6	30	210	89-6	Gauthier	Winter/Summer
	143	2	89-9	67	210	89-9	Gauthier	Winter/Summer
	143	4	89-6	6	210	89-6	Gauthier	Winter/Summer
	143	5	91-9	20	210	89-6	Gauthier	Winter/Summer
	143	7	82-9	4	210	87-9	Gauthier	Winter/Summer
	143	8	91-9	10	113	91-0	Gauthier	Winter Only
	143	9	91-9	11	113	91-0	Gauthier	Winter Only
	144	6	95-9	14	131 plant	95-7	Gauthier	Winter/Summer
	144	30	91-9	35	210	89-5	Gauthier	Winter/Summer
	144	31	89-9	31	210	82-9	Gauthier	Winter/Summer
	144	33	91-9	22	113R	91-0	Gauthier	Winter/Summer
	144	34	91-9	22	143	11-6	Gauthier	Winter/Summer
	144	36	91-9	17	143	11-6	Gauthier	Winter/Summer
144	39	91-9	23	113R	91-0	Gauthier	Winter Only	
144	40	95-9	13	131 plant	95-7	Gauthier	Winter/Summer	
144	71	93-5	11	113R	95-0	Gauthier	Winter Only	
144	72	87-9	3	210	5-9	Gauthier	Winter/Summer	
144	73	95-9	10	113R	95-0	Gauthier	Winter Only	
Bergland	105	6	3-8	12	131 plant	3-7	North Burma	Winter/Summer
	105	15	3-9	7	131 plant	3-7	North Burma	Winter/Summer
	105	16	91-6	12	131 plant	91-6	North Burma	Winter/Summer
	105	18	3-9	38	131 plant	3-9	North Burma	Winter/Summer
	105	26	3-9	8	210	3-9	North Burma	Winter/Summer
	105	33	89-6	16	113	95-0	North Burma	Winter Only
	105	41	89-6	55	210	89-6	North Burma	Winter/Summer
	105	44	95-9	1	113R	95-0	North Burma	Winter Only
	105	45	11-8	5	113/plant	16-3	North Burma	Winter/Summer
	105	46	91-9	7	113R	91-0	North Burma	Winter Only
	105	50	11-9	13	131 plant	11-3	North Burma	Winter/Summer
	105	55	95-8	3	113/plant	11-3	North Burma	Winter Only
	105	65	95-9	27	143	11-5	North Burma	Winter/Summer
	105	73	95-8	5	143	11-5	North Burma	Winter/Summer
	105	89	95-9	16	143	11-5	North Burma	Winter/Summer
	105	90	95-9	15	210	11-3	North Burma	Winter/Summer
	105	92	95-9	8	143	11-5	North Burma	Winter/Summer
105	93	91-9	24	113	91-0	North Burma	Winter Only	

Table B-4. Alternative 4-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Bergland	66	3	95-9	6	113	95-0	Oriole	Winter/Summer
	66	4	89-9	193	151	89-9	Oriole	Winter/Summer
	66	6	95-9	15	113R	95-0	Oriole	Winter/Summer
	66	20	91-9	24	113R	91-0	Oriole	Winter Only
	102	12	91-9	15	113R	91-0	Oriole	Winter/Summer
	102	26	89-6	20	210	89-6	Oriole	Winter/Summer
	102	28	89-6	19	210	89-6	Oriole	Winter/Summer
	102	40	11-9	23	210	11-7	Oriole	Winter/Summer
	102	47	95-9	20	113R	95-0	Oriole	Winter Only
	102	48	95-9	10	143	11-5	Oriole	Winter/Summer
	102	73	91-9	13	131 plant	91-7	Oriole	Winter/Summer
	102	85	89-6	6	210	89-6	Oriole	Winter/Summer
	103	7	89-8	16	113	95-0	Oriole	Winter Only
	103	14	89-6	25	210	89-6	Oriole	Winter/Summer
	103	21	95-9	11	210	11-3	Oriole	Winter/Summer
	103	62	89-6	14	210	89-6	Oriole	Winter/Summer
	103	63	91-9	18	143	89-6	Oriole	Winter/Summer
Ontonagon	85	8	89-9	55	210	89-9	Three Rapids	Winter/Summer
	134	4	89-9	12	210	89-9	Three Rapids	Winter/Summer
	134	6	91-9	7	210	14-9	Three Rapids	Winter/Summer
	134	28	18-8	49	131 plant	18-8	Three Rapids	Winter/Summer
	134	29	91-9	47	210	95-5	Three Rapids	Winter/Summer
	134	32	91-9	11	210	95-5	Three Rapids	Winter Only
	134	35	91-8	15	143	89-5	Three Rapids	Winter/Summer
	134	38	91-9	13	113R	91-0	Three Rapids	Winter Only
	134	39	91-6	19	113R	91-0	Three Rapids	Winter/Summer
	134	60	91-9	6	113	91-0	Three Rapids	Winter Only
	134	62	91-9	8	113	91-0	Three Rapids	Winter Only
	135	8	91-8	10	113	91-0	Three Rapids	Winter Only
	135	14	11-9	12	113	95-0	Three Rapids	Winter Only
	135	16	91-9	11	113	91-0	Three Rapids	Winter/Summer
135	17	11-9	11	143	11-5	Three Rapids	Winter/Summer	

Table B-4. Alternative 4-Proposed Commercial Treatment Compartment/Stand Data (continued).

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Timber Sale Name	Recommended Operating Season
Ontonagon	82	1	91-7	20	113	91-0	Thumper	Winter Only
	82	2	91-5	18	210	89-6	Thumper	Winter/Summer
	82	16	91-9	33	210	89-6	Thumper	Winter/Summer
	82	61	91-6	16	113	91-0	Thumper	Winter Only
	82	92	91-6	8	113	91-0	Thumper	Winter/Summer
	83	3	95-5	19	143	11-3	Thumper	Winter/Summer
	83	8	91-9	76	131 plant	91-7	Thumper	Winter/Summer
	83	12	91-9	59	131 plant	91-7	Thumper	Winter Only
	83	15	91-8	18	113	91-0	Thumper	Winter Only
	83	18	91-5	15	113	91-0	Thumper	Winter Only
	83	32	91-9	13	131 plant	91-7	Thumper	Winter/Summer
	137	11	91-9	12	113	91-0	Thumper	Winter/Summer
	137	23	91-9	22	113	91-0	Thumper	Winter/Summer
	137	25	91-9	18	113	91-0	Thumper	Winter/Summer
	137	26	95-8	11	113	95-0	Thumper	Winter/Summer
	139	4	91-6	12	113	91-0	Thumper	Winter Only
	139	68	91-9	14	113	91-0	Thumper	Winter/Summer
139	81	91-8	10	113	91-0	Thumper	Winter Only	
139	87	91-6	8	113	91-0	Thumper	Winter Only	
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Bergland	103	1	95-9	11	113	95-0	Winterfest	Winter/Summer
Ontonagon	82	74	91-8	7	210	89-6	Winterfest	Winter/Summer
	138	78	91-9	15	131 plant	91-7	Winterfest	Winter/Summer
	138	79	91-9	23	131 plant	91-7	Winterfest	Winter/Summer
	139	10	91-9	14	113	91-0	Winterfest	Winter/Summer
	139	11	91-9	27	113	91-0	Winterfest	Winter Only
	139	13	91-8	8	143	95-5	Winterfest	Winter/Summer
	139	15	91-9	14	143	95-3	Winterfest	Winter/Summer
	139	17	91-9	11	113	91-0	Winterfest	Winter/Summer
	139	24	91-9	37	113	91-0	Winterfest	Winter/Summer
	139	34	91-6	25	113	91-0	Winterfest	Winter/Summer
	139	57	91-8	42	131 plant	91-7	Winterfest	Winter/Summer
	139	62	91-8	50	131 plant	91-7	Winterfest	Winter/Summer
	139	73	91-9	24	113R	91-0	Winterfest	Winter Only
	139	75	95-9	28	113	95-0	Winterfest	Winter/Summer
	139	77	91-8	32	143	89-5	Winterfest	Winter/Summer
139	78	91-8	54	131 plant	91-7	Winterfest	Winter/Summer	

Table B-5. Alternative 4-Proposed Non-commercial Treatment Compartment/Stand Data.

District	Compartment	Stand	Existing TSD	Treatment Acres	Proposed Treatment	Residual TSD	Associated Timber Sale Name	Recommended Operating Season
Ontonagon	141	21	95-9	10	113	95-0	Aspen Johnson	Winter/Summer
Bergland	105	19	3-9	17	131 plant	3-9	North Burma	Winter/Summer

Table B-6. Detailed Changes in Forest/Vegetation Types in MA 1.1 for Each Action Alternative.

(Refer to Table 1.3.1 in Chapter 1 for a Comparison of the Forestwide and Project Area Existing Conditions – Alternative 1.)

Alternative 2															
Forest/Vegetation Type	Existing Acres	Treated Acres	Acres Maintained	Acres Conv. to SS	Acres Conv. to SP	Acres Conv. to Hwd.	Acres Conv. to Asp.	To Type from SS	To Type from SP	To Type from Hwd.	To Type from Asp.	Acres After Trtmnt.	Net Change in Acres	Forestwide Result	Project Area Result
Aspen Saw/Pulp (Asp.)	17,648	1,966	1,738	181		47			121	30		17,571	-77	56.8%	71.2%
Softwood Pulp (SP)	1,498	126	0	5			121					1,372	-126	12.3%	5.6%
Softwood Saw (SS)	649	8	8					5	122	181		957	308	10.8%	3.9%
Hardwood Saw/Pulp (Hwd.)	4,874	1,067	915	122			30				47	4,769	-105	20.1%	19.3%
Total:	24,669	3,167	2,661	308	0	47	151	0	126	152	228	24,669	-	100%	100%
Alternative 3															
Forest/Vegetation Type	Existing Acres	Treated Acres	Acres Maintained	Acres Conv. to SS	Acres Conv. to SP	Acres Conv. to Hwd.	Acres Conv. to Asp.	To Type from SS	To Type from SP	To Type from Hwd.	To Type from Asp.	Acres After Trtmnt.	Net Change in Acres	Forestwide Result	Project Area Result
Aspen Saw/Pulp (Asp.)	17,648	3,641	3,524	63	54				129	55		17,715	67	57.0%	71.8%
Softwood Pulp (SP)	1,498	205	0	76			129				54	1,347	-151	12.3%	5.5%
Softwood Saw (SS)	649	82	82					76	63	63		851	202	10.7%	3.4%
Hardwood Saw/Pulp (Hwd.)	4,874	1,694	1,576	63			55					4,756	-118	20.1%	19.3%
Total:	24,669	5,622	5,182	202	54	0	184	0	205	118	117	24,669	-	100%	100.0%
Alternative 4															
Forest/Vegetation Type	Existing Acres	Treated Acres	Acres Maintained	Acres Conv. to SS	Acres Conv. to SP	Acres Conv. to Hwd.	Acres Conv. to Asp.	To Type from SS	To Type from SP	To Type from Hwd.	To Type from Asp.	Acres After Trtmnt.	Net Change in Acres	Forestwide Result	Project Area Result
Aspen Saw/Pulp (Asp.)	17,648	3,612	1,899	503	806	404			55	55		16,045	-1,603	54.7%	65.0%
Softwood Pulp (SP)	1,498	205	47	89		14	55				806	2,146	648	13.3%	8.7%
Softwood Saw (SS)	649	82	82					89	63	503		1,307	655	11.3%	5.3%
Hardwood Saw/Pulp (Hwd.)	4,874	1,694	1,576	63			55		14		404	5,174	300	20.6%	21.0%
Total:	24,669	5,593	3,604	655	806	418	110	0	158	118	1,713	24,669	-	100%	100.0%

Table B-7. Proposed Opening Reconstruction Compartment/Stand Data for All Action Alternatives.

District	Compartment	Stand	Opening Acres
Ontonagon	82	18	1.1
Ontonagon	82	18	0.5
Ontonagon	82	21	6.1
Ontonagon	82	29	1.4
Ontonagon	82	34	2.1
Ontonagon	82	36	1.2
Ontonagon	82	38	0.8
Ontonagon	82	41	0.8
Ontonagon	82	42	0.3
Ontonagon	82	57	0.1
Ontonagon	82	67	0.7
Ontonagon	82	101	1.4
Ontonagon	83	2	20
Bergland	102	32	4.6
Bergland	103	13	3.8
Bergland	103	23	10.3
Bergland	103	59	10.8
Bergland	104	22	1.3
Ontonagon	136	54	2.5
Ontonagon	136	57	0.9
Ontonagon	136	58	2.8
Ontonagon	136	59	0.6
Ontonagon	137	31	1.7
Ontonagon	138	18	0.4

District	Compartment	Stand	Opening Acres
Ontonagon	138	42	0.6
Ontonagon	138	44	1.5
Ontonagon	138	46	2.4
Ontonagon	138	47	0.7
Ontonagon	138	48	0.6
Ontonagon	138	48	1.1
Ontonagon	138	50	0.6
Ontonagon	138	52	0.9
Ontonagon	138	54	2.4
Ontonagon	138	62	0.4
Ontonagon	138	63	0.3
Ontonagon	138	68	0.4
Ontonagon	138	78	0.1
Ontonagon	139	30	0.1
Ontonagon	139	30	0.8
Ontonagon	139	32	1.2
Ontonagon	139	37	1.8
Ontonagon	139	39	0.9
Ontonagon	139	40	0.5
Ontonagon	139	44	1.6
Ontonagon	139	80	0.3
Ontonagon	140	9	2.4
Ontonagon	140	11	1.1
Ontonagon	140	11	1

Table B-7. Proposed Opening Reconstruction Compartment/Stand Data for All Action Alternatives (continued).

District	Compartment	Stand	Opening Acres
Ontonagon	141	8	1.4
Ontonagon	141	9	0.8
Ontonagon	141	18	0.9
Ontonagon	141	19	1.2
Ontonagon	141	23	1.2
Ontonagon	141	26	1.5
Ontonagon	141	27	1.8
Ontonagon	141	28	1
Ontonagon	141	29	1.5
Ontonagon	141	30	0.8
Ontonagon	141	32	0.7
Ontonagon	141	33	1.6
Ontonagon	141	33	1.3
Ontonagon	141	34	2.3
Ontonagon	141	35	0.1
Ontonagon	141	35	1.1

District	Compartment	Stand	Opening Acres
Ontonagon	141	36	1.4
Ontonagon	141	38	1.9
Ontonagon	141	48	0.1
Ontonagon	141	50	0.4
Ontonagon	141	55	0.1
Ontonagon	141	59	0.2
Ontonagon	141	65	1.3
Ontonagon	141	78	0.3
Ontonagon	142	20	1.4
Ontonagon	142	40	0.6
Ontonagon	142	41	1.8
Ontonagon	142	43	0.9
Ontonagon	142	54	1.7
Ontonagon	142	55	2.3
Ontonagon	142	57	2.3
		Total:	135

Table B-8. Alternative 2 - Proposed Large Woody Debris Compartment/Stand Data.

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	72	6	3
Ontonagon	72	7	4
Ontonagon	72	10	2
Ontonagon	72	14	1
Ontonagon	83	8	6
Ontonagon	83	12	5
Ontonagon	83	15	2
Ontonagon	83	22	1
Ontonagon	83	32	1
Ontonagon	84	9	3
Ontonagon	84	12	2

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	84	16	1
Bergland	103	63	1
Bergland	104	1	4
Bergland	104	3	1
Bergland	104	5	2
Bergland	104	8	1
Bergland	104	9	3
Bergland	104	13	2
Bergland	104	24	1
Bergland	104	26	3
Bergland	104	31	3

Table B-8. Alternative 2 - Proposed Large Woody Debris Compartment/Stand Data (continued).

District	Compartment	Stand	Number of Girdled Trees
Bergland	105	14	1
Bergland	105	30	1
Bergland	105	31	2
Bergland	105	44	1
Bergland	105	45	1
Bergland	105	46	1
Bergland	105	48	1
Bergland	105	50	1
Bergland	105	56	1
Bergland	105	65	2
Bergland	105	69	1
Bergland	105	73	1
Bergland	105	89	1
Bergland	105	90	1
Bergland	105	92	1
Bergland	105	93	2
Ontonagon	134	6	1
Ontonagon	134	14	1
Ontonagon	134	15	1
Ontonagon	134	16	2
Ontonagon	134	21	1
Ontonagon	134	24	2
Ontonagon	134	27	1
Ontonagon	134	28	4
Ontonagon	134	29	4
Ontonagon	134	32	1
Ontonagon	134	35	1

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	134	60	1
Ontonagon	134	62	1
Ontonagon	135	8	1
Ontonagon	135	14	1
Ontonagon	135	16	1
Ontonagon	135	17	1
Ontonagon	136	14	2
Ontonagon	136	24	1
Ontonagon	136	26	2
Ontonagon	136	31	1
Ontonagon	136	34	4
Ontonagon	136	46	4
Ontonagon	137	11	1
Ontonagon	137	23	1
Ontonagon	137	25	1
Ontonagon	137	26	1
Ontonagon	139	4	1
Ontonagon	139	10	1
Ontonagon	139	13	1
Ontonagon	139	15	1
Ontonagon	139	17	1
Ontonagon	139	24	4
Ontonagon	139	34	2
Ontonagon	139	62	6
Ontonagon	139	68	1
Ontonagon	139	75	2
Ontonagon	139	83	1

Table B-8. Alternative 2 - Proposed Large Woody Debris Compartment/Stand Data (continued).

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	142	1	1
Ontonagon	142	2	2
Ontonagon	142	3	1
Ontonagon	142	5	1
Ontonagon	142	10	2
Ontonagon	142	25	2
Ontonagon	142	30	1
Ontonagon	142	32	2
Ontonagon	142	34	2

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	142	45	1
Ontonagon	143	5	1
Ontonagon	144	6	2
Ontonagon	144	30	2
Ontonagon	144	34	1
Ontonagon	144	39	2
Ontonagon	144	40	1
		Total:	158

Table B-9. Alternative 3 - Proposed Large Woody Debris Compartment/Stand Data.

District	Compartment	Stand	Number of Girdled Trees
Bergland	66	8	2
Bergland	67	7	2
Bergland	67	10	4
Bergland	67	29	15
Ontonagon	72	10	3
Ontonagon	72	14	2
Ontonagon	72	18	1
Ontonagon	72	20	1
Ontonagon	82	1	2
Ontonagon	82	30	3
Ontonagon	82	31	3
Ontonagon	82	61	2
Ontonagon	82	74	1
Ontonagon	82	81	1

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	83	3	2
Ontonagon	83	8	7
Ontonagon	83	12	6
Ontonagon	83	18	1
Ontonagon	83	22	2
Ontonagon	84	3	2
Ontonagon	84	9	3
Ontonagon	84	12	2
Bergland	101	3	1
Bergland	101	11	2
Bergland	101	16	1
Bergland	101	46	2
Bergland	102	40	2
Bergland	102	49	2

Table B-9. Alternative 3 - Proposed Large Woody Debris Compartment/Stand Data (continued).

District	Compartment	Stand	Number of Girdled Trees
Bergland	103	1	1
Bergland	104	1	2
Bergland	104	8	1
Bergland	104	9	1
Bergland	104	13	3
Bergland	104	26	3
Bergland	104	31	4
Bergland	104	64	2
Bergland	105	14	1
Bergland	105	28	2
Bergland	105	31	2
Bergland	105	32	1
Bergland	105	33	2
Bergland	105	39	1
Bergland	105	65	3
Bergland	105	93	2
Ontonagon	134	14	2
Ontonagon	134	16	3
Ontonagon	134	27	2
Ontonagon	134	35	1
Ontonagon	135	14	1
Ontonagon	135	16	1
Ontonagon	136	14	3
Ontonagon	136	18	5
Ontonagon	136	22	4
Ontonagon	136	26	2
Ontonagon	136	34	5
Ontonagon	136	46	4
Ontonagon	137	23	2
Ontonagon	137	25	2
Ontonagon	138	78	1
Ontonagon	138	79	2
Ontonagon	139	11	3
Ontonagon	139	24	4

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	139	41	1
Ontonagon	139	51	2
Ontonagon	139	52	2
Ontonagon	139	55	2
Ontonagon	139	62	5
Ontonagon	139	68	1
Ontonagon	139	75	3
Ontonagon	139	77	3
Ontonagon	139	81	1
Ontonagon	140	3	1
Ontonagon	140	4	3
Ontonagon	140	16	1
Ontonagon	140	23	2
Ontonagon	140	27	3
Ontonagon	140	28	1
Ontonagon	140	36	1
Ontonagon	140	37	1
Ontonagon	140	39	2
Ontonagon	141	3	2
Ontonagon	141	5	1
Ontonagon	141	6	3
Ontonagon	141	21	3
Ontonagon	141	61	1
Ontonagon	142	2	3
Ontonagon	142	25	3
Ontonagon	142	34	3
Ontonagon	142	36	2
Ontonagon	143	5	2
Ontonagon	143	8	1
Ontonagon	143	9	1
Ontonagon	144	30	3
Ontonagon	144	34	2
Ontonagon	144	39	2
		Total:	209

Table B-10. Alternative 4 - Proposed Large Woody Debris Compartment/Stand Data.

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	72	7	3
Ontonagon	72	10	2
Ontonagon	82	30	2
Ontonagon	82	80	2
Ontonagon	83	8	4
Ontonagon	83	12	3
Ontonagon	84	12	1
Bergland	101	46	1
Bergland	104	26	2
Bergland	104	31	2
Bergland	105	28	1
Bergland	105	31	1
Bergland	105	93	1
Ontonagon	134	29	3
Ontonagon	136	26	2
Ontonagon	136	34	3
Ontonagon	136	46	3
Ontonagon	137	23	1
Ontonagon	138	79	1

District	Compartment	Stand	Number of Girdled Trees
Ontonagon	139	11	2
Ontonagon	139	24	2
Ontonagon	139	34	1
Ontonagon	139	55	1
Ontonagon	139	57	2
Ontonagon	139	62	3
Ontonagon	139	75	2
Ontonagon	139	78	3
Ontonagon	140	4	2
Ontonagon	140	27	2
Ontonagon	141	6	2
Ontonagon	141	21	2
Ontonagon	142	2	2
Ontonagon	142	10	1
Ontonagon	142	25	2
Ontonagon	142	32	2
Ontonagon	142	34	2
Ontonagon	142	36	1
		Total:	72

Table B-11. Proposed Alder Cutting Compartment/Stand Data for All Action Alternatives.

District	Compartment	Stand	Number of Alder Openings
Ontonagon	82	35	4
Ontonagon	83	15	4
Ontonagon	85	45	1
Bergland	101	10	4
Bergland	102	37	2
Bergland	102	66	5
Bergland	102	69	2

District	Compartment	Stand	Number of Alder Openings
Bergland	102	74	1
Bergland	103	22	2
Bergland	103	23	4
Bergland	103	31	5
Bergland	103	71	2
Bergland	105	47	10

Table B-11. Proposed Alder Cutting Compartment/Stand Data for All Action Alternatives
(continued).

District	Compartment	Stand	Number of Alder Openings
Ontonagon	134	17	4
Ontonagon	134	18	4
Ontonagon	134	26	5
Ontonagon	134	28	4
Ontonagon	134	30	2
Ontonagon	134	31	4
Ontonagon	135	27	1
Ontonagon	136	43	2
Ontonagon	136	46	2
Ontonagon	137	3	2
Ontonagon	137	9	2
Ontonagon	137	49	4

District	Compartment	Stand	Number of Alder Openings
Ontonagon	140	34	4
Ontonagon	141	3	4
Ontonagon	141	13	5
Ontonagon	141	14	2
Ontonagon	141	58	2
Ontonagon	141	59	5
Ontonagon	141	78	4
Ontonagon	142	2	4
Ontonagon	142	18	2
Ontonagon	142	32	4
		Total:	118

Table B-12. Proposed Road Mowing Road Data for All Action Alternatives.

Forest Road Number	Length (miles)
731	1.55
733	1.32
734	2.72
730-D	0.99
730-D1	0.34
730-E	0.27
731-D	0.85
731-G	0.69
731-H	0.80
733-B	0.64
733-D	1.02
733-E	0.71
734-L	1.54
734-P	1.66
Total:	15.10

Table B-13. Alternative 4-Proposed Riparian Influence Area Planting Compartment/Stand Data.

District	Compartment	Stand	ELTP	Approximate Acres Recommended for Planting
Bergland	103	23	236E	6.0
Bergland	103	43	236E	2.2
Bergland	103	49	236E	0.1
Ontonagon	135	4	LTA20	6.2
Ontonagon	135	5	236E	21.7
Ontonagon	135	24	LTA20	11.3
Ontonagon	135	25	236E	8.1
Ontonagon	136	8	236E	6.8
Ontonagon	136	14	216C	1.4
Ontonagon	136	16	LTA20	6.8
Ontonagon	136	25	236E	3.7
Ontonagon	136	27	236E	0.1
Ontonagon	136	34	236E	0.7
Ontonagon	136	36	236E	7.2
Ontonagon	136	37	236E	0.1
Ontonagon	136	38	236E	0.8
Ontonagon	136	41	216C	7.5
Ontonagon	136	48	236E	4.7
Ontonagon	136	51	236E	7.8
Ontonagon	136	54	236E	2.5
Ontonagon	139	17	236E	1.6
Ontonagon	139	18	236E	40.2
Ontonagon	139	20	236E	5.2
Ontonagon	139	21	236E	1.6
Ontonagon	139	22	236E	0.9
Ontonagon	139	23	217A	0.4
Ontonagon	139	24	236E	4.1
Ontonagon	139	25	216B	0.1
Ontonagon	139	39	236E	5.7
Ontonagon	139	42	236E	0.3
Ontonagon	139	88	236E	1.4
			Total:	167.1

*APPENDIX C:
RIPARIAN DESIGN CRITERIA AND ELTP GUIDELINES TABLES*

Table C-1 Design Criteria for Riparian Area Protection

Table C-2 Summary of ELTPs in Project Area and Guidelines for Season of Operation

Table C-1. Baltimore Vegetation Management Riparian Design Criteria.

ELTP/ Aquatic Feature	Compartments / Stands Potentially Affected	Riparian Influence Area	Harvest and Harvest Associated Equipment Restrictions	Minimum Canopy Coverage ¹	Roads, Landings, Skid Trails
Large Permanently Flowing Streams (Baltimore R. from mouth up to Lathrop Cr. and all branches Ontonagon R.)	82/89, 83/18	5 tree lengths back from the edge of the bankfull Stage or ELTP defined floodplain, whichever is greater. OR when river is nested within a swamp or bog, 1 tree length back from the edge of the ELTP defined swamp or bog OR 5 tree lengths from the bankfull stage, whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 2 tree lengths of ELTP defined floodplain. OR when stream is nested within swamp or bog, no commercial timber harvest or equipment operation within 2 tree lengths of edge of ELTP defined swamp or bog.	Maintain 75 - 100% crown canopy closure within riparian area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing large permanently flowing (perennial) streams where possible. When crossing is unavoidable, use designated stream crossings with coordination with MI-DNR. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Small Permanently Flowing Streams (with slopes 1-18% B and C slopes)	102/26; 103/14,62; 104/12,40; 141/61	When permanently flowing (perennial) stream is nested within swamp, bog, or floodplain ELTP, go to the top of the adjacent slope plus 1 tree length OR 2 tree lengths back from the edge of the swamp, bog, or floodplain, whichever is greater. Otherwise, area to the top of the adjacent slope plus 1 tree length. OR 3 tree lengths back from the bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 1 tree length of bankfull stage. OR when stream is nested within swamp, bog, or floodplain, no commercial timber harvest or equipment operation within 1 tree length of ELTP defined swamp, bog, or floodplain.	Maintain 75% crown canopy closure within riparian area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing small permanently flowing (perennial) streams where possible. When crossing is unavoidable, use designated stream crossings with coordination with MI-DNR. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Small Permanently Flowing Streams (with slopes 18-35% D slopes)	66/8	Area to the top of the adjacent slope plus 1 tree length. OR 3 tree lengths back from the bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 1 tree length from stream's bankfull stage.	Maintain 75% crown canopy closure within riparian area.	Same as above.

¹ This is part of riparian ecotone that lies beyond the no harvest zone

Note: This Table includes all treatment stands in all alternatives. Minor variation exists between Alts 3 and 4. Alt 2 has fewer treatment acres in each ELTP/Aquatic Feature category, although it has 2 additional stands in Wetland – Mixed Imperfect Alder Conifer.

ELTP/ Aquatic Feature	Compartments / Stands Potentially Affected	Riparian Influence Area	Harvest and Harvest Associated Equipment Restrictions	Minimum Canopy Coverage ₁	Roads, Landings, Skid Trails
Small Permanently Flowing Streams (with slopes 35-55% E slopes)	67/29	Area to the top of the adjacent slope plus 1 tree length. OR 3 tree lengths back from the bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within the area from the stream's bankfull stage to the top of the adjacent slopes.	Maintain 75% crown canopy closure within riparian area.	Same as above.
Seasonally (Intermittent) Flowing Streams (with adjacent slopes <1% slope)	67/29; 82/2,58; 101/46; 102/35; 134/29; 135/8,14; 136/26,46; 137/11; 139/24,68,73,75, 77; 142/2,25,32,34	When seasonally flowing (intermittent) stream is nested within a swamp or bog, 2 tree lengths back from edge of wetland, OR 2 tree lengths back from bankfull stage, whichever is greater.	No commercial timber harvest or harvest associated equipment operation within ½ tree length from stream's bankfull stage. OR if seasonally flowing (intermittent) stream is nested inside a swamp or bog, there would be no commercial timber harvest within 1 tree length from the edge of the ELTP defined swamp or bog.	Maintain 50% crown canopy closure within riparian area	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing seasonally flowing (intermittent) streams where possible. When crossing is unavoidable, use designated stream crossings with mitigation measures such as pipe bundles. Remove bundles upon completion. Discourage removal of limbs and other debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Seasonally (Intermittent) Flowing Streams (with adjacent slopes 1-18%, B & C-slope)	66/3,4,6,8,20; 67/7,10,29; 72/18; 82/2,10,16,30,31, 58,61,74,80,89,92; 83/8,12,15; 84/3,9; 85/8; 101/3,20,23, 40,46; 102/6,8,12, 28,35,40,43,47,49, 53,65,82; 103/1,7, 14,18,20,33,69; 104/1,4,6,11,12, 14,15,23,26,27,28, 31,37,40,57,60,64; 105/7,8,33,50,65, 73,93; 134/6, 29; 136/14,22,40,43; 137/23; 139/4,13, 24,34,41,51,62,75, 77,87; 140/4,16, 27,28,37; 142/25; 144/39	Area to top of adjacent slope plus 1 tree length. OR 2 tree lengths back from the bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within ½ tree length from stream's bankfull stage.	Maintain 50% crown canopy closure within riparian area_	Same as above.

ELTP/ Aquatic Feature	Compartments / Stands Potentially Affected	Riparian Influence Area	Harvest and Harvest Associated Equipment Restrictions	Minimum Canopy Coverage ¹	Roads, Landings, Skid Trails
Seasonally (Intermittent) Flowing Streams (with adjacent slopes 18-35%, D-slope)	66/6,8,20; 67/29; 83/21,15; 101/3, 40; 102/6,82; 105/33,73,92,93; 139/41,62,68; 140/4,27,28; 142/32	Area to top of adjacent slope plus 1 tree length. OR 3 tree lengths back from bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 1 tree length from stream's bankfull stage.	Maintain 50% crown canopy closure within riparian area.	Avoid new road/landing construction within riparian area where possible; Skid trails would direct activities outside of riparian area as quickly as possible; Use designated skid trails to minimize the number of skid trails within riparian areas and to avoid the steeper slopes wherever possible. Avoid crossing seasonally flowing (intermittent) streams where possible. When crossing is unavoidable, use designated stream crossings with mitigation measures such as pipe bundles. Remove bundles upon completion. Discourage removal of limbs and other debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Seasonally (Intermittent) Flowing Streams (with adjacent slopes 35-55%, E-slopes and LTA 20)	67/10,29; 72/14; 82/1,30,31,58,61, 80; 101/23,40; 103/1; 136/46; 139/15,24	Area to top of adjacent slope plus 1 tree length. OR 3 tree lengths back from bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within the area from the stream's bankfull stage to the top of the adjacent slopes.	Maintain 50% crown canopy closure within riparian area.	Same as above.
Lakes and Ponds	66/4; 82/74; 103/7; 105/1,2,45,73; 139/62	Entire ELTP plus the area to the top of the adjacent slope plus 1 tree length. OR 2 tree lengths from the edge of the lake/pond or adjacent ELTP defined swamp, bog, or floodplain; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 2 tree lengths from edge of lake/pond. If the lake is nested within a swamp, bog, or floodplain that is 2 tree lengths or more in width, then there would be no commercial timber harvest or equipment operation within 1 tree length of the edge of the ELTP defined swamp, bog, or floodplain.	Maintain 50% crown canopy closure within riparian area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Forest Seasonal Ponds (1/2 acre in size or larger)	Where found	The whole seasonal pond plus 1 tree length.	No equipment within seasonal ponds. Do not harvest trees with rooting zones in contact with edge of seasonal ponds.	Maintain 75% crown canopy closure within riparian area.	No equipment would be permitted within seasonal ponds and no landings would be permitted within 150 feet of seasonal ponds; Avoid new road/landing construction within riparian area where possible; Skid trails would direct activities outside of riparian area as quickly as possible; Seasonal ponds would not become disposal area for slash; Retain existing cull trees and snags in riparian areas where possible.
Wetland - Sedge-meadow floodplain (ELTP 233)	66/8; 82/74; 101/40; 102/10,43,53,82; 103/14,21; 105/1; 134/21,29,60; 142/25,36; 144/6,40	Entire ELTP plus area to top of adjacent slope plus 1 tree length. OR 2 tree lengths from the edge of the ELTP defined floodplain; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 1 tree length of edge of ELTP defined floodplain.	Maintain 50% crown canopy closure within riparian area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing wetlands where possible. When crossing is unavoidable, use designated crossings with mitigation measures such as corduroy (log stringers) or crossing under frozen conditions. Remove corduroy upon completion. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.

ELTP/ Aquatic Feature	Compartments / Stands Potentially Affected	Riparian Influence Area	Harvest and Harvest Associated Equipment Restrictions	Minimum Canopy Coverage ¹	Roads, Landings, Skid Trails
Wetland – Mixed Imperfect Alder/Conifer (Poorly Drained – ELTPs 225A, 237A)	66/4; 72/18; 82/10,16; 83/12, 18,32; 85/8; 101/23;102/12,28, 35,43,49,53,54,65; 103/7,14,62;104/1, 5,12,13, 15, 31,57; 105/1,8,18,19,26, 31,33,41,44,45,46, 48,50,56,65,73,89, 90,93;134/24,27, 28,29,32,35,62; 135/14; 136/10,14, 18,22,24,26; 137/23,26; 139/52; 140/2,3,16, 23,27, 36; 142/16,17,24, 48,50; 143/1,2,5,7, 8,9; 144/30,39	Pure unit - 2 tree lengths from the edge of the ELTP delineation.	No commercial timber harvest or harvest associated equipment operation within 1 tree length of edge of ELTP defined floodplain.	Maintain 50% crown canopy closure within riparian influence area.	Same as above.
Wetland – Forested Linear Wetland (ELTPs 218, 222)	101/45; 104/6,15; 105/6,14,18,26,28, 31,32,39,41,97; 134/14,15,16,24, 27,29,32; 140/3, 39; 144/6,40,48, 72,73	Edge of forested linear wetland plus 1 tree length.	No commercial timber harvest or harvest associated equipment operation within 1/2 tree length of edge of ELTP defined wetland.	Maintain 50% crown canopy closure within riparian influence area.	Same as above.
Wetland – Bog (ELTP 231)	66/3,4; 72/6,7; 82/16; 102/12,85; 103/7	Entire ELTP plus area to top of adjacent slope plus 1 tree length OR 2 tree lengths from the edge of the ELTP defined floodplain, whichever is greater	No commercial timber harvest or harvest associated equipment operation within 1 tree length of edge of ELTP defined bog.	Maintain 50% crown canopy closure within riparian area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing wetlands where possible. When crossing is unavoidable, use designated crossings with mitigation measures such as corduroy (log stringers) or crossing under frozen conditions. Remove corduroy upon completion. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.

Listed in the table below are brief descriptions of the ELTPs that occur within the project area and that may be affected by, or that may affect the proposed activities. The table also lists the suitability for timber management of these ELTPs. Some ELTPs are not suitable for timber management, such as wetlands, and these would be avoided during any sale preparation and harvest activities to protect the soil and site resources.

Many of these ELTPs do not have any proposed activities planned to occur on them, but are included as they were part of the scope of the effects analysis. A more complete description and map of these ELTPs located within the project area is located in the project file.

Table C-2. Summary of ELTPs in Baltimore Project Area.

LTA	ELTP	GIS Acres	Drainage Class*	Common Soil Surface Texture**	Common Soil Subsurface Texture**	Season of Operability ⁺	Slope Range %	Comments or Special Features
19	214B [#]	2281	P	Organic	Clays and silts	6	0-1	Undulating complex
			SP	Loam, silt loam, silty clay loam		5	0-2	
			MW			3	0-4	
	215B	731	W	Silt loam, loam, fine sandy loam	Silty clay or clay	2	0-6	Upland clayey level plain
	216B	6602	W	Loam, clay loam, very fine sandy loam	Clay loam, silty clay loam	2	0-6	Upland clayey level plain
	216C	711					0-15	
	217A [#]	4564	SP	Mixed organic material with silt loam, loam, or silty clay loam	Clay or silty clay with some strata of sandy clay loam or sandy clay	4	0-2	Lower areas in level plain
	218	335	PD	Organic, mucky silt loam, or silty clay loam	Silty clay or clay	Not suitable	0-2	Drainway - may be open or shrubby, and frequently dammed and flooded
	219B	1293	MW/SP	Silty clay loam, clay loam, and silty clay.	Fine sandy loam to clay loam	4	0-4	Lower areas in level plain with till substratum
	221B	2362	W	Loam, fine sandy loam, silt loam	Clay loam, sandy clay loam, sandy loam, loam	2	0-12	Till deposit - higher elevation in clay plain
222	222	P	Organic, mucky silt loam, fine sandy loam, or silty clay loam	Clay loam, sandy clay loam, sandy loam, loam	Not suitable	0-2	Drainway - may be open or shrubby, and frequently dammed and flooded	

LTA	ELTP	GIS Acres	Drainage Class*	Common Soil Surface Texture**	Common Soil Subsurface Texture**	Season of Operability	Slope Range %	Comments or Special Features
19	225A [#]	664	SP	Loam, silt loam, silty clay loam	Silty clay loam to clay	6/ commonly not suitable	0-2	Depression in level plain
	226B	2483	W	Loam, silt loam, clay loam, silty clay loam	Sandy loam, sandy clay loam, clay loam	2	0-4	Upland; clay over till
	230B [#]	469	SP/MW	Sandy loamy, loamy fine sand	Stratified fine & very fine sands	4/ commonly non suitable	0-4	Found in rich alluvial bottomlands along perennial streams
	231	138	VP	Organic	Organic over loam, sandy clay loam, clay loam	Not suitable	0-1	Shallow and deep organic deposit complex
			P		Loam, sandy clay loam, clay loam, clay			
	233	292	VP/P	Mucky loams over stratified clays, silts and sands	Sandy clay loam to clay	Not suitable	0-2	Relatively wide floodplains associated w/perennial streams; often grassy or brushy
	234B	614	W	Loam, sandy loam, loamy sand or loamy fine sand	Variable - waterworked loamy sand to clay loam	2	0-12	Beach ridges and ground moraine domes
	236E ⁺⁺	2008	W	Silt loam, silty clay loam, clay loam, clay loam, loam	Clay, silty clay	3/ commonly not suitable	25-45	Valley wall landform associated with steeply incised drainage channels
			SP/P	Mucky sandy loam, loam, silt loam or clay loam	Sandy loam, sandy clay loam, clay loam, clay		0-4	Alluvial bottomlands of incised drainage channels
237A [#]	1225	P	Organic over silt loam, loam, sandy loam, fine sandy loam	Silt loam, loam, fine sandy loam, sandy loam, silty clay loam	6	0-1	Low area complex; transition to till deposit	
		SP	Silt loam, loam, fine sandy loam, sandy loam, silty clay loam		5	0-4		

LTA	ELTP	GIS Acres	Drainage Class*	Common Soil Surface Texture**	Common Soil Subsurface Texture**	Season of Operability	Slope Range %	Comments or Special Features
19	238B	2537	W/MW	Sandy loam, fine sandy loam, loam, silt loam	Loam, clay loam, or sandy clay loam stratified with bands of clay or sandy clay	2	1-12	Till deposit - higher elevation in clay plain
	239D ⁺⁺	731	W	Loam, silt loam, clay loam, silty clay loam	Clays and silts	3/ often not suitable	12-25	Upper reaches of incised drainage channels; vulnerable to headward erosion
	480	2	N/A				Gravel/borrow pit	
20	N/A	5519	Not mapped to ELTP level				Very steep valley walls and bottomlands of major drainages	
W	W	126	N/A				Water body	

* A drainage class refers to the frequency and duration of wet periods under conditions similar to those under which the soil developed. It also describes the rapidity at which free water is removed from the soil.

VP - Very poorly drained **P** - Poorly drained **SP** - Somewhat poorly drained **MW** - Moderately well drained **W** - Well drained

** Some soil textures are grouped into broad categories. Actual textures can range from fine to coarse within these broader categories – particularly sandy textures.

+ Season of operability:

- 0 - All year long.
- 1 - All year long, except during (April/May) and (October/November).
- 2 - Winter and during July, August and September. Delays up to 1 week following rain in the summer can be expected.
- 3 - Winter and during August and September. Delays 1 to 2 weeks following rain in the summer can be expected.
- 4 - Winter and during August. Delays 1 to 3 weeks following rain in the summer can be expected.
- 5 - Winter and less than 1 month summer, which may be missed if periodic rains occur.
- 6 - Winter only with frozen roads and trails. Typically these ELTP's are not included in the actual timber sale units.
- N/A - Site is primarily non-productive for growing merchantable timber.

Indicates an ELTP or ELTP component that will need field verification on a case-by-case basis to fully determine operability due to site specific soil conditions that cannot be predicted at the ELTP level mapping scale.

⁺⁺ Indicates an ELTP that may not be operable on slopes between 25-35%. Needs to be assessed on a case-by-case basis and other natural landform characteristics must be taken in to account such as wetland proximity, shallow to bedrock, access, exposure etc. In nearly all cases, slopes over 35% will not be operable for equipment.

APPENDIX D:
ECONOMIC ANALYSIS TABLES

Table D-1 Volumes and Values for Action Alternatives

Table D-2 Costs Associated with Sale Preparation Activities

Table D-3 Connected Action Costs Associated with the Action Alternatives

Table D-1. Volumes and Values for Action Alternatives.

	Alternative 2	Alternative 2	Alternative 2	Alternative 3	Alternative 3	Alternative 3	Alternative 4	Alternative 4	Alternative 4
	Volume (unit)	Unit Value*	Value	Volume (unit)	Unit Value*	Value	Volume (unit)	Unit Value*	Value
Sawtimber	MBF	\$/MBF		MBF	\$/MBF		MBF	\$/MBF	
Mixed Hardwoods	265	\$427.00	\$113,155.00	944	\$427.00	\$403,088.00	809	\$427.00	\$345,443.00
Pine	0	\$130.00	\$0.00	0	\$130.00	\$0.00	0	\$130.00	\$0.00
Mixed Conifer	0	\$53.00	\$0.00	0	\$53.00	\$0.00	0	\$53.00	\$0.00
Pulpwood	Cords	\$/Cord		Cords	\$/Cord		\$/Cord		
Mixed Hardwoods	11,267	\$15.22	\$171,483.74	20,374	\$15.22	\$310,092.28	21,837	\$15.22	\$332,359.14
Pine	0	\$60.20	\$0.00	0	\$60.20	\$0.00	0	\$60.20	\$0.00
Mixed Conifer	6,031	\$16.45	\$99,209.95	11,478	\$16.45	\$188,813.10	8,340	\$16.45	\$137,193.00
Aspen	40,417	\$24.33	\$983,345.61	70,665	\$24.33	\$1,719,279.45	61,355	\$24.33	\$1,492,767.15
Totals:	(29,323 MBF)		\$1,367,194.30	(52,202 MBF)		\$2,621,272.83	(46,576 MBF)		\$2,307,762.29

*Unit values not adjusted for inflation - based on actual bid prices; from rolling 5-year average for these products. [USDA - Forest Service, 2003 Fifteen Year Review Ottawa National Forest, FY 2001 Monitoring & Evaluation Report, (Revised, June 2003), USDA Forest Service, Ironwood, MI. page 56.]

Table D-2. Costs Associated with Sale Preparation Activities.

	3/ \$/MBF	Alternative 2 MBF	Alternative 2 Costs	Alternative 3 MBF	Alternative 3 Costs	Alternative 4 MBF	Alternative 4 Costs
Sale Preparation:							
Clearcut 1/	\$18.50	24,738	\$457,653.00	44,239	\$818,421.50	35,742	\$661,227.00
Other 2/	\$35.32	4,585	\$161,942.20	7,964	\$281,288.48	10,834	\$382,656.88
Sales Administration:							
Clearcut 1/	\$6.00	24,738	\$148,428.00	44,239	\$265,434.00	35,742	\$214,452.00
Other 2/	\$13.18	4,585	\$60,430.30	7,964	\$104,965.52	10,834	\$142,792.12
Silvicultural Examination:	\$9.28	3,167 (acres)	\$29,389.76	5,622 (acres)	\$52,172.16	5,593 (acres)	\$51,903.04
Roads:	\$0.45	29,323	\$13,195.35	52,202	\$23,490.90	46,576	\$20,959.20
Total Costs:			\$871,038.61		\$1,545,772.56		\$1,473,990.24

1/ Includes 113, 113R, 113/plant, 113R/plant, 131 plant, 143.

2/ Remaining harvest types (151, 210, 220).

3/ Unit rates include overhead costs of 58% (Silvexam is a per acre rate); includes planning costs.

Table D-3. Connected Action Costs Associated with the Action Alternatives.

Activity	Alternative 2*	Alternative 3*	Alternative 4*
1st Year Stocking Surveys	\$11,073	\$20,517	\$11,976
3rd Year Stocking Surveys for Artificial Regeneration	\$2,301	\$1,895	\$5,429
3rd Year Stocking Surveys for Natural Regeneration	\$16,154	\$32,308	\$14,531
Site Preparation for Aspen Regeneration	\$177,278	\$361,015	\$172,593
Timber Stand Improvement (TSI)	\$55,224	\$45,490	\$130,291
Site Preparation for Conifer Planting	\$34,515	\$28,431	\$81,432
Conifer Planting Stock	\$39,117	\$32,222	\$92,290
Conifer Planting	\$39,117	\$32,222	\$92,290
Opening Reconstruction	\$30,478	\$30,478	\$30,478
Large Woody Debris Creation	\$16,843	\$24,500	\$11,745
Alder Cutting	\$18,802	\$18,802	\$18,802
Road Mowing	\$10,705	\$10,705	\$10,705
Non-comm. Aspen Treatment	N/A	\$141,410	\$44,240
Dispersed Parking/Camping Site Improvement	\$4,730	\$4,730	\$4,730
Moving Gate on FR 710	\$2,950	\$2,950	\$2,950
River Access Parking Area	\$1,945	\$1,945	\$1,945
Glossy Buckthorn Treatment	N/A	\$45,000	\$8,250
Glossy Buckthorn Inventory & Mapping	\$500	\$500	\$500
Additional Rare Plant Survey Needs	N/A	\$500	\$500
Survey Stands Proposed for Riparian Planting	N/A	N/A	\$2,250
Riparian Influence Area Planting:**			
Planting Stock	N/A	N/A	\$2,839
Planting	N/A	N/A	\$16,700
5th Year Monitoring	N/A	N/A	\$1,303
Total Costs:	\$461,732.08	\$835,619.72	\$758,769.52

* All connected action costs include overhead costs of 58% and are rounded to the nearest dollar.

** This is the maximum cost that would be expected if all proposed acres were planted.

APPENDIX E:

*BOTANICAL RESOURCES – PROCEDURE FOR RISK
ASSESSMENT FACTORS AND RATING DETERMINATION; NNIP
KNOWN TO OCCUR IN THE BALTIMORE PROJECT AREA*

Table E-1 Non-native Invasive Plants Known to Occur in the Baltimore Project Area

Northern Region

Invasive Non-native Plant Species (NIS) - Risk Assessment Factors and Rating

MODIFICATIONS BY OTTAWA NF BOTANY PROGRAM AS SHOWN*

FACTOR 1: *Likelihood of Undesirable Plant Species, Including Noxious Weeds Species, Spreading to Project Area:*

- NONE (0): ~~Undesirable plants, including noxious weed species not located within immediately adjacent to the project area. Project activity is not likely to result in the establishment of undesirable weed species on the project area.~~
- LOW (1): ~~Undesirable plant species present in areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of undesirable plants into the project area.~~
- MODERATE (5): ~~Undesirable plant species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with undesirable plant species even when preventative management actions are followed. Control measures are essential to prevent the spread of undesirable plants or noxious weeds within the project area.~~
- HIGH (10): ~~Heavy infestations of undesirable plants are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of undesirable plants on disturbed sites throughout much of the project area.~~

*Text was stricken because it did not allow differences between project alternatives to be shown. If an infestation is present, the rating was forced to be the same for Factor 1 for all alternatives, despite differences in alternatives designed to prevent spread. The stricken text can still be considered in rating, but is not required. ONF 5/2003

FACTOR 2: *Consequence of Undesirable Plant Establishment in Project Area*

- LOW (1): None. No cumulative effects expected.
- MODERATE (5): Possible adverse effects on site and possible expansion of infestation within project area. Cumulative effects on native plant community are likely, but limited.
- HIGH (10): Obvious adverse effects within the project area and probable expansion of undesirable plants, including noxious weed infestations to areas outside the project area. Adverse cumulative effects on native plant community are probable.

Risk Rating Procedure

Step 1. Identify level of likelihood and consequence of adverse effects (Factors 1 and 2, previous page) and assign values according to the following:

None: 0 **Low:** 1 **Moderate:** 5 **High:** 10

Step 2. Multiply level of likelihood times consequences (Factor 1 x Factor 2).

Step 3. Use the value resulting in step 2 to determine Risk Rating and action as follows:

	<u>Risk Rating</u>	<u>Action</u>
0	NONE	Proceed as planned.
1-10	LOW	Proceed as planned. Initiate control treatments on undesirable plant populations that get established in the area.
25	MODERATE	Develop preventative management measures for the proposed project to reduce the risk of introduction or spread of undesirable plants into the area. Monitor the area for at least 3 consecutive years and provide for control of new infestations.
50-100	HIGH	Modify project design and implement preventative management measures for the proposed project to reduce the risk of introduction or spread of undesirable plants into the area. Monitor the area for at least 5 consecutive years and provide for control of new infestations.

Table E-1. Non-native Invasive Plants Known to Occur in the Baltimore Project Area.

Scientific Name	Common Name	Forest Priority	Typical Habitat/Comments
<i>Arctium minus</i>	Burdock	2	Waste ground, roadsides, fields, thickets, trails, clearings in upland woods and cedar swamps, moist disturbed ground such as stream banks (Voss 1996 p. 507); sun to partial shade; common on Ottawa NF.
<i>Bromus inermis</i>	Smooth brome	2	Waste ground, roadsides, fields, woods, shores (Voss 1972 p. 134); uncommon on Ottawa NF.
<i>Centaurea biebersteinii</i>	Spotted knapweed	2	Disturbed ground such as roadsides, fields, waste ground (Voss 1996 p. 509); trails, gravel pits, widespread on Ottawa NF in open areas.
<i>Cirsium arvense</i>	Canada thistle	2	Waste ground, roadsides, ditches, fields, shores, disturbed swampy ground etc. (Voss 1996 p. 521); uncommon on Ottawa NF.
<i>Cirsium palustre</i>	European swamp thistle	2	Roadside ditches, swamps, shores, fens (Voss 1996 p. 519); moist logging roads; uncommon on Ottawa NF.
<i>Cirsium vulgare</i>	Bull thistle	2	Waste ground including fields, shores, ditches; trails, clearings in woods; follows disturbance such as fire and logging and invades into native adjacent communities (Voss 1996 p. 519-520); uncommon on Ottawa NF.
<i>Daucus carota</i>	Wild carrot, Queen Anne's lace	3	Waste ground, roadsides, fields, woods, shores (Voss 1985 p. 655); common on Ottawa NF, mostly roads and clearings.
<i>Hieracium aurantiacum</i>	Orange hawkweed	3	Roadsides, dry and moist fields, woods, shores, logged areas, marshy ground, cedar swamps (Voss 1996 p. 358); rock outcrops; widespread on Ottawa NF.
<i>Hieracium piloselloides</i>	King devil, yellow hawkweed	3	Roadsides, fields, gravel pits, waste and disturbed ground, woods, sandy and rocky openings, shores, dry to wet ground (Voss 1996 p. 359); widespread on Ottawa NF.
<i>Hypericum perforatum</i>	Common St. Johnswort	3	Roadsides, fields, rock outcrops, shores (Voss 1985 p. 579); moist to dry ground; widespread on Ottawa NF, especially in wetter disturbed sites.
<i>Lotus corniculatus</i>	Bird's-foot trefoil	3	Roadsides, fields, clearings, lawns (Voss 1985 p. 493); widespread on Ottawa NF mostly on roadsides.
<i>Melilotus alba</i>	White sweet clover	3	Disturbed dry, open ground, often calcareous, such as dunes, roadsides, fields, shores (Voss 1985 p. 450); uncommon on Ottawa NF.
<i>Melilotus officinalis</i>	Yellow sweet clover	3	Waste ground, roadsides, fields, shores, disturbed areas in woods (Voss 1985 p. 450); uncommon on Ottawa NF.
<i>Pastinaca sativa</i>	Wild parsnip	2	Roadsides, fields, shores, damp to dry (Voss 1985 p. 662); uncommon on Ottawa NF.

Table E-1. Non-native Invasive Plants Known to Occur in the Baltimore Project Area
(continued).

Scientific Name	Common Name	Forest Priority	Typical Habitat/Comments
<i>Phalaris arundinacea</i>	Reed canary grass	2	Ditches, marshes, shores, stream and pond borders (Voss 1972 p. 211); common on Ottawa NF.
<i>Rhamnus frangula</i>	Glossy buckthorn	1	Bogs, fens, swamps, thickets, ditches, shores, low woods (Voss 1985 p. 558); known only in a few locations on Ottawa NF.
<i>Rhus radicans</i>	Poison ivy	0 (native)	Woods, thickets, open ground, often disturbed such as roadsides; shores, dunes, banks; edges of woods, clearings, swamp forest, rocky slopes; in both shade and sun (Voss 1985 p. 533-4); common on Ottawa NF.
<i>Tanacetum vulgare</i>	Common tansy	3	Roadsides, fields, ditches, shores, waste ground, spreading into clearings, woods, not persisting in shade (Voss 1996 p. 400); uncommon on Ottawa NF.

APPENDIX F:
ABBREVIATION/ACRONYMS AND GLOSSARY OF TERMS

ABBREVIATIONS/ACRONYMS USED IN THE DRAFT EIS

ATV	All-Terrain Vehicle
BMP	Best Management Practices
CFR	Code of Federal Regulations
DBH	Diameter at Breast Height
DFC	Desired Future Condition
ECS	Ecological Classification System
EIS	Environmental Impact Statement
ELTP	Ecological Landtype Phase
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
Forest Plan	ONF Land and Resource Management Plan
FR	Forest Road
FSH	Forest Service Handbook
FSM	Forest Service Manual
GIS	Geographical Information System
ID team	Interdisciplinary Team
LTA	Landtype Association
MA	Management Area
MI-DNR	Michigan Department of Natural Resources
MIS	Management Indicator Species
NCT	North Country Trail
NFS	National Forest System
ONF	Ottawa National Forest
ORV	Off-Road Vehicle
RFSS	Regional Forester's Sensitive Species
ROS	Recreation Opportunity Spectrum
SHPO	State Historic Preservation Office
TES	Threatened and Endangered Species
TSI	Timber Stand Improvement
USFS	United States Forest Service
VMP	Vegetative Management Project
VQO	Visual Quality Objective

GLOSSARY OF TERMS

All aged/Uneven-aged - (Terms are interchangeable.) Stands of trees managed under uneven age management system with trees of many ages and size classes. Most commonly used with northern hardwoods.

Arterial roads - Classified roads that provide primary access from major highways and provide long-term service to recreation facilities or attractions or that access large land areas which are usually developed and operated for land and resource management purposes such as environmental protection, recreation, access and commodity extraction.

Background - (Visual Distance Zone) That part of a scene or landscape that is farthest from viewer in which texture and detail is very weak to non-existent; distance from the observer extends beyond middle ground from 5 miles to infinity.

Biological diversity (Biodiversity) - Biodiversity has been defined in many ways by many people. At its largest, it includes all forms of life (microorganisms to large vertebrates) at all levels (genes to ecosystems) and all the ecological functions and processes that bind those forms and levels together.

Cavity - A hole in a tree, snag, or log that can be used by birds, mammals, and other species for nesting, roosting, and/or cover. Cavities may be caused by rot, insects, and/or excavation by birds.

Character type - Large physiographic area of land that has common characteristics of landforms, rock formations, water forms, and vegetative patterns.

Characteristic landscape - The naturally established landscape within a scene or scenes being viewed.

Clearcut - see Silvicultural Clearcut.

Clearcut w/residual trees - Retains trees on the site for various reasons. The number, size, species, health, and spacing vary from one stand to the next depending on what is currently in the stand. Usually, the modification includes leaving long-lived species such as red pine, white pine, and northern red oak. These can occur as individual trees across the site or in clumps. There are occasions where short-lived species, such as balsam fir and spruce, and red maple are left (saplings and small pole timber-sized trees) to act as "nurse" trees to long-lived species such as white pine to protect the seedlings/saplings for a period of time.

Closed-canopy - This condition exists when the branches of adjacent trees nearly touch or even overlap so that very little light reaches the forest floor when there are leaves on the trees. For the purposes of wildlife habitat analysis in this EIS, forest with less than approximately 30% of the overhead area open to the sky (more than 70% canopy closure) qualified as closed-canopy.

Collector road - Classified roads, serving smaller land areas than arterial roads, which collect traffic from local roads or recreation facilities and attractions, usually connecting to arterial roads or State and county highways. They are operated for either constant or intermittent service depending on land use and resource management objectives.

Common (variety class B) - Refers to prevalent, usual, or widespread landscape variety within character type. It also refers to ordinary or undistinguished visual variety.

-
- Compactibility** - This is the potential of the soil to be detrimentally compacted from forest management activities. Generally, soils are most susceptible to compaction when their available water holding capacity is at or near 100% (field capacity). This is a subjective general interpretation and primary soil properties include soil texture, coarse fragments, bulk density and moisture content.
- Conifer** - Any of predominantly evergreen, cone-bearing trees, such as pine, spruce, hemlock, or fir. Trees belonging to the botanical group Gymnospermae.
- Corridor** - Habitat corridors are areas of a certain habitat type that connect other areas of the same or similar habitats across dissimilar areas. They may provide the primary movement route for wildlife species across a fragmented landscape.
- Decommissioning** - Demolition, dismantling, removal, obliteration and/or disposal of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work. This action eliminates the deferred maintenance needs for the fixed asset. Portions of an asset or component may remain if they do not cause problems nor require maintenance (USDA Forest Service, common Definitions for Maintenance and Construction Terms).
- Diameter at Breast Height (DBH)** - Diameter of a tree 4.5 feet above ground level on the uphill side of the tree.
- Distinctive (variety class A)** - Refers to unusual and/or outstanding landscape varieties that stand out from the common features in the character type.
- Early-seral forest** - Forest from time of disturbance to crown closure. Forest contains primarily small-diameter, young trees, the canopy of which is well below that of older forest, so that light and wind from the young forest could readily enter under the canopy of adjacent older forest. There is usually a substantial grass, forb, and/or shrub component. For the purposes of wildlife habitat evaluation in this EIS, early-seral forest was defined as forest that is less than 25 years of age.
- Ecotone** - An area influenced by transition. Riparian ecotones are the transition zone between land and water. As described by Palik et al, riparian ecotones consist of ecotones of structure, ecotones of function, and ecotones of impacts, all of which change along a gradient from the water's edge to upland forests.
- Edge effect** - Alteration of the microclimate and/or vegetation within a relatively closed-canopy forest that is adjacent to an opening or young forest. Changes can include increased temperature and light, decreased soil moisture, increased wind, presence of species not associated with mature forest, and increased understory vegetation. These changes extend into the forest from the edge up to several hundred feet, depending on habitat types involved and site conditions.
- Edge habitat** - The diverse habitat created where an open or young forest area is adjacent to closed-canopy forest area and used by species that require both habitat types or dense shrub vegetation. This habitat extends a distance into both the open and closed habitat.
- Endangered species** - Any plant or animal species in danger of extinction throughout all or a significant portion of its range and listed as "endangered" by the U.S. Fish and Wildlife Service or National Marine Fisheries Service through Federal Register final rulemaking.
- Foreground** - (Visual Distance Zone) That part of a scene or landscape that is nearest to the viewer and in which detail is evident, usually at ¼ to ½-mile from the viewer.

Fragmentation - The process of reducing the size of and connectivity between stands that make up a forest. Habitat fragmentation occurs when a large fairly continuous tract of a vegetation type is converted to other vegetation types or land uses such that only scattered fragments of the original vegetation type remain.

Hardwood - A broad-leaved flowering tree, as distinguished from a conifer. Trees belonging to the botanical group Angiospermae.

Hydrophobic soil - Soil that repels water. When used in fire discussions, soils are chemically altered from burned vegetation resulting in water repellency.

Improvement cut - The removal of less desirable trees of any species in a stand of poles or large trees, primarily to improve composition and quality (Helms 1998).

Landscape - A diverse land area with interacting ecosystems that are repeated throughout. Typically, the area involved is measured across in miles or kilometers.

Late-seral forest - Forest in which trees are sawtimber size, with at least some that are large in diameter. Some trees have begun to die, resulting in snags and down logs. These forests may be single-aged with a fairly closed canopy, or uneven-aged with canopy gaps under which younger trees and other vegetation grows.

Late-successional forest - see late-seral forest.

Local road - Classified roads that connect terminal activities (e.g., trail head, log landing, camping site etc.) to collector and arterial roads. They are developed and operated to meet the access requirements of a specific resource activity rather than travel efficiency. When not being used for the activity for which they were constructed, then may be used for other purposes. They are often gated or closed by other means to restrict motor vehicle use. The construction standards for these roads are determined by the requirements necessary for the specific activity.

Long-lived species - (Long rotation species) a term used for a commercial tree species whose rotation age (the period of years between establishment and the time when it is considered ready for harvest and regeneration) is greater than 100 years. Typically, this refers to climax stage tree species such as hemlock or sugar maple.

Management Area - An area delineated by a line on a map showing the location where a management prescription applies. The entire Forest is divided into management areas. Each is described and policies and prescriptions relating to their use are listed in the Forest Plan. A management area is usually noncontiguous.

Management Indicator Species (MIS) - A species whose presence in a certain location of situation at a given population indicates a particular environmental condition. Its population changes are believed to indicate effects of management activities on a number of other species that use the same or similar habitat.

Mature forest - Forests achieve two types of maturity. Economic maturity is when harvest would result in the greatest return given the resources put into growth. Ecological or biological maturity is reached when the forest has reached the greatest level of complexity of which it is capable. For short-lived species such as aspen and jack pine, this happens when a substantial portion of the stand begins to die. For long-lived species such as hardwoods and white pine, biological maturity is when much of the forest is healthy and of large diameter but there are snags and down logs of all sizes present in the stand. A mature forest in the wildlife section of this document refers to forests approaching or at biological maturity.

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- Maximum Modification (MM)** - A visual quality objective meaning human activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background area.
- Mid-seral forest** - Forest from crown closure to pole-size. It remains simple in structure and function. Trees are typically healthy, so there is limited snag or down wood habitat.
- Middle ground** - (visual distance zone) The part of a scene or landscape that extends from the foreground zone to 3 to 5 miles from the observer. Texture is discernible at that distance.
- Minimum (variety class C)** - A description of a condition that has little or no visual variety in the landscape, monotonous or below average compared to the common features in the character type.
- Minimum Level Management** - The management strategy that would meet only the basic statutory requirements of administering unavoidable nondiscretionary land uses, preventing damage to adjoining lands of other ownerships, and protecting the life, health, and safety of incidental users including protection from wildfire.
- Natural appearance** - Human activities are not evident to the casual forest visitor. See “retention” and “visual quality objective.”
- Natural closures** - The closure of a roadbed (system and non-system) that is occurring from the seeding in or regeneration of vegetation naturally to include wind thrown and dead trees falling into the roadbed.
- Natural Fertility/Potential Productivity** - This is expressed as a Site Index (the average height, in feet, that dominant or co-dominant trees of a given species can attain in a specified number of years) or as a volume of wood produced (expressed in cubic feet per acre per year) in a fully stocked unmanaged stand. Values were obtained using the dominant LTA Habitat Types interpretations from the Habitat Type Guide.
- Natural reforestation** - The practice of reforestation of an area of land that establishes a new crop of trees through the natural seeding or sprouting of trees.
- Natural succession** - Naturally occurring vegetation changes through time primarily caused by modification of ecosystem and environment by the plant species themselves. In forests this usually means a shift from herbaceous plants to shrubs, then shade intolerant trees and finally to shade tolerant trees.
- Near natural appearance** - Human activities may be evident but must remain subordinate to the characteristic landscape. See “partial retention.”
- Neotropical Migratory Birds (NTMB)** - Birds that spend summer in the northern portions of North America and winter in the tropics and neotropics of North and Central America.
- Non-system roads** - Roads that exist on the ground but are not classified as part of the Forest’s transportation system. This term is synonymous with unclassified roads.
- Old Growth** - A condition in which a stand of trees is beyond normal rotation age. The stand is characterized by the presence of large trees, snags, other cavity-producing trees, and down trees. The condition exists in a particular type until the dominant tree species is replaced with another species through natural succession and in a particular stand until the dominant trees are removed through final regeneration cut.
- Open-canopy** - This condition exists when branches on adjacent trees are not close together so that moderate to high amounts of light reach the forest floor (when leaves are on the trees). For wildlife habitat analysis in this EIS, forest with more than about 30% of the overhead area open to the sky (less than 70% canopy closure) was considered open-canopy.

Opening - A generic term referring to a combination of temporary and permanent upland forest openings. (See “temporary opening” and “permanent upland opening.”)

Partial Retention (PR) - A visual quality objective that in general means human activities may be evident but must remain subordinate to the characteristic landscape. See “near natural appearance.”

Permanent upland opening - An upland supporting perennial grasses, forbs, sedges, and/or shrubs with less than 16 percent stocking of trees and less than 10 percent crown cover of trees. The area may be developed and maintained permanently. Generally, but not necessarily, over one acre in size.

Physiographic province - Region of similar structure and climate that has had a unified landform history.

Release - Freeing a tree or group of trees from more immediate competition by cutting, or otherwise eliminating, growth that is overtopping or closely surrounding them.

Retention (R) - A visual quality objective that in general means human activities are not evident to the casual forest visitor. See “natural appearance.”

Riparian ecosystem - A term referring to land adjacent to perennial streams, lakes, and reservoirs and including other well-developed riparian vegetation (primarily intermediate streams). This land is specifically delineated by the transition between the aquatic ecosystem and the adjacent terrestrial ecosystem and defined by soil characteristics and distinctive vegetation communities that require free and unbound water.

Road - A motor vehicle travelway over 50 inches wide, unless classified and managed as a trail. A road may be classified or unclassified (36 CFR 212.1).

- **Classified roads** - Roads within National Forest system lands planned or managed for motor vehicle access including state roads, county roads, private roads, permitted roads, and Forest Service roads (36 CFR 212.1).
- **Unclassified roads** - Roads not intended to be part of, and not managed as part of, the forest transportation system such as temporary roads, unplanned roads, off-road vehicle tracks, and abandoned travelways (36 CFR 212.1).

Road closure - A road, or segment thereof, that is closed to use when the official having jurisdiction to regulate the use on the road has issued an order and posted that order in accordance with 36 CFR Part 261 (FSM 1023). For this project, some roads are not being used by the public, that is, closed, bermed, gated, or impassable due to condition or being overgrown with vegetation. These roads are shown closed on the Alternative 1 map. These roads would not need a closure order issued with the implementation of the decision notice.

Road construction - A capital improvement that results in the addition of new road miles to the forest transportation system.

Road decommissioning - Converting roads to a trail or those activities that range from blocking the entrance, scattering boughs on the roadbed, restoring vegetation, and water barring, to removing fills and culverts, reestablishing drainage-ways, and pulling back unstable road shoulders; to full obliteration by restoring natural contours. The end result is to terminate the function as a road and mitigate the adverse impacts.

Road density - The measure of the degree to which the length of road miles occupies a given land area; for example, 1 mile/square mile is one mile of road within a given square mile.

Road obliteration - A form of road decommissioning that re-contours and restores natural slopes.

Road maintenance - The ongoing minor restoration and upkeep of a road necessary to retain the road's approved traffic service level (36CFR 212.1).

Road reconstruction - A capital improvement that requires alteration or expansion of a road and usually results in realignment, improvement, or rebuilding as defined below.

- **Improvement** - Construction activities that are needed to increase a road's traffic service level, expand its capacity, or change its original design function.
- **Realignment** - Construction activities that result in the new location of an existing road or portions of a road to expand its capacity, change its original design function, or increase its traffic service level. The investment may include decommissioning the abandoned sections of roadway.
- **Rebuilding** - Construction activities that are needed to restore a road to its approved traffic service level, and that result in increasing its capacity or changing its original design function.

Salvage/sanitation harvest - This is an intermediate cutting made to remove trees that are dead or in imminent danger of being killed by injurious agents, and trees that are susceptible to injurious agents to stop the spread of pests or pathogens.

Selection harvest - A timber harvest system that removes trees individually in a scattered pattern from a large area each year. (1) Individual tree selection cutting involves the removal of selected trees of many size classes on an individual basis. Regeneration is established under the partial shade of the overstory canopy after each cut. (2) Group selection cutting involves the removal of selected trees of many size classes in groups from a fraction of an acre up to 1 acre in size. Regeneration occurs in the groups under conditions similar to those found in small clearcuts.

Sensitive species - Species placed on the Regional Forester's sensitive species list due to concern about population viability and/or other needs for special management attention. See the Eastern Region website (www.fs.fed.us/r9/) for additional information on conditions that may result in such listings.

Sensitivity level - (1) As used in culture resource management; the degree of culture resource development potential and/or the degree of conflict with other uses for a given area. (2) As used in visual quality management, a particular degree of measure of viewer interest in the scenic qualities of the landscape; Level 1 – most sensitive, Level 2 – sensitive, Level 3 – less sensitive.

Sensitivity Level 1 - A landscape of high viewer interest. Includes all seen areas from primary travel routes, use areas, and water bodies where, as a minimum, at least one-fourth of the Forest visitors have a major concern for the scenic qualities.

Sensitivity Level 2 - A landscape of moderate viewer interest. Includes all seen areas from primary travel routes, use areas, and water bodies where fewer than one-fourth of the Forest visitors have a major concern for scenic qualities.

Sensitivity Level 3 - A landscape of low viewer interest. Includes all seen areas from secondary travel routes, use areas, and water bodies where less than one-fourth of the Forest visitors have a major concern for scenic qualities.

Shelterwood - A cutting method used in even-aged management. It is the removal of a stand of trees through a series of cuttings designed to establish a new crop with seed and protection provided by the residual stand.

Short-lived species - (Short rotation species) a term used for a commercial tree species whose rotation age (the period of years between establishment and the time when it is considered ready for harvest and regeneration) is less than 100 years. Typically, this refers to pioneer tree species such as aspen.

Silvicultural Clearcut - A silvicultural clearcut would normally remove all merchantable species from a site in order to regenerate the stand either naturally (such species as aspen and jack pine) or artificially (such as planting red pine).

Skid road - An access cut through the woods for skidding (synonym; skid trail).

Slash - Debris or residues left after logging, pruning, thinning, or brush cutting, and large accumulations of debris after wind or fire. It includes logs, branches, bark, and stumps.

Snag - A standing dead tree.

Soil Permeability - This is the ability of the soil that enables water or air to pass through it. Primary soil properties that determine this property are textures, bulk density, structures, coarse fragments, and pore sizes. Classes range from Very Rapid to Impermeable. Class values range from 20+ inches to less than .0015 inches of water per 1/10 hour.

Special Use Permit Road - A road authorized by the Forest Service for use or access across National Forest System lands. A road permit is issued for a specified time to an individual or group and is inspected periodically.

Suitable/tentatively suitable for timber management - Forest lands capable of producing crops of industrial (commercial) wood in excess of 20 cubic feet per acre per year and not reserved or deferred for other uses.

System roads - An arterial, collector, or local road that has been catalogued and placed on the Forest's transportation system inventory records and maps.

Temporary opening - A forest opening created through clearcut final harvest and in the process of regeneration. Under the 40-acre limitation for clearcutting, it will no longer be considered an opening when the new stand is greater than 20 percent of the height of the surrounding vegetation.

Temporary road - A road associated with timber sale contracts, fire activities, or other short-term access needs that are necessary for short-term resource management and is not retained as a system road.

Thinning - Cutting made in an immature crop or stand, primarily to accelerate the diameter increment (annual growth) of the residual trees, but also by suitable selection, to improve the species composition and/or quality of the trees that remain.

Threatened species - Any plant or animal species that is likely to become an endangered species within the foreseeable future throughout all or significant portion of its range and is listed as "threatened" by current Federal Register final rulemaking.

Threshold - The point when adverse impacts or changes become apparent.

Transportation Management Objectives (TMO) - The coding system used to describe how and why a specific roadway will be managed to include: the rationale for closure, use authorized, type of surface to be maintained, traffic Service level, road standards and maintenance levels. Each system road receives the above coding which is documented in a tabular format and made part of the overall transportation plan for the project area being analyzed.

-
- Travelway** - Cleared corridor used as road or trail that was not necessarily built or intended to be a road. Includes undesignated ATV/ORV routes.
- Unclassified roads** - Roads not intended to be part of, and not managed as part of, the forest transportation system such as temporary roads, unplanned roads, off-road vehicle tracks, and abandoned travelways (36 CFR 212.1).
- Unsuitable for timber management** - Lands not suited for timber production because irreversible damage is most likely to occur with harvesting (steep slope, unstable soils, etc.), where adequate information is not available to project responses to timber management practices (high water table, low site indexes, etc.), where management objectives preclude timber production (for either resource protection or multiple-use objectives), where it is not cost efficient in meeting forest objectives (due to physical capabilities of the site, problems with access or rights-of-way, etc.), and lands under study pending congressional action (MA 9.2 - Wild and Scenic river study corridors).
- Variety classes** - Levels of visual variety or diversity of landscape character. The three levels are distinctive (Class A), common (Class B), and minimal (Class C).
- Vernal Pond** – A type of seasonal or temporary wetland that periodically dries up and does not contain fish. They are shallow, temporary, and separated from streams and rivers. (Biebighauser 2002.)
- Visual distance zones** - Areas of landscapes denoted by specified distances from the observer. Used as a frame of reference in which to discuss landscape characteristics or activities of humans. The three zones are foreground (fg), middleground (mg), and background (bg).
- Visual Management System** - Also referred to as “landscape management” or “visual resource management.” The art and science of planning and administering the use of forest lands in such ways that the visual effects maintain or upgrade human psychological welfare. It is the planning and design of the visual aspects of multiple-use land management.
- Visual Quality Objective (VQO)** - A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape. The five levels are preservation (P), retention (R), partial retention (PR), modification (M), and maximum modification (MM).
- Visual resource** - The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.
- Watershed** - The drainage basin contributing water, organic matter, dissolved nutrients, and sediments to a stream or lake. Watershed is a hydrologic unit within the aquatic classification system (Maxwell, et al 1995). Watersheds are identified throughout the United States and are assigned an 8-digit identifying number. These are 4th level watersheds. Watersheds are further divided into subwatersheds such as:
- **5th Level Watershed (subwatershed):** Watersheds are hierarchically divided into subwatersheds. The next smaller unit from a 4th level watershed is a 5th level subwatershed. A 5th level subwatershed is assigned an 11-digit identifying number.
 - **6th Level Watershed (subwatershed):** The next smaller classification unit from a 5th level subwatershed is a 6th level subwatershed. A 6th level subwatershed is assigned a 14-digit identifying number.
- Windthrow Hazard** - This is the likelihood of trees being uprooted by wind because of insufficient depth of the soil to give adequate rooting anchorage. Primary factors include depth to fragipans, bedrock, loose gravel, slopes, and high water table.

**APPENDIX G:
INDEX**

This list of terms is intended to assist the reader in locating a broad scope of subject areas discussed in the Draft EIS. The reference to specific page numbers is not intended to be complete. It is suggested that the reader use the index, the table of contents, and the glossary for further information.

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***APPENDIX H:
DISTRIBUTION OF THE BALTIMORE VMP DRAFT
ENVIRONMENTAL IMPACT STATEMENT (DEIS)***

The following is a list of agencies, organizations, or individuals to whom this DEIS or the Executive Summary of this DEIS is being sent. This list includes anyone who has requested to receive such information, or otherwise participated in this project. It also includes those agencies and organizations that are required to receive this DEIS. Additional copies of this document are available from the Ontonagon Ranger District, 1209 Rockland Rd., Ontonagon, Michigan.

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Joan Antila, Chairperson, Ontonagon County Board of Commissioners
David P. Bartz
George Beck, LVD Band of Lake Superior Chippewa
Rockland Belongie, Township Supervisor, McMillan Township
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Howie Bussiere, Township Supervisor, Rockland Township
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Kristen McDonald, American Rivers
Don J. McDonald, Secretary, Menominee Range Chapter Trout Unlimited
Richard F. Mortimer
Marty Nelson, Michigan Department of Natural Resources
Lindsay Nettell
Jeffrey M. Nordine
Michael J. Novak
David Oberstar, Attorney, Fryberger Law Firm
Henry Peters
Al Powell, Grouse Feathers Kennels
Sandra L. Rachal, Chairwomen, Sokaogon Chippewa Community Mole Lake Band
Gerald R. Raker
Dana Richter, Ph.D., School of Forest Resources & Environmental Science, MI Tech University
Scott Robbins, Region Manager, Smurfit Stone
Marvin Roberson, Sierra Club
Frank W. Roberts, President, Sno Valley Riders Snowmobile Club
Dr. Elizabeth Rogers, LeeLe Blanc Audubon
Michael Rose
Pat Rowell, Appeals Assistant, USDA Forest Service

Lori G. Sargent, Endangered Species Specialist, Michigan Department of Natural Resources
Richard N. & Doris Smith
Kathy Stupak-Thrall, President, Crooked Lake North Shore Assoc.
Jack Thomas, Mead/Westvaco
M.G. True
Dean Vander Mey
Howard Walters
Al Warren
Warren Weisfus
Kenneth A. Westlake, United States Environmental Protection Agency, Region 5
Gary Zimmer, Regional Biologist, Ruffed Grouse Society

Ontonagon County Road Commission
Upper Peninsula Power Co.
Director, Planning and Review, Advisory Council on Historic Preservation
Deputy Director, USDA APHIS PPD/EAD
Natural Resources Conservation Service, National Environmental Coordinator
Head, Acquisitions & Serials Branch, USDA, National Agricultural Library
BLM Eastern States Office
U.S. Army Engr. Great Lakes and Ohio Division
Office of Chief of Navy Operations, U.S. Navy (USN), Environmental Protection Division
Naval Oceanography Division, U.S. Naval Observatory
Director, Office of Environ. Compliance, U.S. Dept. of Energy
Environmental Review Division
HUD Office
Director, Office of Environ. Policy and Compliance, U.S. Dept. of the Interior
Midwest Region, National Park Service
USCG Environmental Impact Branch, Marine Environmental and Protection Division, G-MEP
Regional Administrator, Great Lakes Region, Federal Aviation Administration
Regional Administrator, Southern Region, Federal Highway Administration