TRAVERSE CITY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 167 ENTRY YEAR: 2012

Compartment Acreage: **County: Kalkaska**

Stand Examiner: Kelly Standerfer, Forest Management Division ; Steven Griffith Wildlife Division

Legal Description: T27N R08W Sec. 1, 2, 3, 10, 11 & 12

Management Goals: Manage for both vegetative & wildlife diversity and health while maintaining the high recreation value within this compartment. Several pine plantations will have intermediate cuts this year of entry (YOE) to maintain tree spacing, growth and health and some pine will have regeneration cuts. Three hardwood stands will be harvested using the selection harvest method as they have yet to be thinned.

Soil and Topography: Terrain is rolling to very hilly. Sections 1, 2 & 3 are mainly Emmet soils whereas sections 10 and the west half of 11 are Kalkaska sands making them more conducive to pine growth. The remainder of the compartment is primarily Rubicon sand except for the few low lying areas along the Rapid River and other swampy areas.

Ownership Patterns, Development, and Land Use in and Around the Compartment:
M 72, which is owned my MDOT, goes through the center of this compartment along with many other county roads. The compartment is just 1.5 miles to the west of town and there is an abundance of adjacent private parcels.

Unique, Natural Features (include only non-site specific and non-sensitive information):
This area has the potential to provide habitat for many unique plants and animals.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): Five old homestead sites are in the northern part of this compartment.

Special Management Designations or Considerations: None are established.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: This compartment falls into two land type associations: 1) the southern edge of the Williamsburg moraine crosses the western edge of this compartment. This hilly area was historically dominated by maple-beech forest, but has been greatly altered. Remnant hardwood forest should be maintained via selective harvesting practices to create small gap disturbances. Tree species diversity and habitat structure (e.g. down logs, understory development and cavity trees) should be maintained or enhanced when treating stands. If possible tops should be left unchipped and scattered around the sale area and kept under 24 inches in height. Beech is a particularly important species for wildlife. Previously disturbed areas now harboring black cherry, white pine, and aspen mixes should be allowed to succeed or moved toward uneven-aged conditions through selective harvesting. Pine plantations should incorporate tree species and structural diversity as much as possible. Also, incorporating small (2-5 acre) islands that are left relatively un-thinned within mature pine stands would provide winter roosting cover for turkeys. 2) Much of the compartment falls into a pitted outwash plain. Ridges, draws, and depressions may have tempered

naturally occurring wildfires; thus habitat patches should be smaller on average than those on adjacent dry outwash plains. A mosaic of mixed oak, pine, and aspen stands of various ages is appropriated here, including some later successional hardwoods in the lee of natural firebreaks. Small aspen clones could be regenerated within oak types when thinning. Small or narrow openings are often associated with kettle depressions and should be maintained as shrubby openings. Frost naturally limits tree encroachment in these draws and depressions, although the fringes hold some black cherry, juneberry, aspen, and white pine. Abandoned oil well sites should be managed in a complimentary fashion by revegetating with grass mixes to eliminate exotic invasives and allowing some natural tree encroachment on the edges. Some oil well sites with advanced woody volunteers could be left to naturally reforest. A major windstorm in 1998 has created numerous semi-open patches. Some blowdown patches should remain unsalvaged to allow wholly natural processes to continue to unfold.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of coarse textured till on the north. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. There is no current economic use for the Coldwater Shale. Gravel pits are located within this compartment, in Section 10 and 12. Gravel potential in the compartment is considered good, especially the upland areas. This area is located along the northern edge of the Silurian Niagaran reef trend. Some of the State land is currently leased for oil and gas development and there may be additional reef potential. Part of the Compartment has been nominated for underground gas storage and the rest has been nominated for the May 2010 lease auction. The Antrim Shale has not been developed in this area, but may have some future potential.

Vehicle Access: There is good access throughout most of the compartment with either county roads or forest two tracks. Open areas are being overrun with new roads from vehicle traffic over the last 10-20 years. New road creation should be minimized and some areas should be closed to vehicle traffic where environmental damage is occurring or the road density is high.

Survey Needs: Existing survey markers should be sufficient for this year of entry treatments.

Recreational Facilities and Opportunities: Many diverse trails go through this compartment. They range from the North Country Hiking Trail and the Shore To Shore Horse trail to the MCCCT trail. The Winter Fest dog sled trail also goes through the south end of this compartment. In proposal stage is a snowmobile trail that would connect the Kalkaska snowmobile trail to those in Antrim County.

Fire Protection: Pine areas within this compartment have the potential for rapid fire growth and difficult containment given the right fire weather. Current roads are sufficient for access however sand may be a hindrance for the larger wheeled fire vehicles. Topography within portions of this compartment would also hinder fire suppression efforts and increase fire activity. VFD Fire Protection is from the Kalkaska Fire Dept., and DNRE protection is from the Kalkaska Field Office. Section 12 falls within Zone 6 which means additional DNRE equipment from several stations also respond to the fire. Travel time is very good, Urban Interface is not a concern.

Additional Compartment Information:

****** Cover type details, proposed treatments and stands designated as FDF are listed in the attached reports:**

Cover Type by Age Class
Cover Type by Management Objective
Compartment Volume Summary

Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors

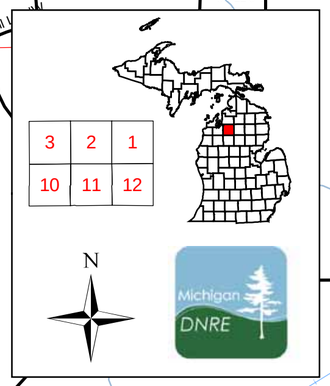
****** The following information is displayed on the attached compartment maps:**

Base feature information, stand numbers, cover types
Proposed treatments
Proposed road access system
Suggested potential old growth

Cover Type & Treatment Map

Compartment 167
T27N, R08W, Sec. 1, 2, 3, 10, 11, 12
County: Kalkaska
Unit: Traverse City
YOE: 2012
Acres: 2,125 GIS Calculated
Stand Examiner: Kelly Stranderfer
Map Revised: 5/24/2010
Map Phase: Pre-Review

Stand # 23
Stocking Density
(412)0) - A7
Level 3 OI
Level 4 Code
Cover Type Code



Legend
- Miris Corners
- Highway
- Paved Roads
- Poor Dirt Roads
- Pipe
- Power
- Trails
- State Highway
- Snowmobile Trails
- F Hiking Trails
- È Horse Trails
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments
- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)
- Planting (tree species)

Forest Stands
Level 3
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands
Level 3
- 110 - Low Intensity Urban
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

1 0.5 0 1 Miles

Roads: McNulty Hill Rd NW, Richardson Rd NW, Townline Rd NW, Windblown Ln NW, Rapid City Rd NW, Thornburg Trl NW, Rocky Rd NW, Timber Ridge Rd NW, Old M 72 NW, Harris Rd NW, Brockmier Rd NW, Hill Rd NW, Briar Hill Ln NW, Titus Rd NW, Seeley Rd NW, Valley Rd NW, Dean Dr NW, Smith Lake Rd NW, Dockery Rd NW, Brown Farm Rd NW, Brown Fire Ln NW

Lakes: Barnard Lake, Smith Lake

85°18'0"W 85°17'0"W 85°16'0"W 85°15'0"W 85°14'0"W 85°13'0"W 85°12'0"W
44°47'0"N 44°46'0"N 44°45'0"N 44°44'0"N

Stand Boundary Map

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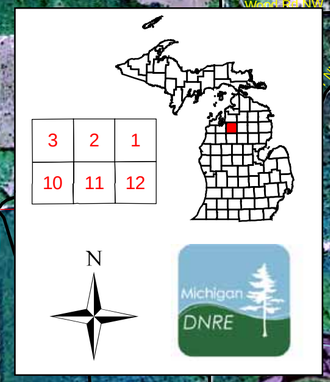

Legend
- Miris Corners
- Highway
- Paved Roads
- Poor Dirt Roads
- Pipe
- Power
- Intermittent Stream/Drain
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- Stand Boundaries

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1 0.5 0 1 Miles

Amidon Rd NW · Windblown Ln NW · Moon Rd NW · Valley Rd NW · Hill Rd NW · Brockmier Rd NW · Whitney Rd NW · McNulty Hill Rd NW · Townline Rd NW · Timber Ridge Rd NW · Tuttle Rd NW · Rocky Rd NW · Thornburg Trl NW · Old M-72 NW · Brown Farm Rd NW · Dickey Rd · Smith Lake

Dedicated & Proposed Special Conservation Area Map

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Acres: 2,125 GIS Calculated
Stand Examiner: Kelly Stranderfer
Map Revised: 5/24/2010
Map Phase: Pre-Review

Stand # 23 — Stocking Density
(412)0) - A7
Level 3 Level 4 — OI Code
Cover Type Code

Legend
- Miris Corners
- Stand Boundaries

Dedicated Special Conservation Areas
- Cold Water Streams
- Wildlife Management Areas
- Dedicated Management Areas

Forest Stands
Level 3
- 411 - Northern Hardwood
- 412 - Oak Types
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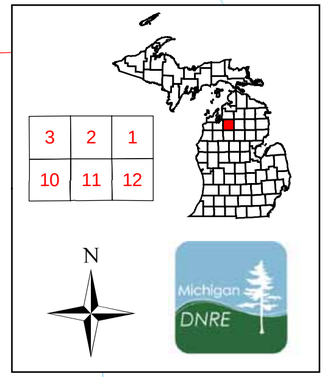

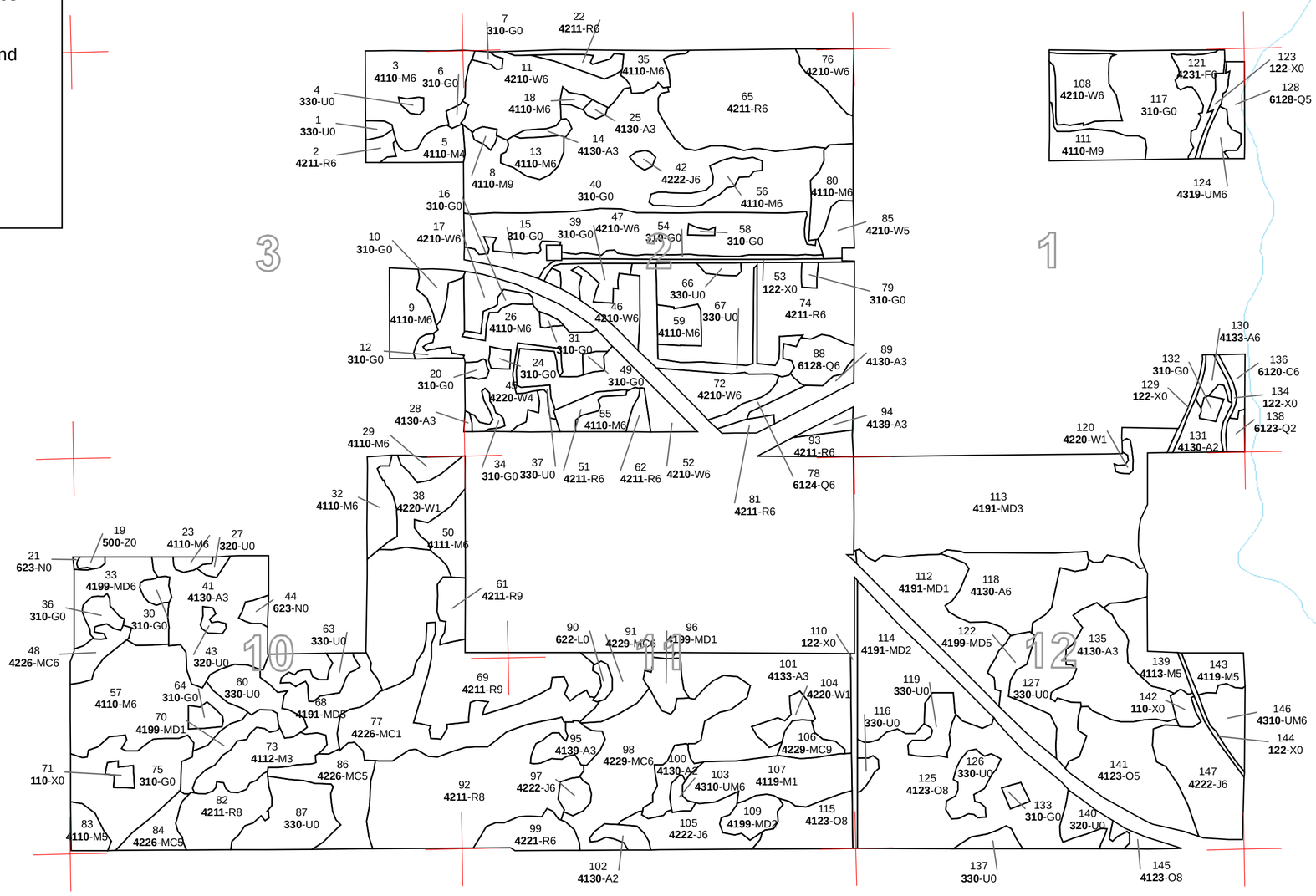

Table 1 – Total Acres by Cover Type and Age Class

Traverse City Mgt. Unit *(Level 3 Cover Type)* **Compartment 167 Year of Entry 2012**

Age Class

	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneven Age	Total
Aspen Types	0	0	109	3	52	32	0	3	0	0	0	0	0	0	0	**200**
Emergent Wetland	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
Herbaceous Openland	226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**226**
Low Intensity Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
Low-Density Trees	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**127**
Lowland Coniferous Forest	0	0	3	0	0	0	5	0	10	0	11	0	0	0	0	**28**
Lowland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Mixed Upland Deciduous	0	0	101	125	0	13	0	22	22	0	0	0	0	0	0	**283**
Natural Pines	0	0	45	5	1	63	106	12	7	0	0	0	0	0	0	**238**
Northern Hardwood	0	0	46	0	0	22	6	7	195	0	0	0	0	0	31	**308**
Oak Types	0	0	0	0	0	0	0	0	36	97	0	0	0	0	0	**133**
Other Upland Conifers	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	**9**
Planted Pines	0	0	0	0	0	0	339	0	175	0	0	0	0	0	0	**513**
Road/Parking Lot	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**19**
Upland Mixed Forest	0	0	0	0	0	0	15	0	2	0	0	0	0	0	0	**17**
Upland Shrub	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**11**
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Total	**395**	**0**	**304**	**133**	**54**	**139**	**470**	**44**	**447**	**97**	**11**	**0**	**0**	**0**	**31**	**2125**

Table 2 – Proposed Treatment Summaries

Traverse City Mgt. Unit
Year of Entry 2012

Compartment 167
Total Compartment Acres: 2125

Acres by Treatment Type

Commercial Harvest - 438	Site Prep - 0	Tree Planting - 117	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	3	0	0	0	0	0	**3**
Jack Pine	0	0	29	0	0	0	**29**
Mixed Upland Deciduous	0	22	0	0	0	0	**22**
Northern Hardwood	0	42	0	0	0	0	**42**
Red Pine	95	7	0	73	99	0	**274**
Upland Mixed Forest	0	0	15	0	0	0	**15**
White Pine	0	0	0	0	52	0	**52**
Total	**99**	**71**	**44**	**73**	**152**	**0**	**438**

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
2	61167002-Cut	2.9	42110 - Planted Red Pine	High Density Pole	53	Harvest	Low Thinning	Planted Red Pine

Rev Cmnt:

Rev Spec: tall n skinny, carefull not to open up to much. Thin from below but OK to take some logs as well, either mark or spec cut by every 1/3rd or every 1/4th tree targetign the smaller diameter trees. shoudl be very nice poles in 10-20yrs. R3 on east edge of open area.

Next Steps: thin and watch the trees grow.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
3	61167003-Cut	31.5	4110 - Sugar Maple Association	High Density Pole	75	Harvest	Single Tree Selection	Sugar Maple Association

Rev Cmnt:

Rev Spec: poor to good stocking. Ready for a light cut. thin to 70-80, hilly terrain and not real nice quality. Ok to cut out aspen by spec but could save a few. mark the rest.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
11	61167011-Cut	35.1	42100 - Planted White Pine	High Density Pole	51	Harvest	Systematic Thinning	Planted White Pine

Rev Cmnt:

Rev Spec: few scattered cherry. rows are variable. m1-m2 undestory of beech and ironwood. Long term MO is to push to maple. Cut every 1/4th tree and possibly all trees under 5" dbh as they hardley have tops left andcould be utilized for chipping.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
22	61167022-Cut	4.5	42110 - Planted Red Pine	High Density Pole	51	Harvest	Crown Thinning	Planted Red Pine

Rev Cmnt:

Rev Spec: small stand, mark down to 80-90 or spec cut to 80-90 and push to mixed maple and pine. cut the nice aspen clone along north edge.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
33	61167033-Cut	22.4	4199 - Other Mixed Upland Deciduous	High Density Pole	75	Harvest	Single Tree Selection	Other Mixed Upland Deciduous

Rev Cmnt:

Rev Spec: cut all aspen and mark the rest to ~70bBA/Ac. hilly SW end of stand likely wont be able to be cut due to terrain, will act as retention for stand.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
35	61167035-Cut	10.1	4110 - Sugar Maple Association	High Density Pole	75	Harvest	Single Tree Selection	Sugar Maple Association

Rev Cmnt:

Rev Spec: not the greatest of stands but could use a light thin. Cut out the majority of aspen by spec and mark the rest down to 70ish.

Next Steps:

Table 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status

Prescription Specs:

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: **0**

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	42110 - Planted Red Pine	High Density Pole	2.9	53		
3	4110 - Sugar Maple Association	High Density Pole	31.5	Uneven Age		
5	4110 - Sugar Maple Association	Low Density Pole	7.9	75		
8	4110 - Sugar Maple Association	High Density Log	1.6	75	81-110	
9	4110 - Sugar Maple Association	High Density Pole	13.0	75		
11	42100 - Planted White Pine	High Density Pole	35.1	51		
13	4110 - Sugar Maple Association	High Density Pole	8.6	75	81-110	
14	4130 - Aspen	High Density Sapling	2.2	18		
17	42100 - Planted White Pine	High Density Pole	11.7	51		
18	4110 - Sugar Maple Association	High Density Pole	1.6	75	81-110	
22	42110 - Planted Red Pine	High Density Pole	4.5	51	111-140	
23	4110 - Sugar Maple Association	High Density Pole	1.8	75		
25	4130 - Aspen	High Density Sapling	1.2	18		
26	4110 - Sugar Maple Association	High Density Pole	38.5	75	111-140	
28	4130 - Aspen	High Density Sapling	0.6	25		
29	4110 - Sugar Maple Association	High Density Pole	4.3	75	81-110	
32	4110 - Sugar Maple Association	High Density Pole	9.4	75		
33	4199 - Other Mixed Upland Deciduous	High Density Pole	22.4	75		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	4110 - Sugar Maple Association	High Density Pole	10.1	75	111-140	
38	42200 - Natural White Pine	Low Density Sapling	17.4	45		
41	4130 - Aspen	High Density Sapling	39.4	17		
42	42220 - Natural Jack Pine	High Density Pole	1.4	38		
45	42200 - Natural White Pine	Low Density Pole	3.6	45		
46	42100 - Planted White Pine	High Density Pole	11.1	51		
47	42100 - Planted White Pine	High Density Pole	57.9	51		
48	42260 - Natural Pine, Mixed Deciduous	High Density Pole	7.1	52		
50	4111 - S.Maple, Hard Mast Association	High Density Pole	9.9	75		
51	42110 - Planted Red Pine	High Density Pole	4.5	51	171-200	
52	42100 - Planted White Pine	High Density Pole	21.7	51	111-140	
55	4110 - Sugar Maple Association	High Density Pole	6.9	60	111-140	
56	4110 - Sugar Maple Association	High Density Pole	8.3	75		
57	4110 - Sugar Maple Association	High Density Pole	50.3	75		
59	4110 - Sugar Maple Association	High Density Pole	7.1	75		
61	42110 - Planted Red Pine	High Density Log	6.9	73		
62	42110 - Planted Red Pine	High Density Pole	2.7	51	171-200	
65	42110 - Planted Red Pine	High Density Pole	66.6	51	81-110	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
68	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	22.1	65		
69	42110 - Planted Red Pine	High Density Log	75.9	73		
70	4199 - Other Mixed Upland Deciduous	Low Density Sapling	9.9	12		
72	42100 - Planted White Pine	High Density Pole	14.1	51	111-140	
73	4112 - Maple, Beech, Cherry Association	High Density Sapling	18.4	15		
74	42110 - Planted Red Pine	High Density Pole	62.6	51		
76	42100 - Planted White Pine	High Density Pole	9.7	51		
77	42260 - Natural Pine, Mixed Deciduous	Low Density Sapling	43.4	12		
78	6124 - Lowland Spruce-Fir	High Density Pole	5.0	50		
80	4110 - Sugar Maple Association	High Density Pole	11.1	75		
81	42110 - Planted Red Pine	High Density Pole	2.6	51	141-170	
82	42110 - Planted Red Pine	Medium Density Log	19.3	73		
83	4110 - Sugar Maple Association	Medium Density Pole	5.9	55		
84	42260 - Natural Pine, Mixed Deciduous	Medium Density Pole	8.3	55		
85	42100 - Planted White Pine	Medium Density Pole	6.4	51		
86	42260 - Natural Pine, Mixed Deciduous	Medium Density Pole	20.9	45		
88	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	10.7	90		
89	4130 - Aspen	High Density Sapling	7.5	17		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
91	42290 - Natural Mixed Pine	High Density Pole	11.9	65		
92	42110 - Planted Red Pine	Medium Density Log	72.8	73		
93	42110 - Planted Red Pine	High Density Pole	7.2	51	141-170	
94	4139 - Aspen, Mixed Deciduous	High Density Sapling	2.9	27		
95	4139 - Aspen, Mixed Deciduous	High Density Sapling	8.1	17		
96	4199 - Other Mixed Upland Deciduous	Low Density Sapling	6.6	17		
97	42220 - Natural Jack Pine	High Density Pole	4.0	45		
98	42290 - Natural Mixed Pine	High Density Pole	48.7	59		
99	42210 - Natural Red Pine	High Density Pole	12.2	55	141-170	
100	4130 - Aspen	Medium Density	7.0	17		
101	4133 - Aspen, Mixed Pine	High Density Sapling	52.4	31		
102	4130 - Aspen	Medium Density	4.0	17		
103	4310 - Pine, Oak Mix	High Density Pole	2.1	75		
104	42200 - Natural White Pine	Low Density Sapling	5.1	25		
105	42220 - Natural Jack Pine	High Density Pole	17.0	40		
106	42290 - Natural Mixed Pine	High Density Log	6.7	70	141-170	
107	4119 - Mixed Northern Hardwoods	Low Density Sapling	28.0	18		
108	42100 - Planted White Pine	High Density Pole	17.1	51	171-200	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
109	4199 - Other Mixed Upland Deciduous	Medium Density	7.6	18		
111	4110 - Sugar Maple Association	High Density Log	11.8	75		
112	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	35.6	12		
113	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	124.7	28		
114	4191 - Mixed Upland Deciduous with Conifer	Medium Density	41.3	12		
115	4123 - Red Oak	Medium Density Log	16.6	85		
118	4130 - Aspen	High Density Pole	31.6	40		
120	42200 - Natural White Pine	Low Density Sapling	1.4	18		
121	42310 - Planted Spruce	High Density Pole	9.3	49		
122	4199 - Other Mixed Upland Deciduous	Medium Density Pole	13.0	45		
124	4319 - Mixed Upland Forest	High Density Pole	5.1	50		
125	4123 - Red Oak	Medium Density Log	77.5	85		
128	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	6.2	70		
130	4133 - Aspen, Mixed Pine	High Density Pole	3.4	60		
131	4130 - Aspen	Medium Density	7.9	12		
135	4130 - Aspen	High Density Sapling	31.3	18		
136	6120 - Lowland Cedar	High Density Pole	3.6	75		
138	6123 - Lowland Fir	Medium Density	2.7	12		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
139	4113 - R.Maple, Conifer	Medium Density Pole	13.7	45		
141	4123 - Red Oak	Medium Density Pole	36.2	70		
143	4119 - Mixed Northern Hardwoods	Medium Density Pole	8.5	40		blow down area of 1998 salvage cut. sparse stand.
145	4123 - Red Oak	Medium Density Log	2.9	85		
146	4310 - Pine, Oak Mix	High Density Pole	9.7	50		
147	42220 - Natural Jack Pine	High Density Pole	29.3	50		

Stand	Cover Type	Acres	Gen Cmts:
1	3303 - Mixed Low Density Trees	1.7	upland brush, sumac, cherry
4	330 - Low-Density Trees	1.4	frost pocket with scattered cherry
6	310 - Herbaceous Openland	1.5	
7	310 - Herbaceous Openland	1.4	
10	310 - Herbaceous Openland	5.4	
12	310 - Herbaceous Openland	2.4	
15	310 - Herbaceous Openland	6.6	
16	310 - Herbaceous Openland	3.2	
19	50 - Water	1.2	
20	310 - Herbaceous Openland	1.6	
21	623 - Emergent Wetland	0.3	
24	310 - Herbaceous Openland	1.7	
27	320 - Upland Shrub	1.5	
30	310 - Herbaceous Openland	2.9	
31	310 - Herbaceous Openland	1.0	
34	310 - Herbaceous Openland	2.1	
36	310 - Herbaceous Openland	4.4	steep area
37	3303 - Mixed Low Density Trees	3.1	long skinny GO filling in with trees

Stand	Cover Type	Acres	Gen Cmts:
39	310 - Herbaceous Openland	7.0	
40	3105 - Mixed Upland Herbaceous	100.7	plant roughly 35-45 acres on the west end especially around the hill climb rdr site. some may have frost issues but most is open enough to easily trench and plant red pine. this is to help offset the eventual loss of red pine in this and other compartments. will create some thermal winter cover for deer and hopefully help to control to many roads.
43	320 - Upland Shrub	1.7	frost pocket scattered cherry
44	6239 - Mixed Emergent Wetland	2.6	
49	310 - Herbaceous Openland	1.8	
53	122 - Road/Parking Lot	5.1	old m72
54	310 - Herbaceous Openland	5.0	
58	310 - Herbaceous Openland	0.9	
60	3302 - Low Density Conifer Trees	12.6	
63	330 - Low-Density Trees	6.5	
64	310 - Herbaceous Openland	3.0	
66	330 - Low-Density Trees	1.9	
67	330 - Low-Density Trees	15.5	
71	11 - Low Intensity Urban	2.3	well pad
75	3102 - Grass	33.2	open blowdown area. trench and plant to red pine as a majority of the red pine in this comp is converting to other mixed species.
79	310 - Herbaceous Openland	1.7	
87	330 - Low-Density Trees	21.4	

Stand	Cover Type	Acres	Gen Cmts:
90	622 - Lowland Shrub	2.0	
110	122 - Road/Parking Lot	5.8	
116	3301 - Low Density Deciduous Tree	2.2	
117	31022 - Warm Season Grass	35.6	old farm foundation, looks like nice warm season grass. a burn would be nice but houses to the north.
119	3303 - Mixed Low Density Trees	7.7	
123	122 - Road/Parking Lot	2.8	
126	330 - Low-Density Trees	8.9	
127	3301 - Low Density Deciduous Tree	40.1	
129	122 - Road/Parking Lot	1.7	
132	310 - Herbaceous Openland	1.8	abandoned well pad. could be planted if a small planting project is needed.
133	310 - Herbaceous Openland	1.9	oil well pad
134	122 - Road/Parking Lot	1.9	old m72
137	330 - Low-Density Trees	3.7	
140	320 - Upland Shrub	7.6	frost pocket of cherry n hazel brush
142	11 - Low Intensity Urban	3.0	oil facility
144	122 - Road/Parking Lot	2.1	valley rd

7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatlves (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Inventory Method: IFMAP

Stand	SCA Type	SCA Name	Acres	Comments

8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.