Report 1 – Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 141
Entry Year 2015
Acreage: 1,904
County Kalkaska
Management Area: Manistee River Valley

Revision Date: 04/26/2013

Stand Examiner: Kelly Standerfer

Legal Description:

T25N R5W, Sections 16, 17 & 18.

Identified Planning Goals:

Maintain healthy, diverse vegetation that includes productive timber stands and essential habitat for a wide range of plants and animals that are found in this compartment. The red pine covertype will be re-introduced to two larger areas as this area was historically conifer dominated. Diversity should focus upon age classes, cover types and species composition within the forested stand and allowance for a proper mixture of non-forested/semi-open or open areas. Protection and enhancement of the natural features mainly centers upon the rolling hill areas of the compartment. Timber harvest plans must incorporate protection for the slopes to minimize avoid errosion.

Soil and topography:

The topography in this compartment ranges from slightly rolling to hilly. Soil types are generally sandy with some ridges of better loams supporting higher quality big tooth aspen, pine and red oak.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

The compartment and the area immediately surrounding it are state owned. The closest private land is approximately1/2 mile from the perimeter of this compartment. There is very little use outside of recreation in the form of hunting, snowmobiling and recreation vehicle traffic.

Unique, Natural Features:

This area has the potential to harbor many unique plants and animals. See compartment files for specific details.

Archeological, Historical, and Cultural Features:

Numerous large abandoned railroad grades can be found in this compartment. This suggests that there may be some sites related to early settlers located in the area.

Special Management Designations or Considerations:

This compartment is part of a lease that has been negotiated with the Michigan National Guard. There are also two stands that have been added to the proposed SCA layer. Stands 13 and 21 (14 acres total) have been identified as having unique habitat value as they have some very large pine and oak. They will be managed primarily for big tree management however some low intensity treatments may occure in the future to take out short lived species and free up growing space for the larger trees.

Watershed and Fisheries Considerations:

No water bodies in the compartment.

Wildlife Habitat Considerations:

The Habitat Resource Management Key Value Designation for this compartment is Habitat/Vegetative Management. The majority of this compartment lies on an ice-contact ridge (LTA 3111) The topography of this land type is steep and irregular, but rolling, pitted, or level areas occur locally. Soil types are excessively drained gravelly sands. The SE portion of sec. 16, the south portion of sec. 17, and the SW portion of sec. 18 falls within a broad, flat outwash plain (LTA 5111). The topography is variable, with level area and some hills. Soils are usually excessively drained, acidic, and low in natural fertility. Wild fires have been reported in this LTA.

This compartment has nice oak stands within the ice-contact ridges of the compartment. These stands provide opportunities for squirrel and deer. The red pine stands are moderately stocked, with shrubland underneath. There is evidence of past burns. The aspen stands are generally mixed with cherry shrubland, which provides habitat for woodcock and grouse.

Mineral Resource and Development Concerns and/or Restrictions

The area to the north and west is actively managed for Oil and gas facilities. Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum elsewhere in the State. A gravel pit is located in Section 10 and potential is considered good. The Compartment is located between Garfield and Fletcher Fields. Garfield produces from the Devonian Richfield and Ordovician PdC. The PdC has produced over 46 Bcf gas. Approximately half of this compartment is leased. There may be Devonian and Ordovician potential in the compartment.

Vehicle Access:

Adequate vehicular access appears to be available with the road system that is already in place. Some areas on the snowmobile trail are very sandy and difficult to navigate with two wheel drive vehicles.

Survey Needs:

Necessary survey corners appear to already be in place.

Recreational Facilities and Opportunities:

The Cranberry Snowmobile Trail is located along the south and southwest edge of this compartment. Hunting is the main recreational use of the land in this compartment. Some camping activity occurs but it is usually associated with hunting.

Fire Protection:

The greatest difficulty with fire control in this compartment is with the response time. Heavy equipment is about 45 minutes away. Fortunately, there is a lack of volitile pine fuels in the area of this compartment so a catostrophic fire is unlikely. The terrain may cause the suppression crews some difficulty.

Additional Compartment Information:

The following reports from the Inventory are attached:

- **Total Acres by Cover Type and Age Class**
- **Cover Type by Harvest Method**
- **Proposed Treatments – No Limiting Factors**
- **Proposed Treatments – With Limiting Factors**
- **Stand Details (Forested and Nonforested)**
- **Dedicated and Proposed Special Conservation Areas**
- **Site Condition Details**

The following information is displayed, where pertinent, on the attached compartment maps:

- **Base feature information, stand boundaries, cover types, and numbers**
- **Proposed treatments**
- **Site condition boundaries**
- **Details on the road access system**

Cover Type & Treatment Map

Compartment: 141
T25N R05W
Sections 16, 17, 18
County: Kalkaska
Unit: Traverse City
YOE: 2015
Acres: 1,904 GIS Calculated
Examiner: Kelly Standerfer
Map Revised: 05/29/2013
Map Phase: Web Post

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

Legend

- Miris Corners
- Remonumented Section Corners
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Closed Roads
- Pipeline
- Snowmobile Trail
- ORV Route
- ORV Routes
- Snowmobile Trails
- Stream
- Intermittent Stream
- Lakes and Rivers

Treatments

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

Forest Stands

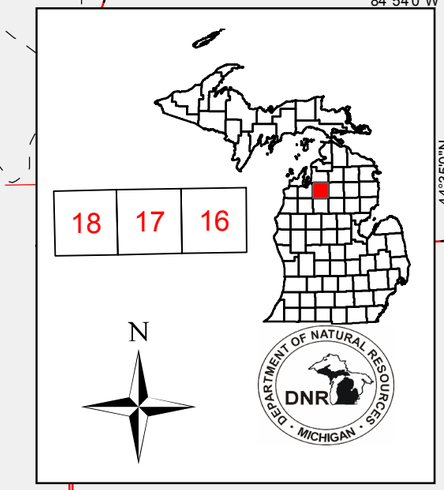
Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 330 - Low-Density Trees
- 622 - Lowland Shrub
- State Forest Land



1 Miles
0.5
0
1

Sunset Trl SE
Eight Point Rd SE
Maple Rd SE
Six Point Rd SE
Clark Rd SE
Dewitt Rd SE
W Township Rd SE
Mooreslough Rd E
Beech Rd SE
44°34'0"N
44°33'40"N
84°58'0"W
84°57'0"W
84°56'0"W
84°55'0"W
84°54'0"W

18
7 4199-MD1
1 4123-O6
3 4123-O7
2 4123-O6
6 4112-M4
4 6129-Q6
9 4130-A6
5 330-U0
13 4221-R9
11 4130-A6
16 4130-A6
12 4123-O9
8 4130-A6
10 4130-A6
14 4123-O9
15 4130-A3
17 4139-A6
18 4130-A6
22 4130-L6
24 4130-A6
25 4130-A3
17
23 4123-O9
19 4229-MC1
20 4221-R8
21 4221-R9
28 4117-M1
30 4124-O8
31 4199-MD3
27 4199-MD9
35 4119-M3
16
32 4225-MC9
26 4221-R9
29 4119-M3
33 4123-O9
34 4119-M3
37 4139-A6
38 330-U0
36 4116-M2
39 4225-MC9
43 4191-MD9
44 4112-M3
41 4131-A3
42 4123-O9
40 4112-M2
49 4199-MD3
45 4123-O8
46 4130-A6
47 4139-A3
50 4311-UM6
51 4116-M3
48 4116-M4

Stand Boundary Map

Compartment: 141
T25N R05W
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Stand # 23 — Stocking Density
(412)0) - A7
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Cover Type Code

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- Poor Dirt Roads
- County Poor Dirt Roads
- Closed Roads
- Pipeline
- Stream
- Intermittent Stream
- Snowmobile Trail
- ORV Route
- ORV Routes
- Snowmobile Trails
- Stand Boundaries

18 | 17 | 16

N

DEPARTMENT OF NATURAL RESOURCES · MICHIGAN · DNR

84°57'0"W 84°56'0"W 84°55'0"W 84°54'0"W 44°34'0"N 44°33'0"N

Sunset Trl SE
Eight Point Rd SE
W Township Rd SE
Six Point Rd SE
Maple Rd SE
Beech Rd SE

1 4123-O6 | 2 4123-O6 | 3 4123-Q7 | 4 6129-Q6 | 5 330-U0 | 6 4112-M4 | 7 4199-MD1 | 8 4130-A6 | 9 4130-A6 | 10 4130-A6 | 11 4130-A6 | 12 4123-O9 | 13 4221-R9 | 14 4123-O9 | 15 4130-A3 | 16 4130-A6 | 17 4139-A6 | 18 4130-A6 | 19 4229-MC1 | 20 4221-R8 | 21 4221-R9 | 22 4130-A6 | 23 4123-Q9 | 24 4130-A6 | 25 4130-A3 | 26 4221-R9 | 27 4199-MD9 | 28 4112-M4 | 29 4119-M3 | 30 4124-O8 | 31 4199-MD3 | 32 4225-MC9 | 33 4123-O9 | 34 4119-M3 | 35 4119-M3 | 36 4116-M2 | 37 4139-A6 | 38 330-U0 | 39 4225-MC9 | 40 4112-M2 | 41 4131-A3 | 42 4123-O9 | 43 4191-MD9 | 44 4112-M3 | 45 4123-O8 | 46 4130-A6 | 47 4139-A3 | 48 4116-M4 | 49 4199-MD3 | 50 4311-UM6 | 51 4116-M3

1 0.5 0 1 Miles

Special Conservation Areas & Site Conditions Map

Compartment: 141
T25N R05W
Sections 16, 17, 18
County: Kalkaska
Unit: Traverse City
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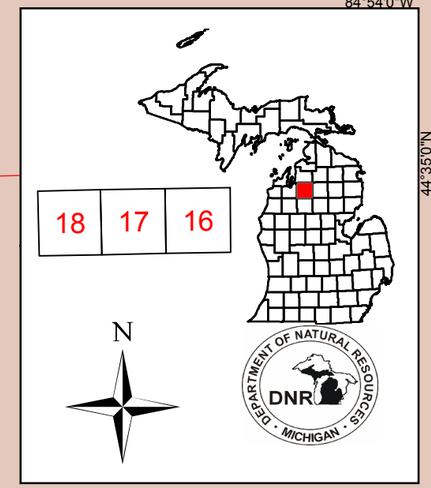
Stand # 23
Stocking Density
(412)0) - A7
Level 3 OI
Level 4 Code
Cover Type Code

Legend
- Miris Corners
- Remonumented Section Corners

Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)

Reviewable SCAs
- Proposed SCA
- SCA Removal

Dedicated Special Conservation Areas
- Essential Habitat (Kirtland Warbler)
- Cold Water Streams
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands
- Stand Boundaries



84°58'0"W 84°57'0"W 84°56'0"W 84°55'0"W 84°54'0"W
44°34'0"N

5C - 005
5C - 004
5C - 003
5C - 006
5C - 007
3H - 008
5C - 009
5C - 010
5C - 002
Big Pines 141
comp 141 big pine 2

1 0.5 0 1 Miles

Report 2 – Total Acres by Cover Type and Age Class

Traverse City Mgt. Unit **Compartment 141 Year of Entry 2015**

Kelly Standerfer : Examiner

Age Class

	0-9	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	70	10	0	324	219	8	0	0	0	0	0	0	0	0	**631**
Low-Density Trees	10	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
Lowland Conifers	0	0	0	0	0	0	0	11	0	0	0	0	0	0	**11**
Lowland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Mixed Upland Deciduous	204	0	15	0	0	0	0	13	13	0	0	0	0	0	**245**
Natural Mixed Pines	0	23	0	0	0	0	0	66	30	0	0	0	0	0	**120**
Northern Hardwood	37	229	106	0	120	0	0	0	0	0	0	0	0	0	**491**
Oak	0	0	0	0	0	0	0	100	193	6	0	0	0	0	**299**
Red Pine	0	0	0	0	0	0	0	52	9	0	0	0	0	0	**61**
Upland Mixed Forest	0	0	0	34	0	0	0	0	0	0	0	0	0	0	**34**
Total	**323**	**262**	**121**	**358**	**340**	**8**	**0**	**242**	**246**	**6**	**0**	**0**	**0**	**0**	**1904**

Report 3 – Proposed Treatment Summaries

Traverse City Mgt. Unit
Year of Entry 2015

Compartment 141
Total Compartment Acres: 1904

Acres by Treatment Type

Commercial Harvest - 398	Tree Planting - 147	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	114	0	0	0	0	0	**114**
Mixed Upland Deciduous	0	13	0	13	0	0	**26**
Natural Pines	25	0	66	0	0	0	**91**
Northern Hardwood	114	0	0	0	0	0	**114**
Oak Types	0	11	0	42	0	0	**53**
Total	**252**	**25**	**66**	**55**	**0**	**0**	**398**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	61141008-Cut	30.0	4130 - Aspen	High Density Pole	46	111-140	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Some is very nice A6 and some is just coming to merchantable size due to amount of maple. Cut this stand this YOE and hold the aspen to the NE to break up the age class diversity of the area. Lots in the same age class. Retention will be along road/ grass opening to the south. This retention area will function as retention for stand 10 as well in the future as it comes from the same parent stand. OK to leave some or all oak for seed and retention.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
11	61141011-Cut	60.7	4130 - Aspen	High Density Pole	46	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: this half of the aspen stand has slot more fir filling in. Cut this area this YOE to break up the aspen age class of the area. West halfhas quite a bit of fir filling in. Save all or most oak. cut all or most aspen, birch, & red maple. Cut all fir over 4 or 5 inches. try to protect pockets of advanced fir regen. Make some brush piles by Q type to the west. Retention will be scattered residual fir, oak and green tree leave some maple and other mixed species @ SW end of stand to help with visual break up alongthesnowmobile trail. Winter will likely be the best time to cut this stand as the roads are pretty sandy. will need to work with recreation specialist to minimize negative impact on the trail and road system.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	61141012-Cut	5.8	4123 - Red Oak	High Density Log	95	81-110	Harvest	Shelterwood	4123 - Red Oak	Cmpt. Review Proposal

Prescription Specs: Scattered to thick Big red oak mixed with pine and red maple. Shelterwood harvest. make some big crown openings and try to leave tops scattered on the cut oak stumps to protect sprouts from deer browse. Leave approx 30-70BA of mixed species by either marking with green to leave or orange to cut. retention will be residual trees.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	61141017-Cut	7.8	4139 - Aspen, Mixed Deciduous	High Density Pole	50	111-140	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: final harvest aspen and red maple

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	61141020-Cut	24.6	42210 - Natural Red Pine	Medium Density Log	78	1-50	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal

Prescription Specs: open areas have regenerated nicely to oak and jack pine. take the large red pine off the top. OK to leave a few red pien for seed and retention where needed.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	61141027-Cut	13.4	4199 - Other Mixed Upland Deciduous	High Density Log	78	111-140	Harvest	Group Selection	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal

Prescription Specs: Nice log sized oak mixed with red maple & aspen. Cut all aspen, ash, and ironwood. Mark the rest down to 70-90 BA. Try to mark a few canopy gaps around oaks that are cut to try to recruit oak via stump sprout. Some will be less than the 70BA where heavy to aspen. retention will be residual trees

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
33	61141033-Cut	11.4	4123 - Red Oak	High Density Log	80	141-170	Harvest	Single Tree Selection	4123 - Red Oak	Cmpt. Review Proposal

Prescription Specs: Very nice red oak stand. Select cut releasing the nice quality single stems tryign to remove high risk trees. OK to cut some of all species, ie red pine, maple, and oak. target residual BA70-100ish

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
39	61141039-Cut	66.2	42250 - Pine, Oak	High Density Log	77	81-110	Harvest	Seed Tree with Reserves	42250 - Pine, Oak	Cmpt. Review Proposal

Prescription Specs: Some very nice O3 regen in areas. Big Pine and oak over mixed regen. Some areas are pretty open and some are pretty thick. red pine cover type is converting to oak, maple and aspen with a few areas (previous skid trails) that have regenerated to red and white pine. Green tree mark seed trees mainly white oak, red oak and OK to leave some red pine as well. scattered seed trees will be left for good and will function as retention and mast production for the area. 10BA or less will likely be left. tree to mark seed trees where there is a lack of regeneration. Goal is to release most of the advanced regen.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
42	61141042-Cut	36.0	4123 - Red Oak	High Density Log	83	111-140	Harvest	Shelterwood	42250 - Pine, Oak	Cmpt. Review Proposal

Prescription Specs: Some nice Logs throughout. Some Thick R9 some Thick O9 and some marginaly stocked maple and aspen. Overall ready for a thinning/ shelterwood cut to promote mixed natural regen of the currently present species. Green tree or orange tree mark down to ~50-120 BA. areas with nice advanced oak regen can be cut a bit harder and the nice pole areas without advanced regen will be more of a thinning/ selection cut. Residual trees will be retention.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
43	61141043-Cut	13.0	4191 - Mixed Upland Deciduous with Conifer	High Density Log	88	111-140	Harvest	Shelterwood	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Nice log sized oak and pine mixed with pole sized maple. Treat with stand to the west. green tree mark stand down to 90-20 BA. aspen areas will be more open, nice log pine, maple & oak areas can be left a bit thicker but some should be opened up to promote regen. some will resemble more of a seed tree cut and some will be more shelterwood/selection cut.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
46	61141046-Cut	15.6	4130 - Aspen	High Density Pole	37	51-80	Harvest	Clearcut	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: some is pretty poor stocking and some is decently stocked. Treat this YOE with open Cherry stand to the south to try to promote good aspen regen. Open areas will function as opening and aspen areas should fill in nicely to aspen. No retention to promote thicker stem density which is lacking in much of this area.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
48	61141048-Cut	113.7	4116 - Mixed N. Hardwood - Aspen	Low Density Pole	44	1-50	Harvest	Clearcut	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Specs: good size cherry in areas intermixed with a few nice aspen clones and some open areas. Cut all cherry and aspen and let fill in naturally. cherry brush areas will likely fill in slowly and function as openings for 5-10 years and the aspen clone areas should regenerate nicely. Save all oak. Interplant open areas with red pine to re-establish some conifer as much of it will be converting to oak and other deciduous types in this compartment. Sweet fern ground cover in some areas. Save most or all oak over 10 inches dbh. As per pre-review wildlife wanted to try to add this area to their opening complex of this area so we agreed to not try to interplant red pine in the eastern 2/3 of this stand. the western lobe is pretty thick to cherry so just let it fill in naturally. will function as an open area for ~ 5 years and fill back in to a mix of aspen, maple, and cherry.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28	61141028-Plant	146.6	4117 - Mixed N. Hardwood - Pine	Low Density Sapling	12		Tree Planting	Hand Plant	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Some areas filling in with jack pine but most is cherry brush mixed with oak and red maple. Pine removed from the area last YOE. Plant area back to red pine. may need to roller chop or herbicide. OK to leave areas that have fully regenerated out of the planting. Plant as much back to red pine as possible.

Other Comments:

Next Steps:

Proposed Start Date: 04/11/2013

Total Treatment Acreage Proposed: 544.7

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Type!							

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Type!

Limiting Factor

Total Treatment Acreage Proposed: **0**

Report 6 – Out of YOE – Treatments Prescribed with No Limiting Factor

Year of Entry: 2015

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28218	5.9	Unspecified				Harvest	Other - Specify in Comments	Unspecified	Cmpt. Review Proposal

Prescription Specs:

Other Comments:

Next Steps:

Proposed Start Date:

28219	7.2	Unspecified				Harvest	Other - Specify in Comments	Unspecified	Cmpt. Review Proposal - Incomplete

Prescription Specs:

Other Comments:

Next Steps:

Proposed Start Date:

61043_OutOfYOE-Cut	2.1					Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal - Incomplete

Prescription Specs: retain some pine and osk for mast and seed production, Folllow WLD guidance for CWD creation. Harvest all stems that are not retained.

Other Comments: New stand should have mix of oak, pine, aspen and maple.

Next Steps:

Proposed Start Date: 09/01/2009

Total Treatment Acreage Proposed: 15.3

Report 7 – Site Conditions

Traverse City Mgt. Unit

Kelly Standerfer : Examiner

Compartment 141

Year of Entry 2015

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	5C	3H
631	631		**Aspen**	631		
11		11	**Lowland Conifers**			11
245	245		**Mixed Upland Deciduous**	245		
120	120		**Natural Mixed Pines**	120		
491	491		**Northern Hardwood**	491		
299	299		**Oak**	132	167	
61	61		**Red Pine**	47	14	
34	34		**Upland Mixed Forest**	34		
1,892	1,881	11	Total Forested Acres	1,700	181	11
	99%	1%	Relative Percent			

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond	Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002		**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	26				
	Comments:							
003		**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	62				
	Comments:							
004		**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	23				
	Comments:							

Report 7 – Site Conditions

Traverse City Mgt. Unit | **Compartment 141**

Kelly Standerfer : Examiner | **Year of Entry 2015**

005	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	13		
Comments:					
006	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	21		
Comments:					
007	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	21		
Comments:					
008	**Not Available**	**3H: Deer Wintering Areas**	11	5C: Delay treatment for age/size class diversity or exceptional site quality	
Comments:					
009	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	5		
Comments:					

Report 7 – Site Conditions

Traverse City Mgt. Unit | **Compartment 141**

Kelly Standerfer : Examiner | **Year of Entry 2015**

010	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	10

Comments:

Report 8 – 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 initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Big Pines 141	Habitat Areas or Corridors	Other Habitat Area	**SCA**	6.3

Comments

Stands appears to be natural pocket of Red Pine on a rolling hillside. Site is workable for equipment but should be lighlty managed to add diversity to the forest. OK to cut out short lived species, push to big tree mgmt.

comp 141 big pine 2	Habitat Areas or Corridors	Other Habitat Area	**SCA**	11.6

Comments

Stand appears to be natural pocket of Red Pine. Leave this stand to develop naturally. It adds diversity to the forest. OK to cut out short lived species in future but push to big tree mgmt

Report 9 – 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	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4123 - Red Oak	High Density Pole	13.3	83	81-110	
2	4123 - Red Oak	High Density Pole	21.3	78	81-110	
3	4123 - Red Oak	Low Density Log	21.1	83	51-80	
4	6129 - Mixed Coniferous Lowland Forest	High Density Pole	10.8	79	81-110	
6	4112 - Maple, Beech, Cherry Association	Low Density Pole	6.6	45	1-50	
7	4199 - Other Mixed Upland Deciduous	Low Density Sapling	195.4	5	1-50	
8	4130 - Aspen	High Density Pole	30.0	46	111-140	
9	4130 - Aspen	High Density Pole	67.6	46	81-110	
10	4130 - Aspen	High Density Pole	25.7	46	111-140	
11	4130 - Aspen	High Density Pole	60.7	46	81-110	
12	4123 - Red Oak	High Density Log	5.8	95	81-110	
13	42210 - Natural Red Pine	High Density Log	4.9	79	171-200	
14	4123 - Red Oak	High Density Log	22.9	83	111-140	
15	4130 - Aspen	High Density Sapling	10.2	18		
16	4130 - Aspen	High Density Pole	88.4	32	51-80	
17	4139 - Aspen, Mixed Deciduous	High Density Pole	7.8	50	111-140	
18	4130 - Aspen	High Density Pole	74.3	35	1-50	
19	42290 - Natural Mixed Pine	Low Density Sapling	23.1	15	1-50	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	42210 - Natural Red Pine	Medium Density Log	24.6	78	1-50	
21	42211 - Natural Red Pine, Mixed Deciduous	High Density Log	9.5	80	171-200	
23	4123 - Red Oak	High Density Log	78.8	76	111-140	
24	4130 - Aspen	High Density Pole	35.2	41	51-80	
25	4130 - Aspen	High Density Sapling	58.2	36	1-50	
26	42210 - Natural Red Pine	High Density Log	22.1	73	111-140	
27	4199 - Other Mixed Upland Deciduous	High Density Log	13.4	78	111-140	
28	4117 - Mixed N. Hardwood - Pine	Low Density Sapling	146.6	12		
29	4119 - Mixed Northern Hardwoods	High Density Sapling	40.2	29		
30	4124 - Red with White Oak	Medium Density Log	26.1	83	51-80	
31	4199 - Other Mixed Upland Deciduous	High Density Sapling	8.7	9		
32	42250 - Pine, Oak	High Density Log	30.4	80	81-110	
33	4123 - Red Oak	High Density Log	11.4	80	141-170	
34	4119 - Mixed Northern Hardwoods	High Density Sapling	10.3	23		
35	4119 - Mixed Northern Hardwoods	High Density Sapling	68.0	12		
36	4116 - Mixed N. Hardwood - Aspen	Medium Density	38.6	29		
37	4139 - Aspen, Mixed Deciduous	High Density Pole	44.7	36	51-80	
39	42250 - Pine, Oak	High Density Log	66.2	77	81-110	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	4112 - Maple, Beech, Cherry Association	Medium Density	36.5	5		
41	4131 - Aspen, Oak	High Density Sapling	42.5	35	51-80	
42	4123 - Red Oak	High Density Log	36.0	83	111-140	
43	4191 - Mixed Upland Deciduous with Conifer	High Density Log	13.0	88	111-140	
44	4112 - Maple, Beech, Cherry Association	High Density Sapling	14.2	18		
45	4123 - Red Oak	Medium Density Log	62.3	83	51-80	
46	4130 - Aspen	High Density Pole	15.6	37	51-80	
47	4139 - Aspen, Mixed Deciduous	High Density Sapling	70.0	5		
48	4116 - Mixed N. Hardwood - Aspen	Low Density Pole	113.7	44	1-50	
49	4199 - Other Mixed Upland Deciduous	High Density Sapling	14.9	27		
50	4311 - Pine, Aspen Mix	High Density Pole	33.9	38	81-110	
51	4116 - Mixed N. Hardwood - Aspen	High Density Sapling	16.6	20		

Report 11 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	330 - Low-Density Trees	5.7	No	Unspecified	open area filling in with cherry maple oak and pine. Could cut all but oak out of the stand to promote herbacious openland.
22	6229 - Mixed lowland shrub	2.2	No	Unspecified	Lowland bog
38	330 - Low-Density Trees	4.5	No	Unspecified	

Data updated before 10:00 AM