TRAVERSE CITY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 111 ENTRY YEAR: 2014

Compartment Acreage: 2383 County: Kalkaska

Stand Examiner: Donna Hagan

Legal Description: T27N,R5W,Sec. 8-11

Management Goals: This compartment falls within the Grayling Ice Contact Management Area. Large, ice-contact ridges covers the majority of this compartment in the eastern and western sections, and a narrow outwash channel occupies the remainder of this compartment. The east half of the compartment consists mainly of northern hardwoods which were thinned in 2005 and 2006. Several areas of the hardwoods have had sugar maple die-off and need to be treated immediately with a salvage sale. The rest of the hardwoods have a heavy component of raspberry in the understory. The hardwood is of good quality and needs to be maintained along with the oak component.

Historically the western portion of the compartment was covered in mixed forests of red and white pine with beech/hemlock occupying a third of the area also. Today the area supports a mix of hardwoods, oak, natural and planted pine, aspen and openings. The red pine plantations will be thinned a second time along with a first thinning of a natural red and white pine stands. The white pine stand (stand 38) will have the aspen component taken out to allow the white pine to be maintained in the area.

A narrow outwash channel occupies the remainder of the compartment which consists of aspen/birch stands with pothole lakes and wetlands dotting the landscape. The aspen/birch component needs to be maintained in this area of the compartment along with the pine component next to the pothole lakes.

Soil and Topography: The Eastern 2/3 of the compartment consists of Kalkaska-Leelanau-Emmet Sand and the Western 1/3 consists of Rubicon-Grayling-Croswell Sand. Topography is flat to gently rolling.

Ownership Patterns, Development, and Land Use in and Around the Compartment:
This compartment is located in the northeast part of Kalkaska County, north of Bear Lake and east of Manistee Lake. Bear Lake Road borders the compartment on the west side and Blue Lake Road runs north-south through the compartment in section 10. It is mostly block state ownership with some private land located in section 9. The private holdings are all subdivided into mostly 10 acres parcels. With the Blue Bear Snowmobile Trail, Riding/Hiking trail and ORV trails running through the compartment, recreation is very popular within the compartment.

Unique, Natural Features (include only non-site specific and non-sensitive information):
Eastern massasauga

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None listed.

Special Management Designations or Considerations: Grayling Ice Contact Management Area

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: Nearly this entire compartment lies on a large complex of ice contact ridges, which,. historically supported northern hardwood, beech, and hemlock forests. This area currently supports a mix of hardwoods, pine plantations, natural pine stands, aspen, and kettle depression openings and wetlands. Future management of pine stands should consider incorporating small (2-5 acre) islands that are left relatively un-thinned within mature stands to provide winter roosting cover for turkeys. Deciduous species should be encouraged within conifer plantations for diversity, especially mast producing species. Species benefiting from the continued presence of mixed pine forests include brown creepers, evening grosbeaks, mourning doves, red crossbills, and red squirrels. The mixed forests also serve as cover for deer. Openings and upland brush communities are mainly situated in kettle depressions and ravines and are the results of frost pockets and cold air drainages. Several of these openings have been scheduled for selective felling of woody encroachment to help perpetuate the type. Areas of early successional communities most likely were found here due to the history of occasional fires among the ice contact ridges. Timber prescriptions that will result in such early successional pockets should incorporate leave trees, snags, and downed logs to mimic structure left by a wildfire. These pockets of earlier successional communities will benefit American redstarts, chestnut-sided warblers, ruffed grouse, and deer.

Northern hardwood covers nearly half the compartment, but the coniferous component from these stands has been largely eliminated. This compartment has a significant block of state-owned, contiguous hardwoods and it should be managed to perpetuate the current cover type. A variety of harvest options, from areas of no treatment to various selection cuts to big tree management should be considered to perpetuate a contiguous, diverse block of northern hardwoods. The thinning will also leave snags and coarse woody debris as well as preserve species diversity. To re-establish a conifer component, white pine or hemlock could be planted in the tops of trees felled for coarse woody debris. Species benefiting from management of this community type include the red-eyed vireo, four-toed salamander, red-bellied woodpecker, gray squirrel and broad-winged hawk.

LTA 5521, a narrow outwash channel of well drained sands can be found at the very east end of the compartment. One upland brush stand should be treated this entry period to maintain the semi-open condition, providing both mast bearing trees and shrubs as well as a herbaceous forage component.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact and glacial outwash sand and gravel. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Coldwater Shale that does not have a current economic use. The nearest gravel pit is just over one mile to the northwest and gravel potential is considered good. This area is located south of the Guelph (Niagaran) reef trend and south of the current Antrim Shale gas play. All mineral rights are currently leased for oil and gas development in the Utica Shale/Collingwood Formation.

Vehicle Access: Vehicle access is good.

Survey Needs: None needed

Recreational Facilities and Opportunities: The Kalkaska Cycle Trail, The Blue Bear Snowmobile Trail and ORV Route, and the Shore-to-Shore Riding-Hiking Trail all run through this compartment.

Fire Protection: Fire protection for this area is covered out of the Kalkaska Field Office with back up support available from the Grayling Field Office. Access into the area is fair with Bear Lake road running north from M-72 on the west side of section 8 and Blue lake road running north from M-72 through section 10. Seasonal two tracks also run through all 4 sections in this stand making fire suppression access fairly

good. Bear Lake Fire Department is roughly two miles south of section 8 located on M-72 so response time for the fire department is relatively quick. Water access for suppression efforts is nearby at Bear Lake and the Bear lake fire department. Submitted by: Rod Rader, Fire supervisor, Traverse City Field Office.

Additional Compartment Information:

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

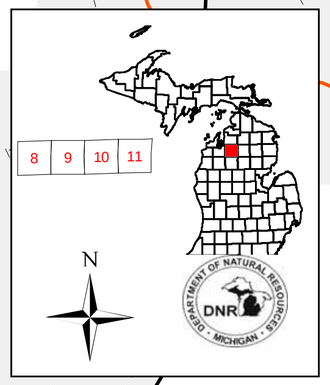
- **Cover Type by Age Class**
- **Cover Type by Management Objective**
- **Compartment Volume Summary**
- **Proposed Treatments – No Limiting Factors**
- **Proposed Treatments – With Limiting Factors**

****** 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: 111
T27N R05W Sec. 8-11
County: Kalkaska
Unit: Traverse City
YOE: 2014
Acres: 2,383 GIS Calculated
Examiner: Donna Hagan
Map Revised: 5/22/2012
Map Phase: Pre-Review



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

Legend

- Miris Corners
- County Paved Roads
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Stream
- Intermittent Stream
- Lakes and Rivers
- Hiking Trails
- Horse Trails
- ORV Trails
- ORV Routes
- Snowmobile Trails
- Horse Trail
- Hiking Trail
- ORV Trail
- ORV Route
- Snowmobile Trail
- State Forest Land

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)
- Opening Maintenance

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

- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil

Stand Boundary Map

Compartment: 111
T27N R05W Sec. 8-11
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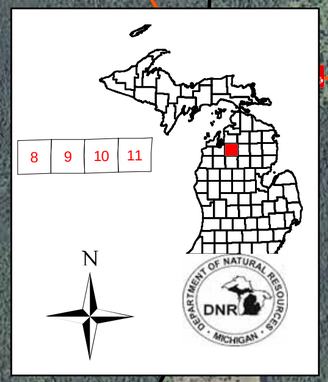

Stand # 23 — Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code

Legend

- Miris Corners
- County Paved Roads
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Stream
- Intermittent Stream
- Hiking Trails
- Horse Trails
- ORV Trails
- ORV Routes
- Snowmobile Trails
- Horse Trail
- Hiking Trail
- ORV Trail
- ORV Route
- Snowmobile Trail
- Stand Boundaries

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
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612 - Lowland Coniferous Forest

Non-Forest Stands
Level 3
310 - Herbaceous Openland
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1 4191-MD9 | 2 4130-A3 | 3 4221-R9 | 4 622-D0 | 5 4226-MC6 | 6 500-Z0 | 7 4130-A6 | 8 4123-O9 | 9 330-U0 | 10 4112-M9 | 11 4130-A5 | 12 4112-M9 | 13 320-U0 | 14 4211-R9 | 15 4221-R9 | 16 4131-A6 | 17 4229-MC9 | 18 4130-A3 | 19 622-L0 | 20 330-U0 | 21 4112-M9 | 22 623-N0 | 23 710-Y0 | 24 310-G0 | 25 4130-A3 | 26 4221-R9 | 27 4193-B3 | 28 310-G0 | 29 310-G0 | 30 4130-A5 | 31 4110-M7 | 32 4130-A3 | 33 4110-M7 | 34 4211-R9 | 35 4221-R9 | 36 4221-R9 | 37 623-N0 | 38 4311-UM9 | 39 4130-A3 | 40 4130-A3 | 41 4112-M6 | 42 623-N0 | 43 6127-Q9 | 44 4211-R9 | 45 320-U0 | 46 320-U0 | 47 4112-M9 | 48 4110-M6 | 49 4130-A4 | 50 4110-M7 | 51 4110-M4 | 52 4211-R3 | 53 310-G0 | 54 4110-M9 | 55 4231-F9 | 56 310-G0 | 57 4231-F9 | 58 310-G0 | 59 310-G0 | 60 4211-R3 | 61 310-G0 | 62 4110-M9 | 63 310-G0 | 64 4110-M9 | 65 310-G0 | 66 4110-M9 | 67 4131-A3 | 68 4123-O9 | 69 4130-A6 | 70 4112-M9 | 71 4130-A6 | 72 4121-O9 | 73 4123-O9 | 74 4110-M4 | 75 4225-MC9 | 76 623-N0 | 77 4112-M9 | 78 4121-O3 | 79 4211-R9 | 80 4130-A6 | 81 623-N0 | 82 320-U0 | 83 4123-O9

Kenel Rd
County Road 612 NE
Hidden Mdl Dr NE
Deermont Ln NE
Bear Ln NE
Bear Ln NE
Ruthies Dr NE
Dill Rd NE
Merrita Ln NE
Valley Low Rd NE
Blue Lake Rd NE
N Forest Trl NE
W Beal Lake Rd NE
Birchwood Springs Dr
Pathfinder St NE
Anna Rd NE
Beaverton Ave NE
Old Log Rd NE
Bradley St NE
Centralia Ave NE
Eagle Cov St NE
Glenwood Ave NE
Sands Point Ave NE
West Rd NE
Lake Valley Rd NE
E Beal Lake Rd NE

1 0.5 0 1 Miles

84°57'0"W 84°56'0"W 84°55'0"W 84°54'0"W 84°53'0"W 84°52'0"W
44°47'0"N 44°46'0"N 44°45'0"N 44°44'0"N

Dedicated & Proposed Special Conservation Area Map

Compartment: 111
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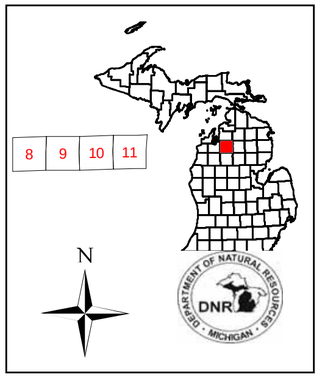

Stand # 23 — Stocking Density
(412)0) - A7
Level 3 Level 4 — OI Code
Cover Type Code

Legend

- Miris Corners
- Stand Boundaries

Special Conservation Areas

- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Kirtland Warbler Habitat
- Cold Water Streams
- Cold Water Lakes
- Wildlife Management Areas
- Research, Development, and Military Lands

Forest Stands

Level 3

411 - Northern Hardwood
412 - Oak Types
413 - Aspen Types
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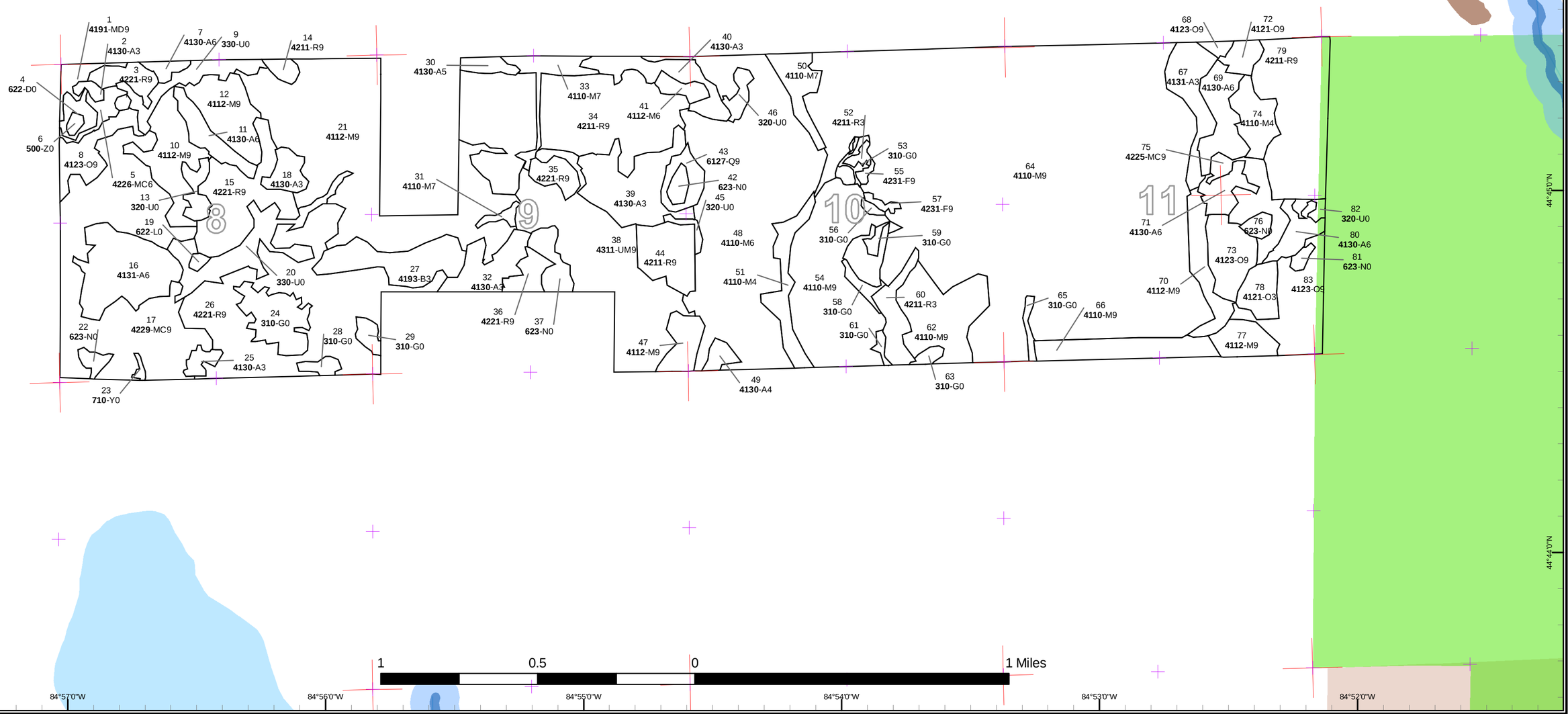

Table 1 – Total Acres by Cover Type and Age Class

Traverse City Mgt. Unit **Compartment 111 Year of Entry 2014**

Donna Hagan : 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	0	51	71	49	51	0	0	0	0	0	0	0	0	0	**222**
Herbaceous Openland	46	0	0	0	0	0	0	0	0	0	0	0	0	0	**46**
Low-Density Trees	45	0	0	0	0	0	0	0	0	0	0	0	0	0	**45**
Lowland Conifers	0	0	0	0	0	9	0	0	0	0	0	0	0	0	**9**
Lowland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Marsh	23	0	0	0	0	0	0	0	0	0	0	0	0	0	**23**
Mixed Upland Deciduous	0	0	0	0	0	0	0	6	0	0	0	0	0	0	**6**
Natural Mixed Pines	0	0	0	0	0	26	0	0	0	124	0	0	0	0	**150**
Northern Hardwood	0	0	0	0	0	15	47	0	0	0	0	0	0	1160	**1223**
Oak	0	0	12	0	0	0	33	26	0	0	0	0	0	20	**91**
Paper Birch	0	0	29	0	0	0	0	0	0	0	0	0	0	0	**29**
Red Pine	0	27	0	0	190	134	65	0	0	0	0	0	0	0	**415**
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Treed Bog	6	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**
Upland Mixed Forest	0	0	0	0	0	90	0	0	0	0	0	0	0	0	**90**
Upland Shrub	18	0	0	0	0	0	0	0	0	0	0	0	0	0	**18**
Upland Spruce/Fir	0	0	0	0	3	0	0	0	0	0	0	0	0	0	**3**
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Total	**143**	**78**	**113**	**49**	**244**	**275**	**145**	**32**	**0**	**124**	**0**	**0**	**0**	**1180**	**2383**

Table 2 – Proposed Treatment Summaries

Traverse City Mgt. Unit
Year of Entry 2014

Compartment 111
Total Compartment Acres: 2383

Acres by Treatment Type

Commercial Harvest - 400	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 118	Opening Maintenance - 74	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	5	0	0	0	0	0	**5**
Northern Hardwood	125	158	0	0	0	0	**283**
Oak	0	7	0	0	0	0	**7**
Red Pine	0	0	0	0	132	0	**132**
Upland Mixed Forest	0	90	0	0	0	0	**90**
Total	**130**	**255**	**0**	**0**	**132**	**0**	**518**

Table 3 -- Treatments Prescribed with No Limiting Factor

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
10	61111010-Cut1	28.7	4112 - Maple, Beech, Cherry Association	High Density Log	73	81-110	Harvest	Single Tree Selection	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Couple nice clones of aspen within stand. Heavier to oak to the south. Take aspen and red maple and mark oak to take. Snowmobile trail borders stand to the north and ORV trail runs through stand, leave retention areas along these trails.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
30	61111030-Cut	5.2	4130 - Aspen	Medium Density Pole	47		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: 3 small cones of aspen within this stand with some scattered cherry. Retention areas should be the timber outside of these 3 clones along with leaving all cherry.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
34	61111034-Cut	115.8	42110 - Planted Red Pine	High Density Log	49	141-170	Harvest	Crown Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: 2nd thinning. Snowmobile trail runs through stand with a U type running along both sides.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	61111035-Cut	8.5	42210 - Natural Red Pine	High Density Log	49	141-170	Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal

Prescription Specs: Reduce basal area to around 80ft2. Snowmobile trail runs along northwestern border.

Other Comments: Stand was thinned in 2005. Natural stand of pine.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
36	61111036-Cut	8.0	42210 - Natural Red Pine	High Density Log	59	141-170	Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal

Prescription Specs: Thin red pine and remove all aspen. Retention along V type.

Other Comments: Shore to Shore Trail touches northwest tip of stand. Access may be difficult. May have to re-route trail.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
38	61111038-Cut	90.2	4311 - Pine, Aspen Mix	High Density Log	59	141-170	Harvest	Single Tree Selection	42201 - Natural White Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: White pine dominates site with aspen intermixed, mainly in the lower 2/3 of the stand. Take out aspen and red maple. Shore to Shore Trail and ORV trail runs through stand. Leave retention areas along these trails.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
41	61111041-Cut	5.6	4112 - Maple, Beech, Cherry Association	High Density Pole	60	111-140	Harvest	Clearcut with Reserves	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Specs: Low quality hardwood stand. Final harvest leaving cherry.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
47	61111047-Cut	11.8	4112 - Maple, Beech, Cherry Association	High Density Log	62	141-170	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Specs: Medium quality stand. Thin down to 60-80 to reduce the low quality stems.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
51	61111051_AspenClones-Cut	1.2	4110 - Sugar Maple Association	Low Density Pole	61		Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Small clone of aspen within "U" type. Too small for retention. Final harvest.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
54	61111054-Cut	79.7	4110 - Sugar Maple Association	High Density Log	60	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Sale was marked and sold in 2005, Sale #073-05. Producer never cut it and it was cancelled. DBH marks are still good, but stump marks are not. Remark stand.

Other Comments: Shore to shore trail runs through stand.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62	61111062-Cut	38.1	4110 - Sugar Maple Association	High Density Log	60	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Already part of a sale connected to compt. 113. JCC Hardwoods Sale #068-11.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2010

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
64	61111064_DeadSugarMaple-Cut	47.7	4110 - Sugar Maple Association	High Density Log	88	111-140	Harvest	Clearcut	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Dead hardwoods, mainly sugar maple. As soon as bud out, line out and cut.

Other Comments:

Next Steps:

Proposed Start Date: 05/10/2012

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
64	61111064_DSM_2-Cut	32.7	4110 - Sugar Maple Association	High Density Log	88	111-140	Harvest	Clearcut	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Dead hardwoods, mainly sugar maple. As soon as bud out, line out and cut.

Other Comments:

Next Steps:

Proposed Start Date: 05/10/2012

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
64	61111064_DSM_3-Cut	9.2	4110 - Sugar Maple Association	High Density Log	88	111-140	Harvest	Clearcut	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Dead hardwoods, mainly sugar maple. As soon as bud out, line out and cut.

Other Comments:

Next Steps:

Proposed Start Date: 05/10/2012

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
64	61111064_DSM_4-Cut	28.6	4110 - Sugar Maple Association	High Density Log	88	111-140	Harvest	Clearcut	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Dead hardwoods, mainly sugar maple. As soon as bud out, line out and cut.

Other Comments:

Next Steps:

Proposed Start Date: 05/10/2012

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
72	61111072-Cut	6.9	4121 - Oak, Aspen	High Density Log	70	111-140	Harvest	Single Tree Selection	4121 - Oak, Aspen	Cmpt. Review Proposal

Prescription Specs: Take out aspen and mark oak to get stand down between 60-90 BA. Snowmobile trail runs through stand. Stand is too small for retention, however leave more oak along trail.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
9	NF_61111009-NonFor	15.5	3303 - Mixed Low Density Trees				Non-Forest Management	Brush Cutting	3204 - Mast Producing Shrub	Cmpt. Review Proposal

Prescription Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

Other Comments: See if opening maint. can be accomplished via adjacent timber sales.

Next Steps:

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	NF_61111013-NonFor	7.2	3205 - Mixed Upland Shrub				Non-Forest Management	Brush Cutting	3204 - Mast Producing Shrub	Cmpt. Review Proposal

Prescription Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

Other Comments: See if opening maint. can be accomplished via adjacent timber sales.

Next Steps:

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	NF_61111020-NonFor	29.7	3303 - Mixed Low Density Trees				Non-Forest Management	Brush Cutting	3204 - Mast Producing Shrub	Cmpt. Review Proposal

Prescription Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	NF_61111024-NonFor	21.6	3103 - Rubus-Fern				Non-Forest Management	Brush Cutting	3204 - Mast Producing Shrub	Cmpt. Review Proposal

Prescription Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

Total Treatment Acreage Proposed: 592.0

Table 4 -- Treatments Prescribed with a Limiting Factor

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

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Error

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: **0**

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2014

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

61231_OutOfYOE-Thin	4.6			0		Harvest	Low Thinning	4122 - Oak, Pine	Cmpt. Review Proposal

Prescription Specs: Within harvest area, remove all aspen. Heavily thin oak and maple to a residual BA of about 50 sf. Leave retention in patches or strips sufficient to meet minimum retention goals.

Other Comments: Topography is rather hilly. Combine with treatment in Compartment 133.

Next Steps:

Proposed Start Date: 10/01/2013

Total Treatment Acreage Proposed: 6.7

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4191 - Mixed Upland Deciduous with Conifer	High Density Log	6.3	71	1-50	
2	4130 - Aspen	High Density Sapling	3.7	37		
3	42210 - Natural Red Pine	High Density Log	9.8	59	81-110	Thinned 10 years ago. Sale # 023-04.
5	42260 - Natural Pine, Mixed Deciduous	High Density Pole	5.9	51	81-110	Most of stand on steep hillside.
7	4130 - Aspen	High Density Pole	3.9	32		
8	4123 - Red Oak	High Density Log	16.7	71	81-110	
10	4112 - Maple, Beech, Cherry Association	High Density Log	28.7	Uneven Age	81-110	
11	4130 - Aspen	High Density Pole	12.6	22		
12	4112 - Maple, Beech, Cherry Association	High Density Log	25.5	Uneven Age	81-110	Thinned in 1985 and 2005. Sale # 02-04
14	42110 - Planted Red Pine	High Density Log	4.0	49	111-140	Thinned last time. Sale # 19-04.
15	42210 - Natural Red Pine	High Density Log	39.4	45	81-110	Treated last time. Sale # 043-05
16	4131 - Aspen, Oak	High Density Pole	41.6	44		
17	42290 - Natural Mixed Pine	High Density Log	123.6	95	81-110	
18	4130 - Aspen	High Density Sapling	8.5	16		Cut in 1995, Sale #5-95
21	4112 - Maple, Beech, Cherry Association	High Density Log	145.0	Uneven Age	51-80	Thinned in 1998 - Sale #34-95.
25	4130 - Aspen	High Density Sapling	4.4	12		Sale #31-99
26	42210 - Natural Red Pine	High Density Log	115.9	56	51-80	Recently thinned - Sale #043-05.
27	4193 - Birch, Aspen	High Density Sapling	29.3	24		Heavier to birch and oak east of 2 track. West of 2 track mainly aspen. Very west part of stand red pine was left.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	4130 - Aspen	Medium Density Pole	5.2	47		
31	4110 - Sugar Maple Association	Low Density Log	2.6	60		
32	4130 - Aspen	High Density Sapling	18.9	16		Cut in 1995. Sale #6-95.
33	4110 - Sugar Maple Association	Low Density Log	12.4	60		Old U type.
34	42110 - Planted Red Pine	High Density Log	115.8	49	141-170	Thinned last time. Sale # 19-04.
35	42210 - Natural Red Pine	High Density Log	8.5	49	141-170	Thinned last time. Sale #19-04.
36	42210 - Natural Red Pine	High Density Log	8.0	59	141-170	
38	4311 - Pine, Aspen Mix	High Density Log	90.2	59	141-170	
39	4130 - Aspen	High Density Sapling	37.3	28		
40	4130 - Aspen	High Density Sapling	19.1	16		Cut in 1995, sale #4-94
41	4112 - Maple, Beech, Cherry Association	High Density Pole	5.6	Uneven Age	111-140	Medium quality stand.
43	6127 - Lowland Pine	High Density Log	9.1	59	111-140	
44	42110 - Planted Red Pine	High Density Log	22.0	49	111-140	Thinned last time. Sale #19-04 and 35-95.
47	4112 - Maple, Beech, Cherry Association	High Density Log	11.8	Uneven Age	141-170	
48	4110 - Sugar Maple Association	High Density Pole	178.0	Uneven Age	81-110	Thinned back in 1998, Sale #26-95. Still not a lot of volume.
49	4130 - Aspen	Low Density Pole	4.4	40	1-50	U type starting to fill in.
50	4110 - Sugar Maple Association	Low Density Log	14.5	61		Black cherry semi- open.
51	4110 - Sugar Maple Association	Low Density Pole	17.7	61		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	42110 - Planted Red Pine	High Density Sapling	4.3	15		
54	4110 - Sugar Maple Association	High Density Log	79.7	Uneven Age	111-140	
55	42310 - Planted Spruce	High Density Log	1.3	49	141-170	
57	42310 - Planted Spruce	High Density Log	1.9	49	141-170	
60	42110 - Planted Red Pine	High Density Sapling	23.0	15		
62	4110 - Sugar Maple Association	High Density Log	38.1	Uneven Age	111-140	
64	4110 - Sugar Maple Association	High Density Log	593.6	Uneven Age	111-140	Very heavy with black raspberry.
66	4110 - Sugar Maple Association	High Density Log	23.8	Uneven Age	81-110	Originally the same stand as 83, so thinned in 1996, sale # 2-95, but almost pure sugar maple.
67	4131 - Aspen, Oak	High Density Sapling	21.5	25	1-50	Stand was cut in 1986, Sale #39-85. All oak and white pine were left.
68	4123 - Red Oak	High Density Log	2.4	70	81-110	
69	4130 - Aspen	High Density Pole	20.3	37		
70	4112 - Maple, Beech, Cherry Association	High Density Log	17.7	Uneven Age	111-140	Thinned in 1996, sale #2-95. Mainly sawlog size red maple trees with a beech understory.
71	4130 - Aspen	High Density Pole	10.3	35		
72	4121 - Oak, Aspen	High Density Log	6.9	70	111-140	
73	4123 - Red Oak	High Density Log	20.2	Uneven Age	81-110	Originally part of larger stand. Thinned in 1996, sale #2-95. Mainly oak in this area.
74	4110 - Sugar Maple Association	Low Density Pole	15.5	50		Mainly black cherry component.
75	42250 - Pine, Oak	High Density Log	20.5	55	81-110	
77	4112 - Maple, Beech, Cherry Association	High Density Log	12.5	Uneven Age	51-80	Thinned in 2002, sale #21-00.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
78	4121 - Oak, Aspen	High Density Sapling	12.0	24		Cut in 1985, Sale #44-85.
79	42110 - Planted Red Pine	High Density Log	64.6	64	81-110	Thinned in 2004, Sale #17-04.
80	4130 - Aspen	High Density Pole	10.6	37		
83	4123 - Red Oak	High Density Log	33.2	67	81-110	

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	6224 - Treed Bog	6.0	No	Unspecified	
6	50 - Water	1.7	No	Unspecified	
9	3303 - Mixed Low Density Trees	15.5	No	Medium (NonForested)	
13	3205 - Mixed Upland Shrub	7.2	No	Medium (NonForested)	
19	622 - Lowland Shrub	1.6	No	Unspecified	
20	3303 - Mixed Low Density Trees	29.7	No	Medium (NonForested)	
22	6233 - Wet Meadow	3.5	No	Unspecified	
23	710 - Sand, Soil	1.2	No	Unspecified	Old gravel pit with some ORV issues.
24	3103 - Rubus-Fern	21.6	No	Medium (NonForested)	
28	3103 - Rubus-Fern	3.5	No	Unspecified	
29	3103 - Rubus-Fern	4.2	No	Unspecified	
37	6233 - Wet Meadow	10.2	No	Unspecified	
42	6233 - Wet Meadow	3.9	No	Unspecified	
45	320 - Upland Shrub	2.5	No	Unspecified	
46	320 - Upland Shrub	5.2	N\A	Unspecified	
53	3102 - Grass	2.5	No	Unspecified	
56	3102 - Grass	1.3	No	Unspecified	
58	3102 - Grass	3.5	No	Unspecified	

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
59	3102 - Grass	2.6	No	Unspecified	
61	3102 - Grass	1.7	No	Unspecified	
63	3102 - Grass	2.4	No	Unspecified	
65	3102 - Grass	2.7	No	Unspecified	
76	6233 - Wet Meadow	3.7	No	Unspecified	
81	6233 - Wet Meadow	2.3	No	Unspecified	
82	3205 - Mixed Upland Shrub	2.9	No	Unspecified	

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

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
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.