



Report 1 – Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 105

Entry Year 2015

Acreage: 1,940

County Kalkaska

Management Area: Grayling Ice Contact

Revision Date: 04/23/2013

Stand Examiner: Donna Hagan

Legal Description:

T28N, R5W, Sec's. 10, 11 & 12

Identified Planning Goals:

Located in the Grayling Ice Contact Management Area, and includes Kalkaska, Crawford and Otsego counties and contains 55,348 acres of state forest. Management in the Grayling Ice Contact management area (MA) will emphasize continuing to balance the age class of aspen on suitable sites and thinning the northern hardwoods, balancing age classes of red pine and jack pine, and regenerating the aging oak resource. Management will strive to sustainably produce various timber products, enhance game and non-game wildlife habitat, protect areas of unique character, such as the historic Deward Tract, and provide for forest-based recreational uses. With about 3% of the MA being lowland, management activities will be minimally constrained. Expected trends within the next decade are increased recreational pressure, managing oil and gas development, introduced pests and diseases and the difficulty in regenerating oak.

Soil and topography:

Soils are Island Lake, Rubicon and Kalkaska Sands. The terrain is flat to very steep, ranging anywhere from 6 - 35% slope.

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

This compartment is a solid block of State Land. There is oil and gas development in the eastern edge of the compartment along Deward Road. Land use is recreation with the ATV trail and route running through the compartment and the snowmobile trail just south of the compartment. South Crooked Lake is in the western edge of the compartment, just west of Blue Lake Road and is a very shallow lake, ~15 feet.

Unique, Natural Features:

None listed within compartment.

Archeological, Historical, and Cultural Features:

Old logging camps.

Special Management Designations or Considerations:

Whithin the Deward tract, East side of Deward Road, it is unlawful to use or operate a motorized vehicle except on designated forest roads & to camp further than 50 feet from roads open to motorized vehicle use.

Watershed and Fisheries Considerations:

South Crooked Lake lies within Compartment 105. It is a small natural lake, with populations of largemouth bass, bluegill, and pumpkinseed sunfish. BMPs should be used if working near the lake.

Wildlife Habitat Considerations:

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact and glacial outwash sand and gravel and post glacial alluvium. The glacial drift thickness varies between 600 and 1,000 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. The Coldwater does not have an economic use. A gravel pit is located three miles to the southeast, but potential is considered to be good. This area is located in the center of the Guelph (Niagaran) reef trend and south of the current Antrim Shale gas play. The Compartment is currently leased for oil and gas development and is held by production.

Vehicle Access:

No new roads needed. Need to get out when snow goes to check road closures.

Survey Needs:

No surveys needed.

Recreational Facilities and Opportunities:

A large segment of the Kalkaska ORV trail runs East/West & North/South in this compartment. Proposed timber management activities should include trail protection specifications to reduce impacts, as well as serve as an example of how silviculturally sound timber harvesting practices can co-exist, and often improve recreation and hunting experiences for future generations. Treatments proposed directly adjacent to the ORV trail tread should include either a "flush cut" specification, or be stumped high enough (3 feet) to avoid being hidden by perennial flora (ferns).

Fire Protection:

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: 105
 T28N R05W
 Sections 10, 11, 12
 County: Kalkaska
 Unit: Traverse City
 YOE: 2015
 Acres: 1,940 GIS Calculated
 Examiner: Donna Hagan
 Map Revised: 05/28/2013
 Map Phase: Web Post

Legend

- Miris Corners
- Remonumented Section Corners
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Stream
- Intermittent Stream
- Lakes and Rivers

- Snowmobile Trail
- ORV Trail
- ORV Route
- ORV Trails
- ORV Routes
- Snowmobile Trails

Treatments

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

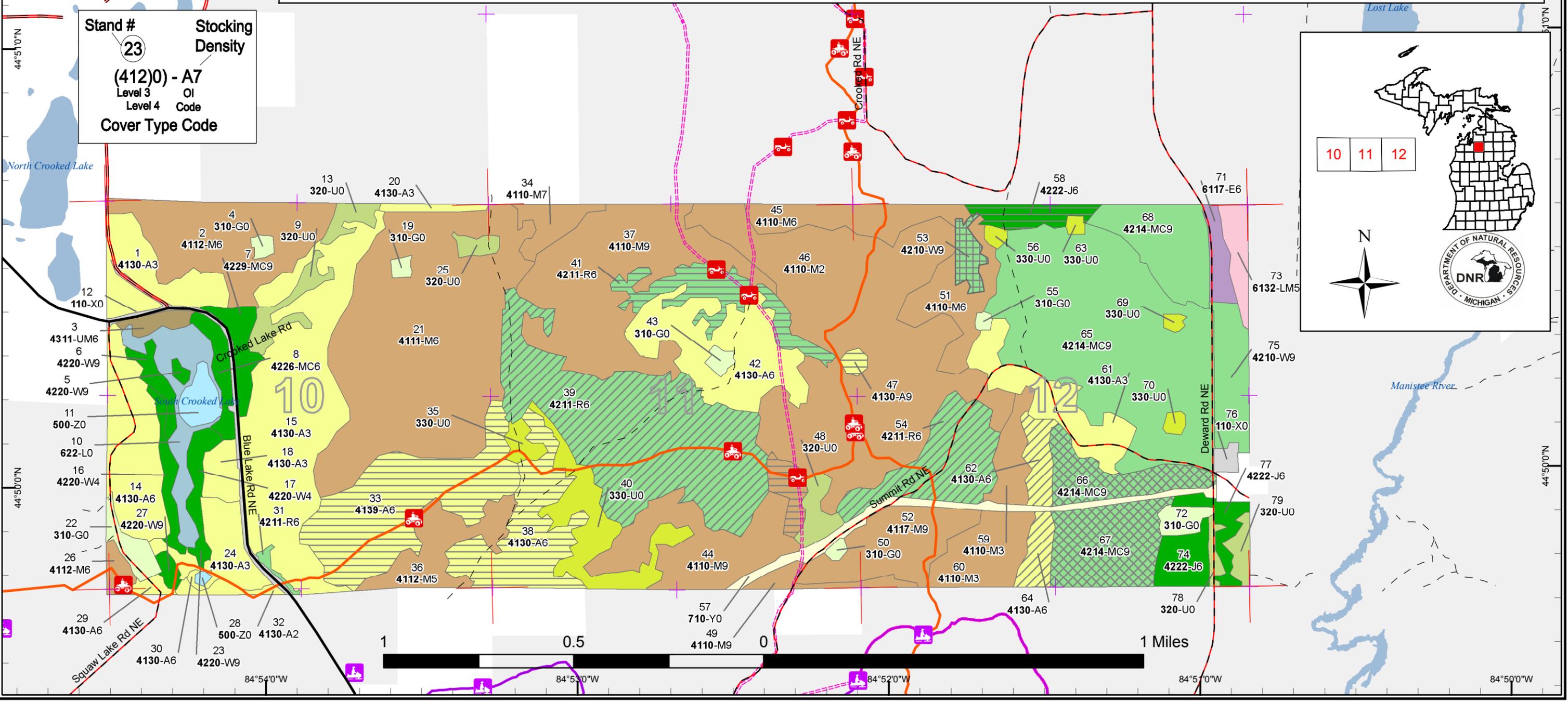
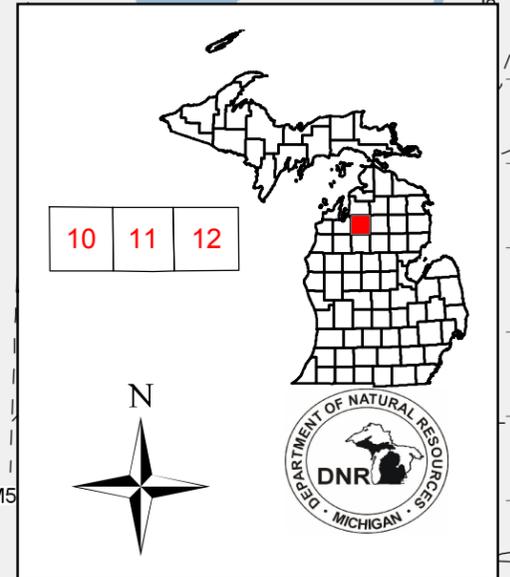
Forest Stands

- Level 3
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 431 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 613 - Lowland Mixed Forest

Non-Forest Stands

- Level 3
- 110 - Low Intensity Urban
 - 310 - Herbaceous Openland
 - 320 - Upland Shrub
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 710 - Sand, Soil
 - State Forest Land

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

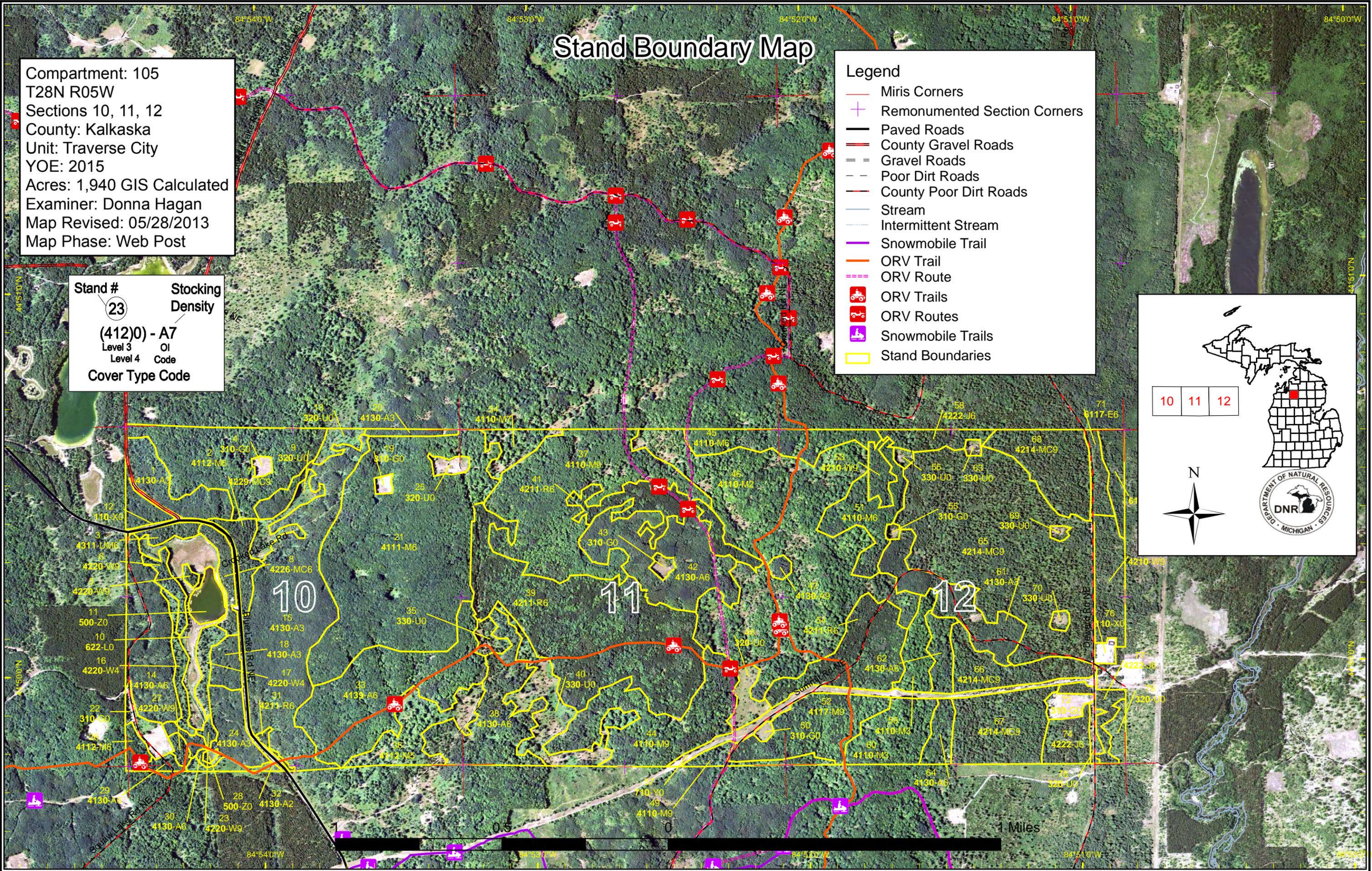
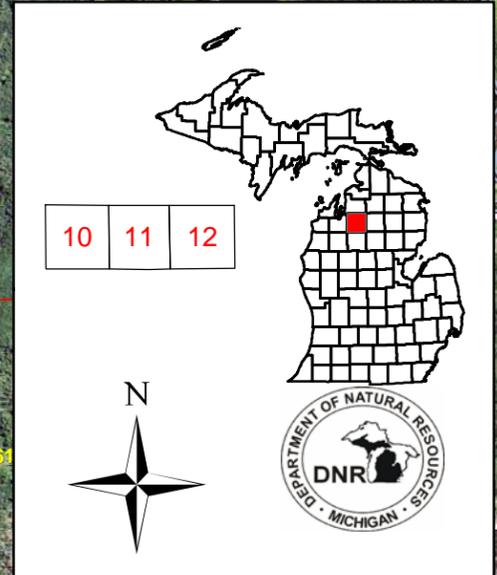


Stand Boundary Map

Compartment: 105
 T28N R05W
 Sections 10, 11, 12
 County: Kalkaska
 Unit: Traverse City
 YOE: 2015
 Acres: 1,940 GIS Calculated
 Examiner: Donna Hagan
 Map Revised: 05/28/2013
 Map Phase: Web Post

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

- ### Legend
- Miris Corners
 - Remonumented Section Corners
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Stream
 - Intermittent Stream
 - Snowmobile Trail
 - ORV Trail
 - ORV Route
 - ORV Trails
 - ORV Routes
 - Snowmobile Trails
 - Stand Boundaries



Special Conservation Areas & Site Conditions Map

Compartment: 105
 T28N R05W
 Sections 10, 11, 12
 County: Kalkaska
 Unit: Traverse City
 YOE: 2015
 Acres: 1,940 GIS Calculated
 Examiner: Donna Hagan
 Map Revised: 05/28/2013
 Map Phase: Web Post

Legend

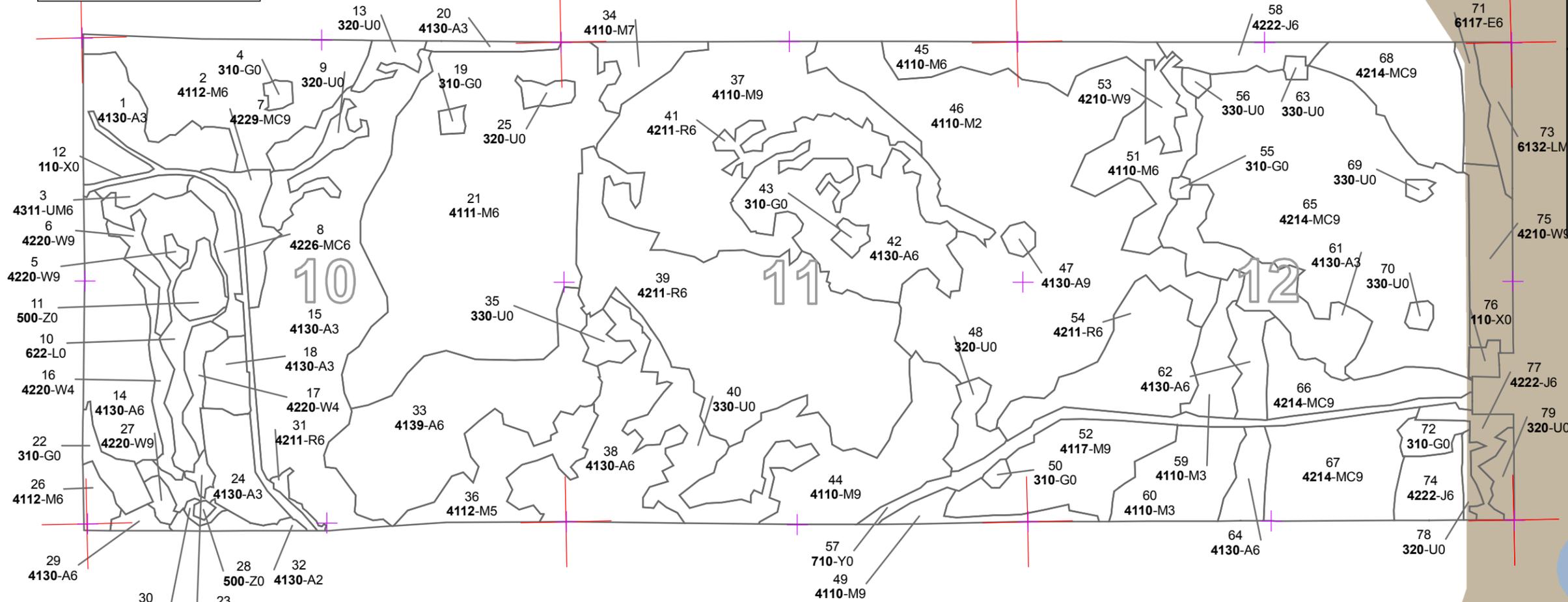
- Miris Corners
- Remonumented Section Corners
- Dedicated Special Conservation Areas**
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Dedicated Management Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Stand Boundaries

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

10 11 12

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DEPARTMENT OF NATURAL RESOURCES
 MICHIGAN



Report 2 – Total Acres by Cover Type and Age Class



	Age Class													Total	
	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
Aspen	4	52	202	41	1	67	74	0	0	0	0	0	0	3	443
Herbaceous Openland	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Jack Pine	0	0	0	21	0	11	0	0	0	0	0	0	0	0	32
Low-Density Trees	43	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Lowland Deciduous	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
Lowland Mixed Forest	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10
Lowland Shrub	23	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Natural Mixed Pines	0	0	0	0	9	10	0	0	0	0	0	0	0	0	19
Northern Hardwood	0	0	0	214	0	27	0	0	0	0	0	0	0	510	752
Planted Mixed Pines	0	0	0	0	0	0	0	254	0	0	0	0	0	0	254
Red Pine	0	0	132	65	0	0	0	0	0	0	0	0	0	0	198
Sand, Soil	18	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Upland Mixed Forest	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
Upland Shrub	35	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Urban	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Water	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	15	11	0	0	29	1	0	0	0	0	0	56
Total	167	52	334	375	26	115	74	282	1	0	0	0	0	513	1940



Report 3 – Proposed Treatment Summaries

Traverse City Mgt. Unit
Year of Entry 2015

Compartment 105
Total Compartment Acres: 1940

Acres by Treatment Type

Commercial Harvest - 426 Tree Planting - 26 Other - 0
Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Aspen Types	121	0	0	0	19	0	140
Natural Pines	11	0	0	0	0	0	11
Northern Hardwood	9	0	0	0	0	0	9
Planted Pines	26	63	7	0	170	0	266
Total	167	63	7	0	190	0	426



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
33 61105033-Cut	73.8	4139 - Aspen, Mixed Deciduous	High Density Pole	60	51-80	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription ATV trail runs through southern part of stand. Final harvest, leaving hardwood island as retention, especially along the ATV trail.

Specs:

Other Comments: This stand has always been typed out as a hardwood stand, but I separated out the southern part because it has a significant amount of aspen in it and the hardwood, for the most part, is of poor quality.

Next Steps:

Proposed Start Date: 10/01/2014

38 61105038-Cut	45.0	4130 - Aspen	High Density Pole	55		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription Final harvest leaving hardwood along the ridges as retention and along ORV trail.

Specs:

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

39 61105039-Cut	130.9	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	27	111-140	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Third row thin.

Specs:

Other Comments: This stand will start to convert back to hardwoods once it is opened up. Recreational trail is within this stand, use appropriate trail protection specifications as needed.

Next Steps:

Proposed Start Date: 10/01/2014

41 61105041-Cut	25.8	42110 - Planted Red Pine	High Density Pole	35	171-200	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Narrow winding stand. First time thinning.

Specs:

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
44 61105044-Cut_small	8.6	4110 - Sugar Maple Association	High Density Log	50	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Final harvest aspen clone. Reserve area around ORV route.

Specs:

Other Comments: Small aspen clone with hardwood stand.

Next Steps:

Proposed Start Date: 10/01/2014

47 61105047-Cut	2.4	4130 - Aspen	High Density Log	50		Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal
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Prescription Final harvest. Too small for retention.

Specs:

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

53 61105053-Cut	7.1	42100 - Planted White Pine	High Density Log	74	141-170	Harvest	Seed Tree with Reserves	42100 - Planted White Pine	Cmpt. Review Proposal
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Prescription Very old plantation of severely weevilled white pine. Leave white pine as seed trees for regeneration purposes.

Specs:

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

54 61105054-Cut	39.5	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	35	141-170	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Third row thin.

Specs:

Other Comments: This stand will convert back to hardwoods. Recreational trail is within this stand, use appropriate trail protection specifications as needed.

Next Steps:

Proposed Start Date: 10/01/2014

58 61105058-Cut	10.9	42220 - Natural Jack Pine	High Density Pole	55	51-80	Harvest	Clearcut with Reserves	42221 - Natural Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Final harvest. Retention should be along the northwest side of stand 63, which has a small component of red and white pine.

Specs:

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62 61105062-Cut	10.2	4130 - Aspen	High Density Pole	50		Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Heavy hardwood understory with aspen overstory. Remove aspen letting the hardwood to develop.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014

64 61105064-Cut	8.9	4130 - Aspen	High Density Pole	50		Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Heavy hardwood understory with aspen overstory. Remove aspen letting the hardwood to develop.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014

66 61105066-Cut	24.4	42140 - Planted Mixed Pine	High Density Log	74	81-110	Harvest	Single Tree Selection	42290 - Natural Mixed Pine	Cmpt. Review Proposal
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Prescription Remove aspen, jack pine and red maple. Retention should concentrate along pipeline.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014

67 61105067-Cut	38.6	42140 - Planted Mixed Pine	High Density Log	74	81-110	Harvest	Single Tree Selection	42290 - Natural Mixed Pine	Cmpt. Review Proposal
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Prescription Remove aspen, jack pine and red maple. Retention should concentrate along pipeline.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014

**Total Treatment
Acreage Proposed: 426.3**



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

Other Comments:

Next Steps:

Proposed Start Date:

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

Donna Hagan : Examiner

Compartment 105

Year of Entry 2015

Availability for Management

Availability for Management			Dominant Site Conditions	
Total Acres	Acres Available	Acres Not Available		No
443	443		Aspen	443
32	32		Jack Pine	32
8	8		Lowland Deciduous	8
10	10		Lowland Mixed Forest	10
19	19		Natural Mixed Pines	19
752	752		Northern Hardwood	752
254	254		Planted Mixed Pines	254
198	198		Red Pine	198
5	5		Upland Mixed Forest	5
56	56		White Pine	56
1,777	1,777		Total Forested Acres	1,777
	100%		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.*



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
Comments				



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 Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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	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	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific management uses through the promulgation of rules, as governed by Part 5, Department of Natural Resources, of the NREPA (MCL 324.502(2) and 324.504). Section 38 of the Administrative Procedures Act (MCL 24.238) provides for public requests for the promulgation of rules. This is an active program, with one proposed site currently under review by the DNR.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



S t a n d	Traverse City Mgt. Unit		Report 10 – Forested Stands			Compartment: 105 Year of Entry: 2015	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	4130 - Aspen	High Density Sapling	28.4	15		Cut in 1997. Sale #66-95.	
2	4112 - Maple, Beech, Cherry Association	High Density Pole	60.1	Uneven Age	51-80		
3	4311 - Pine, Aspen Mix	High Density Pole	5.0	47	1-50		
5	42200 - Natural White Pine	High Density Log	1.3	80		Island in South Crooked Lake.	
6	42200 - Natural White Pine	High Density Log	6.3	47	51-80		
7	42290 - Natural Mixed Pine	High Density Log	10.3	59	111-140		
8	42260 - Natural Pine, Mixed Deciduous	High Density Pole	9.2	47	111-140		
14	4130 - Aspen	High Density Pole	40.8	37			
15	4130 - Aspen	High Density Sapling	109.0	28			
16	42200 - Natural White Pine	Low Density Pole	7.9	30	1-50	Next to South Crooked Lake.	
17	42200 - Natural White Pine	Low Density Pole	7.1	30	1-50		
18	4130 - Aspen	High Density Sapling	8.5	28			
20	4130 - Aspen	High Density Sapling	3.7	19		Stand harvested in 1993.	
21	4111 - S.Maple, Hard Mast Association	High Density Pole	174.2	Uneven Age	81-110		
23	42200 - Natural White Pine	High Density Log	1.9	47	111-140		
24	4130 - Aspen	High Density Sapling	19.4	15		Cut in 1997. Sale #66-95.	
26	4112 - Maple, Beech, Cherry Association	High Density Pole	5.0	Uneven Age	81-110		
27	42200 - Natural White Pine	High Density Log	2.7	47	81-110	Nice transition area.	

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Traverse City Mgt. Unit

Report 10 – Forested Stands

Compartment: 105
Year of Entry: 2015

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4130 - Aspen	High Density Pole	2.8	Uneven Age		
4130 - Aspen	High Density Pole	1.2	42		Retention area around a wet area.
42110 - Planted Red Pine	High Density Pole	1.6	27	81-110	Planted to block view of a clearcut from the road curve.
4130 - Aspen	Medium Density	4.3	4		Recently cut with adjacent compartment. Sale #56-08.
4139 - Aspen, Mixed Deciduous	High Density Pole	73.8	60	51-80	Poor quality hardwood stand that has an aspen component running through it.
4110 - Sugar Maple Association	Low Density Log	10.9	Uneven Age	51-80	
4112 - Maple, Beech, Cherry Association	Medium Density Pole	27.2	50	51-80	
4110 - Sugar Maple Association	High Density Log	94.4	Uneven Age	81-110	
4130 - Aspen	High Density Pole	45.0	55		
42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	130.9	27	111-140	
42110 - Planted Red Pine	High Density Pole	25.8	35	171-200	
4130 - Aspen	High Density Pole	53.6	29		
4110 - Sugar Maple Association	High Density Log	58.3	Uneven Age	81-110	
4110 - Sugar Maple Association	High Density Pole	24.3	Uneven Age	1-50	
4110 - Sugar Maple Association	Medium Density	188.9	30		
4130 - Aspen	High Density Log	2.4	50		Small aspen clone.
4110 - Sugar Maple Association	High Density Log	7.8	Uneven Age	81-110	
4110 - Sugar Maple Association	High Density Pole	24.4	Uneven Age	81-110	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	4117 - Mixed N. Hardwood - Pine	High Density Log	37.1	Uneven Age	51-80	Areas of this stand is planted red pine, but hardwoods has taken over most of stand.
53	42100 - Planted White Pine	High Density Log	7.1	74	141-170	
54	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	39.5	35	141-170	
58	42220 - Natural Jack Pine	High Density Pole	10.9	55	51-80	
59	4110 - Sugar Maple Association	High Density Sapling	13.6	Uneven Age		
60	4110 - Sugar Maple Association	High Density Sapling	25.6	30		
61	4130 - Aspen	High Density Sapling	30.8	27		
62	4130 - Aspen	High Density Pole	10.2	50		
64	4130 - Aspen	High Density Pole	8.9	50		
65	42141 - Planted Mixed Pine, Mixed Deciduous	High Density Log	157.4	74	1-50	Very old plantation. Planted as a mix of red, jack and white in 1938. Aspen, hardwoods, white and jack pine were cut out in 1986, sale #002-85.
66	42140 - Planted Mixed Pine	High Density Log	24.4	74	81-110	Very old plantation. Planted as a mix of red, jack and white in 1938.
67	42140 - Planted Mixed Pine	High Density Log	38.6	74	81-110	Very old plantation. Planted as a mix of red, jack and white in 1938.
68	42140 - Planted Mixed Pine	High Density Log	33.2	74	81-110	Very old plantation. Planted as a mix of red, jack and white in 1938. Lots of old stumps in stand.
71	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	8.3	38		
73	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	9.9	37		
74	42220 - Natural Jack Pine	High Density Pole	12.5	39		
75	42100 - Planted White Pine	High Density Log	21.6	74	81-110	Deward Area.

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Traverse City Mgt. Unit

Report 10 – Forested Stands

Compartment: 105
Year of Entry: 2015



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
77	42220 - Natural Jack Pine	High Density Pole	9.0	39		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	3102 - Grass	2.0	No	Unspecified	Abandon oil well pad.
9	3205 - Mixed Upland Shrub	9.5	No	Unspecified	
10	6220 - Alder/willow	23.3	No	Unspecified	
11	50 - Water	7.9	No	Unspecified	South Crooked Lake.
12	11 - Low Intensity Urban	10.7	No	Unspecified	
13	3205 - Mixed Upland Shrub	5.3	No	Unspecified	
19	3102 - Grass	1.7	No	Unspecified	Abandon oil well pad in 2003.
22	3102 - Grass	7.6	No	Unspecified	Abandon oil well pad.
25	3205 - Mixed Upland Shrub	3.6	No	Unspecified	Stand has subsidence pits from old abandon oil well pad.
28	50 - Water	0.8	No	Unspecified	Pot hole.
35	3302 - Low Density Conifer Trees	4.9	No	Unspecified	
40	3303 - Mixed Low Density Trees	31.2	No	Unspecified	
43	3102 - Grass	2.5	No	Unspecified	Abandon oil well pad.
48	3205 - Mixed Upland Shrub	8.1	No	Unspecified	
50	3102 - Grass	1.4	No	Unspecified	Abandon oil well pad.
55	3102 - Grass	1.2	No	Unspecified	Abandon oil well pad.
56	3302 - Low Density Conifer Trees	1.8	No	Unspecified	Abandon oil well site.
57	710 - Sand, Soil	17.7	No	Unspecified	Pipeline



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
63	3302 - Low Density Conifer Trees	1.4	No	Unspecified	Abandon oil well site.
69	3302 - Low Density Conifer Trees	1.4	No	Unspecified	Abandon oil well site.
70	3302 - Low Density Conifer Trees	1.9	No	Unspecified	Abandon oil well site.
72	3102 - Grass	5.7	No	Unspecified	Abandon oil well pad with monitoring wells.
76	11 - Low Intensity Urban	2.8	No	Unspecified	Oil facility.
78	3205 - Mixed Upland Shrub	3.0	No	Unspecified	
79	3205 - Mixed Upland Shrub	5.2	No	Unspecified	Deward area stump field.