



Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 174

Entry Year 2015

Acreage: 948

County Cheboygan

Management Area: Cheboygan Lake Plain

Revision Date: 04/18/2013

Stand Examiner: John Scheele

Legal Description:

T34N - R2W Sections 2, 3, 10, 11

Identified Planning Goals:

To provide for the protection, integrated management and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

Soil and topography:

A Grayling-Rubicon Association of excessively drained, sandy soils is in the north, a Rubicon-Blue Lake Association of well drained, sandy soils is in west, southwest and a Fairport-Onaway Association of well drained, loamy soils is in the southeast parts of the compartment. The topography is nearly level in the north and gently rolling to hilly in the south parts of the compartment.

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

Compartment consist of two separate areas of mostly continuous state ownership. Southern area is landlock by private ownership while the northern area has private ownership surrounding and within the state owned block. There is a mix of residential, recreational, and agricultural landuse within and surrounding the compartment.

Unique Natural Features:

Potential for woodland vole, red-shouldered hawk, northern goshawk, wood turtle, and eastern massasauga. Potential for ram's head lady's-slipper, limestone oak fern, round-leaved orchis, and calypso orchid in cedar swamps. Potential for dry prairie plants in grassy openings. Hill's thistle, rough fescue, Prunus alleghaniensis and pale agoseris.

Archeological, Historical, and Cultural Features:

There are no known features within the compartment at this time.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

This compartment is in the Little Sturgeon River watershed, and contains a portion of Crumley Creek and some of its tributaries. The Little Sturgeon River and Crumley Creek are high priority trout streams vulnerable to beaver damming. A minimum of 300' no clear-cut buffer will be maintained adjacent to Crumley Creek. When managing for coniferous species, a 100' no clear-cut buffer will be applied.

Wildlife Habitat Considerations:

This compartment consists of a mixture of upland and lowland types. The lowland area associated with Crumley Creek supports a variety of species including black bear, white-tailed deer, furbearers, and various amphibians. The upland areas consists of a mixture of aspen, oak, jack and red pine. Some oak will be treated to regenerate for future hard mast while clumps of mature oak will be left for current mast production and for a seed source. Aspen will be treated in this area to provide age-class diversity and early successional habitat. Both of these treatments will benefit a variety of wildlife species including white-tailed deer, wild turkey, ruffed grouse, American woodcock, and various songbirds.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact outwash sand and gravel, lacustrine (lake) sand and gavel and coarse-textured glacial till. The glacial drift thickness varies between 0 and 50 feet. The Devonian Antrim Shale and Traverse Group subcrop below the glacial drift. The Traverse and Antrim are used for stone and cement products. Gravel pits are located to the east and the uplands appear to have good potential. The nearest oil and gas production, the Antrim Shale gas play, is located 12 miles to the south. The Antrim Shale is present but may be to thin to be productive. The Compartment is leased for oil and gas development for the Collingwood Formation

Vehicle Access:

There is good vehicle access in the north portion of the compartment off of M-68. The south portion of the compartment contains good access roads but access to the compartment is limited by surrounding private ownership.

Survey Needs:

None

Recreational Facilities and Opportunities:

No recreational facilities within compartment. Public hunting opportunities are abundant in the north portion of the compartment because of good access. Recreational opportunities are very limited in the south due to limited public access.

Fire Protection:

There is a moderate to significant concern of wildfire potential along M-68 and adjacent to a private campground facility. Area has mature Jack Pine with excessive drained soils and is adjacent to a larger area of Jack pine covertype to the north.

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: 174
 T34N R02W Sec. 2, 3, 10, 11
 County: Cheboygan
 Unit: Gaylord
 YOE: 2015
 Acres: 948 GIS Calculated
 Examiner: John Scheele
 Map Revised: 04/08/2014
 Map Phase: Post-Review

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

Legend

- ✚ Remonumented Section Corners
- Miris Corners
- ◆ PLSS Corner
- Bridges
- 🏍 Motorcycle Trails (SOS License)
- 🏍 MCCCT Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Pipeline
- Powerline
- Motorcycle (SOS License)
- MCCCT Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments Post Review

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

Forest Stands

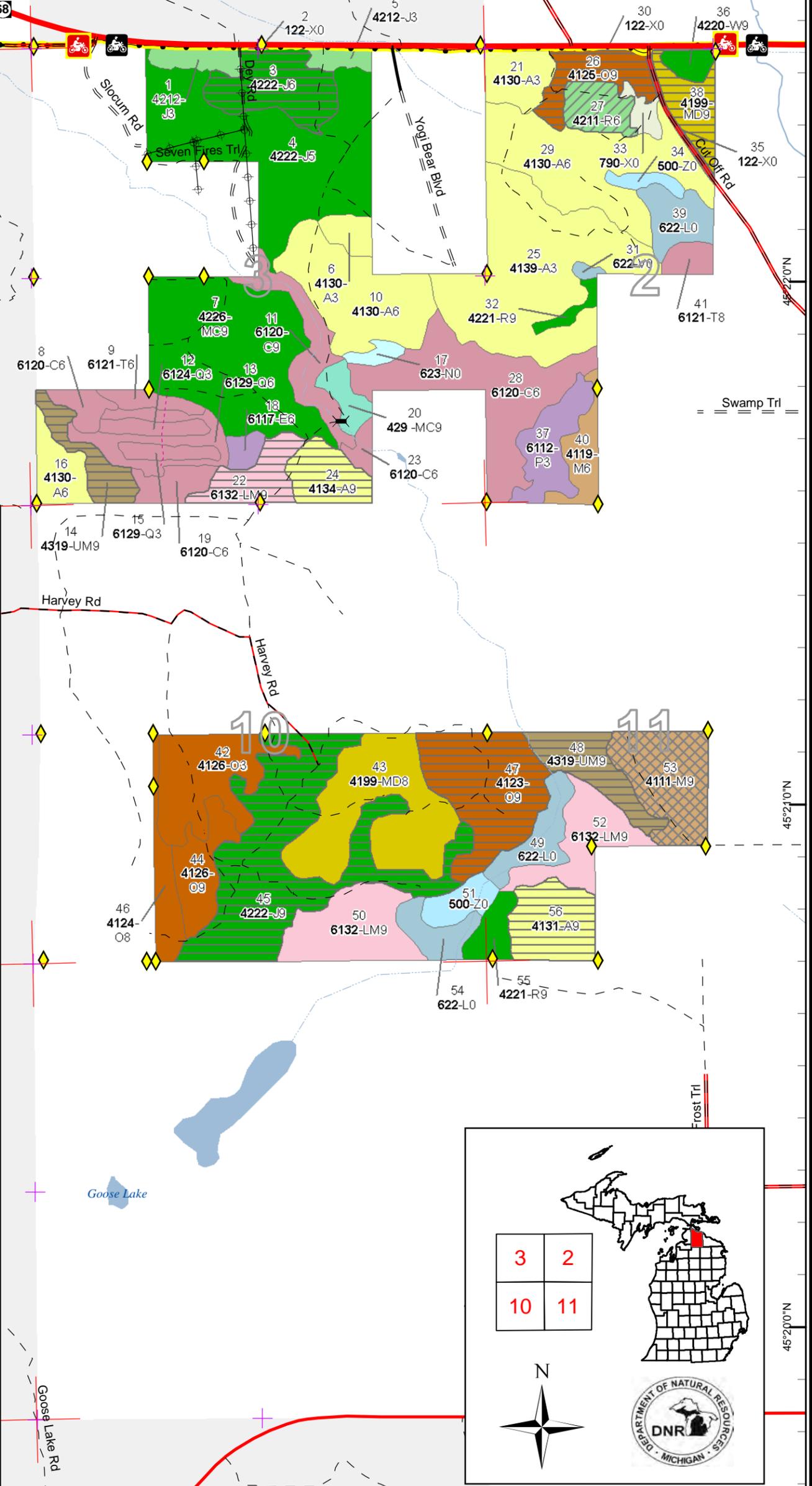
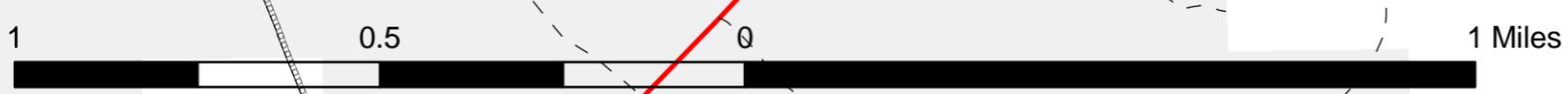
Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 122 - Road/Parking Lot
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 790 - Other Bare/Sparsely Vegetated

84°34'0"W 84°33'0"W 84°32'0"W 84°31'0"W
 45°23'0"N 45°22'0"N 45°21'0"N 45°20'0"N

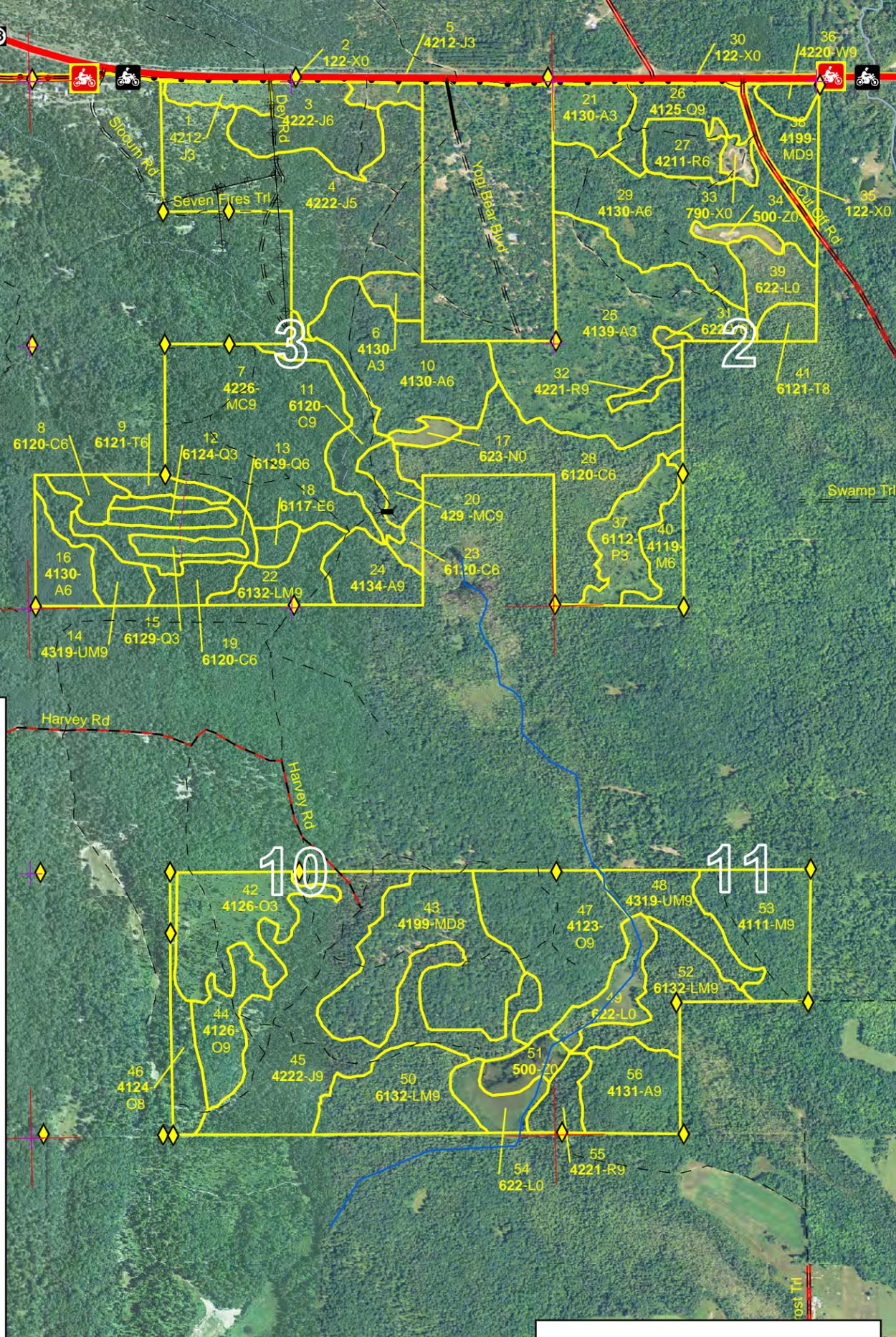
Stand Boundary Map

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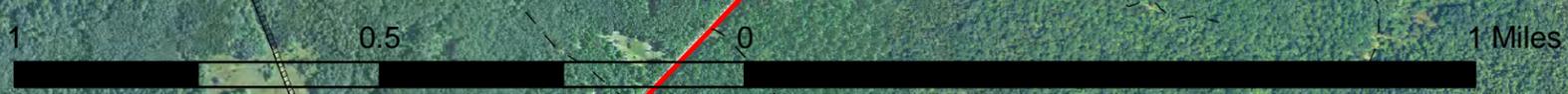
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Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

Legend

- Remonumented Section Corners
 - Miris Corners
 - PLSS Corner
 - Bridges
 - Motorcycle Trails (SOS License)
 - MCCCT Trails
 - Highway
 - County Paved Roads
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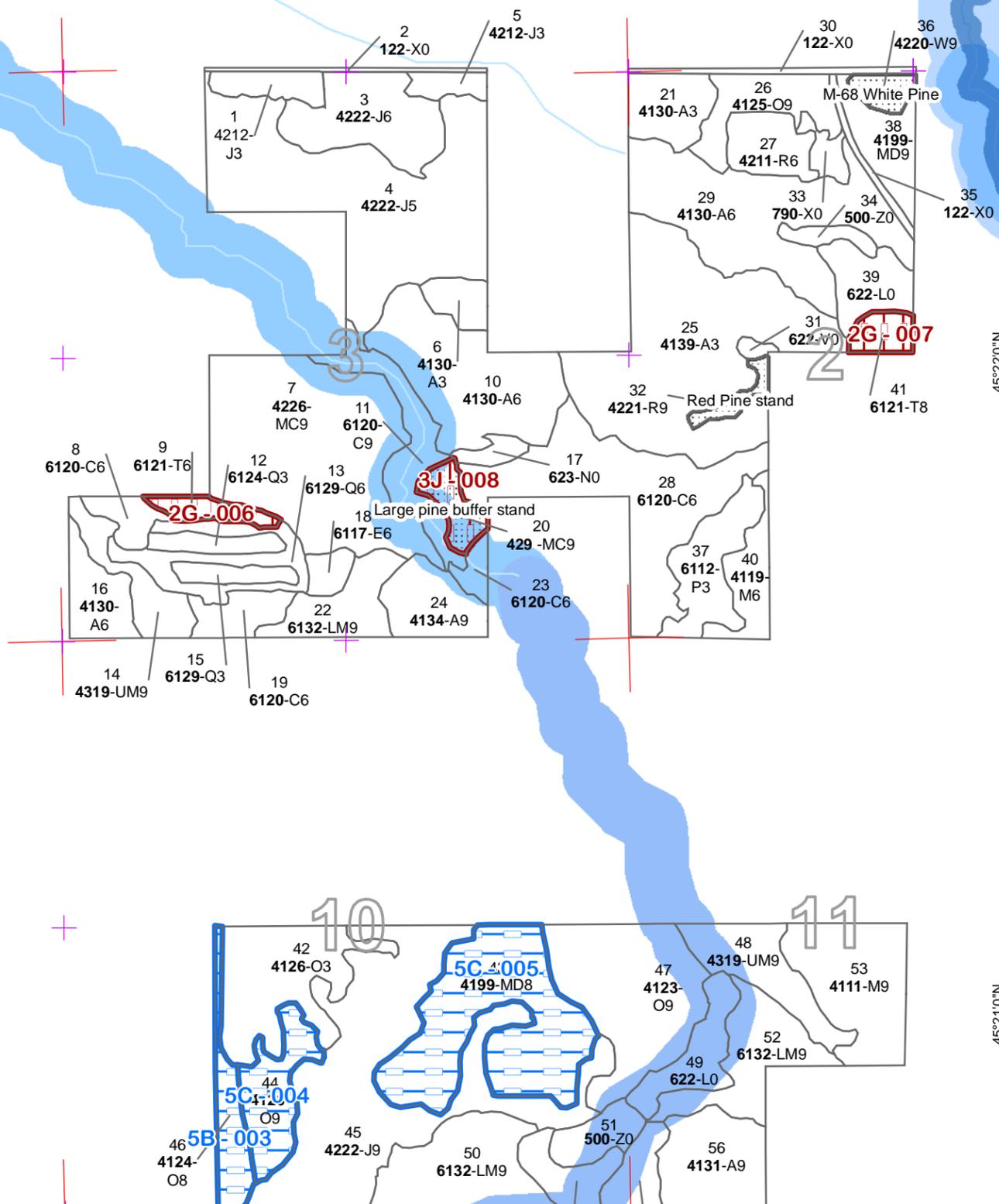
3	2
10	11



Special Conservation Areas & Site Conditions Map

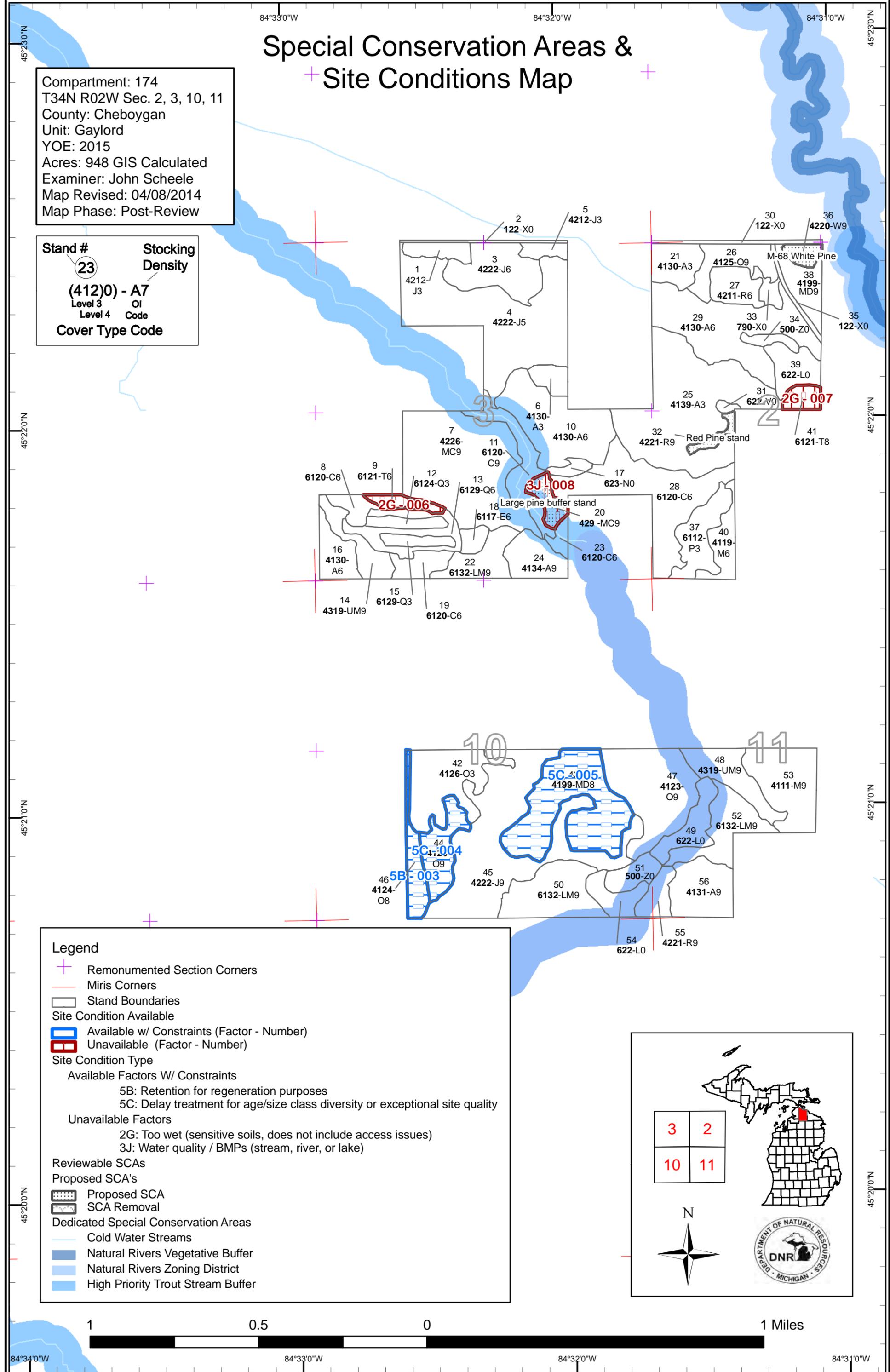
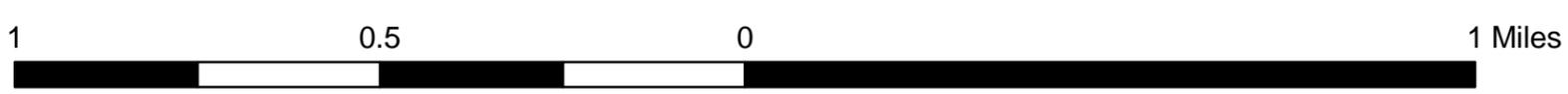
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Legend

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- Miris Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
 - 5B: Retention for regeneration purposes
 - 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
 - 2G: Too wet (sensitive soils, does not include access issues)
 - 3J: Water quality / BMPs (stream, river, or lake)
- Reviewable SCAs
- Proposed SCAs
 - Proposed SCA
 - SCA Removal
- Dedicated Special Conservation Areas
 - Cold Water Streams
 - Natural Rivers Vegetative Buffer
 - Natural Rivers Zoning District
 - High Priority Trout Stream Buffer



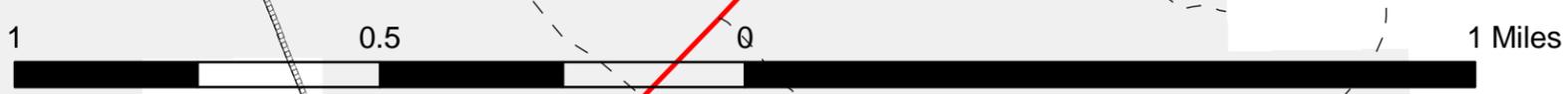
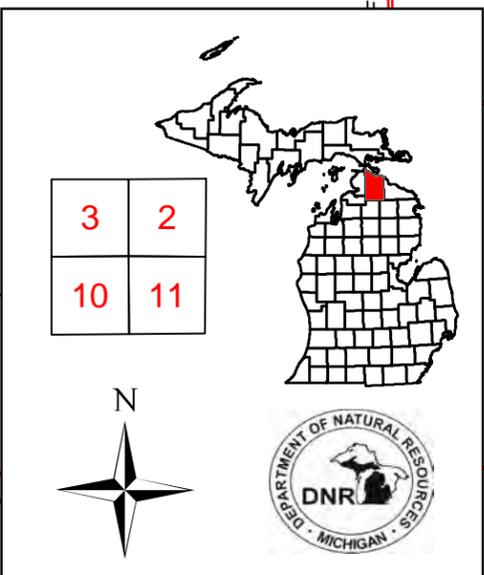
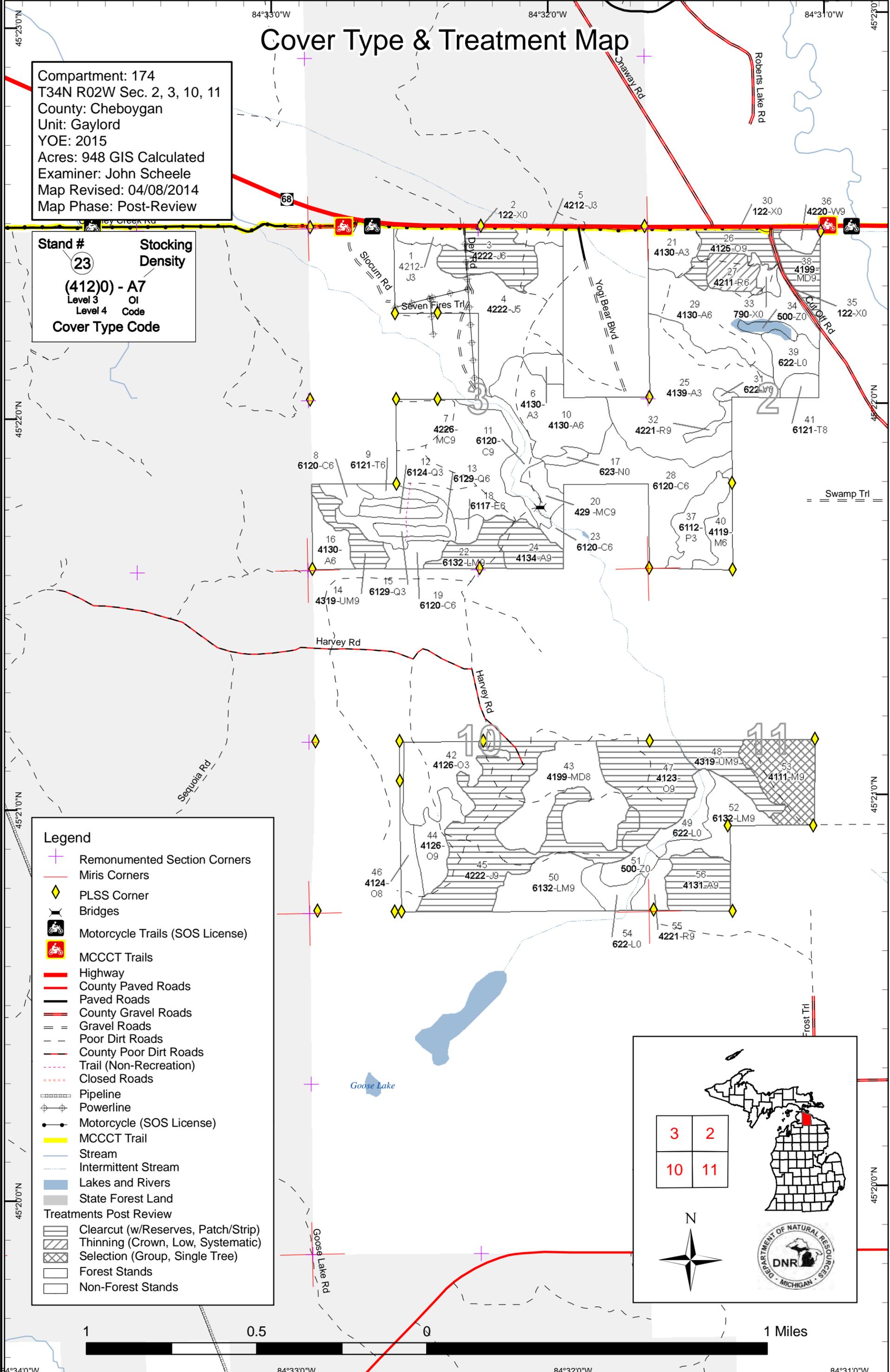
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84°34'0"W 84°33'0"W 84°32'0"W 84°31'0"W

Report 1 – 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	88	0	36	57	0	0	0	0	19	13	0	0	0	0	213
Bare/Sparsely Vegetated	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	49	0	16	10	0	75
Jack Pine	10	0	0	70	0	0	0	72	0	22	0	0	0	0	174
Lowland Aspen/Balsam Poplar	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Lowland Conifers	0	0	9	0	0	14	0	0	0	0	0	0	0	0	23
Lowland Deciduous	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Lowland Mixed Forest	0	0	0	0	0	0	0	0	32	25	0	0	0	0	57
Lowland Shrub	31	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Marsh	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	47	11	0	0	0	58
Natural Mixed Pines	0	0	0	0	0	0	0	0	66	0	0	0	0	0	66
Northern Hardwood	0	0	0	0	0	0	0	10	26	0	0	0	0	0	36
Oak	28	0	0	0	0	0	0	0	0	63	13	0	0	0	105
Red Pine	0	0	0	0	0	10	0	7	0	3	0	0	0	0	20
Tamarack	0	0	0	0	0	0	0	0	0	5	5	0	0	0	9
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
Upland Mixed Forest	0	0	0	0	0	0	0	0	16	10	0	0	0	0	26
Urban	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Water	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
White Pine	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	199	0	46	126	0	27	0	89	159	237	29	26	10	0	948



Report 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2015

Compartment 174
Total Compartment Acres: 948

Acres by Treatment Type

Commercial Harvest - 264 Tree Planting - 0 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	32	0	0	0	0	0	32
Lowland Mixed Forest	13	0	0	0	0	0	13
Mixed Upland Deciduous	11	0	0	0	0	0	11
Natural Pines	94	0	0	0	0	0	94
Northern Hardwood	0	26	0	0	0	0	26
Oak Types	51	0	0	0	0	0	51
Planted Pines	0	0	0	0	10	0	10
Upland Mixed Forest	26	0	0	0	0	0	26
Total	228	26	0	0	10	0	264



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3	52174003- CCWR	22.2	42220 - Natural Jack Pine	High Density Pole	91		Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Harvest stand to regenerate. Do not cut oak. Stand must be chipped to promote natural regeneration. No stand retention recommended in										
<u>Specs:</u> case stand needs to be trenched and planted.										
<u>Other</u> Cut in summer to disturb soil to help promote natural regeneration.										
<u>Comments:</u>										
<u>Next</u> Regeneration survey. Acceptable regeneration includes a moderate to well stocked stand of Jack Pine. Trench and plant if natural stocking level										
<u>Steps:</u> is not achieved after 2 years from harvest.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
14	52174014- CCWR	10.4	4319 - Mixed Upland Forest	High Density Log	91		Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Harvest stand to regenerate. Leave pine and oak. No retention due to small stand size.										
<u>Specs:</u>										
<u>Other</u> Access stand from the west through aspen stand.										
<u>Comments:</u>										
<u>Next</u> Regeneration survey. Acceptable regeneration includes a moderate to well stocked mix of deciduous species.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
22	52174022- CCWR	12.9	6132 - Mixed Lowland Forest with Cedar	High Density Log	81		Harvest	Clearcut with Reserves	6132 - Mixed Lowland Forest with Cedar	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Harvest stand to regenerate. Leave large Red and White Pine. Mark 2 separate areas containing cedar about one-quarter to one-half acre in										
<u>Specs:</u> size each for within stand retention.										
<u>Other</u> Harvest in dry summer or winter to minimize rutting damage.										
<u>Comments:</u>										
<u>Next</u> Regeneration survey. Acceptable regeneration includes a moderate to well stocked mix of aspen and deciduous species.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
24	52174024- CCWR	12.7	4134 - Aspen, Spruce/Fir	High Density Log	91		Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Harvest stand to regenerate. Leave pine, spruce and oak trees as reserves, seed source, and stand structure diversity. No stand retention										
<u>Specs:</u> recommended because of small stand size. Also leave a 300 foot buffer to Crumley Creek.										
<u>Other</u> Access stand from the south through private property or from the north using portable bridge to cross Crumley Creek.										
<u>Comments:</u>										
<u>Next</u> Regeneration survey. Acceptable regeneration includes a moderate to well stocked mix of aspen and deciduous species.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
26	52174026- CCWR	13.4	4125 - Black, N. Pin Oak	High Density Log	101	81-110	Harvest	Clearcut with Reserves	4125 - Black, N. Pin Oak	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Harvest stand to regenerate. Leave Red Pine. Mark multi-species clumps of 2- 6 trees per clump throughout stand. No other retention										
<u>Specs:</u> recommend because of small stand size. Protect understory conifer along M-68 as a visual buffer.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Regeneration survey. Acceptable regeneration includes a moderate to well stocked mix of oak and aspen species.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	52174027- RPTthin	9.9	42110 - Planted Red Pine	High Density Pole	51	171-200	Harvest	Systematic Thinning	42110 - Planted Red Pine	Fld. Tr. Bdy. - Incomplete

Prescription Third row thin. Only cut trees within rows.

Specs:

Other Stand is very suppressed. Spacing within rows is 3 - 4 feet in places and the DBH range is 5 - 10 inches. BA is 173.

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014

38	52174038- CCWR	11.0	4199 - Other Mixed Upland Deciduous	High Density Log	101	51-80	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Fld. Tr. Bdy. - Incomplete
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Prescription Harvest stand to regenerate. Leave Red Pine. Mark multi-species clumps of 2- 6 trees per clump throughout stand. No other retention

Specs: recommend because of small stand size.

Other

Comments:

Next Regeneration survey. Acceptable regeneration includes a moderate to well stocked mix of oak and aspen species.

Steps:

Proposed

Start Date: 10/01/2014

45	52174045- CCWR	72.2	42220 - Natural Jack Pine	High Density Log	76		Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Fld. Tr. Bdy. - Incomplete
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Prescription Harvest stand to regenerate. Stand must be chipped to promote natural regeneration. Leave White Pine, Red Pine, and oak species. Place

Specs: within stand retention in areas containing higher concentrations of oak. Leave 100 foot buffer to Crumley Creek.

Other

Comments:

Next Regeneration survey. Acceptable regeneration includes a moderate to well stocked stand of Jack Pine. Trench and plant if natural stocking level is not achieved after 2 years from harvest.

Steps:

Proposed

Start Date: 10/01/2014

47	52174047- CCWR	38.0	4123 - Red Oak	High Density Log	91	81-110	Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Fld. Tr. Bdy. - Incomplete
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Prescription Harvest stand to regenerate. Mark clumps of multi-species trees to leave. Also do not cut Red Pine. Leave retention area on steep slope in

Specs: southwest area of stand. Establish a 300 foot Buffer Crumley Creek or end treatment area at top of ridge along the creek.

Other

Comments:

Next Regeneration survey. Acceptable regeneration includes a moderate to well stocked mix of oak, aspen and coniferous species.

Steps:

Proposed

Start Date: 10/01/2014

48	52174048- CCWR	15.7	4319 - Mixed Upland Forest	High Density Log	81		Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Fld. Tr. Bdy. - Incomplete
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Prescription Clearcut except pine, oak, and cedar. Place stand retention in lower ground area located in north part of stand. Retention will also be a buffer to

Specs: Crumley Creek. Maintain a 300 foot buffer area along creek.

Other

Comments:

Next Regeneration survey. Acceptable regeneration includes a moderate to well stocked mix of aspen and coniferous species.

Steps:

Proposed

Start Date: 10/01/2014



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
53	52174053-ST5	26.3	4111 - S.Maple, Hard Mast Association	High Density Log	81	111-140	Harvest	Single Tree Selection	4111 - S.Maple, Hard Mast Association	Fld. Tr. Bdy. - Incomplete

Prescription Mark stand down to 70 - 80 RBA. Leave all beech if no signs of beech scale.

Specs:

Other Current BA is 130. EAB is present but no beech scale. Smaller diameter trees in the south part of stand. Access permission was granted by private property owner to the south. Higher ground access to stand through private property to the east. Consider this access when setting up sale..

Next
Steps:

Proposed
Start Date: 10/01/2014

56	52174056- CCWR	19.3	4131 - Aspen, Oak	High Density Log	86		Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Fld. Tr. Bdy. - Incomplete
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Prescription Harvest stand to regenerate. Mark individual and clumps of oak trees to leave.

Specs:

Other Access permission granted by private property to the east. Better access would be through private property to the south. Northern part of the stand has more oak while the southeast corner has mostly Red Maple.

Next
Steps: Regeneration survey. Acceptable regeneration includes a moderate to well stocked mix of aspen and deciduous species.

Proposed
Start Date: 10/01/2014

**Total Treatment
Acreage Proposed: 264.1**



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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! #Type!

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Gaylord Mgt. Unit
John Scheele : Examiner

Compartment 174
Year of Entry 2015

Availability for Management

Availability for Management			Dominant Site Conditions					
Total Acres	Acres Available	Acres Not Available		No	5C	5B	3J	2G
213	213		Aspen	213				
75	75		Cedar	75				
174	174		Jack Pine	174				
16	16		Lowland Aspen/Balsam Poplar	16				
23	23		Lowland Conifers	23				
4	4		Lowland Deciduous	4				
57	57		Lowland Mixed Forest	57				
58	58		Mixed Upland Deciduous	11	47			
66	66		Natural Mixed Pines	66				
36	36		Northern Hardwood	36				
105	105		Oak	80	15	10		
20	20		Red Pine	20				
9		9	Tamarack					9
6		6	Upland Conifers				6	
26	26		Upland Mixed Forest	26				
4	4		White Pine	4				
891	875	16	Total Forested Acres	803	62	10	6	9
	98%	2%	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
003	Available	5B: Maintain for regeneration purposes	10				
Comments:							
004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15				
Comments:							

Report 5 – Site Conditions

Gaylord Mgt. Unit
John Scheele : Examiner

Compartment 174
Year of Entry 2015

005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	47	
Comments:				
006	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5	4A: No merchantable products (see product standards)
Comments:				
007	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5	4A: No merchantable products (see product standards)
Comments:				
008	Not Available	3J: Water quality / BMPs (stream, river, or lake)	6	
Comments:				



Report 6 – 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
Red Pine stand	Habitat Areas or Corridors	Habitat Corridor	SCA	2.8
Comments Pine was left from last timber harvest. BA is 83.				
M-68 White Pine	Visual Management Area	Recreational/Scenic Value Area	SCA	4.1
Comments Very tall, very good quality White Pine. DBH range is 10 - 18 inches. BA is 140.				
Large pine buffer stand	Visual Management Area	Recreational/Scenic Value Area	SCA	6.2
Comments Large old-growth White and Red Pine. Stand is a buffer to Crumley Creek and drainages leading into creek.				

**Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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

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



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	6.1	6		Cut in 2006 and planted in 2008.
3	42220 - Natural Jack Pine	High Density Pole	22.2	91		Jack Pine is taller and of better quality than adjacent stand. There are a few log-sized (10-12 DBH) Jack Pine and oak trees within stand.
4	42220 - Natural Jack Pine	Medium Density Pole	69.5	35		Short and very brnachy Jack Pine.
5	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	3.9	6		Cut in 2006 and planted in 2008.
6	4130 - Aspen	High Density Sapling	5.4	6		
7	42260 - Natural Pine, Mixed Deciduous	High Density Log	65.6	81	81-110	Tall, nice quality Red Pine with areas of high BA and areas of no Red Pine. DBH range of Red Pine is 10 - 18 inches with estimated BA of 90 - 110. Some x-sized White Pine and Red Oak. White Pine is branchy and Jack Pine is dying out. Heavy deer trails through stand.
8	6120 - Lowland Cedar	High Density Pole	5.2	91		Very dense White Cedar
9	6121 - Tamarack	High Density Pole	4.7	93		
10	4130 - Aspen	High Density Pole	36.1	28		
11	6120 - Lowland Cedar	High Density Log	15.8	111		Crumley Creek valley.
12	6124 - Lowland Spruce-Fir	High Density Sapling	4.9	28		Stand is 20 - 30 feet tall.
13	6129 - Mixed Coniferous Lowland Forest	High Density Pole	13.7	51		
14	4319 - Mixed Upland Forest	High Density Log	10.4	91		Poor quality Red Maple. Transition stand from high to low ground. Large White Pine is mostly along stand edge adjacent to cedar stand. Deer and elk runway along stand low edge. Few x-sized White Pine.
15	6129 - Mixed Coniferous Lowland Forest	High Density Sapling	4.5	23		
16	4130 - Aspen	High Density Pole	10.3	38		
18	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	3.6	56		



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	6120 - Lowland Cedar	High Density Pole	7.4	121		Paper Birch is dying out. A lot of deer tracks and bedding areas.
20	429 - Mixed Upland Conifers	High Density Log	6.2	111	81-110	Large diameter, older-growth White and Red Pine. Pockets of lower ground within stand which drain into Crumley Creek. Stand buffers Crumley Creek and a couple drainages leading into stream. BA is 97.
21	4130 - Aspen	High Density Sapling	11.1	8		Stand was labeled an A6 in last inventory. Cut in 2006. White Oak, Red Pine, and White Pine were not cut.
22	6132 - Mixed Lowland Forest with Cedar	High Density Log	12.9	81		Some blow down of aspen and Balsam Fir. Transition stand from high to low ground. A lot of deer tracks present.
23	6120 - Lowland Cedar	High Density Pole	3.1	121		Stand buffers Crumley Creek. Nice quality cedar. EAB is present in the Black Ash.
24	4134 - Aspen, Spruce/Fir	High Density Log	12.7	91		Nice quality aspen and birch. Blowdown is starting to occur.
25	4139 - Aspen, Mixed Deciduous	High Density Sapling	71.0	8		
26	4125 - Black, N. Pin Oak	High Density Log	13.4	101	81-110	Poor quality oak with aspen, Jack Pine, and some oak dying out. BA is 83.
27	42110 - Planted Red Pine	High Density Pole	9.9	51	171-200	Stand is very suppressed. Spacing within row is 3 - 4 feet in places and the DBH range is 5 - 10 inches. BA is 173.
28	6120 - Lowland Cedar	High Density Pole	44.1	96		Poor quality.
29	4130 - Aspen	High Density Pole	46.6	39		
32	42210 - Natural Red Pine	High Density Log	2.8	91	81-110	Pine was left from last timber harvest. Jack Pine dying out. BA is 83.
36	42200 - Natural White Pine	High Density Log	4.1	111	111-140	Very tall, very good quality White Pine. DBH range is 10 - 18 inches. Private, conservency property to the east and M-68 if the north. BA is 140.
37	6112 - Lowland Aspen	High Density Sapling	15.7	8		
38	4199 - Other Mixed Upland Deciduous	High Density Log	11.0	101	51-80	Poorer quality oak with larger aspen dying out. Pockets of mostly aspen and pockets of oak with very slow growing White Pine in understory. Private conservency property to the east. BA is 80.
40	4119 - Mixed Northern Hardwoods	High Density Pole	9.5	71	81-110	EAB is heavy. Ash and some birch dying out. BA is 93.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	6121 - Tamarack	Medium Density Log	4.7	101		Tamarack dying out.
42	4126 - White, Black, N. Pin Oak	High Density Sapling	28.3	5		Saw 5 bull elk during inventory. Heavy elk browse. Regeneration is 3-5 feet tall.
43	4199 - Other Mixed Upland Deciduous	Medium Density Log	47.0	91	51-80	Poor quality Red Oak and aspen. Pockets of aspen. More open with very little understory compared to stand to the east. BA is 63,
44	4126 - White, Black, N. Pin Oak	High Density Log	14.6	91	81-110	Good White Oak regeneration. Pocket of aspen in southeast corner of stand. BA is 100.
45	42220 - Natural Jack Pine	High Density Log	72.2	76		Individual Jack Pine trees dying. Heavy Elk browse in adjacent stand.
46	4124 - Red with White Oak	Medium Density Log	10.4	91	51-80	Oak overstory with a Red Maple understory. Deer/elk rubs present. BA is 70.
47	4123 - Red Oak	High Density Log	38.0	91	81-110	Poor quality, large oak trees. Some x-sized White and Red Oak. Heavy White Pine understory which is very slow growing. Aspen is concentrated on slopes facing Crumley Creek. BA is 103.
48	4319 - Mixed Upland Forest	High Density Log	15.7	81		Pocket of lower ground in north part of stand.
50	6132 - Mixed Lowland Forest with Cedar	High Density Log	24.8	91		Pockets of larger White Cedar within stand with no Balsam Fir understory. A lot of deer runways and rubs in stand. Water drainage along north side of stand leading to Crumley Creek to the west.
52	6132 - Mixed Lowland Forest with Cedar	High Density Log	18.9	81		Aspen dying out and falling over.
53	4111 - S.Maple, Hard Mast Association	High Density Log	26.3	81	111-140	BA is 130. EAB is present but no beech scale. Smaller DBH trees in the south part of stand. Access permission to the stand was granted by private property owner to the south. Better access to stand would be through private property to the east.
55	42210 - Natural Red Pine	High Density Log	7.1	76	81-110	Tall, nice Red Pine. Jack Pine dying out or dead. West facing slope toward water. BA is 83.
56	4131 - Aspen, Oak	High Density Log	19.3	86		Stand is mostly on top of hill. Northern part of stand has more oak and Red Maple while the southeast corner has mostly Red Maple. There are larger DBH oaks (>14 inches) along northern edge of stand. High elk signs on private property to the east.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	122 - Road/Parking Lot	2.2	Unspecified	Unspecified	
17	623 - Emergent Wetland	2.9	Unspecified	Unspecified	
30	122 - Road/Parking Lot	3.4	Unspecified	Unspecified	
31	6225 - Bog	1.2	Unspecified	Unspecified	
33	790 - Other Bare/Sparsely Vegetate	3.6	Unspecified	Unspecified	
34	50 - Water	3.3	Unspecified	Unspecified	
35	122 - Road/Parking Lot	2.5	Unspecified	Unspecified	
39	622 - Lowland Shrub	11.0	Unspecified	Unspecified	
49	622 - Lowland Shrub	11.5	Unspecified	Unspecified	
51	50 - Water	7.4	Unspecified	Unspecified	
54	622 - Lowland Shrub	8.5	Unspecified	Unspecified	