



Compartment Review Presentation

Newberry Forest Management Unit

Compartment 46

Entry Year 2016

Acreage: 1,055

County Luce

Management Area: Charcoal Grade

Revision Date:

Stand Examiner: Don Kuhr

Legal Description:

T48N R08W Sections 5,6,7,18

Identified Planning Goals:

Management in the Charcoal Grade MA will strive to improve the quality of the hardwoods and balance the age classes of aspen; enhance wildlife habitat; protect areas of unique character; and provide for forest based recreational uses.

Soil and topography:

Primarily Bodi, Wallace, and Bodi/Chesborough soils on the upland sites, with Carbondale, Lupton and Tawas soils on the lower ground. Part of the Two-Hearted Lake Plain landform. Rolling topography with some intermittent drainages.

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

State-owned, with isolated 40's of private adjacent, and some corporate trust lands to the north.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Part of a yet to be developed GEM plan.

Watershed and Fisheries Considerations:

Fisheries Values: Good

Fisheries Concerns: The Little Two-Hearted River borders this compartment on the west side with a portion of a branch to Linton Creek flowing out of the southeast portion. No treatments are prescribed near water, so Fisheries has no concerns at this time.

Wildlife Habitat Considerations:

Compartment 46 lies in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment is in the Charcoal Grade Management Area and has moose, black bear, American marten, ruffed grouse and spruce grouse as featured species. The compartment has a high component of hardwoods with a good interspersions of other types including aspen, hemlock, swamp conifers, lowlands, and swamp hardwoods.

Wildlife objectives in this compartment are to maintain habitat type diversity and inter-stand diversity by encouraging the retention of a variety of tree species in managed stands. Retention of hard and soft mast bearing trees, trees with suitable raptor nest bearing structure, snags, wildlife den trees and coarse woody debris in all stands should be maintained or developed where deficient. Forested corridors should be maintained to facilitate movement from upland areas to lowland areas. Yellow birch, soft and hard mast producing trees, super-canopy white pine, hemlock, and other conifer components should be retained in northern hardwood stands to encourage species and structural diversity. Additional wildlife species using this compartment include gray wolves, fisher, snowshoe hare, otter, beaver and numerous neo-tropical migrant songbirds.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel and an end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Cambrian Trempealeau and Munising Formations subcrop below the glacial drift. The Trempealeau could be used for stone. Gravel pits are located in Section 18 and potential is good on the uplands. There is no economic oil and gas production in the UP.

Vehicle Access:

Excellent, ~ 20 miles north of Newberry via M - 123 and County Road 500.

Survey Needs:

The NWSW of section 7 (private "40") needs corners for the scheduled treatment.

Recreational Facilities and Opportunities:

Snowmobile trail number 45 transects the compartment.

Fire Protection:

Hardwood cover type of this compartment lends itself to small, slow moving fires. Access can be a challenge in some areas because of the heavier soils, soft ground, and better rooted timber. Risk to private property would be low.

Additional Compartment Information:

Area was heavily cut-over in the 1930's. Majority of land was purchased in 1945.

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: 046
 T48N R08W Sections 5-7, 18
 County: Luce
 Unit: Newberry
 Management Area: Charcoal Grade
 YOE: 2016
 Acres: 1,055 GIS Calculated
 Examiner: Don Kuhr
 Map Revised: 08/25/2014
 Map Phase: Pre-Review

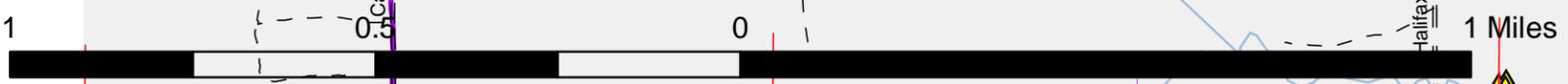
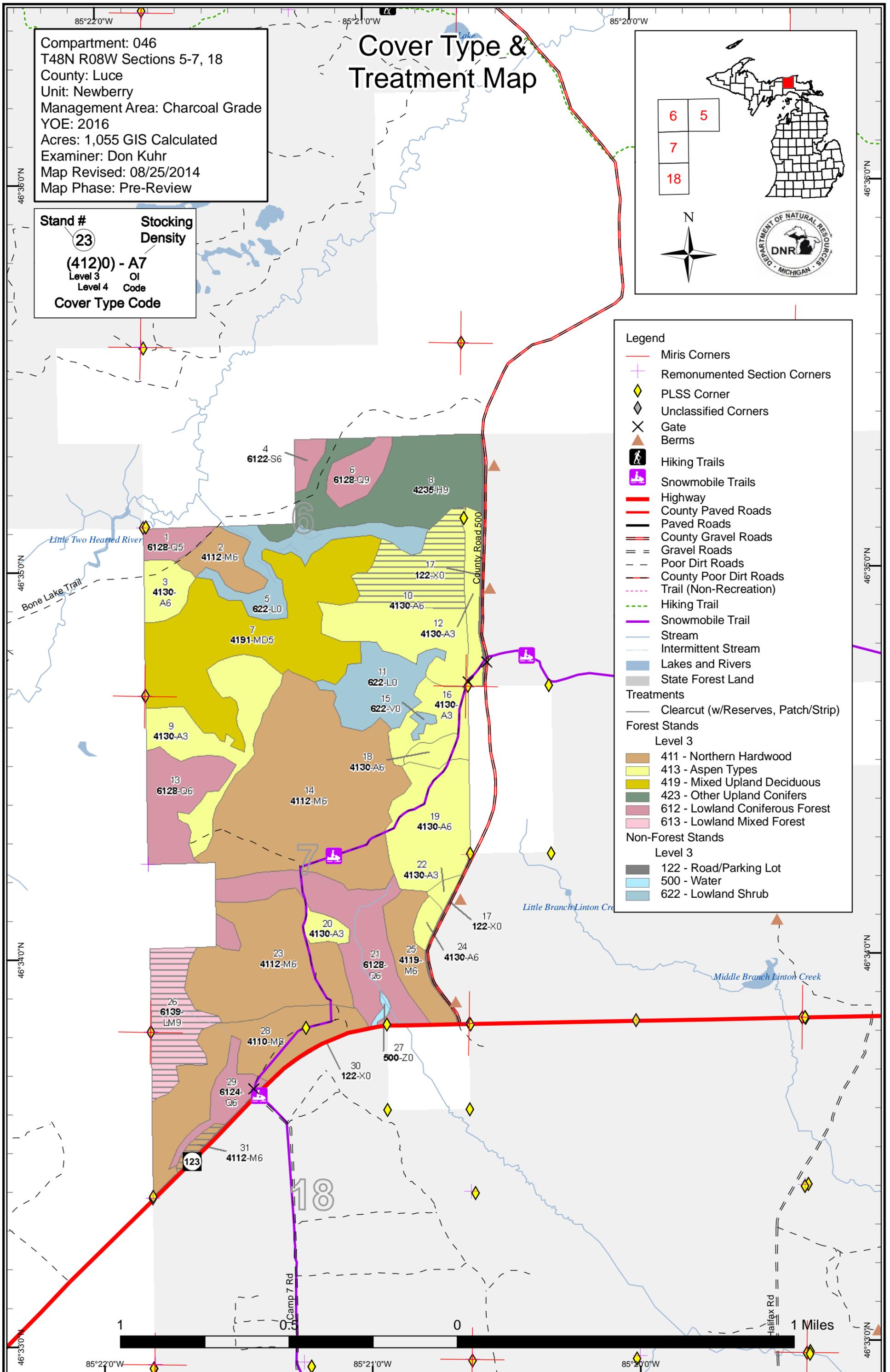
Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

6	5
7	
18	



Legend

- Miris Corners
- Remonumented Section Corners
- PLSS Corner
- Unclassified Corners
- Gate
- Berms
- Hiking Trails
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Hiking Trail
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3**
- 122 - Road/Parking Lot
- 500 - Water
- 622 - Lowland Shrub



85°22'0"W 85°21'0"W 85°20'0"W
 46°33'0"N 46°32'0"N 46°31'0"N

Stand Boundary Map

Compartment: 046
 T48N R08W Sections 5-7, 18
 County: Luce
 Unit: Newberry
 Management Area: Charcoal Grade
 YOE: 2016
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 Examiner: Don Kuhr
 Map Revised: 08/25/2014
 Map Phase: Pre-Review

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



6	5
7	
18	

N




Legend

- Miris Corners
- + Remonumented Section Corners
- ◆ PLSS Corner
- ◆ Unclassified Corners
- X Gate
- ▲ Berms
-  Hiking Trails
-  Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- - - Trail (Non-Recreation)
- - - Hiking Trail
- Snowmobile Trail
- Stream
- - - Intermittent Stream
- Stand Boundaries

Forest Stands

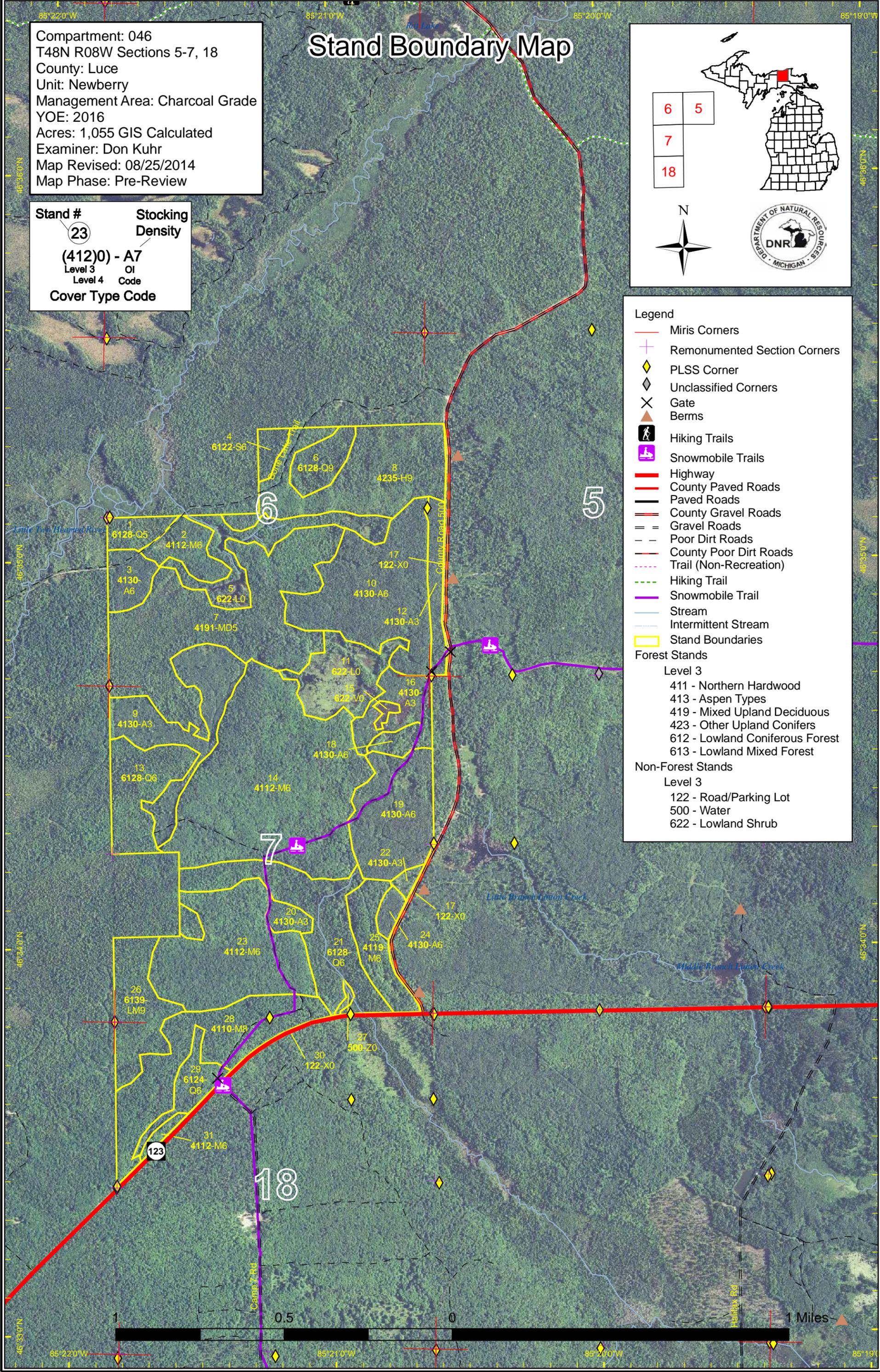
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
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- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

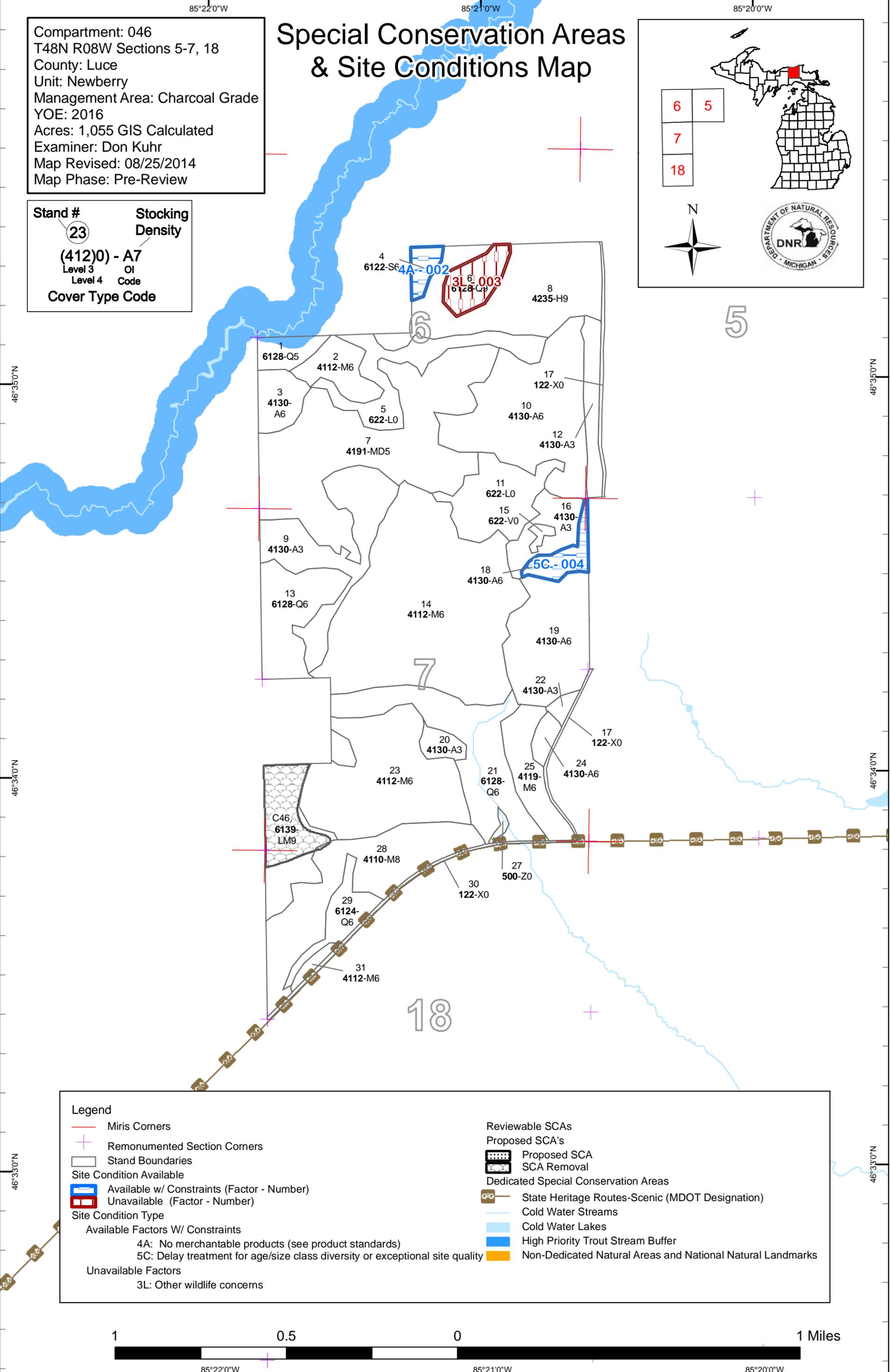
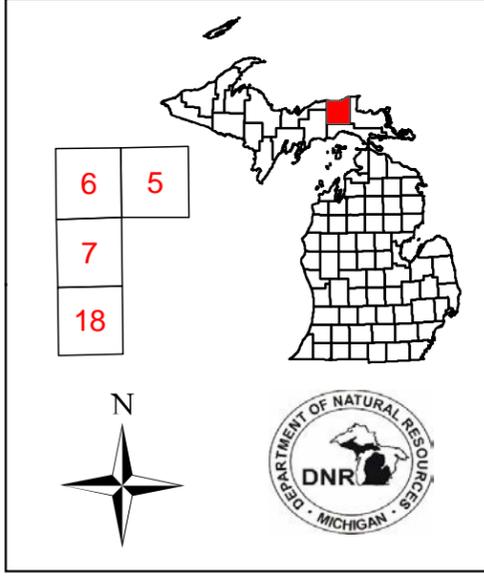
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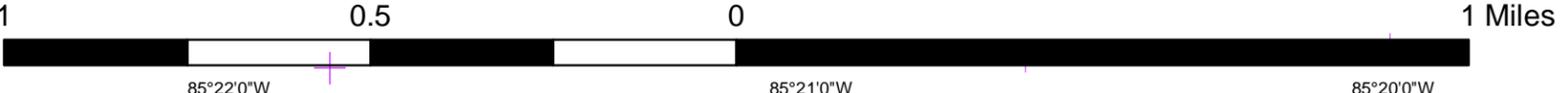
Special Conservation Areas & Site Conditions Map

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



Legend

- Miris Corners
- Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
 - Available w/ Constraints (Factor - Number)
 - Unavailable (Factor - Number)
- Site Condition Type
 - Available Factors W/ Constraints
 - 4A: No merchantable products (see product standards)
 - 5C: Delay treatment for age/size class diversity or exceptional site quality
 - Unavailable Factors
 - 3L: Other wildlife concerns
- Reviewable SCAs
 - Proposed SCAs
 - Proposed SCA
 - SCA Removal
 - Dedicated Special Conservation Areas
 - State Heritage Routes-Scenic (MDOT Designation)
 - Cold Water Streams
 - Cold Water Lakes
 - High Priority Trout Stream Buffer
 - Non-Dedicated Natural Areas and National Natural Landmarks



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	3	6	100	51	82	10	0	0	0	0	0	0	0	0	253
Bog	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hemlock	0	0	0	0	0	0	0	0	0	71	0	0	0	0	71
Lowland Conifers	0	0	0	0	0	0	0	15	0	0	15	0	0	107	137
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	35	0	0	0	0	35
Lowland Shrub	67	0	0	0	0	0	0	0	0	0	0	0	0	0	67
Lowland Spruce/Fir	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	121	121
Northern Hardwood	0	0	0	0	0	0	17	23	161	144	0	0	0	3	348
Urban	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	87	6	100	51	82	10	17	44	161	251	15	0	0	231	1055



Report 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2016

Compartment 046
Total Compartment Acres: 1,055

Acres by Treatment Type

Commercial Harvest - 79	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	41	0	0	0	0	0	41
Lowland Mixed Forest	35	0	0	0	0	0	35
Northern Hardwood	3	0	0	0	0	0	3
Total	79	0	0	0	0	0	79



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
10	42046010-Cut	41.0	4130 - Aspen	High Density Pole	40	51-80	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal

Prescription Clearcut with reserves, leave scattered conifers for wildlife benefit

Specs:

Other

Comments:

Next regen check, acceptable species are what is existing in stand.

Steps:

Proposed

Start Date: 10/01/2015

31	42046010- Cut1	3.3	4112 - Maple, Beech, Cherry Association	High Density Pole	50	81-110	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut with reserves, retain conifers for wildlife benefit.

Specs:

Other

Comments:

Next regen check, acceptable species are what is present on site.

Steps:

Proposed

Start Date: 10/01/2015

26	42046026-Cut	35.0	6139 - Mixed Lowland Forest	High Density Log	90	111-140	Harvest	Clearcut with Reserves	6139 - Mixed Lowland Forest	Cmpt. Review Proposal
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Prescription Leave some cedar, hemlock and yellow birch for wildlife benefit

Specs:

Other

Comments:

Next regen check, acceptable species are what is growing now

Steps:

Proposed

Start Date: 10/01/2015

**Total Treatment
Acreage Proposed: 79.3**



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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! #Type!

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Type!

Limiting Factor

Total Treatment Acreage Proposed: 0.0

Report 5 – Site Conditions

Newberry Mgt. Unit
Don Kuhr : Examiner

Compartment 046
Year of Entry 2016

Availability for Management

Total Acres	Acres			Dominant Site Conditions			
	Available	Not Available		No	5C	4A	3L
253	253		Aspen	242	10		
71	71		Hemlock	71			
137	122	15	Lowland Conifers	122			15
35	35		Lowland Mixed Forest	35			
6	6		Lowland Spruce/Fir			6	
121	121		Mixed Upland Deciduous	121			
348	348		Northern Hardwood	348			
971	956	15	Total Forested Acres	940	10	6	15
	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
002	Available	4A: No merchantable products (see product standards)	6				
Comments: Only 6 acres....too small?							
003	Not Available	3L: Other wildlife concerns	15	2G: Too wet (sensitive soils, does not include access issues)			
Comments:							
004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10				
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
C46	Other SCA		SCA Removal	22.3
Comments Does not meet old growth or SCA criteria.				



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 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.



Stand	Newberry Mgt. Unit		Report 8 – Forested Stands			Compartment: 046 Year of Entry: 2016	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	10.2	Uneven Age	51-80	regenerating all aged	
2	4112 - Maple, Beech, Cherry Association	High Density Pole	16.8	60	51-80		
3	4130 - Aspen	High Density Pole	14.1	20	1-50		
4	6122 - Black Spruce	High Density Pole	6.4	79	51-80		
6	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	15.1	100			
7	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	121.3	Uneven Age	51-80	Older balsam died sub canopy regenerated	
8	42350 - Upland Hemlock	High Density Log	71.5	90	51-80	hemlock regenerating in patches	
9	4130 - Aspen	High Density Sapling	48.3	20			
10	4130 - Aspen	High Density Pole	81.7	40	51-80	could cut part for GEM	
12	4130 - Aspen	High Density Sapling	15.1	20			
13	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	34.9	Uneven Age	81-110		
14	4112 - Maple, Beech, Cherry Association	High Density Pole	160.6	80	81-110		
16	4130 - Aspen	High Density Sapling	17.4	20			
18	4130 - Aspen	High Density Pole	10.3	50			
19	4130 - Aspen	High Density Pole	51.2	30	1-50		
20	4130 - Aspen	High Density Sapling	6.4	15			
21	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	61.7	Uneven Age	1-50	old spruce	
22	4130 - Aspen	High Density Sapling	3.0	8			

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Newberry Mgt. Unit

Report 8 – Forested Stands

Compartment: 046
Year of Entry: 2016



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	4112 - Maple, Beech, Cherry Association	High Density Pole	80.0	90	51-80	
24	4130 - Aspen	High Density Pole	5.2	25		
25	4119 - Mixed Northern Hardwoods	High Density Pole	22.9	70	81-110	narrow strip along road sloping down to wetland
26	6139 - Mixed Lowland Forest	High Density Log	35.0	90	111-140	
28	4110 - Sugar Maple Association	Medium Density Log	64.2	90	51-80	
29	6124 - Lowland Spruce-Fir	High Density Pole	14.9	70	51-80	drainage
31	4112 - Maple, Beech, Cherry Association	High Density Pole	3.3	Uneven Age	81-110	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	6229 - Mixed lowland shrub	33.5	No	Unspecified	
11	6229 - Mixed lowland shrub	33.7	No	Unspecified	
15	6225 - Bog	2.1	No	Unspecified	
17	122 - Road/Parking Lot	6.7	No	Unspecified	
27	50 - Water	1.4	No	Unspecified	
30	122 - Road/Parking Lot	6.3	No	Unspecified	M-123