



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 22

Entry Year 2016

Acreage: 2,225

County Schoolcraft

Management Area: Seney Manistique Swamp

Revision Date: 04/15/2014

Stand Examiner: Adam Petrelius

Legal Description:

T44N R15W, Sections 7, 8, 17, and 18

Identified Planning Goals:

This compartment is located within the Seney Manistique Swamp Management Area. The goals for this compartment include harvesting of timber products, enhancing or maintaining wildlife habitat, protecting areas with unique characteristics, and to provide opportunities for forest recreation.

Soil and topography:

The topography in this compartment is mostly flat. There are some upland ridges of mixed pine within the marsh types. Mixed hardwood and red pine are found within the higher elevations. Soil types found within the compartment are Wallace & Wallace Sands, Rubicon-Roselawn Sands, Saugetuck, and Bruce Sands and Loams.

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

In 1995, the top row of 40s, east of the Creighton Truck Trail was traded to the Seney National Wildlife Refuge, which borders the compartment to the north. Both private and state land borders the compartment along the west and southern boundaries. The eastern boundary is entirely state land. A camp is located on the only private parcel within the compartment along the southern boundary of Section 17. People have been observed camping along the West Branch of the Manistique River during bear and deer hunting seasons.

Unique Natural Features:

<<Type or Paste NON-SENSITIVE information here>>

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

None.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Wildlife featured species include beaver, moose, ruffed grouse, sharp-tailed grouse, snowshoe hare, and deer.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Ordovician Collingwood and Utica Shales subcrop below the glacial drift. They have no current economic use. Gravel pits are not located in the area and potential appears to be limited. There is no commercial oil and gas production in the UP.

Vehicle Access:

There is good vehicle access to the majority of the compartment except Section 8 which is predominately marsh cover types. County Road 448, also known as the Creighton Truck Trail, it is snowplowed by the Schoolcraft County Road Commission until it reaches the Highwater Truck Trail which is a state owned snowmobile trail. Most woods roads are accessible by 2 wheel drive traffic during the dry periods of the year. Portions of the compartment west of the river are accessed by Section 19 Creek Road. Seasonal drainages make this road impassible during the peak of the spring runoff.

Survey Needs:

None.

Recreational Facilities and Opportunities:

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: 022
 T44N R15W
 06 07 08 09 16 17 18
 County: Schoolcraft
 Unit: Shingleton
 Management Area: Seney Manistique Swamp
 YOE: 2016
 Acres: 2,225 GIS Calculated
 Examiner: Adam Petrelius
 Map Revised: 07/30/2014
 Map Phase: Pre-Review

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

Legend

- Miris Corners
- Gate
- Berms
- Snowmobile Trails
- Snowmobile Trail
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Non-Forest Regeneration

Planned Regeneration

- Natural
- Planted

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)
- Treatments w/ Site Condition

Forest Stands

Level 3

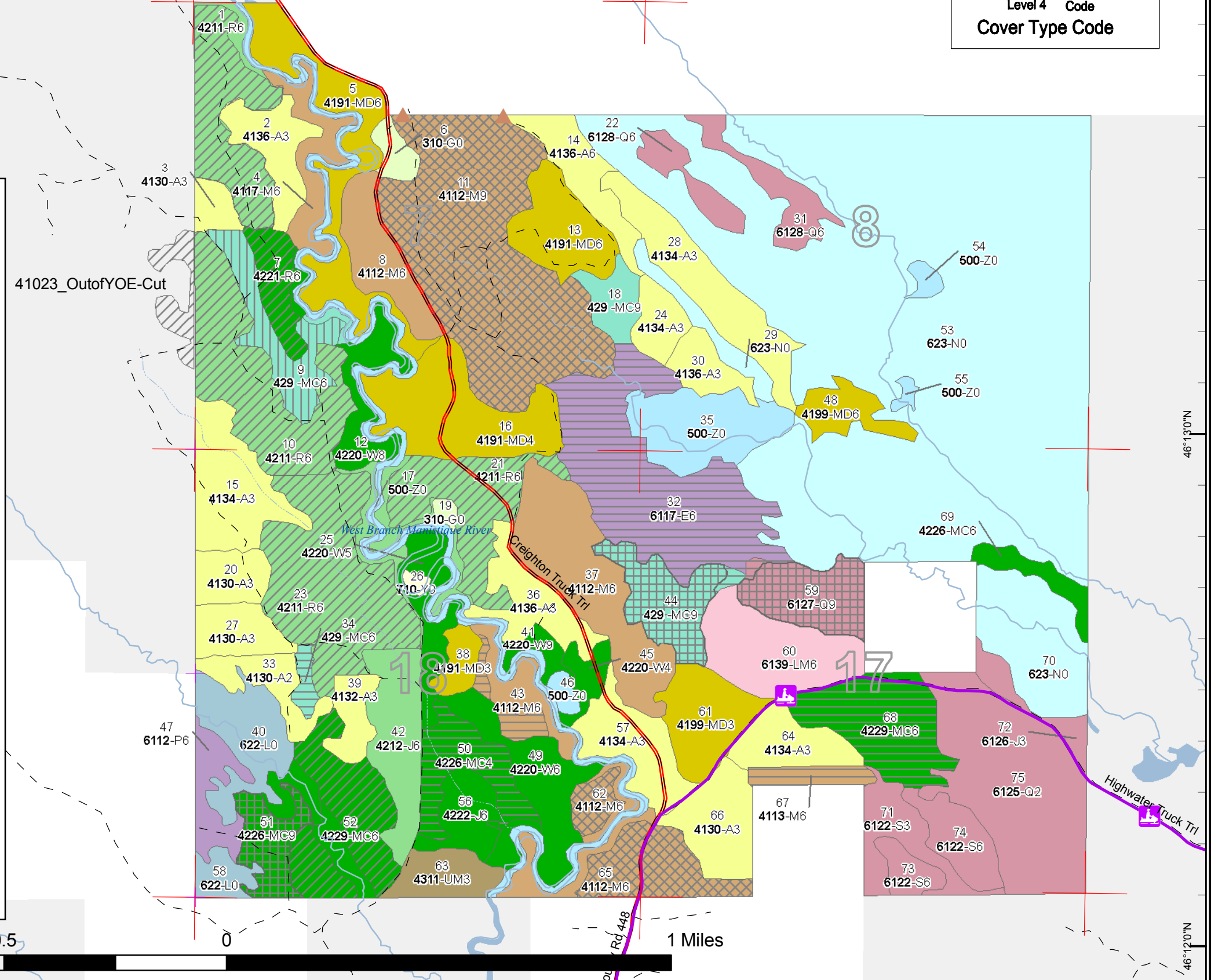
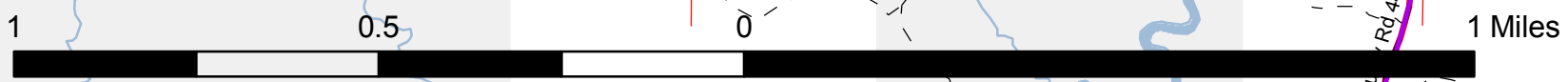
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

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

7	8
18	17



Stand Boundary Map

Compartment: 022
 T44N R15W
 06 07 08 09 16 17 18
 County: Schoolcraft
 Unit: Shingleton
 Management Area: Seney Manistique Swamp
 YOE: 2016
 Acres: 2,225 GIS Calculated
 Examiner: Adam Petrelius
 Map Revised: 07/30/2014
 Map Phase: Pre-Review

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

Legend

- Miris Corners
- Snowmobile Trails
- Snowmobile Trail
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Stream
- Intermittent Stream
- Lakes and Rivers
- Stand Boundaries

Forest Stands

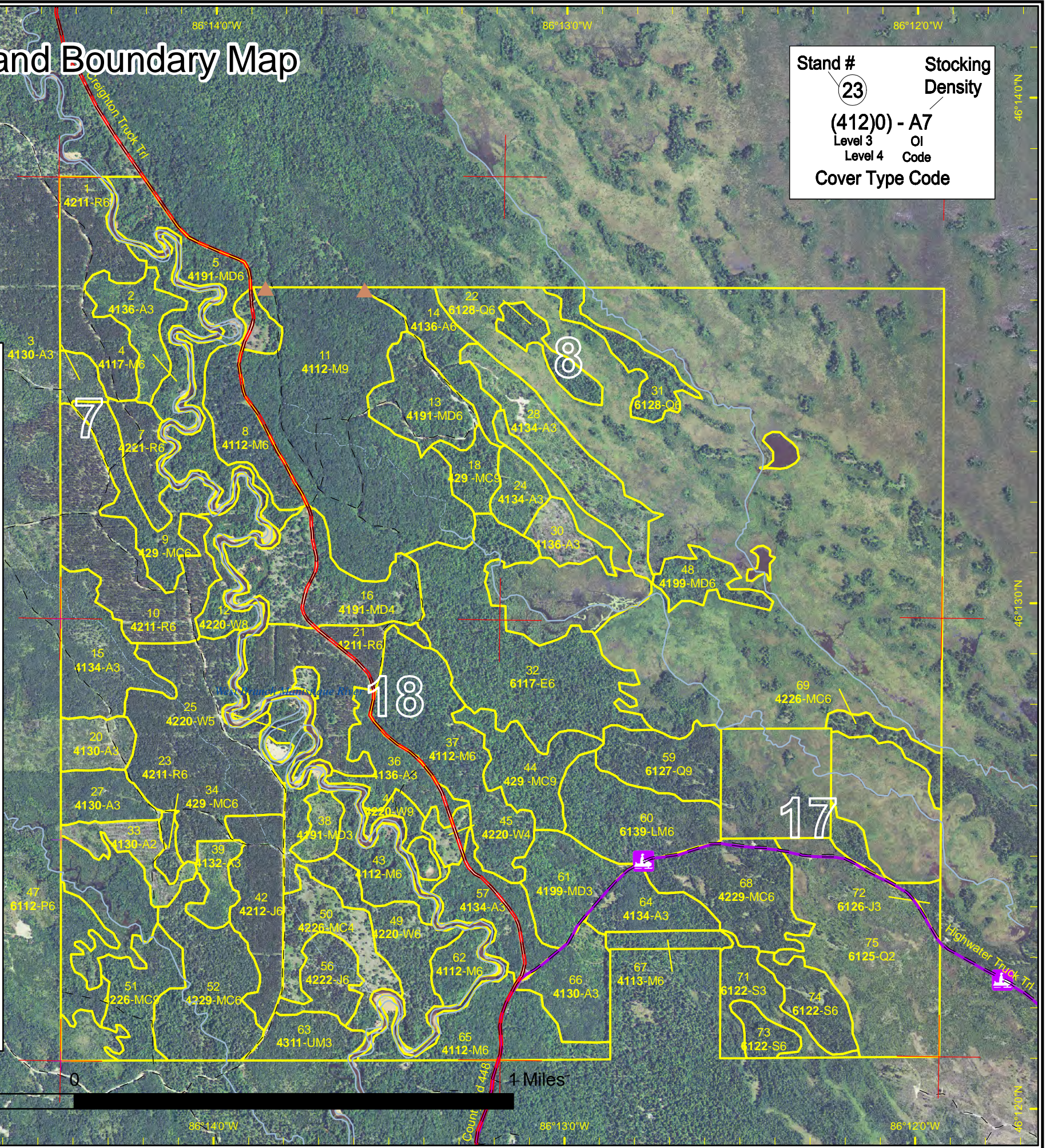
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
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Non-Forest Stands

Level 3

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- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil



7	8
18	17



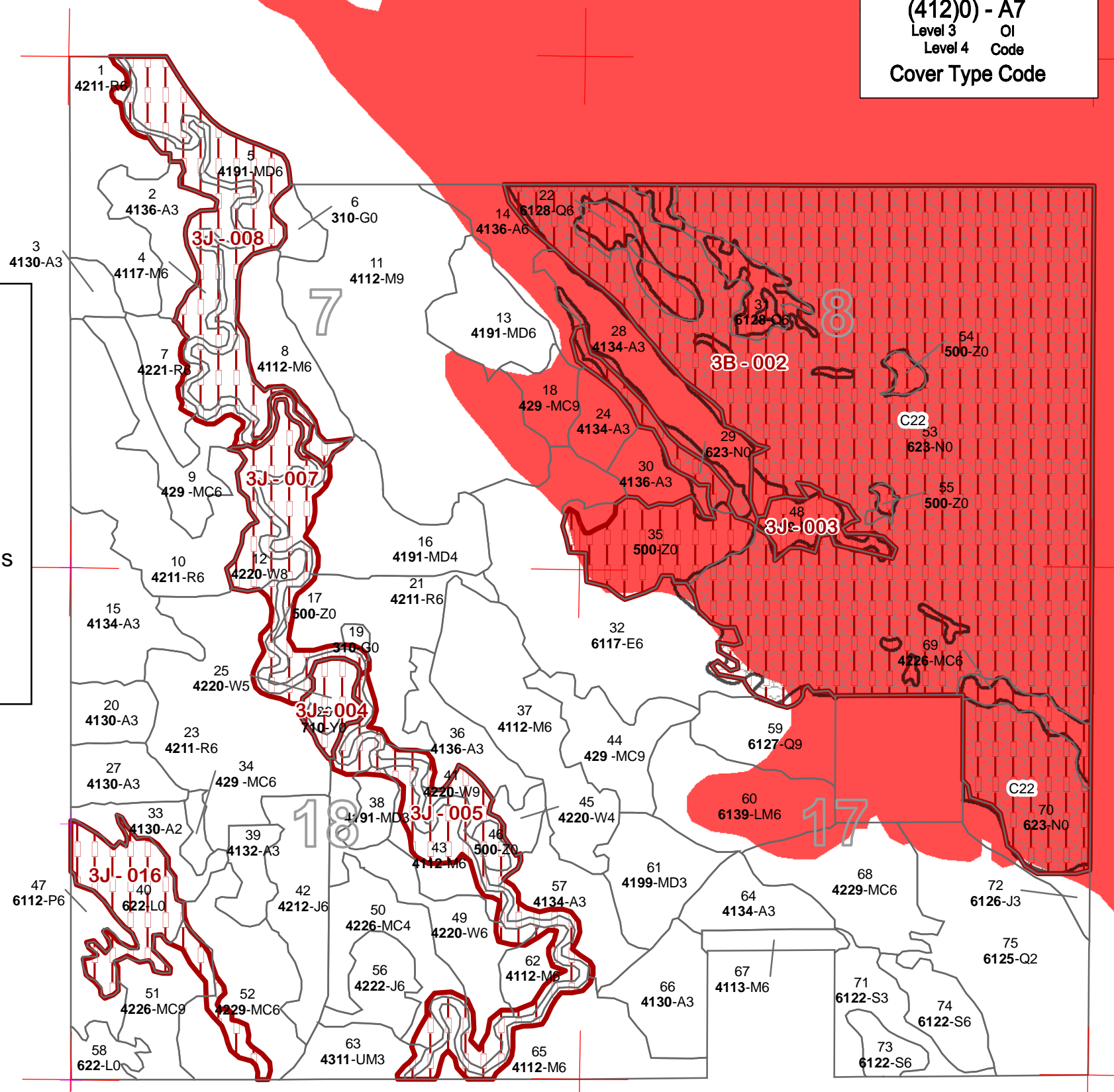
Special Conservation Areas & Site Conditions Map

Compartment: 022
 T44N R15W
 06 07 08 09 16 17 18
 County: Schoolcraft
 Unit: Shingleton
 Management Area: Seney Manistique Swamp
 YOE: 2016
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 Map Revised: 07/30/2014
 Map Phase: Pre-Review

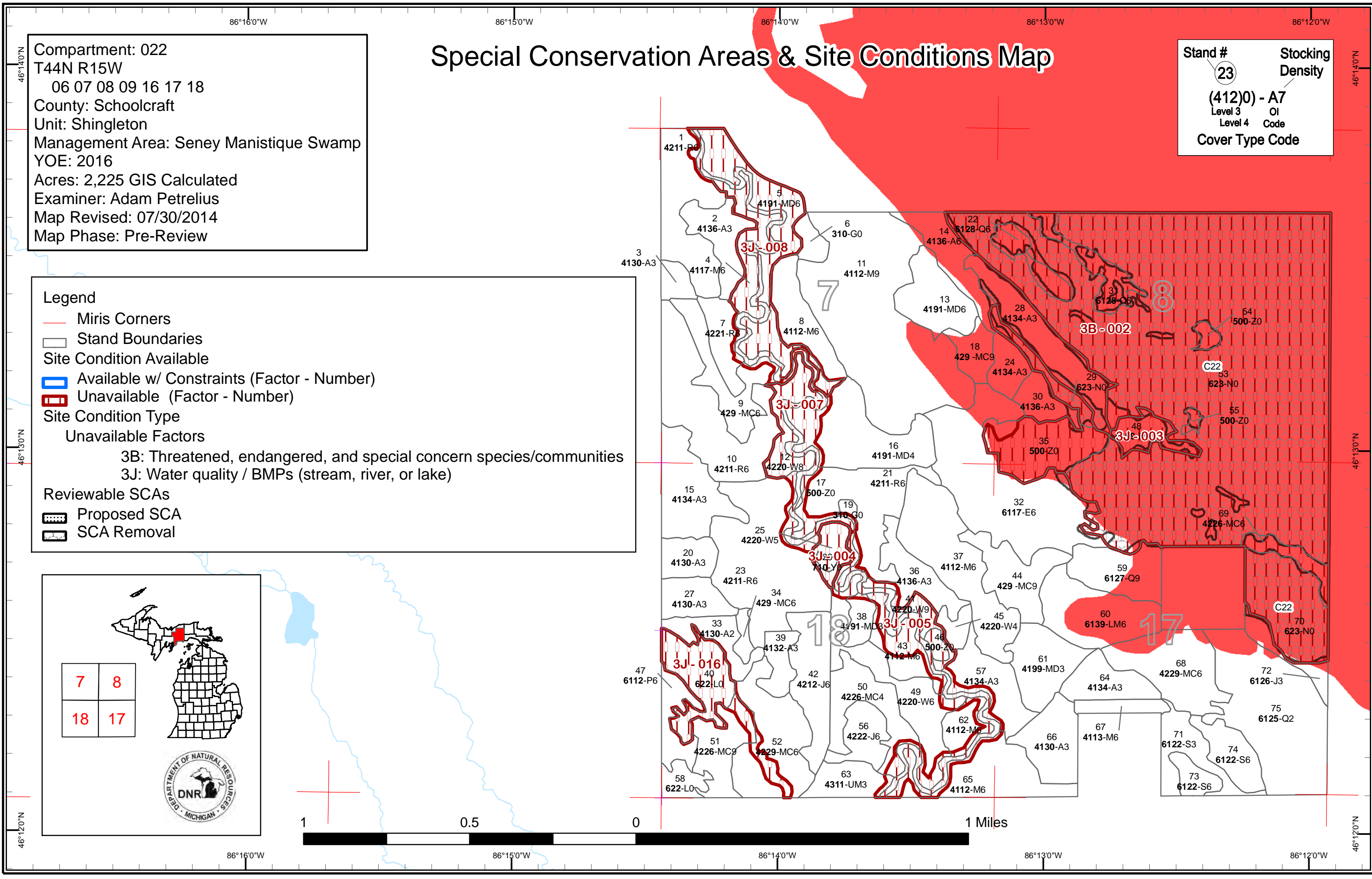
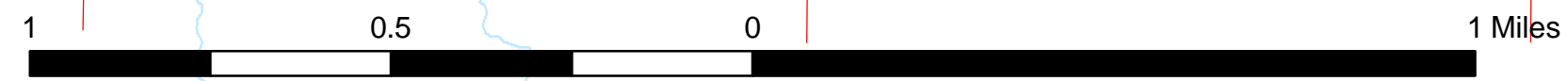
Stand #
 23
 Stacking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

Legend

- Miris Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Unavailable Factors
 - 3B: Threatened, endangered, and special concern species/communities
 - 3J: Water quality / BMPs (stream, river, or lake)
- Reviewable SCAs
 - Proposed SCA
 - SCA Removal



7 8
 18 17



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 +		Uneten Age
Aspen	72	63	115	19	0	0	0	0	0	0	0	0	0	0	268
Herbaceous Openland	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Jack Pine	0	0	0	9	44	0	0	0	0	0	0	0	0	0	52
Lowland Aspen/Balsam Poplar	0	0	0	14	0	0	0	0	0	0	0	0	0	0	14
Lowland Conifers	0	75	0	0	0	26	0	0	25	0	0	0	0	0	126
Lowland Deciduous	0	0	0	0	0	0	83	0	0	0	0	0	0	0	83
Lowland Mixed Forest	0	0	0	36	0	0	0	0	0	0	0	0	0	0	36
Lowland Shrub	34	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Lowland Spruce/Fir	0	0	0	19	0	0	24	0	0	0	0	0	0	0	42
Marsh	530	0	0	0	0	0	0	0	0	0	0	0	0	0	530
Mixed Upland Deciduous	0	7	0	25	76	44	0	0	0	0	0	0	0	0	153
Natural Mixed Pines	0	0	0	0	26	9	0	43	0	0	22	0	0	37	137
Northern Hardwood	0	0	0	0	0	0	0	35	249	0	0	0	0	0	284
Red Pine	0	0	0	0	142	81	0	0	0	0	0	0	0	0	223
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Upland Conifers	0	0	0	0	0	4	0	24	0	25	11	0	0	0	64
Upland Mixed Forest	0	0	14	0	0	0	0	0	0	0	0	0	0	0	14
Water	83	0	0	0	0	0	0	0	0	0	0	0	0	0	83
White Pine	0	0	0	6	0	16	0	6	8	0	0	0	0	35	72
Total	729	145	129	127	289	180	106	108	282	25	33	0	0	72	2225



Report 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2016

Compartment 022
Total Compartment Acres: 2,225

Acres by Treatment Type

Commercial Harvest - 648 Tree Planting - 0 Other - 0
 Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
	0	0	0	0	35	0	35
Lowland Coniferous Forest	0	0	48	0	0	0	48
Lowland Deciduous Forest	85	0	0	0	0	0	85
Mixed Upland Conifers	4	0	0	22	0	0	26
Natural Pines	64	0	16	0	50	0	130
Northern Hardwood	7	158	0	0	0	0	165
Planted Pines	0	0	0	0	159	0	159
Total	160	158	64	22	245	0	648

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
41022_OutOfY OE-Cut	35.3					Harvest	Systematic Thinning	42110 - Planted Red Pine	Fld. Tr. Bdy.
<u>Prescription</u> 3rd row thinning. Cut all trees in designated rows. Rows can be spaced wider apart in areas with lower basal area. Do not cut hemlock and oak.									
<u>Specs:</u>									
<u>Other</u> Do not cut any trees within 50 feet of the West Branch Manistique River.									
<u>Comments:</u>									
<u>Next</u> Thin next year of entry.									
<u>Steps:</u>									
<u>Proposed</u>									
<u>Start Date:</u> 10/01/2012									
7 41022007-Cut	13.3	42210 - Natural Red Pine	High Density Pole	49	141-170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Compt. Review Proposal
<u>Prescription</u> Row thin. Cut all jack pine and aspen.									
<u>Specs:</u>									
<u>Other</u> Buffer Manistique River 50 feet, this will be retention for stand. another drainage flows through southern portion of stand. buffer accordingly to									
<u>Comments:</u> prevent erosion and sedimentation.									
<u>Next</u>									
<u>Steps:</u>									
<u>Proposed</u>									
<u>Start Date:</u> 10/01/2015									
9 41022009-Cut	22.3	429 - Mixed Upland Conifers	High Density Pole	70	51-80	Harvest	Shelter Wood with Reserves	429 - Mixed Upland Conifers	Compt. Review Proposal
<u>Prescription</u> Leave 30 to 40 feet of good quality pine seed trees where available. Cut all other species.									
<u>Specs:</u>									
<u>Other</u> Drainage flows through stand and should be buffered accordingly to prevent erosion and sedimentation. Retention will be buffer. Buffer									
<u>Comments:</u> Manistique River 50 feet.									
<u>Next</u> Check regeneration next year of entry. Acceptable regeneration is any species mixture currently found onsite.									
<u>Steps:</u>									
<u>Proposed</u>									
<u>Start Date:</u> 10/01/2015									
10 41022010-Cut	54.9	42110 - Planted Red Pine	High Density Pole	49	111-140	Harvest	Low Thinning	4211 - Planted Red Pine	Compt. Review Proposal
<u>Prescription</u> light thinning to 120.									
<u>Specs:</u>									
<u>Other</u> stand was cut about 4 years ago so there won't be a lot of volume removed this time. however it would benefit from a thinning.									
<u>Comments:</u>									
<u>Next</u> thin again next year of entry									
<u>Steps:</u>									
<u>Proposed</u>									
<u>Start Date:</u> 10/01/2015									

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
11 41022011-Cut	125.1	4112 - Maple, Beech, Cherry Association	High Density Log	80	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription selection harvest. complete marker standards. designate all beech and ash to be removed. leave some beech that appear to be resistant to the disease or have been heavily used by bears in the past.

Other create some large gaps to regenerate mid shade tolerant species where present. These shouldn't be done everywhere in stand. overall residual basal area can be lower than 80 due to these larger gaps.

Next check regeneration next year of entry. Acceptable regeneration is any species mixture currently found onsite.

Proposed
Start Date: 10/01/2015

21 41022021-Cut	36.5	42110 - Planted Red Pine	High Density Pole	51	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription thin to 120

Other buffer manistique 50 feet.

Next
Steps:

Proposed
Start Date: 10/01/2015

23 41022023-Cut	68.0	42110 - Planted Red Pine	High Density Pole	49	141-170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription row thin. remove all jack pine and aspen

Other buffer manistique 50 feet. this will be retention.

Next
Steps:

Proposed
Start Date: 10/01/2015

32 41022032-Cut	84.5	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	65		Harvest	Clearcut with Reserves	6127 - Lowland Pine	Cmpt. Review Proposal
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Prescription Leave all white pine and cedar. cut all other species.

Other Operating caution should be placed in timbersale specs to push loggers to cut this stand in the winter or dry summer. Retention will be along the marsh edge or drainages. Drainages in northern part of stand should be excluded.

Next check regeneration next year of entry. Acceptable regeneration is any species mixture currently found onsite.

Proposed
Start Date: 10/01/2015



Standard	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
34	41022034-Cut	3.9	429 - Mixed Upland Conifers	High Density Pole	55		Harvest	Clearcut with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal

Prescription cut all species

Specs:

Other no retention other than submerchantable trees and snags

Comments:

Next check regeneration next year of entry. Acceptable regeneration is any species mixture currently found onsite.

Steps:

Proposed

Start Date: 10/01/2015

59	41022044-Cut	24.1	6127 - Lowland Pine	High Density Log	80	171-200	Harvest	Seed Tree with Reserves	6127 - Lowland Pine	Cmpt. Review Proposal
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Prescription Leave about 30 sq. ft. of quality pine seed trees where present. Cut all other species except cedar.

Specs:

Other Operating caution should be placed in timersale to tell logger stand should be cut in dry summer or winter.

Comments:

Next check regeneration next year of entry. Acceptable regeneration is any species mixture currently found onsite.

Steps:

Proposed

Start Date: 10/01/2015

50	41022050-Cut	22.3	42260 - Natural Pine, Mixed Deciduous	Low Density Pole	40	1-50	Harvest	Clearcut	310 - Herbaceous Openland	Cmpt. Review Proposal
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Prescription Harvest all trees down to 2 inches and manage for grass.

Specs:

Other buffer manistique river 100 feet. this will be retention area.

Comments:

Next Soft mast planting

Steps:

Proposed

Start Date: 10/01/2015

51	41022051-Cut	15.8	42260 - Natural Pine, Mixed Deciduous	High Density Log	105	51-80	Harvest	Seed Tree with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Remove pine from overstory. Leave some for seed and diversity.

Specs:

Other retention can be placed along the marsh edge. buffer creek 100 feet

Comments:

Next Check regeneration next year of entry. Any species onsite is acceptable.

Steps:

Proposed

Start Date: 10/01/2015



Standard	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
52	41022052_1-Cut	6.0	42290 - Natural Mixed Pine	High Density Pole	71	81-110	Harvest	Clearcut with Reserves	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Cut all species.

Specs:

Other Buffer manistique 100 feet and buffer sloughs accordingly to prevent erosion and sedimentation.

Comments:

Next check regeneration next year of entry. Acceptable regeneration is any species mixture currently found onsite.

Steps:

Proposed

Start Date: 10/01/2015

52	41022052-Cut	36.6	42290 - Natural Mixed Pine	High Density Pole	71	81-110	Harvest	Crown Thinning	42290 - Natural Mixed Pine	Cmpt. Review Proposal
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Prescription Leave pine basal area as high as possible. some may need to be marked for operability. cut all other species.

Specs:

Other buffer creek 100 feet. this will be retention area.

Comments:

Next evaluate stand next year of entry for another harvest.

Steps:

Proposed

Start Date: 10/01/2015

59	41022059-Cut	23.7	6127 - Lowland Pine	High Density Log	80	171-200	Harvest	Seed Tree with Reserves	6127 - Lowland Pine	Cmpt. Review Proposal
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Prescription Leave 30 sq. ft. of quality pine seed trees where present. cut all other species except cedar.

Specs:

Other retention can be placed along marsh edge.

Comments:

Next check regeneration next year of entry. If natural red pine regen fails site should be planted on high ground.

Steps:

Proposed

Start Date: 10/01/2015

62	41022062-Cut	7.2	4112 - Maple, Beech, Cherry Association	High Density Pole	70	111-140	Harvest	Group Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
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Prescription Create large gaps for regeneration of mid shade tolerant species.

Specs:

Other avoid placing gaps in low areas and target the mature trees. will need a path marked for access to each gap. buffer manistique 50 feet

Comments:

Next check regeneration next year of entry. While the goal is regeneration of intollerant or mid tollerant species, acceptable regeneration is any species mixture found onsite.

Steps:

Proposed

Start Date: 10/01/2015



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
65	41022065-Cut	25.7	4112 - Maple, Beech, Cherry Association	High Density Pole	80	111-140	Harvest	Group Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Create large gaps for regeneration of mid shade tolerant species.

Specs:

Other buffer manistique river 50 feet. paths will need to be created to each gap for operability.

Comments:

Next check regeneration next year of entry. Plant oak in gaps. While the goal is regeneration of intollerant or mid tollerant species, acceptable
Steps: regeneration is any species mixture found onsite.

Proposed

Start Date: 10/01/2015

67	41022067-Cut	7.3	4113 - R.Maple, Conifer	High Density Pole	70	81-110	Harvest	Clearcut with Reserves	4113 - R.Maple, Conifer	Cmpt. Review Proposal
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Prescription Leave all pine, cut all other species.

Specs:

Other survey work will be needed.

Comments:

Next check regeneration next year of entry. Acceptable regeneration is any species mixture currently found onsite.

Steps:

Proposed

Start Date: 10/01/2015

68	41022068-Cut	35.7	42290 - Natural Mixed Pine	High Density Pole	65	81-110	Harvest	Clearcut with Reserves	4222 - Natural Jack Pine	Cmpt. Review Proposal
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Prescription Cut all species. Leave some good quality red pine seed trees where present.

Specs:

Other some low areas so harvesting in winter may be needed. retention can be placed along the marsh edge

Comments:

Next write FTP for jack pine regeneration

Steps:

Proposed

Start Date: 10/01/2015

	41023_OutOfY OE-Cut	8.3					Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription light thinning to 120

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2015

**Total Treatment
Acreage Proposed: 656.5**



S t a n d	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

Shingleton Mgt. Unit
Adam Petrelius : Examiner

Compartment 022
Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	3J	3B
	Available	Not Available				
268	263	5	Aspen	263	5	
52	52		Jack Pine	52		
13	13		Lowland Aspen/Balsam Poplar	13		
126	100	26	Lowland Conifers	100		26
83	83		Lowland Deciduous	83		
36	36		Lowland Mixed Forest	36		
42	42		Lowland Spruce/Fir	42		
152	93	59	Mixed Upland Deciduous	93	59	
137	118	19	Natural Mixed Pines	118	10	9
283	249	34	Northern Hardwood	249	34	
222	210	12	Red Pine	210	12	
64	62	1	Upland Conifers	62	1	
14	14	1	Upland Mixed Forest	14	1	
72	34	37	White Pine	34	37	
1,565	1,370	194	Total Forested Acres	1,370	159	35
	88%	12%	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	Not Available	3B: Threatened, endangered, and special concern species/communities	599				

Comments:

ERA designation for pattern fen. Harvesting activities within this area would likely conflict with management goals of ERA and disrupt natural flow of water.

Report 5 – Site Conditions

Shingleton Mgt. Unit
Adam Petrelius : Examiner

Compartment 022
Year of Entry 2016

003	Not Available	3J: Water quality / BMPs (stream, river, or lake)	13	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
Comments: Harvest was attempted 5 years ago. Logger did not cut it based on mutual decision between us and the logger. Old beaver dam separates this stand from main ridge.				
004	Not Available	3J: Water quality / BMPs (stream, river, or lake)	10	
Comments: Majority of stand is river and slough buffer areas				
005	Not Available	3J: Water quality / BMPs (stream, river, or lake)	62	
Comments:				
007	Not Available	3J: Water quality / BMPs (stream, river, or lake)	42	
Comments:				
008	Not Available	3J: Water quality / BMPs (stream, river, or lake)	72	
Comments:				
016	Not Available	3J: Water quality / BMPs (stream, river, or lake)	34	
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
C22	Other SCA		SCA Removal	
Comments				
Currently an ERA				



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
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



S t a n d	Shingleton Mgt. Unit		Report 8 – Forested Stands			Compartment: 022 Year of Entry: 2016
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42110 - Planted Red Pine	High Density Pole	38.4	50	81-110	Stand is on timber sale proposal Mixed Up Wood. Residual basal area from cruise is 107.
2	4136 - Aspen, Mixed Conifer	High Density Sapling	18.8	16		
3	4130 - Aspen	High Density Sapling	6.4	23		
4	4117 - Mixed N. Hardwood - Pine	High Density Pole	16.0	80	81-110	
5	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	39.0	45		
7	42210 - Natural Red Pine	High Density Pole	14.8	49	141-170	Aspen was removed in 1991.
8	4112 - Maple, Beech, Cherry Association	High Density Pole	22.4	80	81-110	Harvested with sale 41-028-06-01 Lost Stands 2. Residual basal areas from cruise were 43 sugar maple, 16 soft maple, 1 yellow birch, 10 beech, 1 white birch, 2 white pine, 7 cherry. 80 overall. Harvested in winter 2011.
9	429 - Mixed Upland Conifers	High Density Pole	23.8	70	51-80	stand has a drainage that runs through the middle of it. buffer 25 ft. mark white pine to 40. cut all else . see treat boundary
10	42110 - Planted Red Pine	High Density Pole	54.9	49	111-140	Aspen was cut out of stand in 1991. Stand was cut in summer 2010 with sale 41-010-06-01, 19 creek red aspen. Residual basal areas from cruise was 110.
11	4112 - Maple, Beech, Cherry Association	High Density Log	125.1	80	111-140	Stand was thinned in 1990.
12	42200 - Natural White Pine	Medium Density Log	16.0	51	1-50	
13	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	24.9	40		set up in 1996 but never sold.
14	4136 - Aspen, Mixed Conifer	High Density Pole	19.4	36		
15	4134 - Aspen, Spruce/Fir	High Density Sapling	32.0	23		Stand was harvested between 1990 and 1994.
16	4191 - Mixed Upland Deciduous with Conifer	Low Density Pole	43.8	50	1-50	former grass stands
18	429 - Mixed Upland Conifers	High Density Log	10.8	100		formerly typed as hemlock last inventory cycle
20	4130 - Aspen	High Density Sapling	12.4	3		stand was cut in December 2009 with sale 41-010-06-01 19 creek red aspen.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	42110 - Planted Red Pine	High Density Pole	42.5	51	141-170	various similar red pine plantations were combined from last inventory to make this stand.
22	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	10.8	54		
23	42110 - Planted Red Pine	High Density Pole	72.9	49	141-170	
24	4134 - Aspen, Spruce/Fir	High Density Sapling	10.7	14		Stand was cut in 1999, Lost Stands Sale.
25	42201 - Natural White Pine, Mixed Deciduous	Medium Density Pole	8.4	82	51-80	
27	4130 - Aspen	High Density Sapling	14.3	23		
28	4134 - Aspen, Spruce/Fir	High Density Sapling	34.4	2		Stand was cut in winter 2011, Lost Stands 2 sale. 41-028-06-01. Residuals were 2 ft. oak, 3 ft. red pine, 3 ft white pine, 1 ft hemlock.
30	4136 - Aspen, Mixed Conifer	High Density Sapling	10.9	2		Stand was cut in winter 2011, Lost Stands 2 Sale, 41-028-06-01. Residual basal areas were 1 ft oak, 2 ft red pine, 2 ft white pine, 2 ft white birch.
31	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	15.1	53		
32	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	82.5	65		
33	4130 - Aspen	Medium Density	14.2	3		Stand was cut in summer 2010, 19 creek red aspen, 41-010-06-01
34	429 - Mixed Upland Conifers	High Density Pole	3.9	55		
36	4136 - Aspen, Mixed Conifer	High Density Sapling	20.3	23		
37	4112 - Maple, Beech, Cherry Association	High Density Pole	51.2	80	51-80	Stand was cut in winter 2011, Lost Stands 2 sale, 41-028-06-01. Residuals were 21 ft sugar, 30 ft red maple, 3 ft yellow birch, 2 ft beech, 1 ft white birch, 1 ft fir, 2 ft white pine, 8 ft cherry, 5 ft hemlock. Overall 73.
38	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	7.5	15		



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
39	4132 - Aspen, Jack Pine	High Density Sapling	10.0	15		Stand was scarified in 1998. Counts showed 1900 tpa of mixed species. OI notes said jack pine was long term management objective.
41	42200 - Natural White Pine	High Density Log	6.5	71	81-110	
42	42120 - Planted Jack Pine	High Density Pole	28.5	43	111-140	
43	4112 - Maple, Beech, Cherry Association	High Density Pole	17.3	71	111-140	
44	429 - Mixed Upland Conifers	High Density Log	25.2	90	81-110	New stand added.
45	42200 - Natural White Pine	Low Density Pole	5.8	30	1-50	former grass stand
47	6112 - Lowland Aspen	High Density Pole	13.6	30		former LO type, lots of beaver activity
48	4199 - Other Mixed Upland Deciduous	High Density Pole	12.5	47		Stand was sold on contract 41-028-06-01, Lost Stands 2. It was a mutual decision between purchaser and DNR tonot harvest this stand. Access to stand is across a beaver dam/marsh area.
49	42200 - Natural White Pine	High Density Pole	35.1	Uneven Age	51-80	former grass opening
50	42260 - Natural Pine, Mixed Deciduous	Low Density Pole	26.2	40	1-50	former grass stand. An FTP was written for this stand for opening maintenance, but cancelled.
51	42260 - Natural Pine, Mixed Deciduous	High Density Log	22.1	105	51-80	Stand was set up in 1996 but never cut. WLD wanted to wait until aspen became merchantable.
52	42290 - Natural Mixed Pine	High Density Pole	42.8	71	81-110	
56	42220 - Natural Jack Pine	High Density Pole	15.0	41		
57	4134 - Aspen, Spruce/Fir	High Density Sapling	24.1	23		
59	6127 - Lowland Pine	High Density Log	24.6	80	171-200	
60	6139 - Mixed Lowland Forest	High Density Pole	36.3	31		
61	4199 - Other Mixed Upland Deciduous	High Density Sapling	24.9	38		

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Shingleton Mgt. Unit

Report 8 – Forested Stands

Compartment: 022
Year of Entry: 2016

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
62	4112 - Maple, Beech, Cherry Association	High Density Pole	10.5	70	111-140	
63	4311 - Pine, Aspen Mix	High Density Sapling	14.5	23		
64	4134 - Aspen, Spruce/Fir	High Density Sapling	17.5	23		
65	4112 - Maple, Beech, Cherry Association	High Density Pole	33.9	80	111-140	harvested in 1972 and 1990.
66	4130 - Aspen	High Density Sapling	23.0	15		TSI work was completed in 2000.
67	4113 - R.Maple, Conifer	High Density Pole	7.3	70	81-110	
68	42290 - Natural Mixed Pine	High Density Pole	37.3	Uneven Age	81-110	
69	42260 - Natural Pine, Mixed Deciduous	High Density Pole	9.1	53		
71	6122 - Black Spruce	High Density Sapling	18.5	35		
72	6126 - Lowland Jack Pine	High Density Sapling	8.9	37		
73	6122 - Black Spruce	High Density Pole	7.5	65		
74	6122 - Black Spruce	High Density Pole	16.0	65		New stand added. poor site
75	6125 - Lowland Black Spruce, Jack Pine	Medium Density	75.1	16		Stand was partially scarified in 1998. 1134 trees per acre following count.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
6	310 - Herbaceous Openland	6.3	Unspecified	Unspecified	former grass stand Stand swapped from Forested to Non-Forested.
17	50 - Water	43.7	Unspecified	Unspecified	
19	310 - Herbaceous Openland	1.9	Unspecified	Unspecified	former grass stand Stand swapped from Forested to Non-Forested.
26	710 - Sand, Soil	1.5	Unspecified	Unspecified	
29	623 - Emergent Wetland	9.8	Unspecified	Unspecified	
35	50 - Water	32.0	Unspecified	Unspecified	
40	622 - Lowland Shrub	26.3	Unspecified	Unspecified	
46	50 - Water	2.9	Unspecified	Unspecified	
53	623 - Emergent Wetland	481.2	Unspecified	Unspecified	
54	50 - Water	2.9	Unspecified	Unspecified	
55	50 - Water	1.7	Unspecified	Unspecified	
58	622 - Lowland Shrub	7.9	Unspecified	Unspecified	
70	623 - Emergent Wetland	39.1	Unspecified	Unspecified	