SHINGLETON Forest Management Unit
Compartment Review Presentation
Compartment #16 Entry Year: 2013
Compartment Acreage: 1585 County: Schoolcraft

Revision Date: 8/16/11

Stand Examiner: Rick Hill

Legal Description: T45N R16W Sections 22, 23 and 27

RMU (if applicable): Seney Manistique Swamp

Management Goals: To manage the compartment in accordance with the principles of sustainable forest ecosystem management, with emphasis on timber production, maintaining & enhancing wildlife habitat, and protection of riparian areas.

Soil and Topography: Flat to gently rolling terrain with sandy soils throughout; some of the lower areas display relatively poor drainage.

Ownership Patterns, Development, and Land Use in and Around the Compartment: There are a few Private parcels on the south and western edge of the compartment. To the east is the Seney wildlife refuge.

Unique, Natural Features: The West Branch Manistique River flows through this compartment.

Archeological, Historical, and Cultural Features: None Known

Special Management Designations or Considerations: None Known

Watershed and Fisheries Considerations: Fisheries Values: Poor. West Branch Manistique Rivers is classed Second Quality Warm Water (SQWW). Protection from sand bedload is a high priority. No treatments are near water for YOE 2013

Wildlife Habitat Considerations: This compartment lies within the Seney Sand Lake Plain ecological sub-subsection. The growing season in this area is less than 100 days with extreme minimum winter temperatures of –46 F. Annual snowfall in this area averages between 120 and 140 inches. General Land Office (GLO) Surveyor notes show cedar, tamarack, and black spruce with an understory of spruce and alder to be the primary forest type. Upland knolls held a combination of white pine, red pine, hemlock, yellow birch, and red maple. Windthrow and fire were likely the major sources of natural disturbance. Beaver ponds along some of the feeder creeks into the West Branch of the Manistique were also observed during the original survey. Current forest types have been skewed heavily toward early successional species such as red pine, jack pine and aspen. Some of the lowlands continue to contain forest cover similar to the presettlement conditions. Wildlife habitat objectives include maintaining closed canopy lowland coniferous forest, promoting supercanopy white pine, protecting the riverine corridors, and providing age and structural diversity within the coniferous forest. Gray wolves (Federal and Michigan endangered) and moose (Michigan special concern) are known to utilize this compartment. Wood turtles (Michigan special concern) could potentially use the West Branch of the Manistique River. Other species of interest include spruce grouse, red-breasted nuthatch, river otter, and beaver.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel. There is minor local relief in the compartment. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River Group subcrops below the glacial drift. The Black River is used for stone/dolomite. The nearest gravel pit is 6 miles to the northwest. There appears to be limited gravel potential. There is no commercial oil and gas production in the UP. Approximately 50% of the State land is surface only.

Vehicle Access: Access to this compartment varies depending on location all areas east of the west branch of the Manistique River are easily accessible with a series of two tracks off of the Creighton truck trail. Areas west of the west branch of Manistique River are harder to get to with a long trek up the section 19 creek road needed to access most of the compartment.

Survey Needs: The northwest side of the compartment could use some corners as to the best of my knowledge there are no established corners.

Recreational Facilities and Opportunities: There is heavy hunting pressure for a number of game species, especially grouse and deer.

Fire Protection: Land in section 24 was obtained in 1991 during a land exchange with the Seney National Wildlife Refuge.

Additional Compartment Information: None

- **The following reports from the Inventory are attached:**
  - **Total Acres by Cover Type and Age Class**
  - **Proposed Treatment Summary**
  - **Proposed Treatments – No Limiting Factors**
  - **Proposed Treatments – With Limiting Factors**
  - **Stand Details (Forested and Nonforested)**
  - **Dedicated and Proposed Special Conservation Areas**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - **Base feature information, stand boundaries, cover types, and numbers**
  - **Proposed treatments**
  - **Details on the road access system**
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Table 1 – Total Acres by Cover Type and Age Class

Shingleton Mgt. Unit **Compartment 016 Year of Entry 2013**

Rick-James Hill : Examiner

Age Class

	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneven Age	Total
Aspen	0	0	61	0	0	0	0	0	0	0	0	0	0	0	0	**61**
Bog	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Cedar	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	**8**
Herbaceous Openland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Jack Pine	0	0	7	81	0	17	0	0	0	12	0	0	0	0	0	**117**
Lowland Conifers	0	0	0	0	0	30	27	0	0	13	42	0	18	0	0	**129**
Lowland Deciduous	0	0	19	27	13	0	0	0	17	0	17	0	0	0	0	**94**
Lowland Mixed Forest	0	0	0	0	5	0	0	0	9	8	0	0	0	0	0	**22**
Lowland Shrub	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**175**
Lowland Spruce/Fir	0	0	0	0	0	0	0	7	0	22	34	0	0	0	0	**63**
Natural Mixed Pines	0	0	153	0	0	0	0	19	0	59	0	0	0	0	0	**231**
Northern Hardwood	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	**8**
Red Pine	0	0	46	25	0	0	0	0	24	0	0	0	0	0	0	**95**
Upland Conifers	0	0	202	33	0	0	0	0	17	0	0	0	0	150	0	**402**
Upland Mixed Forest	0	0	56	65	0	31	14	0	0	0	0	0	0	0	0	**165**
Water	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**14**
Total	**191**	**0**	**543**	**230**	**18**	**86**	**41**	**26**	**67**	**122**	**93**	**0**	**18**	**150**	**0**	**1585**

Table 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2013

Compartment 016
Total Compartment Acres: 1585

Acres by Treatment Type

Commercial Harvest - 217	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Jack Pine	12	0	0	0	0	0	**12**
Lowland Conifers	44	0	0	0	0	0	**44**
Lowland Deciduous	34	0	0	0	0	0	**34**
Lowland Mixed Forest	17	0	0	0	0	0	**17**
Lowland Spruce/Fir	56	0	0	0	0	0	**56**
Northern Hardwood	0	8	0	0	0	0	**8**
Upland Mixed Forest	45	0	0	0	0	0	**45**
Total	**208**	**8**	**0**	**0**	**0**	**0**	**217**

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
22	41016022-Cut	2.7	6125 - Lowland Black Spruce, Jack Pine	Medium Density Pole	80	Harvest	Clearcut with Reserves	6125 - Lowland Black Spruce, Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand leave all hemlock, cedar and red pine. If white pine is too dense to operate in mark white pine to 50 SF to provide operability and regeneration.

Other Comments: This could be an optional unit in a sale.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	41016024-Cut	21.7	6122 - Black Spruce	Medium Density Pole	88	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand leave all hemlock, cedar and red pine. If white pine is too dense to operate in mark white pine to 50 SF to provide operability and regeneration.

Other Comments: This could be an optional unit in a sale.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25	41016025-Cut	8.5	6139 - Mixed Lowland Forest	Medium Density Pole	88	Harvest	Clearcut with Reserves	6139 - Mixed Lowland Forest	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand leave all hemlock, cedar and red pine. If white pine is too dense to operate in mark white pine to 50 SF to provide operability and regeneration.

Other Comments: This could be an optional unit in a sale.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	41016027-Cut	12.1	6126 - Lowland Jack Pine	High Density Pole	84	Harvest	Clearcut with Reserves	6126 - Lowland Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: This stand may not be accessible, if it is cut all species but red pine, white pine, hemlock and cedar.

Other Comments: This could be an optional unit in a sale.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
30	41016030-Cut	18.7	6125 - Lowland Black Spruce, Jack Pine	High Density Pole	91	Harvest	Clearcut with Reserves	6125 - Lowland Black Spruce, Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand reserve red and white pine use a four inch spec to prevent the cutting of advance regeneration, Also reserve oak and hemlock if present.

Other Comments: Some of this stand may be inaccessible or in operable it was lumped together to better meet ifmap mapping standards sale boundaries will vary from OI shape

Next Steps: Black spruce and mixed swamp conifer are the acceptable regeneration seed area for black spruce if regen fails.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
52	41016052-Cut	8.7	6139 - Mixed Lowland Forest	High Density Pole	76	Harvest	Clearcut with Reserves	6119 - Mixed Lowland Deciduous Forest	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand leave all hemlock and cedar and red pine. If white pine is too dense to operate in mark white pine to 50 SF to provide operability and regeneration.

Other Comments: Cut with stand 67, 56, 53, 64, 30 as well as potential optional units 24, 25 and 22. Also group in stand 23 and 11 from comp 19.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
53	41016053-Cut	12.3	6122 - Black Spruce	High Density Pole	91	Harvest	Clearcut with Reserves	6124 - Lowland Spruce-Fir	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand leave all hemlock, cedar and red pine. If white pine is too dense to operate in mark white pine to 50 SF to provide operability and regeneration. Leave retention pockets in the middle of the stand to help provide a seed source for regeneration. There should be multiple pockets left around the interior of the stand not adding up to more then 10% of the stand acreage.

Other Comments: Cut with stand 67, 56, 64, 52, 30 as well as potential optional units 24, 25 and 22. Also group in stand 23 and 11 from comp 19.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
56	41016056-Cut	17.0	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	77	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand leave all hemlock, cedar and red pine. If white pine is too dense to operate in mark white pine to 50 SF to provide operability and regeneration.

Other Comments: Cut with stand 67, 64, 53, 52, 30 as well as potential optional units 24, 25 and 22. Also group in stand 23 and 11 from comp 19.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
61	41016061-Cut	23.0	6125 - Lowland Black Spruce, Jack Pine	High Density Pole	90	Harvest	Clearcut with Reserves	6125 - Lowland Black Spruce, Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand reserve red and white pine use a four inch spec to prevent the cutting of advance regeneration, Also reserve oak and hemlock if present. This stand is not that wet it could be cut in the summer. Summer would be preferred as it would provide good scarfaction. Leave retention pockets in the middle of the stand to help provide a seed source for regeneration. There should be multiple pockets left around the interior of the stand not adding up to more then 10% of the stand acreage.

Other Comments: Group with stands on the east side of the river.

Next Steps: Black spruce and mixed swamp conifer are the acceptable regeneration, seed area for black spruce if regen fails.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63	41016063-Cut	13.9	4311 - Pine, Aspen Mix	High Density Pole	53	Harvest	Clearcut with Reserves	4132 - Aspen, Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Buffer from previous cut, this stand should be clearcut with reserves. Leave all oak , hemlock, red and white pine. Aspen is numerous should provide a good flush to regenerate the stand.

Other Comments: Group with other stands on the east side of the river. This stand should be cut in summer so some mineral soil can be exposed to provide some jack pine regeneration.

Next Steps: Aspen is acceptable regeneration if the coppice fails the management objective should be changed to jack pine with jack pine and Oak being planted.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
64	41016064-Cut	22.2	6122 - Black Spruce	High Density Pole	91	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand leave all hemlock, cedar and red pine. If white pine is too dense to operate in mark white pine to 50 SF to provide operability and regeneration. Leave retention pockets in the middle of the stand to help provide a seed source for regeneration. There should be multiple pockets left around the interior of the stand not adding up to more then 10% of the stand acreage.

Other Comments: Cut with stand 67, 56, 53, 52, 30 as well as potential optional units 24, 25 and 22. Also group in stand 23 and 11 from comp 19.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
67	41016067-Cut	16.8	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	91	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand leave all hemlock, cedar, white pine and red pine.

Other Comments: Cut with stand 64, 56, 53, 52, 30 as well as potential optional units 24, 25 and 22. Also group in stand 23 and 11 from comp 19.

Next Steps: Seed spruce if regen fails, acceptable regeneration is a mix of current species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
68	41016068-Cut	30.8	4311 - Pine, Aspen Mix	High Density Pole	43	Harvest	Clearcut with Reserves	4132 - Aspen, Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: This stand should be clearcut with reserves. Leave all oak , hemlock, red and white pine. Aspen is numerous and should provide a good flush to regenerate the stand.

Other Comments: Group with other stands on the east side of the river This stand should be cut in summer so some mineral soil can be exposed to provide some jack pine regeneration.

Next Steps: Aspen is acceptable regeneration if the coppice fails the management objective should be changed to jack pine with jack pine and oak being planted.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
69	41016069-Cut	8.3	4119 - Mixed Northern Hardwoods	High Density Pole	47	Harvest	Group Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal - Incomplete

Prescription Specs: Cut this stand with a group selection regenerate aspen in gaps where possible. Thin for crop trees where possible. Mark to average BA of 70 SF.

Other Comments: Group with other stands in the area.

Next Steps: Acceptable regeneration will include a current mix of species on the site.

Total Treatment Acreage Proposed: 216.7

Table 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error						

Prescription Specs:

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: **0**

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2013

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
41022_OutOfYOE-Cut	35.6				Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: 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.

Other Comments: Do not cut any trees within 50 feet of the West Branch Manistique River.

Next Steps: Thin next year of entry.

41049_OutOfYOE_1-Cut	4.7				Harvest	Single Tree Selection	42290 - Natural Mixed Pine	Cmpt. Review Proposal

Prescription Specs: Mark red pine and white pine to 30 sq. ft. Create gaps in canopy for regeneration where pine exists. Areas that have thicker young poles can be marked to 80. Cut all other species except hemlock and oak if present.

Other Comments: Access to stand is too difficult for continuous thinning.

Next Steps: Regeneration walkthrough during next inventory cycle. Acceptable regeneration includes any species mixture currently found onsite.

41053_OutOfYOE-Cut	10.2				Harvest	Single Tree Selection	42290 - Natural Mixed Pine	Cmpt. Review Proposal

Prescription Specs: Mark red pine and white pine to 30 sq. ft. Create gaps in canopy for regeneration where pine exists. Areas that have thicker young poles can be marked to 80. Cut all other species except hemlock and oak if present.

Other Comments: Access to stand is too difficult for continuous thinning.

Next Steps: Regen walkthrough during next inventory cycle. Acceptable regeneration includes any species mixture currently found onsite.

Total Treatment Acreage Proposed: **50.5**

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	Medium Density Pole	7.9	85		Cedar stand of varying densities and sizes.
2	6129 - Mixed Coniferous Lowland Forest	High Density Pole	17.6	112	111-140	Cedar swales with pine island the pine islands are about 100 BA with mainly white pine.
5	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	22.0	45		
7	42290 - Natural Mixed Pine	High Density Sapling	25.6	16		
8	6124 - Lowland Spruce-Fir	Medium Density Pole	1.5	88		
10	6125 - Lowland Black Spruce, Jack Pine	Medium Density Pole	5.5	88		
11	42110 - Planted Red Pine	High Density Sapling	46.0	16		
12	42390 - Mixed Non-Pine Upland Conifers	High Density Pole	150.4	140		
13	6124 - Lowland Spruce-Fir	Medium Density Pole	3.0	88		
15	429 - Mixed Upland Conifers	High Density Sapling	193.2	13		
17	4136 - Aspen, Mixed Conifer	High Density Sapling	45.1	12		
18	6129 - Mixed Coniferous Lowland Forest	Low Density Pole	27.4	50		
20	6122 - Black Spruce	High Density Pole	6.6	60		1 to 3 stick spruce
22	6125 - Lowland Black Spruce, Jack Pine	Medium Density Pole	2.7	80		
23	429 - Mixed Upland Conifers	High Density Pole	17.2	72	111-140	
24	6122 - Black Spruce	Medium Density Pole	21.7	88		Lowland conifer
25	6139 - Mixed Lowland Forest	Medium Density Pole	8.5	88		
26	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	7.2	19		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	6126 - Lowland Jack Pine	High Density Pole	12.1	84		
30	6125 - Lowland Black Spruce, Jack Pine	High Density Pole	18.7	91		
31	42210 - Natural Red Pine	High Density Pole	24.2	74	81-110	
32	42290 - Natural Mixed Pine	Medium Density Pole	19.0	62		
33	42110 - Planted Red Pine	High Density Sapling	19.1	21		
34	42110 - Planted Red Pine	High Density Sapling	5.7	24		Red Pine plantation, it looks good.
37	42290 - Natural Mixed Pine	High Density Sapling	127.4	13		
39	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	13.3	35		
40	4319 - Mixed Upland Forest	High Density Sapling	55.7	19		
41	4130 - Aspen	High Density Sapling	15.7	15		
42	42290 - Natural Mixed Pine	High Density Pole	7.6	82	51-80	
43	42290 - Natural Mixed Pine	High Density Sapling	20.9	81	111-140	
45	42221 - Natural Jack Pine, Mixed Deciduous	High Density Sapling	47.4	24		
46	6125 - Lowland Black Spruce, Jack Pine	High Density Pole	7.6	45		This is a mixed stand featuring jack pine red pine and spruce hold till the jack pine.
48	429 - Mixed Upland Conifers	Medium Density	8.6	15		
49	42290 - Natural Mixed Pine	High Density Log	30.4	86	51-80	This stand was harvested around 1998 it looks good with a full canopy of white pine and a understory of hardwood and fir-spruce filing in the gaps when the understory becomes economically viable in 20-30 years the stand should be looked at for a gap selection cut and a RX burn.
50	6130 - Fir, Aspen, Maple	High Density Pole	4.6	38		Wet area with aspen and red maple.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	6139 - Mixed Lowland Forest	High Density Pole	8.7	76	51-80	
53	6122 - Black Spruce	High Density Pole	12.3	91		
54	42220 - Natural Jack Pine	High Density Pole	17.3	45		This jack pine stand is 10-20 years form a harvest it looks good.
55	429 - Mixed Upland Conifers	High Density Sapling	32.6	25		
56	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	17.0	77		
58	42220 - Natural Jack Pine	High Density Sapling	33.6	27		
59	42220 - Natural Jack Pine	High Density Sapling	6.7	15		
60	4311 - Pine, Aspen Mix	High Density Sapling	47.9	27		Stand looks good with a lot of jack pine regeneration ands some scattered aspen and aspen pockets in the stand.
61	6125 - Lowland Black Spruce, Jack Pine	High Density Pole	23.0	90	51-80	A nice mix of sizes and species including spruce, jack pine, balsam and others.
62	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	27.4	25		
63	4311 - Pine, Aspen Mix	High Density Pole	13.9	53		This stand is Creighton mix of aspen, jack pine, spruce, balsam fir, cherry, red pine, and white pine.
64	6122 - Black Spruce	High Density Pole	22.2	91		
65	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	12.1	16		
66	4319 - Mixed Upland Forest	Medium Density Pole	16.8	25		
67	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	16.8	91		
68	4311 - Pine, Aspen Mix	High Density Pole	30.8	43		This is an aspen stand with some jack pine mixed in, there is also small amounts of red pine, white pine , red maple and cherry
69	4119 - Mixed Northern Hardwoods	High Density Pole	8.3	47	81-110	Red maple with a balsam understory

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	629 - Mixed non-forested wetland	38.1	N\A	Unspecified	
4	622 - Lowland Shrub	4.8	N\A	Unspecified	
6	6220 - Alder/willow	2.8	N\A	Unspecified	
9	629 - Mixed non-forested wetland	15.7	N\A	Unspecified	
14	629 - Mixed non-forested wetland	22.9	N\A	Unspecified	
16	6220 - Alder/willow	70.5	N\A	Unspecified	
19	50 - Water	13.6	N\A	Unspecified	
21	6225 - Bog	1.8	N\A	Unspecified	
28	622 - Lowland Shrub	3.5	N\A	Unspecified	
29	6220 - Alder/willow	3.9	No	Unspecified	
35	6229 - Mixed lowland shrub	1.1	N\A	Unspecified	
36	6229 - Mixed lowland shrub	1.3	N\A	Unspecified	
38	629 - Mixed non-forested wetland	2.3	N\A	Unspecified	
44	629 - Mixed non-forested wetland	1.6	N\A	Unspecified	
47	629 - Mixed non-forested wetland	1.8	N\A	Unspecified	
51	629 - Mixed non-forested wetland	2.3	N\A	Unspecified	
57	629 - Mixed non-forested wetland	2.2	N\A	Unspecified	
70	310 - Herbaceous Openland	1.0	N\A	Unspecified	

7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Stand	SCA Type	SCA Name	Acres	Comments

8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

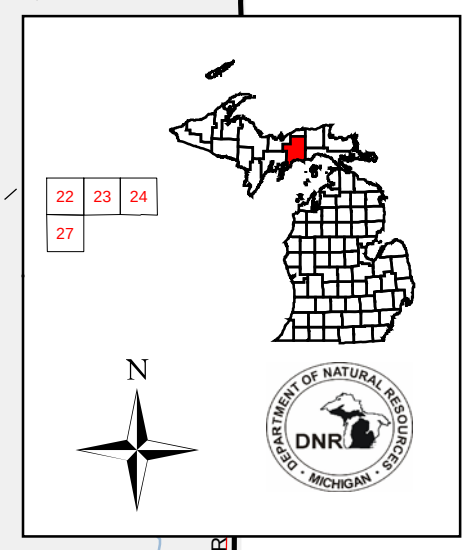
ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description

Cover Type & Treatment Map

Compartment 16
T45N, R16W, Sec. 22-24,27
County: Schoolcraft
Unit: Shingleton
YOE: 2013
Acres: 1,585 GIS Calculated
Stand Examiner: Rick James-Hill
Map Revised: 9/15/2011
Map Phase: Pre-Review

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



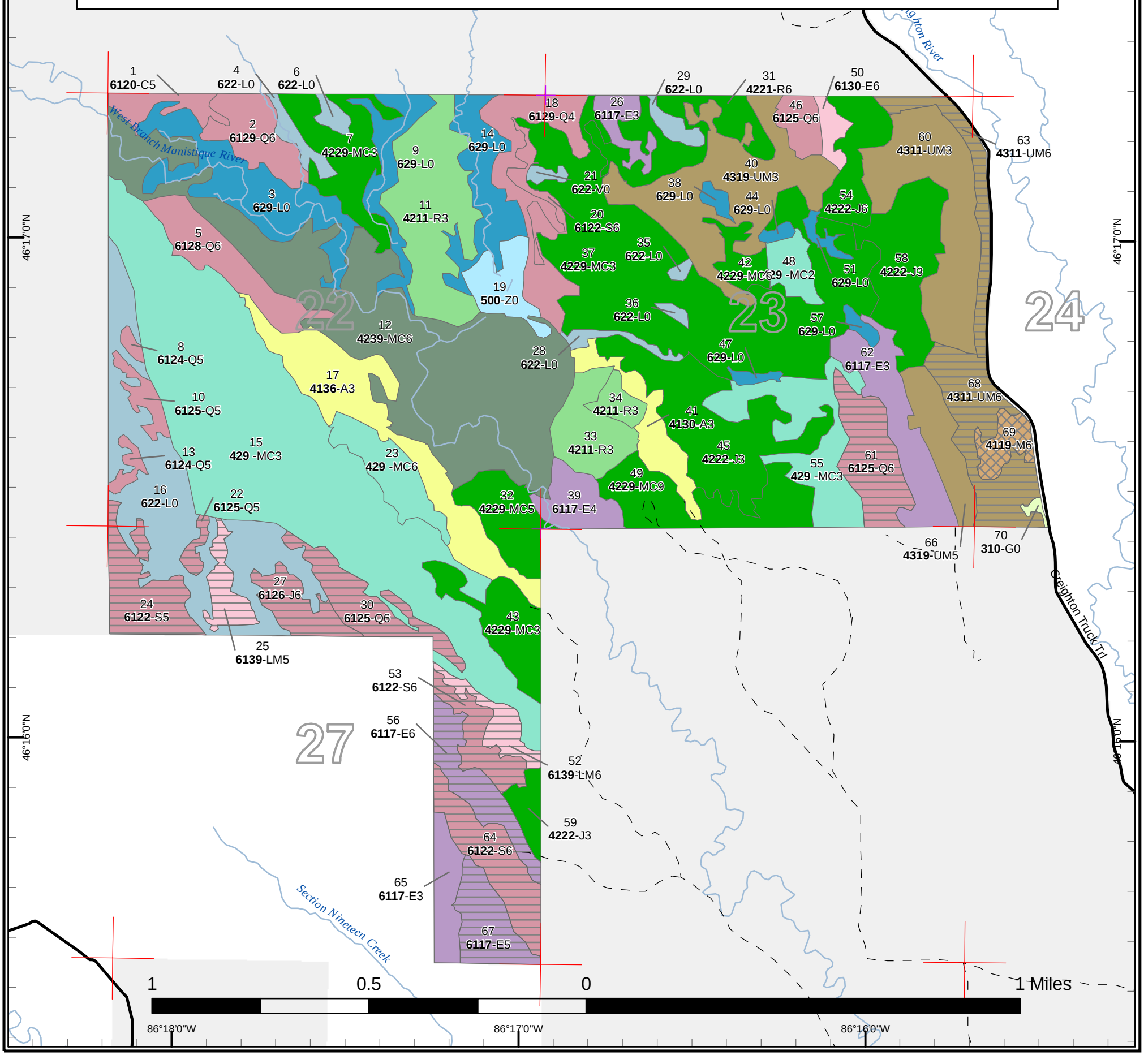
Legend

- Miris Corners
- Remonumented Section Corners
- Paved Roads
- Poor Dirt Roads
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- State Forest Land

Treatments
- 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
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

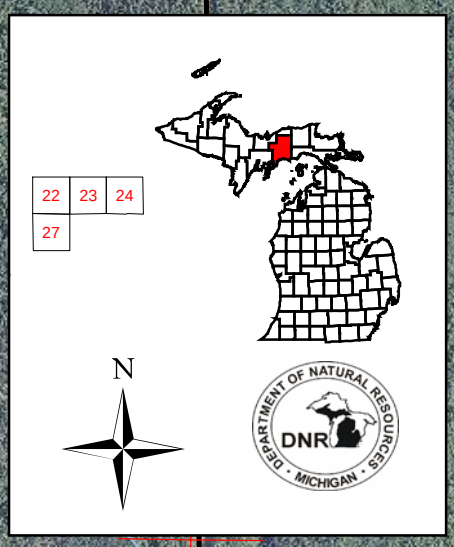
Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland



Stand Boundary Map

Compartment 16
T45N, R16W, Sec. 22-24,27
County: Schoolcraft
Unit: Shingleton
YOE: 2013
Acres: 1,585 GIS Calculated
Stand Examiner: Rick James-Hill
Map Revised: 9/15/2011
Map Phase: Pre-Review

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



Legend

- Miris Corners
- Remonumented Section Corners
- Paved Roads
- Poor Dirt Roads
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
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Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
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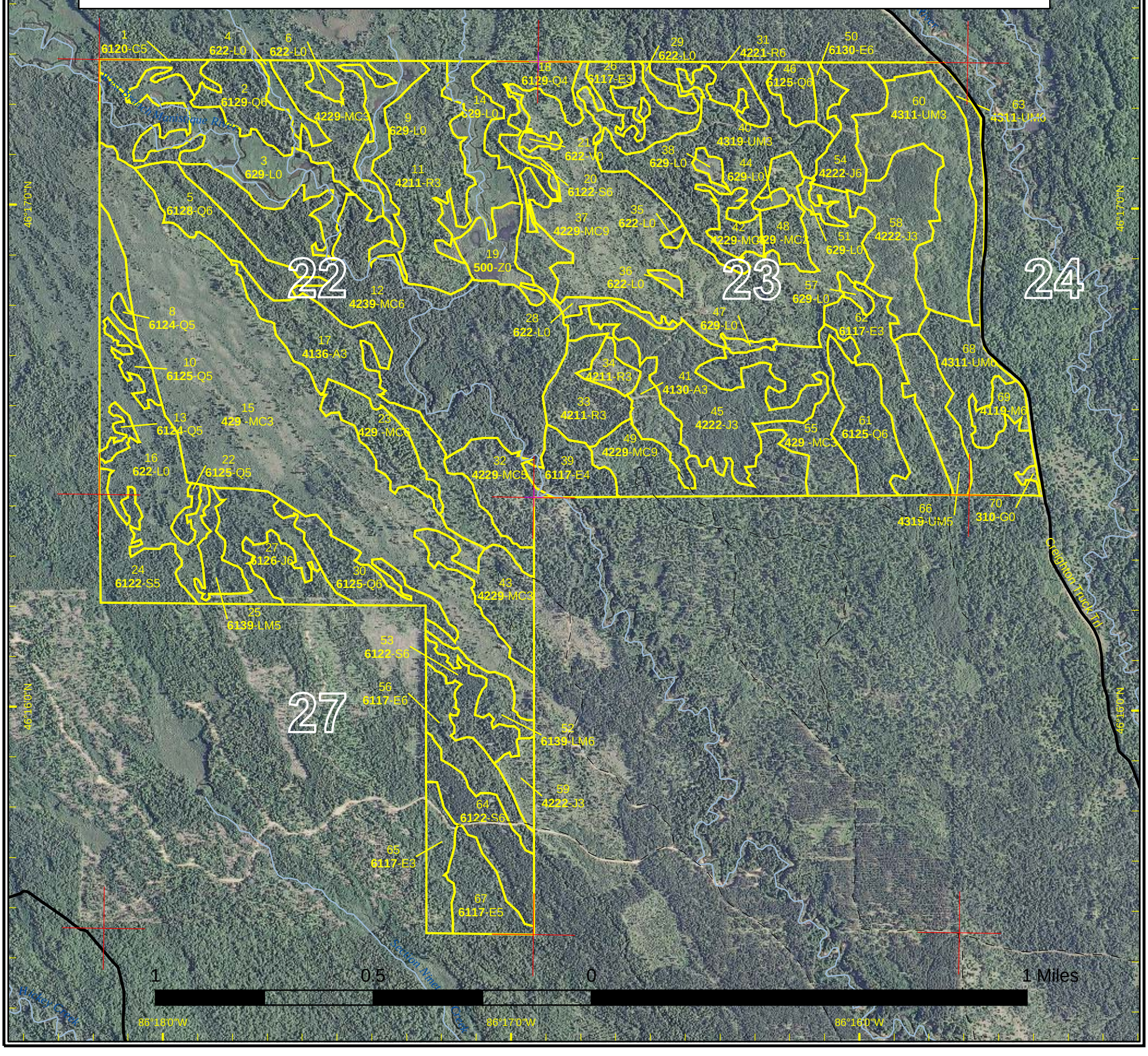
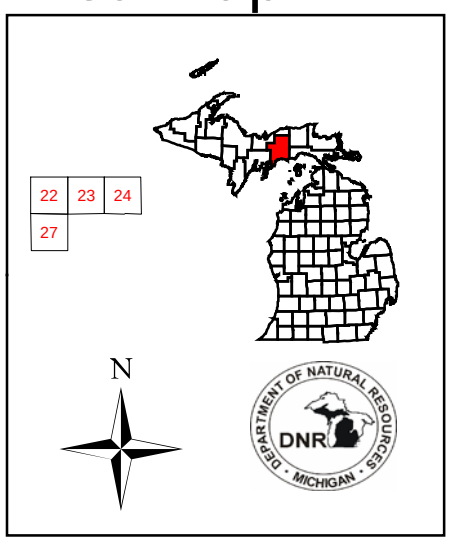


Dedicated & Proposed Special Conservation Area Map

Compartment 16
T45N, R16W, Sec. 22-24,27
County: Schoolcraft
Unit: Shingleton
YOE: 2013
Acres: 1,585 GIS Calculated
Stand Examiner: Rick James-Hill
Map Revised: 9/15/2011
Map Phase: Pre-Review

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



Legend

- Miris Corners
- Remonumented Section Corners

Proposed Special Conservation Areas
- SCA - Special Conservation Area
- SCA Removal

Dedicated Special Conservation Areas
- Cold Water Streams
- Stand Boundaries

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 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
- 629 - Mixed non-forested wetland