SHINGLETON Forest Management Unit
Compartment Review Presentation
Compartment #106 Entry Years: 2010
Compartment Acreage: 3203 County: Schoolcraft

Revision Date: 8/16/2011

Stand Examiner: Rick Hill

Legal Description: T47N R13W Sections 24-26, 35 &36

RMU (if applicable): Danaher Kingston Outwash

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: The compartment has rolling to flat terrain. There are some places where frost pockets do occur. The majority of the soil is sandy supporting hardwood and pine species.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is surrounded by other state land with no private land bordering it.

Unique, Natural Features: This compartment has a complex of pine and open land making the area suitable habitat for Sharptail Grouse.

Archeological, Historical, and Cultural Features: Many old grades from early logging are found in the compartment.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: No treatments are prescribed near water, so Fisheries Division has no comments at this time.

Wildlife Habitat Considerations: This compartment is located within the Grand Marais Sandy End Moraine Outwash sub-subsection. The average growing season is approximately 120 days. The extreme winter temperature generally reaches approximately –35 F. Snowfall in this compartment averages 160 inches or more annually. General Land Office (GLO) Surveyor notes indicate that the upland forest contained a mixture of softwood and hardwoods. Principle species included white pine, hemlock, yellow birch, beech, balsam fir, and red maple. Many comments were made about the amount of fallen timber and the thick understory of balsam fir, red maple and mountain ash. Windthrow and fire were likely the major sources of natural disturbance. Subsequent to the first logging era, slash fires consumed most of the organic matter in the soils. This resulted in large grass covered openings. Reforestation efforts and natural succession has produced the current forest cover which is dominated by pine plantations, grassy openings, and aspen types. In this respect it shows little resemblance to the forest found circa 1850. Wildlife habitat objectives include allowing some of the grassy areas to succeed back into a natural forest cover while maintaining an open characteristic through the use of clearcuts in other areas. Additionally, some of the presettlement tree species mix will be restored through the planting of white pine within hardwood stands.

Gray wolves (Federal and Michigan endangered) and sharp-tailed grouse (Michigan special concern) are known to inhabit this area. Other species of interest include the upland sandpiper, sandhill crane, meadow vole, and coyote.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. There is 40 feet of local relief in the compartment. There is insufficient data to determine the glacial drift thickness. The Ordovician Utica and Collingwood Shales and Trenton Group subcrop below the glacial drift. The Trenton is used for dolomite/stone elsewhere in the UP. Gravel pits at not found in the general area and potential appears to be limited. There is no commercial oil and gas production in the UP.

Vehicle Access: Most of this compartment is accessible via county road, Two Track or Snowmobile trail.

Survey Needs: None at this time.

Recreational Facilities and Opportunities: The Danaher ORV Trail and the Snowmobile trail (Seney Club) are both within the compartment.

Fire Protection: This compartment is sandy with a lot of pine and other flammable fuel types. This compartment is also vary close to the Seney FO and has good road access making large fires somewhat less likely.

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 106 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	49	293	236	59	0	5	0	0	0	0	0	0	0	**642**
Bog	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**29**
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**9**
Jack Pine	0	0	230	0	5	104	10	28	0	0	0	0	0	0	0	**377**
Low-Density Trees	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**55**
Natural Mixed Pines	0	0	0	10	0	0	0	50	71	0	0	0	0	0	0	**130**
Northern Hardwood	0	0	0	0	0	0	0	11	10	87	0	0	0	0	0	**108**
Planted Mixed Pines	0	0	0	0	0	28	43	0	0	0	0	0	0	0	0	**72**
Red Pine	0	19	0	0	0	58	642	39	51	0	0	0	0	0	0	**810**
Upland Mixed Forest	0	0	6	0	0	0	27	0	35	0	0	0	0	0	0	**68**
Upland Shrub	902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**902**
Total	**995**	**19**	**285**	**303**	**241**	**250**	**722**	**134**	**167**	**87**	**0**	**0**	**0**	**0**	**0**	**3203**

Table 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2013

Compartment 106
Total Compartment Acres: 3203

Acres by Treatment Type

Commercial Harvest - 642	Site Prep - 0	Tree Planting - 174	Prescribed Burn - 0	Other - 0
Habitat Cut - 8	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	64	0	0	0	0	0	**64**
Jack Pine	28	0	0	0	0	0	**28**
Natural Mixed Pines	13	37	0	71	0	0	**121**
Northern Hardwood	0	22	0	0	0	0	**22**
Red Pine	47	0	63	0	304	0	**414**
Total	**152**	**59**	**63**	**71**	**304**	**0**	**649**

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	**41106001-Cut**	31.6	42110 - Planted Red Pine	High Density Log	71	Harvest	Seed Tree with Reserves	42211 - Natural Red Pine, Mixed Deciduous	Cmpt. Review Proposal - Incomplete

Prescription Specs: Cut this stand hard leave small clumps and single trees that are growing well and look wind firm. Leave about 10-20 SF of residual.

Other Comments: Group this with stand 2, 76, 78 and 80

Next Steps: Scarify or Rx burn post harvest if regeneration fails plant red pine on site. Acceptable regeneration is a mix of red white and jack pine.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	**41106002-Cut**	26.1	42110 - Planted Red Pine	High Density Pole	54	Harvest	Seed Tree with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Cut this stand hard leave small clumps and single trees that are growing well and look wind firm. Leave about 10-20sf of residual.

Other Comments:

Next Steps: Scarify or Rx burn post harvest if regeneration fails plant red pine on site. Acceptable regeneration is a mix of red white and jack pine.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
7	**41106007-Cut**	46.3	42210 - Natural Red Pine	High Density Log	53	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments: group with other 7, 14, 25, 24 and others

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	**41106012-Cut**	12.5	42290 - Natural Mixed Pine	High Density Pole	65	Harvest	Clearcut with Reserves	4190 - Mixed Upland Deciduous with Cedar	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clear cut this stand reserve hemlock also leave sample of red and white pine.

Other Comments: group with 13, 14, 7, 1, 25, 24, 55, 58, 57, 59

Next Steps: plant jack pine on this site post havest.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	**41106013-Cut**	5.0	4133 - Aspen, Mixed Pine	High Density Pole	63	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand reserve hemlock also leave sample of red and white pine.

Other Comments: group with 12, 14 and others. Acceptable regeneration consists of species present on site.

Next Steps: Site should be scarified to allow jack pine regeneration if this fails plant jack pine per TMS specs.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
14	41106014-Cut	52.8	42110 - Planted Red Pine	High Density Log	53	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments: group with 7, 14, 24, 25

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	41106017-Cut	37.4	42260 - Natural Pine, Mixed Deciduous	High Density Pole	66	Harvest	Group Selection	42200 - Natural White Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Cut this stand using a selection system release crop trees mark trees with weevil damage and other defects. Mark this stand to 70-80 SF. Make regeneration gaps where practical.

Other Comments: Some portion of this sale will not be included in the harvest due to low density and diameters.

Next Steps: Acceptable regeneration will include white pine, red maple and a mix of the other species included on site.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
18	41106018-Cut	41.8	4132 - Aspen, Jack Pine	High Density Pole	46	Harvest	Clearcut with Reserves	4132 - Aspen, Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand reserve red pine and white pine, reserve hemlock and oak if present. Stand is not fully stocked at the moment and has a range of diameters. Use 2 inch spec and plant jack pine on site after the harvest to provide a fully socked stand after the harvest.

Other Comments: Group this with stand 17, 19, 56, 54

Next Steps: Plant jack pine within one year after the harvest, trench if necessary and then plant if the TMS prefers this method. The MO for this stand is a fully stocked mixed aspen and jack pine stand so no hardwood control should be undertaken.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
19	41106019-Cut	11.4	4112 - Maple, Beech, Cherry Association	High Density Pole	66	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal - Incomplete

Prescription Specs: Cut this stand using a selection system release crop trees mark to increase species diversity. Try to mark to increase mesic conifer component through tree selection.

Other Comments: Group this with stand 17, 19, 18, 22, 56

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

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
22	41106022-Cut	5.4	42210 - Natural Red Pine	High Density Pole	75	Harvest	Seed Tree with Reserves	42210 - Natural Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Cut this stand, leave small clumps and single trees that are growing well and look wind firm. Leave about 10-20sf of residual. Take as much precautions as possible to protect existing regeneration.

Other Comments:

Next Steps: Scarify or Rx burn post harvest if regeneration fails plant red pine on site. Acceptable regeneration is a mix of red white and jack pine.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	41106024-Cut	37.0	42110 - Planted Red Pine	High Density Log	53	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25	41106025-Cut	55.0	42110 - Planted Red Pine	High Density Log	53	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
49	41106049-Cut	12.3	42110 - Planted Red Pine	High Density Pole	57	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
53	41106053-Cut	11.8	42110 - Planted Red Pine	High Density Pole	57	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
54	41106054-Cut	17.4	4130 - Aspen	High Density Pole	49	Harvest	Clearcut with Reserves	4132 - Aspen, Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Stand is not fully stocked at the moment and has a range of diameters. Use 2 inch spec and plant jack pine on site after the harvest to provide a fully socked stand after the harvest.

Other Comments: Clearcut this stand reserve red pine and white pine, reserve hemlock and oak if present

Next Steps: Plant jack pine within one year after the harvest, trench if necessary and then plant if the TMS prefers this method. The MO for this stand is a fully stocked mixed aspen and jack pine stand so no hardwood control should be undertaken.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
56	41106056-Cut	70.9	42260 - Natural Pine, Mixed Deciduous	High Density Log	76	Harvest	Shelter Wood with Reserves	42201 - Natural White Pine, Mixed Deciduous	Cmpt. Review Proposal - Incomplete

Prescription Specs: This stand is a white pine stand with a large amount of aspen, red maple and jack pine. These species are mature so they should be cut; the white pine should be thinned to allow more sunlight to get better white pine regeneration. 30-40 SF should be sufficient. A post harvest Rx Burn should be preformed to encourage white pine regeneration; if a burn is not feasible scarfaction would be ideal.

Other Comments:

Next Steps: Plant red pine in areas where regeneration is light after regen check acceptable regeneration is red pine, white pine, jack pine, red maple and aspen. Wildlife would like to plant oak in this stand, FMD has no issues with doing this after the burn or scarfaction.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
57	41106057-Cut	28.4	42120 - Planted Jack Pine	High Density Pole	61	Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand reserve red pine and white pine

Other Comments:

Next Steps: Trench and plant jack pine after the harvest, jack pine is only acceptable regeneration.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
58	41106058-Cut	22.2	42110 - Planted Red Pine	High Density Log	49	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
59	41106059-Cut	22.3	42110 - Planted Red Pine	High Density Pole	57	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
64	41106064-Cut	43.9	42110 - Planted Red Pine	High Density Log	53	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Thin every third row or equivalent to provide for better operability.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
74	41106074-Cut	10.4	4112 - Maple, Beech, Cherry Association	High Density Pole	79	Harvest	Group Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal - Incomplete

Prescription Specs: Beach bark disease has affected this stand; . To maintain the diversity of the stand the residual BA should be 50-60 sf. There should be regen gaps scattered around to promote mid and intolerant species regen. Mesic conifers should be encouraged through tree selection. Beech can be designated to be cut with any healthy ones reserved or be marked to cut at forester's discretion.

Other Comments: group with 17, 19, 18, 22, 54 and 56

Next Steps: Acceptable regeneration will include a current mix of species on the site excluding beech. Beech brush will impede regeneration in the area it should be treated with herbicide or be controlled though some other means. Wildlife wishes this area could be planted with any one of or combination of BBD resistant beech, oak, hemlock, white pine.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
76	41106076-Cut	16.4	42110 - Planted Red Pine	High Density Pole	49	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand no retention is needed as this stand is being converted to grass.

Other Comments: Group this with stand 1, 2, 77, 78 and 80

Next Steps: This stand is being converted to a grass type; red pine will be planted in stand 5 to even out the red pine acres.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
77	41106077-Cut	13.1	42210 - Natural Red Pine	Medium Density Log	7	Harvest	Clearcut with Reserves	42210 - Natural Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand no retention is needed as this stand is being converted to grass.

Other Comments: group with 1, 2, 76, 78, 80

Next Steps: This stand is being converted to a grass type, red pine will be planted in stand 5 to even out the red pine acres.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
78	41106078-Cut	7.6	42110 - Planted Red Pine	High Density Log	49	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand no retention is needed as this stand is being converted to grass.

Other Comments: Group this with stand 1, 2, 76, 76 and 80

Next Steps: This stand is being converted to a grass type; red pine will be planted in stand 5 to even out the red pine acres.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
80	41106080-Cut	10.0	42110 - Planted Red Pine	High Density Pole	49	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Clearcut this stand no retention is needed as this stand is being converted to grass.

Other Comments: Group this with stand 1, 2, 76, 78 and 77

Next Steps: This stand is being converted to a grass type; red pine will be planted in stand 5 to even out the red pine acres.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28	41106028-Plant	19.0	42110 - Planted Red Pine	High Density Sapling	5	Tree Planting	Hand Plant	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Replant areas of the stand that have failed.

Other Comments:

Next Steps: Follow up with regeneration surveys according to work instructions.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62	41106062-Plant	49.0	4133 - Aspen, Mixed Pine	Medium Density Saplin	13	Tree Planting	Hand Plant	4132 - Aspen, Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Plant jack pine in areas where aspen has failed to coppice.

Other Comments:

Next Steps: Follow up with regeneration surveys according to work instructions.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	NF_41106005-Plant	58.1	Non-Forested		0	Tree Planting	Hand Plant	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Plant red pine in this open area the adjacent stands grow pine well, so this is a good place to consolidate some scattered red pine stripes form other locations in the compartment. This area is being planted to replace the acreage of stand 76, 77, 78 and 80 as well as additional acreage lost in RPP sales.

Other Comments: Plant to TMS spec.

Next Steps: Regeneration surveys will be carried out per work instructions.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	NF_41106020-Plant	47.6	Non-Forested		0	Tree Planting	Hand Plant	42110 - Planted Red Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: Plant red pine in this open area the adjacent stands grow pine well, so this is a good place to consolidate some scattered red pine stripes form other locations in the compartment. This area is being planted to replace the acreage of stand 76, 77, 78 and 80 as well as additional acreage lost in RPP sales.

Other Comments: plant per TMS spec.

Next Steps: Regeneration surveys will be carried out per work instructions.

Total Treatment Acreage Proposed: **822.7**

Shingleton Mgt. Unit

Table 4 -- Treatments Prescribed with a Limiting Factor

Compartment: 106
Year of Entry 2013

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	42110 - Planted Red Pine	High Density Log	31.6	71	51-80	Failed red pine plantation.
2	42110 - Planted Red Pine	High Density Pole	26.1	54	51-80	This stand was cut with plans to underplant jack pine residual was left at 60 sf and it was never planted.
3	4130 - Aspen	High Density Pole	5.8	32		
4	42220 - Natural Jack Pine	High Density Pole	5.1	39		This is a jack pine stand that is a mix of ages, sizes heights and diameters.
7	42110 - Planted Red Pine	High Density Log	46.3	53	141-170	Nice looking red pine with good rows.
8	42110 - Planted Red Pine	High Density Pole	67.9	54	200+	AN OLD GRADE RUNS THROUGH THE STAND. [5/5/04] Under contract TS # 030-03 Danaher Star Red Pine. Residual BA red pine = 95 sq.ft./acre. [5-30-08] Sale is completed TCR dtd 5-20-08.
9	4112 - Maple, Beech, Cherry Association	High Density Log	86.5	83	81-110	
10	42110 - Planted Red Pine	High Density Log	27.3	50	111-140	Red pine plantation, failed in places trees are short branchy and fat.
12	42290 - Natural Mixed Pine	High Density Pole	12.5	65		
13	4133 - Aspen, Mixed Pine	High Density Pole	5.0	63		
14	42110 - Planted Red Pine	High Density Log	52.8	53	200+	pine plantation good row and density.
16	42120 - Planted Jack Pine	High Density Sapling	79.4	15		cut in '96. Originally planted in 1927 cut once in '52. THIS STAND HARBORS A FUNGI AND AN ASSOCIATED MYCORHIZA WHICH IS UNIQUE TO THE JACK PINE GROWING IN THIS STAND.
17	42260 - Natural Pine, Mixed Deciduous	High Density Pole	37.4	66	111-140	This white pine stand varies in density and size but overall looks good.
18	4132 - Aspen, Jack Pine	High Density Pole	41.8	46		This is a low SI aspen stand.
19	4112 - Maple, Beech, Cherry Association	High Density Pole	11.4	66	141-170	
21	4130 - Aspen	High Density Sapling	108.5	20		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	42210 - Natural Red Pine	High Density Pole	5.4	75	141-170	
24	42110 - Planted Red Pine	High Density Log	37.0	53	141-170	pine plantation, failed in places trees are short branchy and fat.
25	42110 - Planted Red Pine	High Density Log	55.0	53	141-170	Red pine plantation, failed in places trees are short branchy and fat.
26	4132 - Aspen, Jack Pine	High Density Sapling	96.7	21		
27	42110 - Planted Red Pine	High Density Pole	14.4	70	141-170	
28	42110 - Planted Red Pine	High Density Sapling	19.0	5		
29	4130 - Aspen	High Density Sapling	8.2	25		
32	42260 - Natural Pine, Mixed Deciduous	High Density Pole	9.6	20		
34	42110 - Planted Red Pine	High Density Pole	70.9	52	111-140	
36	42140 - Planted Mixed Pine	High Density Pole	10.4	57		
37	42140 - Planted Mixed Pine	High Density Pole	9.7	57		
38	42140 - Planted Mixed Pine	High Density Pole	9.8	57		
39	42120 - Planted Jack Pine	High Density Log	9.7	57	111-140	Red pine plantation, failed in places trees are short branchy and fat.
41	42110 - Planted Red Pine	High Density Log	8.9	57	81-110	Red pine plantation, failed in places trees are short branchy and fat.
42	42141 - Planted Mixed Pine, Mixed Deciduous	High Density Pole	13.2	57	1-50	
43	4130 - Aspen	High Density Sapling	172.4	32		
45	42110 - Planted Red Pine	High Density Log	10.0	57	141-170	Red pine plantation, failed in places trees are short branchy and fat.
46	4133 - Aspen, Mixed Pine	High Density Sapling	35.9	25		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	42110 - Planted Red Pine	High Density Log	7.9	57	141-170	Red pine plantation, failed in places trees are short branchy and fat.
48	42110 - Planted Red Pine	High Density Log	4.8	52	111-140	
49	42110 - Planted Red Pine	High Density Pole	12.3	57	111-140	
50	42120 - Planted Jack Pine	High Density Sapling	33.4	11		
51	42110 - Planted Red Pine	High Density Pole	25.1	51	141-170	
52	4133 - Aspen, Mixed Pine	High Density Sapling	47.1	32		
53	42110 - Planted Red Pine	High Density Pole	11.8	57	111-140	pine plantation, failed in places trees are short branchy and fat.
54	4130 - Aspen	High Density Pole	17.4	49		Off site aspen that is in poor condition.
55	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	39.4	62	81-110	
56	42260 - Natural Pine, Mixed Deciduous	High Density Log	70.9	76	81-110	White pine stand has a mix of aspen, red maple, jack pine and a few red pine.
57	42120 - Planted Jack Pine	High Density Pole	28.4	61		
58	42110 - Planted Red Pine	High Density Log	22.2	49	171-200	
59	42110 - Planted Red Pine	High Density Pole	22.3	57	171-200	Red pine plantation, failed in places trees are short branchy and fat.
60	42110 - Planted Red Pine	High Density Pole	23.9	51	111-140	
61	4311 - Pine, Aspen Mix	High Density Log	11.5	73	1-50	
62	4133 - Aspen, Mixed Pine	Medium Density	49.0	13		
63	4319 - Mixed Upland Forest	High Density Log	23.3	73	81-110	White pine stand with aspen and red maple.
64	42110 - Planted Red Pine	High Density Log	43.9	53	171-200	Red pine with some pockets of white pine.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
66	4130 - Aspen	High Density Pole	10.3	32		
67	4311 - Pine, Aspen Mix	High Density Pole	27.2	54		
68	42110 - Planted Red Pine	High Density Pole	25.8	52	111-140	
69	42110 - Planted Red Pine	High Density Log	41.8	57		
70	4136 - Aspen, Mixed Conifer	High Density Pole	44.2	27		
71	42110 - Planted Red Pine	High Density Pole	2.3	47	81-110	
72	42220 - Natural Jack Pine	High Density Pole	6.1	48		
73	42110 - Planted Red Pine	High Density Pole	6.8	57	111-140	
74	4112 - Maple, Beech, Cherry Association	High Density Pole	10.4	79	111-140	
75	42220 - Natural Jack Pine	Medium Density	15.6	13		
76	42110 - Planted Red Pine	High Density Pole	16.4	49	51-80	red pine was free thined and under planed looks good.
77	42111 - Planted Red Pine, Mixed Deciduous	Low Density Log	13.1	57	1-50	
78	42110 - Planted Red Pine	High Density Log	7.6	49	51-80	Red pine was free thined and under planed looks good.
79	42220 - Natural Jack Pine	High Density Sapling	87.1	13		
80	42110 - Planted Red Pine	High Density Pole	10.0	49	81-110	Sapling trees are in gaps look to have been planted with adjacent stand.
81	42120 - Planted Jack Pine	High Density Pole	23.9	46		
82	42120 - Planted Jack Pine	High Density Pole	14.2	46		
83	42120 - Planted Jack Pine	High Density Pole	14.4	46		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
84	42140 - Planted Mixed Pine	High Density Pole	28.4	47	51-80	A complex of jack pine regeneration in gaps some older jack pine, white pine and red pine, the stand looks good over all.
85	42221 - Natural Jack Pine, Mixed Deciduous	High Density Sapling	14.6	13		
86	4311 - Pine, Aspen Mix	High Density Log	6.3	13		
87	42120 - Planted Jack Pine	High Density Pole	45.5	48		

6 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	320 - Upland Shrub	58.1	N\A	Unspecified	
6	6225 - Bog	3.4	N\A	Unspecified	
11	6225 - Bog	24.5	N\A	Unspecified	
15	6225 - Bog	1.3	N\A	Unspecified	
20	320 - Upland Shrub	47.6	N\A	Unspecified	
23	310 - Herbaceous Openland	2.2	N\A	Unspecified	
30	3205 - Mixed Upland Shrub	796.1	Yes	Medium (NonForested)	
31	330 - Low-Density Trees	1.9	N\A	Unspecified	
33	330 - Low-Density Trees	34.8	N\A	Unspecified	
35	330 - Low-Density Trees	8.9	N\A	Unspecified	
40	330 - Low-Density Trees	9.0	N\A	Unspecified	
44	310 - Herbaceous Openland	1.4	N\A	Unspecified	
65	310 - Herbaceous Openland	5.9	N\A	Unspecified	

Data updated before 10:00 AM

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.

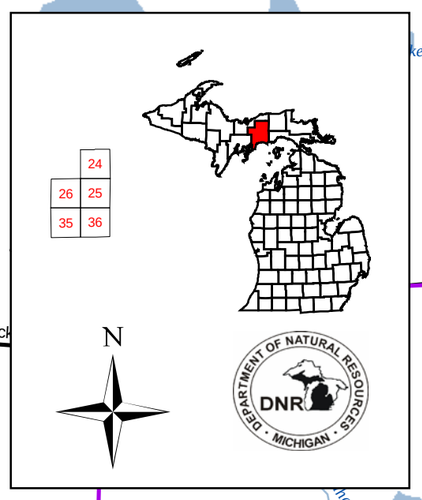
ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description

Cover Type & Treatment Map

Compartment 106
T47N, R13W, Sec. 24-26, 35, 36
County: Schoolcraft
Unit: Shingleton
YOE: 2013
Acres: 3203 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 Code
Cover Type Code



Legend
- Miris Corners
- Remonumented Section Corners
- Paved Roads
- Poor Dirt Roads
- ORV Trails
- Snowmobile Trails
- ORV Trail
- Snowmobile Trail
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- State Forest Land

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

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest

Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 622 - Lowland Shrub

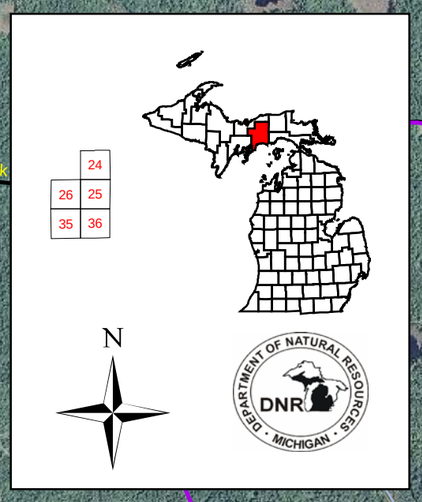
1 0.5 0 1 Miles

85°55'0"W 85°54'0"W 85°53'0"W 85°52'0"W 85°51'0"W 85°50'0"W
46°29'0"N 46°27'0"N 46°26'0"N 46°25'0"N

Stand Boundary Map

Compartment 106
T47N, R13W, Sec. 24-26, 35, 36
County: Schoolcraft
Unit: Shingleton
YOE: 2013
Acres: 3203 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
- ORV Trails
- Snowmobile Trails

Trail Designation
- ORV Trail

Trail Designation
- Snowmobile Trail
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest

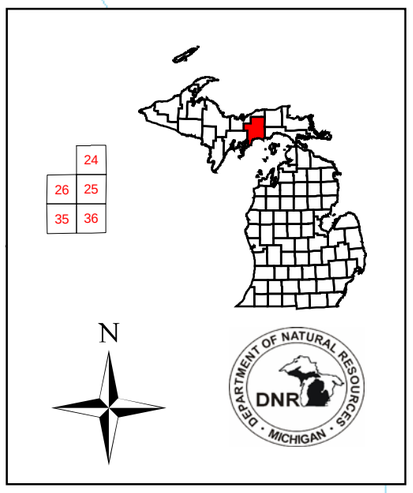
Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 622 - Lowland Shrub

1 Miles 0.5 0

Dedicated & Proposed Special Conservation Area Map

Compartment 106
T47N, R13W, Sec. 24-26, 35, 36
County: Schoolcraft
Unit: Shingleton
YOE: 2013
Acres: 3203 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



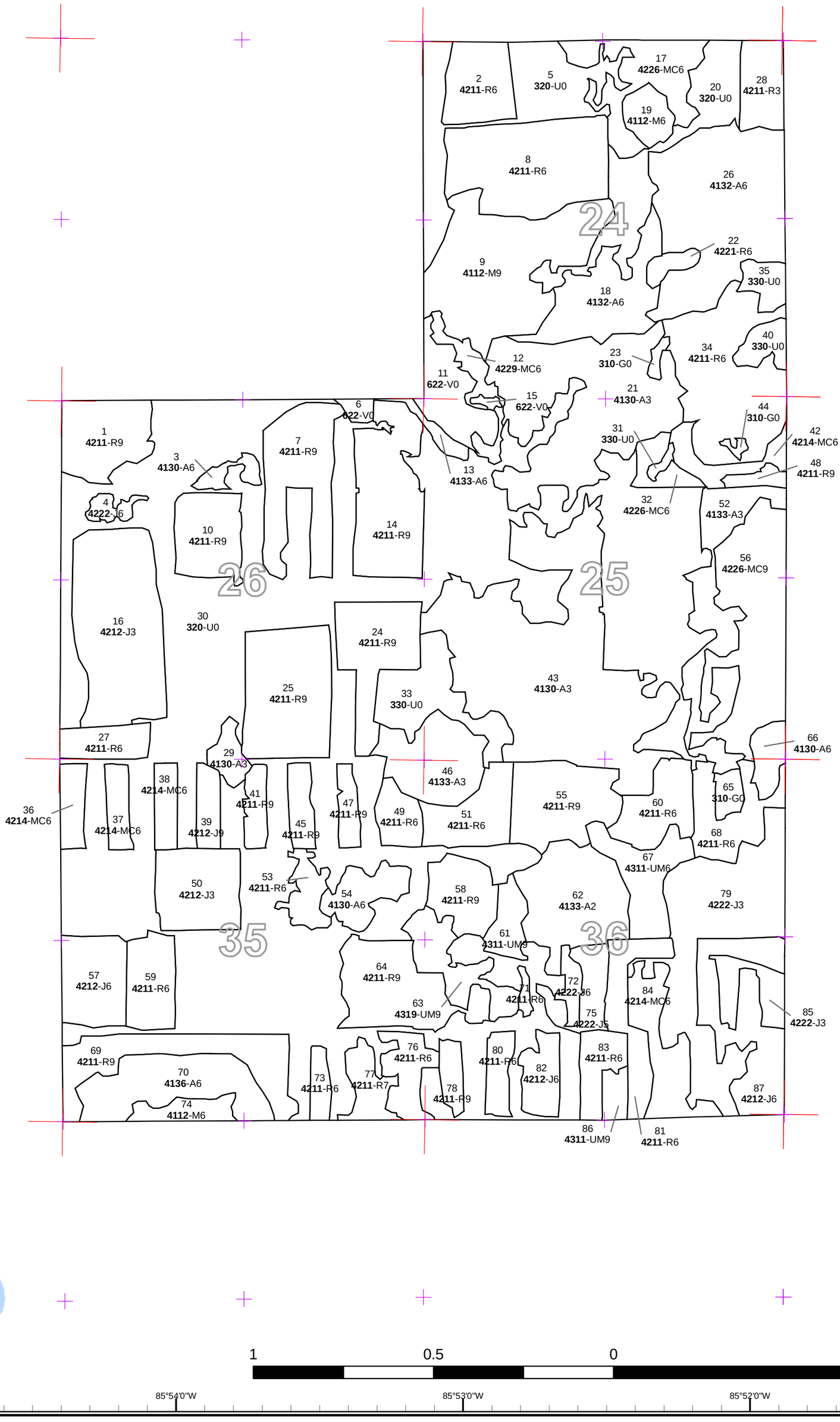
Legend
- Miris Corners
- Remonumented Section Corners
- Stand Boundaries

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

Dedicated Special Conservation Areas
- Cold Water Streams
- Natural Rivers Zoning District
- Natural Rivers Vegetative Buffer

Forest Stands
- Level 3
  - 411 - Northern Hardwood
  - 413 - Aspen Types
  - 421 - Planted Pines
  - 422 - Natural Pines
  - 431 - Upland Mixed Forest

Non-Forest Stands
- Level 3
  - 310 - Herbaceous Openland
  - 320 - Upland Shrub
  - 330 - Low-Density Trees
  - 622 - Lowland Shrub



1 0.5 0 1 Miles

85°55'0"W 85°54'0"W 85°53'0"W 85°52'0"W 85°51'0"W 85°50'0"W
46°28'0"N 46°27'0"N 46°26'0"N 46°25'0"N