



**Shingleton Forest Management Unit
Compartment Review Presentation
Compartment # 40 Entry Year: 2013
Compartment Acreage: 2264 County: Schoolcraft**

Revision Date: 8/22/11

Stand Examiner: Bob Burnham

Legal Description: T43N R16W Sections 21,28,31,32&33

RMU (if applicable):

Management Goals: The main goal in this compartment is to conduct multiple resource management for the good of the citizens of the State of Michigan.

Soil and Topography: Soils in this compartment consist of Rubicon-Roselawn Sands, Wallace Sands, Carbondale and Rifle.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The eastern portion of the compartment has broken ownership and there is a fairly large portion of private holdings which were sold in the early 90's from Champion International. Now there are numerous gates in this area making access difficult. The Hiawatha National Forest borders on the west.

Unique, Natural Features: The compartment is very remote with a mix of marsh and upland ridges.

Archeological, Historical, and Cultural Features: None known

Special Management Designations or Considerations: The entire compartment falls within the Seney Manistique Swamp Management Area.

Watershed and Fisheries Considerations: The Big Ditch upstream from Barnhart Creek is classified as Second Quality Cold Water (SQCW). Smith Creek is classified Second Quality Warm Water (SQWW). Protecting Smith Creek from encroachment by beaver isn't a high priority, but protection from increased sand bedload is a high priority.

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 marsh and low pine ridges to be the dominant landforms in the southern portion of the compartment. The ridges held primarily jack pine and red pine with some tamarack, spruce, fir, aspen and white birch mixed in. Forested lowlands contained spruce, tamarack, and red pine. The open marshlands contained cranberry, and various grasses and sedges. The northern portion of the compartment contains more upland. The surveyor notes show this upland portion of the compartment (section 21) held a mix of white pine, balsam fir, hemlock, aspen, and red pines. Beaver ponds along Smith Creek played an important role in the ecology of the area. Wildfire and windthrow also provided natural disturbances within the compartment. Species composition throughout the compartment appears to be similar to that described in the GLO notes. Jack pine occurs on many of the ridges, as does white pine, red pine, white birch, and aspen. Low lying forested areas hold a mix of black spruce, jack pine, red pine, and white pine. Although

the species composition is similar, there undoubtedly are differences in the structural composition when compared to the circa 1850 forest. Wildlife habitat objectives include maintaining species, age and structural diversity within and between conifer stands, protecting the integrity of the marshes, and maintaining a corridor along Smith Creek. Gray wolves (Federal and Michigan endangered) and sharp-tailed grouse (Michigan special concern) are known to utilize this area. Other wildlife species of interest include northern harrier, saw-whet owl, river otter, and mink.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel, peat and muck and coarse-textured glacial till in the northeast corner. There is insufficient data to determine the glacial drift thickness. The Ordovician Queenston Shale and Big Hill Dolomite subcrop below the glacial drift. The Big Hill could probably be used for stone. The nearest gravel pit is 3 miles to the east, but there is gravel potential northeast of the ORV trail. There is no commercial oil and gas production in the UP.

Vehicle Access: There are two main Department Roads in the compartment, Smith Creek Road and the Haywire Grade. Access off the Grade into section 21 is limited due to fragmented private ownership. Also all of section 31 and the west half of 32 are marsh islands and have no road access.

Survey Needs: None

Recreational Facilities and Opportunities: The Haywire Grade in the northeast part of the compartment is a designated Snowmobile and ORV Trail. The lay of the land lends itself to some remote hunting opportunities.

Fire Protection: Fire response to the lands accessed off of Smith Creek Road will be slow due to distance and the equipment needed will likely be marsh type units. Due to all the private lands and gates in and around section 21 access will be difficult.

Additional Compartment Information:

- **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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| | Age Class | | | | | | | | | | | | | | Total | |
|-------------------------|--------------|-----------|------------|-----------|-----------|-----------|----------|-----------|------------|------------|------------|-----------|----------|-----------|----------|-------------|
| | 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 + | | Unretn Age |
| Aspen | 0 | 15 | 32 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 |
| Bare/Sparsely Vegetated | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 |
| Cedar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 0 | 0 | 15 | 0 | 124 |
| Herbaceous Openland | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| Jack Pine | 0 | 0 | 184 | 43 | 0 | 20 | 0 | 0 | 34 | 5 | 0 | 0 | 0 | 0 | 0 | 285 |
| Lowland Conifers | 0 | 0 | 0 | 25 | 0 | 12 | 0 | 34 | 22 | 22 | 46 | 21 | 0 | 0 | 0 | 182 |
| Lowland Mixed Forest | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 40 |
| Lowland Shrub | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Lowland Spruce/Fir | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 34 | 46 | 0 | 0 | 0 | 0 | 88 |
| Marsh | 846 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 846 |
| Natural Mixed Pines | 0 | 10 | 0 | 22 | 0 | 0 | 0 | 0 | 4 | 47 | 28 | 8 | 0 | 0 | 0 | 120 |
| Oak | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| Planted Mixed Pines | 0 | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| Red Pine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| Tamarack | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 26 |
| Treed Bog | 199 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 199 |
| Upland Conifers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 31 |
| White Pine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| Total | 1184 | 88 | 216 | 90 | 19 | 32 | 0 | 64 | 108 | 108 | 301 | 40 | 0 | 15 | 0 | 2264 |



Table 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2013

Compartment 040
Total Compartment Acres: 2264

Acres by Treatment Type

| | | | | |
|--------------------------|-------------------------|-------------------|---------------------|-----------|
| Commercial Harvest - 220 | Site Prep - 0 | Tree Planting - 0 | Prescribed Burn - 0 | Other - 0 |
| Habitat Cut - 14 | Opening Maintenance - 0 | Tree Seeding - 0 | Pesticide - 0 | |

Cover Type by Harvest Method

| | Clearcut | Selection | Seed Tree | Shelterwood | Thinning | Other - Specify | Total Acres |
|----------------------------|------------|-----------|-----------|-------------|-----------|-----------------|-------------|
| Cedar | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| Jack Pine | 45 | 0 | 0 | 0 | 0 | 0 | 45 |
| Lowland Conifers | 42 | 0 | 0 | 0 | 0 | 0 | 42 |
| Lowland Spruce/Fir | 28 | 0 | 0 | 0 | 0 | 0 | 28 |
| Natural Mixed Pines | 27 | 0 | 16 | 5 | 8 | 0 | 55 |
| Red Pine | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| Tamarack | 11 | 0 | 0 | 0 | 0 | 0 | 11 |
| Upland Conifers | 0 | 0 | 0 | 0 | 22 | 0 | 22 |
| Total | 168 | 0 | 31 | 5 | 30 | 0 | 234 |

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| Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|----------------|-------|---------------------------|-------------------|-----------|----------------|------------------------|---------------------------|-----------------------|
| 7 41040007-Cut | 3.0 | 42220 - Natural Jack Pine | High Density Pole | 79 | Harvest | Clearcut with Reserves | 42220 - Natural Jack Pine | Cmpt. Review Proposal |

Prescription Stand is over-mature, harvest stand with stands to the north in Compartment 39, make start date 2017. Clearcut stand and leave some red and white pine for seed.

Other
Comments:

Next
Steps: Regenerate jack pine including scarification, planting, or seeding. Acceptable regen is jack pine or a mix of jack, red and white pine.

| | | | | | | | | |
|----------------|-----|----------------------------|-------------------|----|---------|----------------------------|----------------------------|-----------------------|
| 9 41040009-Cut | 4.6 | 42290 - Natural Mixed Pine | High Density Pole | 82 | Harvest | Shelter Wood with Reserves | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
|----------------|-----|----------------------------|-------------------|----|---------|----------------------------|----------------------------|-----------------------|

Prescription Stand should be harvested with stands to the north in Comp 39. Make the start date 2017. Do a shelterwood seed type cut, retain windfirm seed trees.

Other
Comments:

Next
Steps: Scarify if possible. Acceptable regen is a mix of pine species including red, white and jack. Follow-up next oi cycle with regen check.

| | | | | | | | | |
|-----------------|-----|--|-------------------|----|---------|------------------------|--|-----------------------|
| 15 41040015-Cut | 3.4 | 6125 - Lowland Black Spruce, Jack Pine | High Density Pole | 79 | Harvest | Clearcut with Reserves | 6125 - Lowland Black Spruce, Jack Pine | Cmpt. Review Proposal |
|-----------------|-----|--|-------------------|----|---------|------------------------|--|-----------------------|

Prescription Stand is an upland ridge surrounded by lowland black spruce because of call had to go with lowland. Stand should be treated with stand 14 in C-39 (2017 YOE). schedule stand for harvest now with start date delayed till 2017. Clear-cut with reserves, retain some white pine and retention along lowland edges.

Other
Comments:

Next
Steps: Scarify highground if possible. Acceptable regen is a mix of the current species count regen at the subsequent oi cycle.

| | | | | | | | | |
|-----------------|-----|---------------------------|-------------------|----|---------|------------------------|---------------------------|-----------------------|
| 19 41040019-Cut | 2.9 | 42220 - Natural Jack Pine | High Density Pole | 79 | Harvest | Clearcut with Reserves | 42220 - Natural Jack Pine | Cmpt. Review Proposal |
|-----------------|-----|---------------------------|-------------------|----|---------|------------------------|---------------------------|-----------------------|

Prescription Island of over-mature jack pine, approximately 10' of red pine and 10' of white pine. Retain some red and white pine.

Other
Comments:

Next
Steps: Due to size and location, site prep options are limited. Acceptable regen is a mix of the current species.

| | | | | | | | | |
|-----------------|------|--|-------------------|-----|---------|------------------------|--|-----------------------|
| 20 41040020-Cut | 21.0 | 6125 - Lowland Black Spruce, Jack Pine | High Density Pole | 109 | Harvest | Clearcut with Reserves | 6125 - Lowland Black Spruce, Jack Pine | Cmpt. Review Proposal |
|-----------------|------|--|-------------------|-----|---------|------------------------|--|-----------------------|

Prescription Stand has an upland knoll component of way over mature jack pine surrounded by mostly tamarack. Stand needs to be cut retain patches of cedar, northeast. Also retain some red and white pine on upland for diversity.

Other
Comments:

Next
Steps: Regenerate to a mix of the current species. Examine regen during the next oi cycle.



| Stand | Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|---|----------------|-------|-----------------------------|-------------------|-----------|----------------|-------------------------|-----------------------------|-----------------------|
| 21 | 41040021-Cut | 22.3 | 429 - Mixed Upland Conifers | High Density Log | 94 | Harvest | Crown Thinning | 429 - Mixed Upland Conifers | Cmpt. Review Proposal |
| <p><u>Prescription</u> Stand is on Contract, Smoking Gun Unit 1. Residual BA 40' white pine and 10' red pine. Thinning. <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> None</p> | | | | | | | | | |
| 23 | 41040023-Cut | 4.2 | 42290 - Natural Mixed Pine | High Density Log | 82 | Harvest | Seed Tree with Reserves | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
| <p><u>Prescription</u> Stand is mainly jack pine with white pine logs on north transitioning to red pine on south back to jack pine mix on west edge. If stands 25 and 37 are cut harvest this stand as well. Several low connections but call upland since that is what we will manage for. Do a seed tree cut leaving windfirm red and white pine. <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Acceptable regen is a mix of the current species. Examine regen at the next oi cycle.</p> | | | | | | | | | |
| 28 | 41040028-Cut | 9.1 | 42290 - Natural Mixed Pine | High Density Pole | 82 | Harvest | Clearcut with Reserves | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
| <p><u>Prescription</u> Clearcut stand and leave some wind firm pine for seed. Stand is mature, afew solid areas of red pine (NE), if stand 37 is cut try and harvest this stand as well. <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Acceptable regen is a mix of teh current species, examine regen at the next oi cycle.</p> | | | | | | | | | |
| 30 | 41040030-Cut | 4.0 | 42220 - Natural Jack Pine | High Density Pole | 79 | Harvest | Clearcut with Reserves | 42220 - Natural Jack Pine | Cmpt. Review Proposal |
| <p><u>Prescription</u> Clear-cut stand and reserve some pine for seed, due to the size and location of stand site prep work will be a challenge. <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Acceptable regeneration is a mix of teh current species, examine regen at the next OI cycle.</p> | | | | | | | | | |
| 34 | 41040034-Cut | 9.6 | 42290 - Natural Mixed Pine | High Density Log | 82 | Harvest | Seed Tree with Reserves | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
| <p><u>Prescription</u> Do a seedtree cut leaving red and white pine for seed. Other retention can be excluded on the fringes of the stand. <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Acceptable regen is a mix of the current species. Examine regen at the next oi cycle.</p> | | | | | | | | | |



| S t a n d | Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|-----------------------|-------------------|-------|-------------------------------|------------------|--------------|-------------------|----------------------------|-------------------------------|--------------------------|
| 36 | 41040036-Cut | 1.9 | 42290 - Natural Mixed Pine | High Density Log | 90 | Harvest | Seed Tree with Reserves | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |

Prescription Narrow ridge, retain red and white pine seed trees on edge, it may be possible to scarify center of stand if lowland crossing could be negotiated.

Specs:

Other

Comments:

Next Acceptable regen is a mix of teh current species.

Steps:

| | | | | | | | | | |
|----|--------------|------|-----------------------------|------------------|----|---------|----------------------------|-----------------------------|--------------------------|
| 38 | 41040038-Cut | 15.3 | 42210 - Natural Red Pine | High Density Log | 74 | Harvest | Seed Tree with Reserves | 42210 - Natural Red Pine | Cmpt. Review Proposal |
|----|--------------|------|-----------------------------|------------------|----|---------|----------------------------|-----------------------------|--------------------------|

Prescription Stand is 2-3 aged, the mother trees are 100+ yrs old. Approx 80' of red pine and 20' of white pine. harvest stand and mark as a shelterwood

Specs: seed tree cut leaving smaller diameter pine and large diameter pine for seed source.

Other

Comments:

Next Scarify if possible, acceptable regen is a mix of pine species. Examine regen during next oi cycle.

Steps:

| | | | | | | | | | |
|----|--------------|------|-------------------------|-------------------|-----|---------|---------------------------|-------------------------|--------------------------|
| 50 | 41040050-Cut | 15.0 | 6120 - Lowland Cedar | High Density Pole | 124 | Harvest | Clearcut with Reserves | 6120 - Lowland Cedar | Cmpt. Review Proposal |
|----|--------------|------|-------------------------|-------------------|-----|---------|---------------------------|-------------------------|--------------------------|

Prescription Stand was prescribed last entry but factor limited due to survey, the stand has more cedar than previous OI indicated, stand is within the deer

Specs: yard layer and has enough cedar to provide habitat, however deer are not using the area currently. The tamarack areas could be harvested while leaving the pure cedar areas.

Other

Comments:

Next none, examine regen at next oi cycle, acceptable regen is a mix of the current species.

Steps:

| | | | | | | | | | |
|----|--------------|-----|--|-------------------|----|---------|---------------------------|--|--------------------------|
| 51 | 41040051-Cut | 6.7 | 6125 - Lowland Black Spruce, Jack Pine | High Density Pole | 84 | Harvest | Clearcut with Reserves | 6125 - Lowland Black Spruce, Jack Pine | Cmpt. Review Proposal |
|----|--------------|-----|--|-------------------|----|---------|---------------------------|--|--------------------------|

Prescription Harvest stand put retention near pond also leave seed trees throughout.

Specs:

Other

Comments:

Next Acceptable regen is a mix of the current species, examine regen at the next oi cycle.

Steps:

| | | | | | | | | | |
|----|--------------|------|------------------------------|------------------|----|---------|---------------------------|------------------------------|--------------------------|
| 54 | 41040054-Cut | 15.5 | 42220 - Natural Jack Pine | High Density Log | 72 | Harvest | Clearcut with Reserves | 42220 - Natural Jack Pine | Cmpt. Review Proposal |
|----|--------------|------|------------------------------|------------------|----|---------|---------------------------|------------------------------|--------------------------|

Prescription Retain some red and white pine for seed, scarify any high ground.

Specs:

Other

Comments:

Next Scarification/jack pine regen. Acceptable regen is a mix of teh current species. Examine regen in the next oi cycle.

Steps:



| Stand | Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|-------|----------------|-------|---------------------|---------------------|-----------|----------------|------------------------|----------------------|-----------------------|
| 55 | 41040055-Cut | 8.2 | 6122 - Black Spruce | Medium Density Pole | 98 | Harvest | Clearcut with Reserves | 6122 - Black Spruce | Cmpt. Review Proposal |

Prescription No chipping to ensure tops are used for flotation. This is very small diameter wood but its done growing. Leave retention along edges.

Specs:

Other

Comments:

Next Steps: None, acceptable regen is spruce and jack pine. Examine regen at the next oi cycle.

| | | | | | | | | | |
|----|--------------|------|---------------------------|-------------------|----|---------|------------------------|---------------------------|-----------------------|
| 58 | 41040058-Cut | 19.8 | 42220 - Natural Jack Pine | High Density Pole | 41 | Harvest | Clearcut with Reserves | 42220 - Natural Jack Pine | Cmpt. Review Proposal |
|----|--------------|------|---------------------------|-------------------|----|---------|------------------------|---------------------------|-----------------------|

Prescription Harvest stand retain some red and white pine.

Specs:

Other

Comments:

Next Steps: Scarify stand/jack pine regen acceptable regen is a mix of the current species. Examine regen at the next oi cycle.

| | | | | | | | | | |
|----|--------------|------|--|-------------------|----|---------|------------------------|--|-----------------------|
| 62 | 41040062-Cut | 10.8 | 6125 - Lowland Black Spruce, Jack Pine | High Density Pole | 82 | Harvest | Clearcut with Reserves | 6125 - Lowland Black Spruce, Jack Pine | Cmpt. Review Proposal |
|----|--------------|------|--|-------------------|----|---------|------------------------|--|-----------------------|

Prescription Stand is mostly low, leave retention on the edges.

Specs:

Other

Comments:

Next Steps: Acceptable regen will be a mix of the current species. Check regen at the next oi cycle.

| | | | | | | | | | |
|----|--------------|------|-----------------|-------------------|-----|---------|------------------------|-----------------|-----------------------|
| 68 | 41040068-Cut | 11.3 | 6121 - Tamarack | High Density Pole | 109 | Harvest | Clearcut with Reserves | 6121 - Tamarack | Cmpt. Review Proposal |
|----|--------------|------|-----------------|-------------------|-----|---------|------------------------|-----------------|-----------------------|

Prescription This stand was prescribed last decade but factor limited for survey. The stand is mature, but is within the deeryard layer, however the cedar is sporadic and not pure as well as the fact that there are no deer using the area right now. Stand should be harvested with a clearcut, leave reserve patches, cut only tamarack areas and leave any pure cedar to north this will be the retention.

Other

Comments:

Next Steps: Acceptable regen is a mix of the current species. Examine regen at the next oi cycle.

| | | | | | | | | | |
|----|--------------|------|----------------------------|-------------------|----|---------|------------------------|----------------------------|-----------------------|
| 71 | 41040071-Cut | 14.4 | 42290 - Natural Mixed Pine | High Density Pole | 81 | Harvest | Clearcut with Reserves | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
|----|--------------|------|----------------------------|-------------------|----|---------|------------------------|----------------------------|-----------------------|

Prescription Stand must be cut due to maturity, will need to leave retention on north to mitigate green-up. Leave some red and white pine for seed.

Specs:

Other

Comments:

Next Steps: Scarification/jack pine regeneration, acctable regen is jack pine with some red and white pine. Examine regen at next oi cycle.



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| Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|-----------------|-------|---------------------|---------------------|-----------|----------------|------------------------|----------------------|-----------------------|
| 73 41040073-Cut | 20.2 | 6122 - Black Spruce | Medium Density Pole | 92 | Harvest | Clearcut with Reserves | 6122 - Black Spruce | Cmpt. Review Proposal |

Prescription Mature lowland forest clearcut stand, leave retention in patches and near camp to north leave all cedar.

Specs:

Other

Comments:

Next Steps: Acceptable regen is a mix of the current species, examine regen at next oi cycle.

| | | | | | | | | |
|-----------------|-----|----------------------------|------------------|-----|---------|----------------|----------------------------|-----------------------|
| 76 41040076-Cut | 7.9 | 42290 - Natural Mixed Pine | High Density Log | 100 | Harvest | Crown Thinning | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
|-----------------|-----|----------------------------|------------------|-----|---------|----------------|----------------------------|-----------------------|

Prescription Stand is part of the Smoking Gun Sale, on contract. Scheduled as a thinning.

Specs:

Other

Comments:

Next Steps: None

| | | | | | | | | |
|-----------------|-----|----------------------------|-------------------|----|---------|------------------------|----------------------------|-----------------------|
| 78 41040078-Cut | 3.1 | 42290 - Natural Mixed Pine | High Density Pole | 82 | Harvest | Clearcut with Reserves | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
|-----------------|-----|----------------------------|-------------------|----|---------|------------------------|----------------------------|-----------------------|

Prescription Stand is a narrow ridge of pine/spruce, try and negotiate with Smoking Gun producer to cut this stand. Leave a some red and white pine for seed

Specs:

Other

Comments:

Next Steps: Examine regen at next oi cycle. Acceptable regen is a mix of the current species.

**Total Treatment
Acreage Proposed: 234.1**

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| Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|----------------|-------|------------------|--------------|-----------|----------------|------------------|----------------------|-----------------|
|----------------|-------|------------------|--------------|-----------|----------------|------------------|----------------------|-----------------|

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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_OutOfY OE-Cut | 35.6 | | | | Harvest | Systematic Thinning | 42110 - Planted Red Pine | Cmpt. Review Proposal |
| <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> | | | | | | | | |
| 41049_OutOfY OE_1-Cut | 4.7 | | | | Harvest | Single Tree Selection | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
| <u>Prescription</u> 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 | | | | | | | | |
| <u>Specs:</u> marked to 80. Cut all other species except hemlock and oak if present. | | | | | | | | |
| <u>Other</u> Access to stand is too difficult for continuous thinning. | | | | | | | | |
| <u>Comments:</u> | | | | | | | | |
| <u>Next</u> Regeneration walkthrough during next inventory cycle. Acceptable regeneration includes any species mixture currently found onsite. | | | | | | | | |
| <u>Steps:</u> | | | | | | | | |
| 41053_OutOfY OE-Cut | 10.2 | | | | Harvest | Single Tree Selection | 42290 - Natural Mixed Pine | Cmpt. Review Proposal |
| <u>Prescription</u> 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 | | | | | | | | |
| <u>Specs:</u> marked to 80. Cut all other species except hemlock and oak if present. | | | | | | | | |
| <u>Other</u> Access to stand is too difficult for continuous thinning. | | | | | | | | |
| <u>Comments:</u> | | | | | | | | |
| <u>Next</u> Regen walkthrough during next inventory cycle. Acceptable regeneration includes any species mixture currently found onsite. | | | | | | | | |
| <u>Steps:</u> | | | | | | | | |
| Total Treatment Acreage Proposed: | | 50.5 | | | | | | |

Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 040
Year of Entry: 2013

| Stand | Shingleton Mgt. Unit | | | 5 – Forested Stands | | Compartment: 040 Year of Entry: 2013 | |
|-------|---|----------------------|-------|---------------------|-------------|---|------------------|
| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: | |
| 1 | 6120 - Lowland Cedar | High Density Pole | 7.0 | 90 | | | |
| 2 | 6124 - Lowland Spruce- Fir | Medium Density | 12.1 | 40 | | | |
| 3 | 42290 - Natural Mixed Pine | High Density Pole | 4.0 | 79 | 81-110 | | |
| 4 | 6120 - Lowland Cedar | High Density Pole | 101.7 | 90 | | | |
| 5 | 42290 - Natural Mixed Pine | High Density Log | 4.5 | 92 | 111-140 | | |
| 6 | 42290 - Natural Mixed Pine | High Density Log | 13.4 | 92 | 111-140 | | |
| 7 | 42220 - Natural Jack Pine | High Density Pole | 3.0 | 79 | | | |
| 8 | 42290 - Natural Mixed Pine | High Density Log | 5.0 | 92 | 111-140 | | Plains Lake Sale |
| 9 | 42290 - Natural Mixed Pine | High Density Pole | 4.6 | 82 | 111-140 | | |
| 10 | 42220 - Natural Jack Pine | High Density Pole | 4.9 | 82 | | | |
| 11 | 42290 - Natural Mixed Pine | High Density Log | 3.5 | 94 | 111-140 | | |
| 12 | 42220 - Natural Jack Pine | High Density Pole | 3.4 | 79 | | | |
| 13 | 4122 - Oak, Pine | High Density Pole | 9.9 | 70 | | | |
| 14 | 42220 - Natural Jack Pine | Low Density Pole | 13.1 | 28 | | | |
| 15 | 6125 - Lowland Black Spruce, Jack Pine | High Density Pole | 3.4 | 79 | | | |
| 16 | 42200 - Natural White Pine | High Density Log | 21.9 | 77 | 51-80 | | |
| 18 | 42220 - Natural Jack Pine | High Density Log | 5.5 | 79 | | | |
| 19 | 42220 - Natural Jack Pine | High Density Pole | 2.9 | 79 | | | |

| S t a n d | Shingleton Mgt. Unit | | 5 – Forested Stands | | | Compartment: 040 | General Comments: |
|-----------------------|--|----------------------|---------------------|--------------|-------------|---------------------|--|
| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | Year of Entry: 2013 | |
| 20 | 6125 - Lowland Black Spruce, Jack Pine | High Density Pole | 21.0 | 109 | | | |
| 21 | 429 - Mixed Upland Conifers | High Density Log | 22.3 | 94 | 81-110 | | |
| 23 | 42290 - Natural Mixed Pine | High Density Log | 4.2 | 82 | 81-110 | | Traces of white birch, aspen and tamarack. |
| 24 | 42140 - Planted Mixed Pine | Medium Density | 63.3 | 9 | | | 2 aged stand with scattered red and white pine residual. |
| 26 | 4133 - Aspen, Mixed Pine | High Density Sapling | 9.1 | 6 | | | a couple trace oak logs. |
| 28 | 42290 - Natural Mixed Pine | High Density Pole | 9.1 | 82 | | | Trace amounts of red maple, aspen and tamarack |
| 29 | 42210 - Natural Red Pine | High Density Log | 6.9 | 62 | 81-110 | | |
| 30 | 42220 - Natural Jack Pine | High Density Pole | 4.0 | 79 | | | |
| 32 | 4133 - Aspen, Mixed Pine | High Density Sapling | 10.4 | 16 | | | |
| 33 | 4136 - Aspen, Mixed Conifer | High Density Sapling | 21.7 | 16 | | | |
| 34 | 42290 - Natural Mixed Pine | High Density Log | 9.6 | 82 | | | |
| 35 | 4130 - Aspen | High Density Pole | 4.1 | 38 | | | |
| 36 | 42290 - Natural Mixed Pine | High Density Log | 1.9 | 90 | 111-140 | | |
| 37 | 42260 - Natural Pine, Mixed Deciduous | High Density Pole | 22.4 | 28 | | | |
| 38 | 42210 - Natural Red Pine | High Density Log | 15.3 | 74 | 111-140 | | |
| 39 | 6128 - Lowland Coniferous, Mixed Deciduous | High Density Pole | 19.0 | 79 | | | |
| 40 | 429 - Mixed Upland Conifers | High Density Log | 9.2 | 94 | | | |
| 41 | 42290 - Natural Mixed Pine | High Density Sapling | 6.2 | 6 | | | |



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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 040
Year of Entry: 2013

| Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|--|----------------------|-------|--------------|-------------|----------------------|
| 42220 - Natural Jack Pine | High Density Sapling | 41.8 | 14 | | |
| 4130 - Aspen | High Density Sapling | 5.5 | 6 | | |
| 42260 - Natural Pine, Mixed Deciduous | High Density Sapling | 3.7 | 6 | | |
| 4133 - Aspen, Mixed Pine | High Density Pole | 14.5 | 38 | | |
| 6128 - Lowland Coniferous, Mixed Deciduous | High Density Pole | 46.0 | 96 | | |
| 42220 - Natural Jack Pine | Medium Density | 36.3 | 17 | | |
| 6120 - Lowland Cedar | High Density Pole | 15.0 | 124 | | |
| 6125 - Lowland Black Spruce, Jack Pine | High Density Pole | 6.7 | 84 | | |
| 42220 - Natural Jack Pine | High Density Log | 15.5 | 72 | | |
| 6122 - Black Spruce | Medium Density Pole | 8.2 | 98 | | |
| 6122 - Black Spruce | Medium Density Pole | 18.0 | 98 | | |
| 6121 - Tamarack | Low Density Sapling | 14.9 | 60 | | |
| 42220 - Natural Jack Pine | High Density Pole | 19.8 | 41 | | |
| 42220 - Natural Jack Pine | High Density Sapling | 29.6 | 26 | | |
| 6139 - Mixed Lowland Forest | High Density Pole | 40.3 | 94 | | |
| 6125 - Lowland Black Spruce, Jack Pine | High Density Pole | 10.8 | 82 | | |
| 6122 - Black Spruce | Medium Density Pole | 2.6 | 65 | | |
| 6128 - Lowland Coniferous, Mixed Deciduous | Medium Density Pole | 34.4 | 68 | | |

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 040
Year of Entry: 2013

| Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|--|-------------------------|-------|--------------|-------------|---|
| 6122 - Black Spruce | Low Density Sapling | 11.1 | 82 | | Low site index site with a few merchantable trees |
| 6121 - Tamarack | High Density Pole | 11.3 | 109 | | |
| 6125 - Lowland Black Spruce, Jack Pine | Medium Density | 24.6 | 26 | | |
| 42220 - Natural Jack Pine | High Density Sapling | 44.9 | 17 | | Excellent regeneration, mostly upland. |
| 42290 - Natural Mixed Pine | High Density Pole | 14.4 | 81 | 1-50 | |
| 6122 - Black Spruce | High Density Pole | 5.1 | 65 | | |
| 6122 - Black Spruce | Medium Density Pole | 20.2 | 92 | | |
| 6122 - Black Spruce | Medium Density Pole | 20.0 | 86 | | |
| 42290 - Natural Mixed Pine | High Density Log | 7.9 | 100 | 81-110 | |
| 42290 - Natural Mixed Pine | High Density Pole | 3.1 | 82 | 81-110 | |
| 42220 - Natural Jack Pine | High Density Sapling | 60.5 | 17 | | Excellent regeneration, mostly upland. |
| 6122 - Black Spruce | Medium Density Pole | 3.3 | 88 | | |
| 42290 - Natural Mixed Pine | High Density Pole | 2.5 | 82 | | |
| 6129 - Mixed Coniferous Lowland Forest | Medium Density Pole | 4.0 | 88 | | |



| Stand | Cover Type | Acres | Managed Site | Management Priority (Objective) | General Comments: |
|-------|------------------------------------|-------|---------------|---------------------------------|--|
| 17 | 623 - Emergent Wetland | 794.3 | N/A | Unspecified | |
| 22 | 623 - Emergent Wetland | 6.1 | N/A | Unspecified | |
| 25 | 623 - Emergent Wetland | 10.4 | N/A | Unspecified | |
| 27 | 623 - Emergent Wetland | 4.7 | N/A | Unspecified | |
| 31 | 623 - Emergent Wetland | 14.7 | N/A | Unspecified | |
| 43 | 790 - Other Bare/Sparsely Vegetate | 10.1 | Natural Regen | Lowland Conifers | Stand just harvested |
| 47 | 623 - Emergent Wetland | 1.8 | N/A | Unspecified | |
| 52 | 790 - Other Bare/Sparsely Vegetate | 69.9 | Natural Regen | Lowland Conifers | Stand just harvested |
| 53 | 622 - Lowland Shrub | 6.8 | N/A | Unspecified | |
| 60 | 623 - Emergent Wetland | 0.7 | N/A | Unspecified | |
| 63 | 3103 - Rubus-Fern | 52.6 | Natural Regen | Jack Pine | Stand is a managed site scarified for jack pine regen in 2010. |
| 66 | 6224 - Treed Bog | 43.1 | N/A | Unspecified | |
| 74 | 623 - Emergent Wetland | 8.8 | N/A | Unspecified | |
| 77 | 6224 - Treed Bog | 135.7 | N/A | Unspecified | |
| 80 | 623 - Emergent Wetland | 4.1 | N/A | Unspecified | |
| 83 | 6224 - Treed Bog | 20.5 | 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

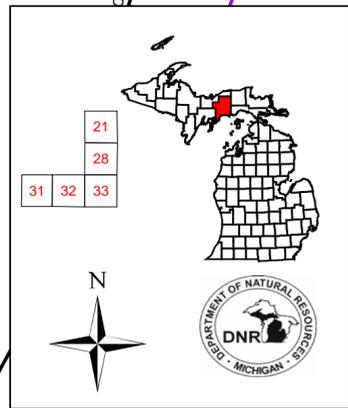
* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

| Conservation Area | Type | Description |
|-------------------|-------------------|---|
| SCA | Cold Water Stream | A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210. |
| SCA | Habitat Area | An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies. |

Compartment 40
 T43N, R16W, Sec. 21,28,31-33
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 2,264 GIS Calculated
 Stand Examiner: Robert Burnham
 Map Revised: 9/14/2011
 Map Phase: Pre-Review

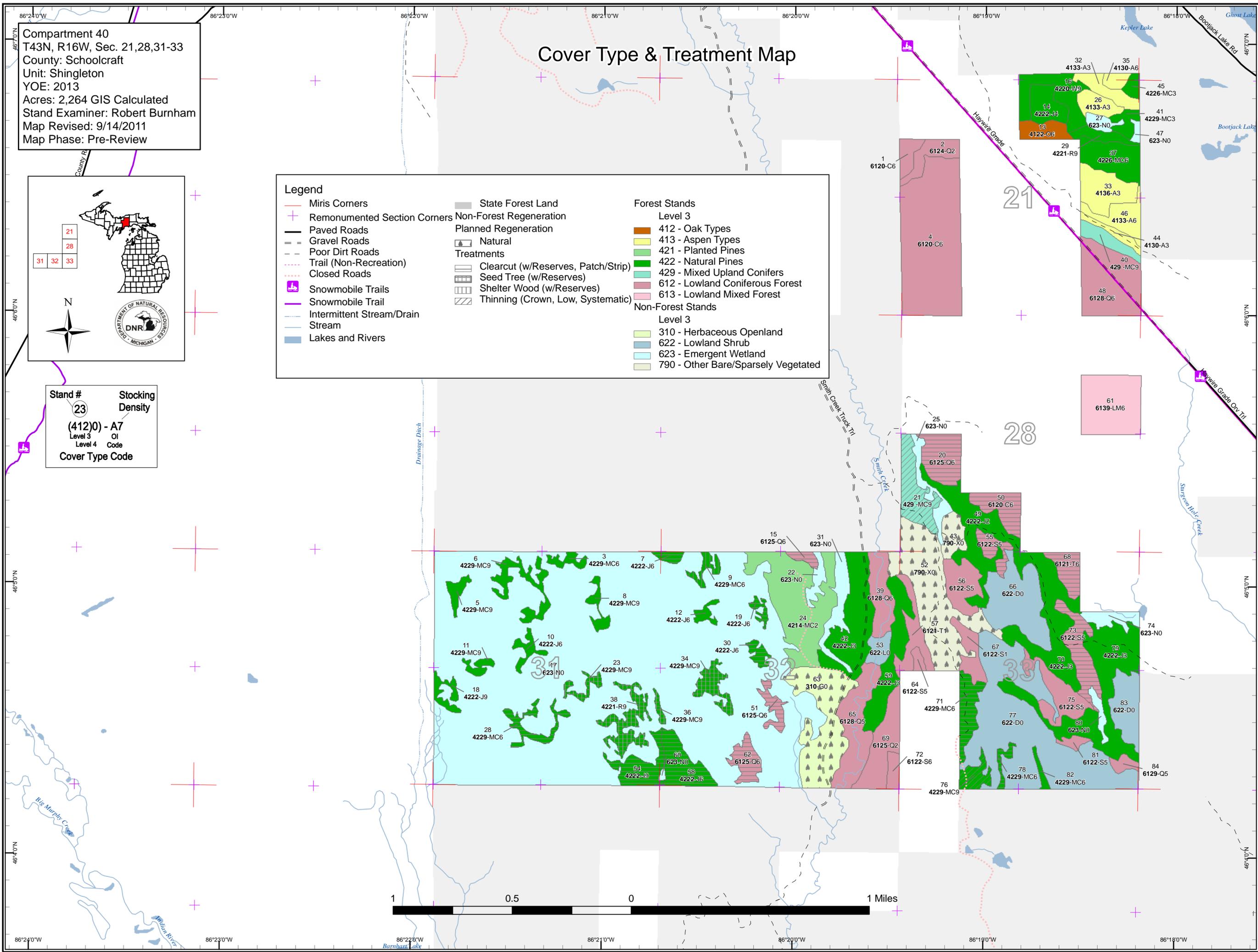
Cover Type & Treatment Map



Legend

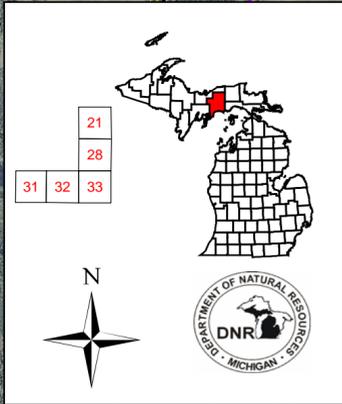
| | | |
|--------------------------------|--------------------------------------|-------------------------------------|
| — Miris Corners | — State Forest Land | Forest Stands |
| + Remonumented Section Corners | — Non-Forest Regeneration | Level 3 |
| — Paved Roads | — Planned Regeneration | 412 - Oak Types |
| — Gravel Roads | — Natural | 413 - Aspen Types |
| — Poor Dirt Roads | — Clearcut (w/Reserves, Patch/Strip) | 421 - Planted Pines |
| — Trail (Non-Recreation) | — Seed Tree (w/Reserves) | 422 - Natural Pines |
| — Closed Roads | — Shelter Wood (w/Reserves) | 429 - Mixed Upland Conifers |
| — Snowmobile Trails | — Thinning (Crown, Low, Systematic) | 612 - Lowland Coniferous Forest |
| — Snowmobile Trail | | 613 - Lowland Mixed Forest |
| — Intermittent Stream/Drain | | Non-Forest Stands |
| — Stream | | Level 3 |
| — Lakes and Rivers | | 310 - Herbaceous Openland |
| | | 622 - Lowland Shrub |
| | | 623 - Emergent Wetland |
| | | 790 - Other Bare/Sparsely Vegetated |

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



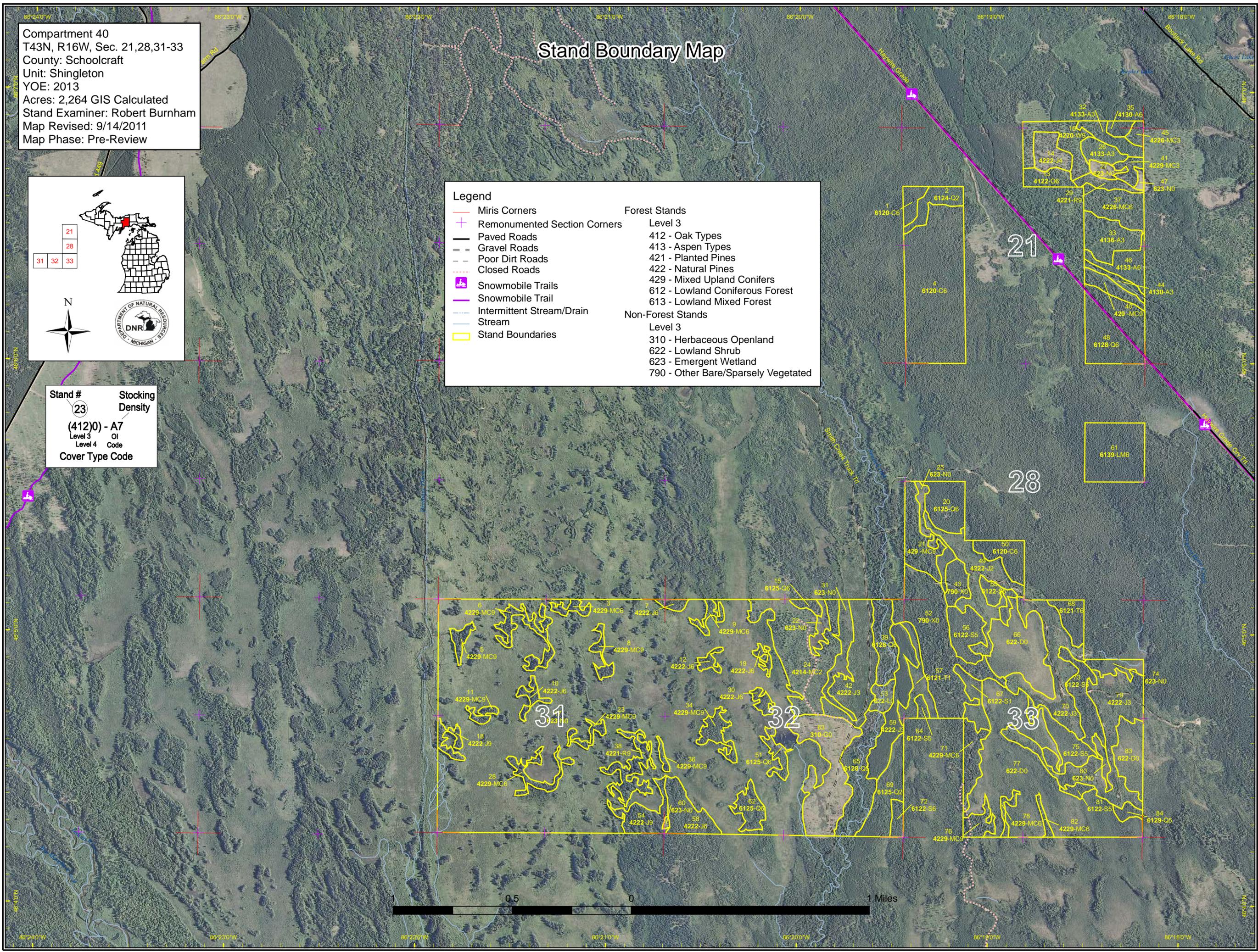
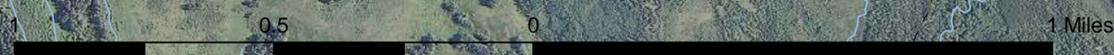
Compartment 40
 T43N, R16W, Sec. 21,28,31-33
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 2,264 GIS Calculated
 Stand Examiner: Robert Burnham
 Map Revised: 9/14/2011
 Map Phase: Pre-Review

Stand Boundary Map



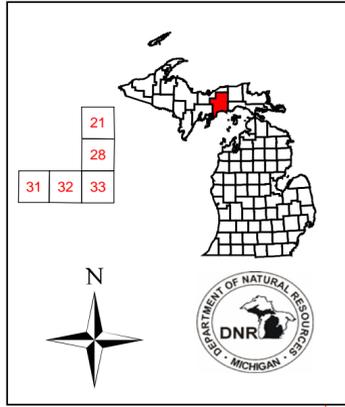
| Legend | |
|--------------------------|---------------------------------|
| | Miris Corners |
| | Remonumented Section Corners |
| | Paved Roads |
| | Gravel Roads |
| | Poor Dirt Roads |
| | Closed Roads |
| | Snowmobile Trails |
| | Snowmobile Trail |
| | Intermittent Stream/Drain |
| | Stream |
| | Stand Boundaries |
| Forest Stands | |
| Level 3 | |
| 412 | - Oak Types |
| 413 | - Aspen Types |
| 421 | - Planted Pines |
| 422 | - Natural Pines |
| 429 | - Mixed Upland Conifers |
| 612 | - Lowland Coniferous Forest |
| 613 | - Lowland Mixed Forest |
| Non-Forest Stands | |
| Level 3 | |
| 310 | - Herbaceous Openland |
| 622 | - Lowland Shrub |
| 623 | - Emergent Wetland |
| 790 | - Other Bare/Sparsely Vegetated |

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



Compartment 40
 T43N, R16W, Sec. 21,28,31-33
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 2,264 GIS Calculated
 Stand Examiner: Robert Burnham
 Map Revised: 9/14/2011
 Map Phase: Pre-Review

Dedicated & Proposed Special Conservation Area Map



Legend

| | | | |
|-------|-------------------------------------|-------------------------------------|------------------|
| —+— | Miris Corners | □ | Stand Boundaries |
| + + + | Remonumented Section Corners | □ | Forest Stands |
| ▨ | Proposed Special Conservation Areas | Level 3 | |
| ▨ | SCA - Special Conservation Area | 412 - Oak Types | |
| ▨ | SCA Removal | 413 - Aspen Types | |
| — | Cold Water Streams | 421 - Planted Pines | |
| — | Cold Water Streams | 422 - Natural Pines | |
| — | Cold Water Streams | 429 - Mixed Upland Conifers | |
| ■ | Deer Wintering Areas | 612 - Lowland Coniferous Forest | |
| | | 613 - Lowland Mixed Forest | |
| | | Non-Forest Stands | |
| | | Level 3 | |
| | | 310 - Herbaceous Openland | |
| | | 622 - Lowland Shrub | |
| | | 623 - Emergent Wetland | |
| | | 790 - Other Bare/Sparsely Vegetated | |

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

