



**TRAVERSE CITY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 34 ENTRY YEAR: 2010

Compartment Acreage: 3050 County: Manistee

Stand Examiner: Scott Lint

Legal Description: 24N, 14W, sections 19, 30, 31
24N, 15W, sections 13, 14, 23, 24, 25, 26, 36

Management Goals:

Soil and Topography: The western edge of the compartment, the western portions of sections 14, 23, and 26 fall into Land Type Association 1111. This area is characterized by steep broken moraine ridges with excessively drained sandy soils. This part of the compartment is dominated by northern hardwoods.

The eastern portions of sections 14, 23, and 26 as well as the western portions of sections 13, most of section 24, and the northwest quarter of section 25 are characterized by Land Type Association 6111, a broad flat lake plain. Terrain is nearly level with few kettle depressions or lakes. Soils are deep, dry, excessively well drained sands. Forest cover types in this part of the compartment are dominated by conifer plantations, upland aspen, and a few northern hardwood stands composed predominantly of beech and red maple.

The remainder of section 25 and sections 19, 30, and 31 are part of Land Type Association 6131. This is a continuation of the broad flat, nearly level, lake plain that lies to the west, but with poorly drained sands and loamy sands. This eastern portion of the compartment is dominated by lowland aspen, lowland hardwoods, and a few smaller inclusions of conifer swamp.

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

There continues to be some residential and seasonal recreational development along the western part of the compartment. Private parcels in sections 14, 23, and 26 have recently been subdivided. There have been some new homes built just north of the compartment in the vicinity of Glover's Lake and one residence built in section 31 north of Big Four Rd. adjacent to State Forest land. Land use remains mostly rural, agricultural and forest recreational.

Unique, Natural Features: Some present.

Archeological, Historical, and Cultural Features: Site 20MT40 is located in section 24. This site is not located on State Land.

Special Management Designations or Considerations: In the 1980's a Woodland Management Trail was established in the northwest quarter of section 26. The trail has since fallen into disrepair through lack of maintenance. A hardwood selection cut was done in the area of the timber management pathway during the last entry period. Aspen and pine plantations along the pathway will be treated this entry period. Plans to remark and maintain the trail have fallen by the wayside. Due to a lack of funding, the County Conservation District Forester who intended to institute these repairs and upgrades has thus far been unable. If suitable labor and funding can not be identified, consideration should be given to officially abandoning this little used trail and removing the sign at the trailhead.

Watershed and Fisheries Considerations: Green's Creek and its tributaries flow through Compartment 34. All are Designated Trout Streams. Green's Creek is a tributary to the Little Bear Creek in the Bear Creek watershed. Green's Creek supports a naturally reproducing population of brook trout, and likely supports populations of brown trout, coho salmon, and steelhead as well. For the aspen clearcut planned for Stand 69, a reasonable buffer should be left along the stream. This buffer should be sufficient so that beavers do not colonize the stream after the clearcut area begins to regenerate. Beavers can have major negative impacts on small trout streams such as this one.

Wildlife Habitat Considerations:

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash and lacustrine (lake) sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 1,000 feet. Beneath the glacial drift are the Devonian Ellsworth and Antrim Shales. These shales are used for cement products. The nearest gravel pit is located one mile to the south and there should be potential on the uplands. This area is located within the Niagaran reef trend and also has Antrim Shale gas production. Most of the State land is currently leased for oil and gas development.

Vehicle Access: Due to the saturated soils and lowland nature of the eastern portion of this compartment, consideration should be given to closing existing roads in these areas. ORV damage is common on some of these roads. There is a Director's Order in place closing the SESE of section 19 to wheeled motorized vehicles. An opportunity to create a significant block of roadless forest exists in this compartment. This area is used heavily by firearm deer hunters who would be the most impacted by these closures.

Survey Needs: none at this time

Recreational Facilities and Opportunities: The Bear Lake Spur of the Betsie Valley Snowmobile Trail passes through the compartment. The Glover's Lake Public Access Site, which is maintained by the Parks and Recreation Division, is located within the compartment.

Fire Protection: Platte River Field Office. Local coverage provided by Copemish-Cleon and Bear Lake Volunteer Fire Departments. Urban interface is not a real concern in this area, and this compartment consists of hardwood with mixed pine plantations. Travel time from the Platte River Field Office could allow a fire in a pine plantation to grow before large equipment arrived on scene.

Additional Compartment Information: Recommended permanent road closure in section 30. Forest Treatment Proposal # C-61-483

****** Cover type details, proposed treatments and stands designated as FDF are listed in the attached reports:**

Cover Type by Age Class

Proposed Treatments – No Limiting Factors

Proposed Treatments – With Limiting Factors

****** The following information is displayed on the attached compartment maps:**

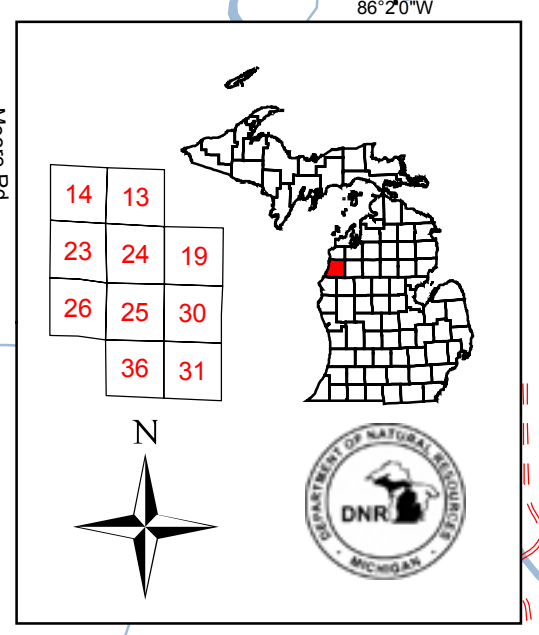
Base feature information, stand numbers, cover types

Proposed treatments

Proposed road access system

Compartment 34
 T24N, R14W, Sec. 19, 30, 31
 T25N, R15W, Sec. 13, 14, 23-26, 36
 County: Manistee
 Unit: Traverse City
 YOY: 2010
 Acres: 3,050 GIS Calculated
 Stand Examiner: Scott Lint
 Map Revised: 10/21/2008
 Map Phase: Pre-Review

Cover Type & Treatment Map



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

Legend

- Miris Corners
- County Paved Road
- County Gravel Road
- Gravel Road
- County Poor Dirt Road
- Poor Dirt Road
- Closed Road
- Intermittent Stream/Drain
- Stream
- Trails
- Snowmobile Trails
- Lakes and Rivers All

Treatments

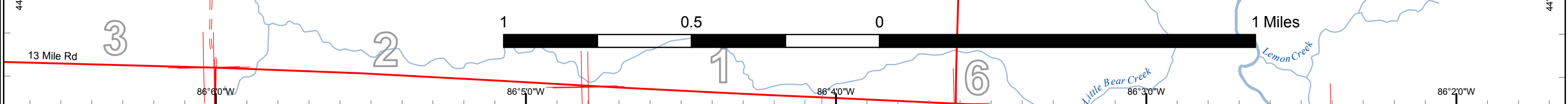
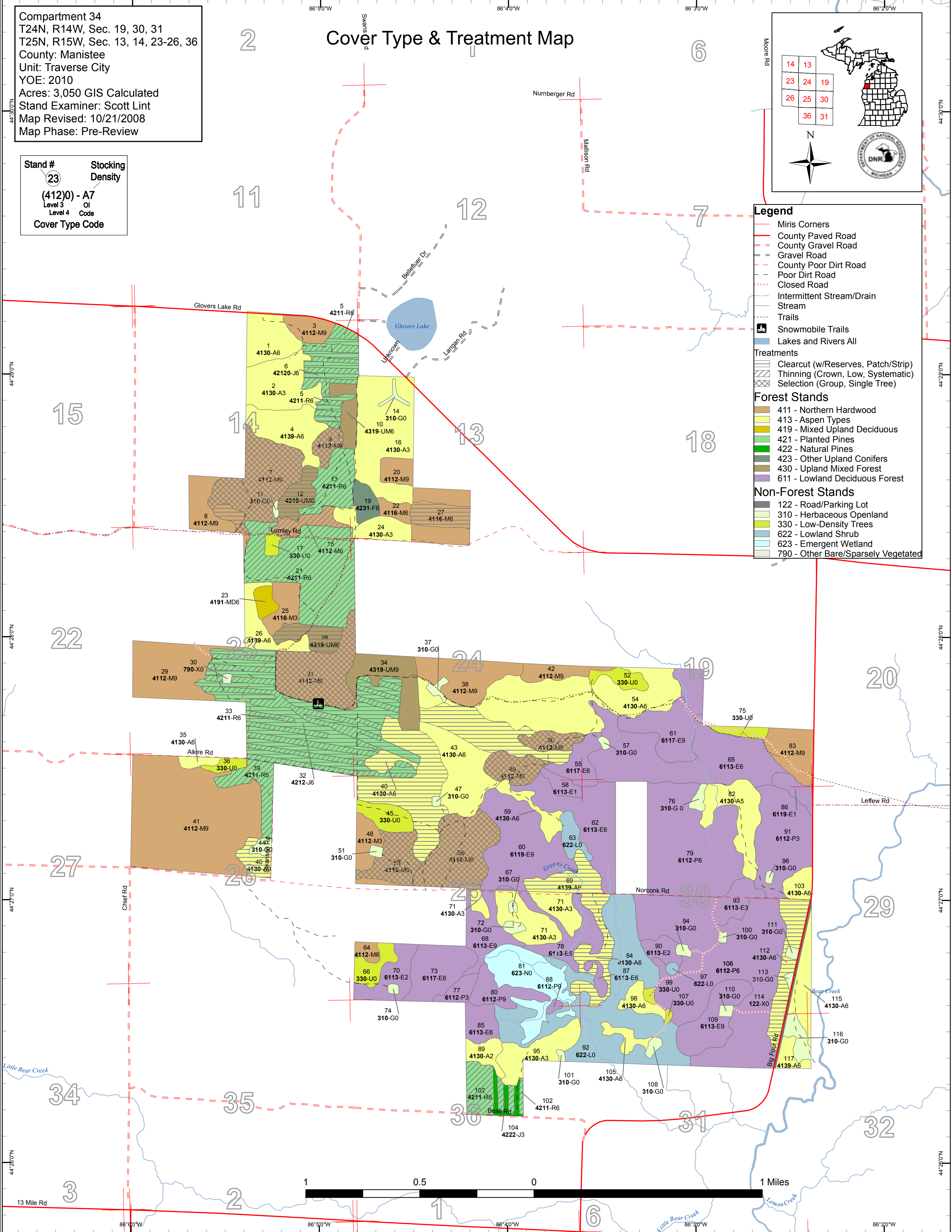
- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)

Forest Stands

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest

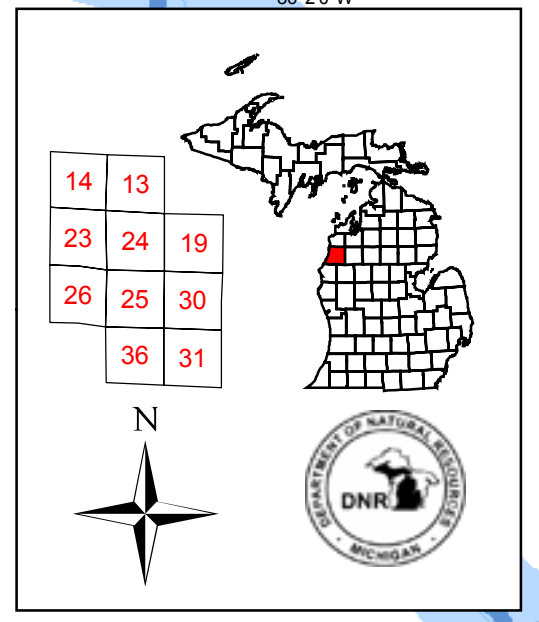
Non-Forest Stands

- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 790 - Other Bare/Sparsely Vegetated



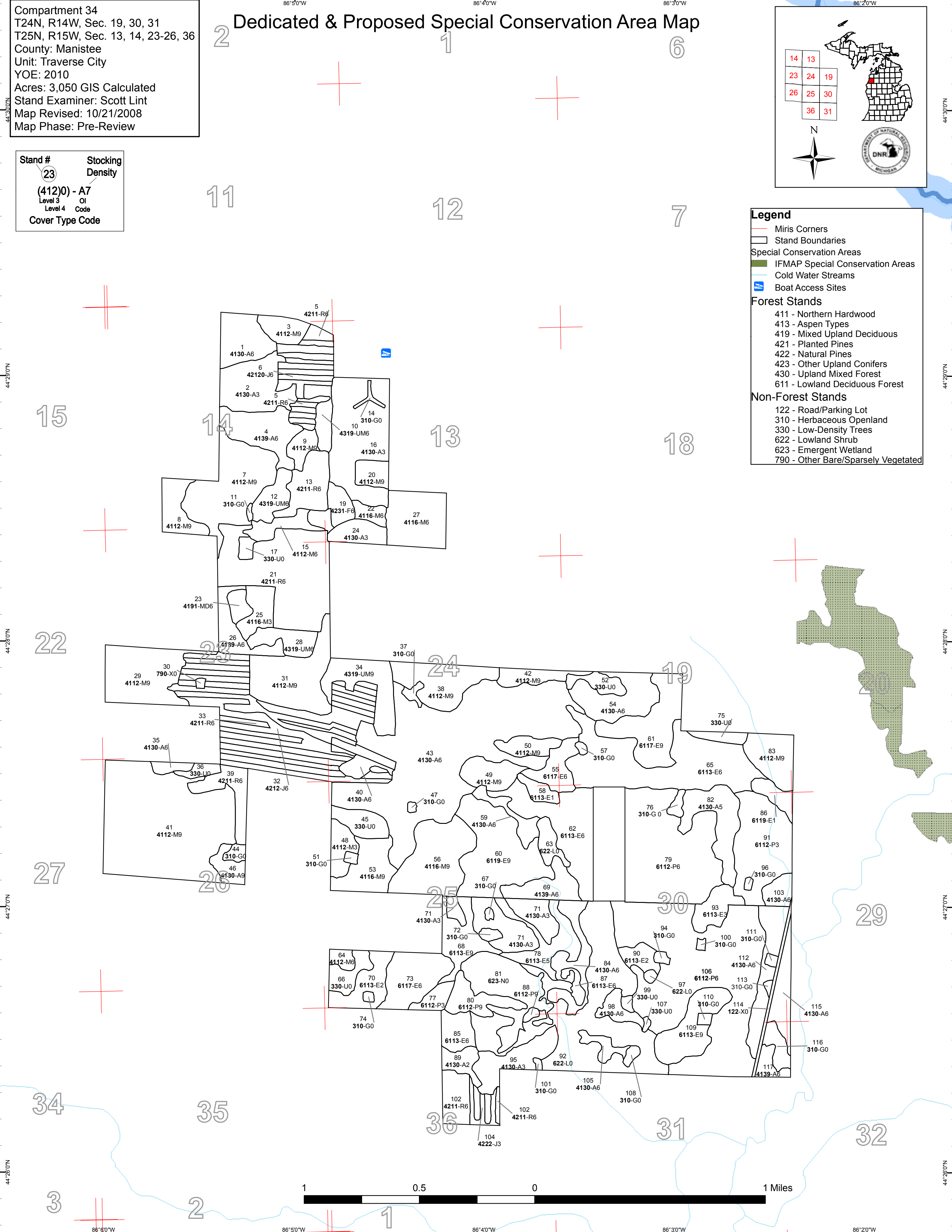
Compartment 34
 T24N, R14W, Sec. 19, 30, 31
 T25N, R15W, Sec. 13, 14, 23-26, 36
 County: Manistee
 Unit: Traverse City
 YOY: 2010
 Acres: 3,050 GIS Calculated
 Stand Examiner: Scott Lint
 Map Revised: 10/21/2008
 Map Phase: Pre-Review

Dedicated & Proposed Special Conservation Area Map



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

- Legend**
- Miris Corners
 - Stand Boundaries
 - Special Conservation Areas
 - IFMAP Special Conservation Areas
 - Cold Water Streams
 - ⊡ Boat Access Sites
- Forest Stands**
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 430 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
- Non-Forest Stands**
- 122 - Road/Parking Lot
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 - 330 - Low-Density Trees
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 790 - Other Bare/Sparsely Vegetated



Traverse City Mgt. Unit

Covertime, Acres, and Age summary
(Level 3 Cover Type)

Compartment 034 Year of Entry 2010

Report Date: 10/22/2008



| | 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 + | | Uneven Age |
| Aspen Types | 0 | 10.6 | 194.7 | 61.1 | 148.0 | 73.9 | 258.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 746.8 |
| Emergent Wetland | 47.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47.2 |
| Herbaceous Openland | 43.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43.8 |
| Low-Density Trees | 54.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54.9 |
| Lowland Deciduous Forest | 0 | 0 | 0 | 433.5 | 0 | 0 | 71.9 | 14.2 | 4.7 | 355.6 | 0 | 0 | 0 | 0 | 0 | 879.8 |
| Lowland Shrub | 142.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 142.5 |
| Mixed Upland Deciduous | 0 | 0 | 0 | 0 | 0 | 6.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6.9 |
| Natural Pines | 0 | 6.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6.5 |
| Northern Hardwood | 0 | 0 | 15.8 | 13.1 | 0 | 0 | 0 | 46.0 | 5.3 | 507.8 | 53.4 | 0 | 0 | 0 | 0 | 641.4 |
| Other Bare/Sparsely Vegetated | 1.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 |
| Other Upland Conifers | 0 | 0 | 0 | 0 | 0 | 10.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10.1 |
| Planted Pines | 0 | 0 | 0 | 0 | 0 | 142.9 | 242.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 385.3 |
| Road/Parking Lot | 6.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6.1 |
| Upland Mixed Forest | 0 | 0 | 0 | 0 | 0 | 31.6 | 46.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77.5 |
| Total | 295.6 | 17.1 | 210.5 | 507.7 | 148.0 | 265.4 | 618.7 | 60.2 | 10.0 | 863.4 | 53.4 | 0 | 0 | 0 | 0 | 3050.0 |

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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| Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective |
|-----------------------|-------|--------------------------|-------------------|-----------|----------------|------------------|----------------------|
| 5 61034005-Cut | 25.1 | 42110 - Planted Red Pine | High Density Pole | 52 | Harvest | Crown Thinning | Planted Red Pine |

Rev
Cmnt: Treatment objective is an intermediate cut to produce pulpwood, saw bolts, and sawlogs with lower than "normal" residual basal area in an attempt to encourage hardwood regeneration.

Rev
Spec: Thin to 70-90 square feet basal area to encourage hardwood regeneration.

Next
Steps:

| | | | | | | | |
|-----------------------|------|---------------------------|-------------------|----|---------|----------|------------------------------------|
| 6 61034006-Cut | 18.7 | 42120 - Planted Jack Pine | High Density Pole | 57 | Harvest | Clearcut | Natural Jack Pine, Mixed Deciduous |
|-----------------------|------|---------------------------|-------------------|----|---------|----------|------------------------------------|

Rev
Cmnt: Although jack pine is not desirable on this site, it is likely to regenerate naturally. Northern hardwood is successfully beginning to establish in the understory. Ideally, the hardwood will out compete the jack pine regeneration over time resulting in a conversion to northern hardwood.

Rev
Spec: Remove all jack pine. Stand is over mature and declining. Some advanced hardwood regeneration is present. Jack pine is not desirable on this hardwood site. No retention.

Next
Steps: Regeneration survey. In the event jack pine and northern hardwood fail to regenerate adequately on this site, consider planting red pine.

| | | | | | | | |
|---------------------------------|-----|---|------------------|----|---------|------------------------|------------------------|
| 7 61034007_clear cut-Cut | 5.3 | 4112 - Maple, Beech, Cherry Association | High Density Log | 85 | Harvest | Clearcut with Reserves | Aspen, Mixed Deciduous |
|---------------------------------|-----|---|------------------|----|---------|------------------------|------------------------|

Rev
Cmnt:

Rev
Spec: This part of stand dominated by several large clones of good quality sawlog size bigtooth aspen. Attempt to expand aspen toward the east into areas of lower quality red maple.

Next
Steps:

| | | | | | | | |
|---------------------------------|------|---|------------------|----|---------|-----------------------|----------------------------------|
| 7 61034007_selection-Cut | 59.0 | 4112 - Maple, Beech, Cherry Association | High Density Log | 85 | Harvest | Single Tree Selection | Maple, Beech, Cherry Association |
|---------------------------------|------|---|------------------|----|---------|-----------------------|----------------------------------|

Rev
Cmnt:

Rev
Spec: Selection cut to promote regeneration. Northeast part of stand contains some higher quality sugar maple and cherry. Concentrate on removing large high risk beech to create canopy gaps. No beech bark scale observed in stand at time of inventory. Protect hemlock sub-canopy where present.

Next
Steps:

| | | | | | | | |
|-----------------------|-----|---|------------------|----|---------|-----------------------|----------------------------------|
| 9 61034009-Cut | 9.6 | 4112 - Maple, Beech, Cherry Association | High Density Log | 85 | Harvest | Single Tree Selection | Maple, Beech, Cherry Association |
|-----------------------|-----|---|------------------|----|---------|-----------------------|----------------------------------|

Rev
Cmnt: Stand was marked last entry period, but not cut because of active raptor nest. MNFI indicates stick nest last used in 2003 and not active in 2004. Field verified, nest is abandoned and barely visible. Some paint is still visible, but stand needs to be remarked to freshen paint and recalculate volumes.

Rev
Spec: Single tree selection creating several small canopy gaps to encourage regeneration.

Next
Steps: Regeneration survey.

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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| Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective |
|-----------------|-------|----------------------------|-------------------|-----------|----------------|------------------------|----------------------|
| 12 61034012-Cut | 15.2 | 4319 - Mixed Upland Forest | High Density Pole | 47 | Harvest | Clearcut with Reserves | Mixed Upland Forest |

Rev Treatment objective; habitat management. Aspen regeneration with white spruce retention for cover. Potential to attempt to create some snowshoe hare habitat.
Cmnt:

Rev Clear cut aspen/deciduous areas to create regeneration patches. Retain areas of heavy white spruce for cover. Create coarse woody debris in regeneration areas. Some white spruce will need to be removed to facilitate access and harvest of the aspen/deciduous trees.
Spec:

Next Regeneration survey.
Steps:

| | | | | | | | |
|-----------------|------|--------------------------|-------------------|----|---------|----------------|------------------|
| 13 61034013-Cut | 25.9 | 42110 - Planted Red Pine | High Density Pole | 47 | Harvest | Crown Thinning | Planted Red Pine |
|-----------------|------|--------------------------|-------------------|----|---------|----------------|------------------|

Rev
Cmnt:
Rev Stand was row thinned last entry period. Mark this time to remove poor quality and suppressed trees.
Spec:

Next
Steps:

| | | | | | | | |
|-----------------|------|---|-------------------|----|---------|----------------|----------------------------------|
| 15 61034015-Cut | 12.7 | 4112 - Maple, Beech, Cherry Association | High Density Pole | 85 | Harvest | Crown Thinning | Maple, Beech, Cherry Association |
|-----------------|------|---|-------------------|----|---------|----------------|----------------------------------|

Rev
Cmnt:
Rev Thin to release good quality crop trees favoring sugar maple and black cherry. Basal area is approximately 120-130 square feet. Reduce basal area to approximately 80-90 square feet.
Spec:

Next
Steps:

| | | | | | | | |
|-----------------|------|--------------------------|-------------------|----|---------|----------------|------------------|
| 21 61034021-Cut | 97.2 | 42110 - Planted Red Pine | High Density Pole | 47 | Harvest | Crown Thinning | Planted Red Pine |
|-----------------|------|--------------------------|-------------------|----|---------|----------------|------------------|

Rev
Cmnt:
Rev Most of stand was row thinned last entry period. Row thin the areas that were omitted last time, and mark poor form and suppressed trees in the areas that have already been row thinned.
Spec:

Next
Steps:

| | | | | | | | |
|-----------------|------|----------------------------------|-------------------|----|---------|------------------------|------------------------|
| 27 61034027-Cut | 16.6 | 4116 - Mixed N. Hardwood - Aspen | High Density Pole | 60 | Harvest | Clearcut with Reserves | Aspen, Mixed Deciduous |
|-----------------|------|----------------------------------|-------------------|----|---------|------------------------|------------------------|

Rev
Cmnt:
Rev Create coarse woody debris. Retain some mast producing trees (black cherry and beech) if possible.
Spec:

Next
Steps:

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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| Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective |
|------------------------|-------|----------------------------|-------------------|-----------|----------------|------------------------|----------------------|
| 28 61034028-Cut | 16.3 | 4319 - Mixed Upland Forest | High Density Pole | 47 | Harvest | Clearcut with Reserves | Aspen, Mixed Conifer |

Rev Treatment objective; habitat management. Aspen regeneration with white spruce retention for cover. Potential to attempt to create some snowshoe hare habitat.
Cmnt:

Rev Clear cut aspen/deciduous areas to create regeneration patches. Retain areas of heavy white spruce for cover. Create coarse woody debris in regeneration areas. Some white spruce will need to be removed to facilitate access and harvest of the aspen/deciduous trees.
Spec:

Next Regeneration survey.
Steps:

| | | | | | | | |
|------------------------|------|---------------------------|-------------------|----|---------|----------|------------------------------------|
| 32 61034032-Cut | 98.6 | 42120 - Planted Jack Pine | High Density Pole | 57 | Harvest | Clearcut | Natural Jack Pine, Mixed Deciduous |
|------------------------|------|---------------------------|-------------------|----|---------|----------|------------------------------------|

Rev Although jack pine is not desirable on this site, it is likely to regenerate naturally. Northern hardwood is successfully beginning to establish in the understory. Ideally, the hardwood will out compete the jack pine regeneration over time resulting in a conversion to northern hardwood.
Cmnt:

Rev Remove all jack pine. Stand is over mature and declining. Some advanced hardwood regeneration is present. Jack pine is not desirable on this hardwood site. No retention.
Spec:

Next Regeneration survey. In the event jack pine and northern hardwood fail to regenerate adequately on this site, consider planting red pine.
Steps:

| | | | | | | | |
|------------------------|------|--------------------------|-------------------|----|---------|----------------|------------------|
| 33 61034033-Cut | 76.7 | 42110 - Planted Red Pine | High Density Pole | 52 | Harvest | Crown Thinning | Planted Red Pine |
|------------------------|------|--------------------------|-------------------|----|---------|----------------|------------------|

Rev Treatment objective is an intermediate cut to produce pulpwood, saw bolts, and sawlogs with lower than "normal" residual basal area in an attempt to encourage hardwood regeneration.
Cmnt:

Rev Thin to 70-90 square feet basal area to encourage hardwood regeneration.
Spec:

Next
Steps:

| | | | | | | | |
|------------------------|------|--------------------------|-------------------|----|---------|----------------|------------------|
| 39 61034039-Cut | 19.8 | 42110 - Planted Red Pine | High Density Pole | 47 | Harvest | Crown Thinning | Planted Red Pine |
|------------------------|------|--------------------------|-------------------|----|---------|----------------|------------------|

Rev Stand was row thinned in 1990. Timber Management Pathway runs through stand.
Cmnt:

Rev Mark to remove poor quality and suppressed trees.
Spec:

Next
Steps:

| | | | | | | | |
|------------------------|-----|--------------|-------------------|----|---------|------------------------|-------|
| 40 61034040-Cut | 7.4 | 4130 - Aspen | High Density Pole | 51 | Harvest | Clearcut with Reserves | Aspen |
|------------------------|-----|--------------|-------------------|----|---------|------------------------|-------|

Rev
Cmnt:

Rev Retain white pine, create some coarse woody debris.
Spec:

Next
Steps:

| | | | | | | | |
|------------------------------|------|--------------|-------------------|----|---------|------------------------|-------|
| 43 61034043_north-Cut | 42.3 | 4130 - Aspen | High Density Pole | 51 | Harvest | Clearcut with Reserves | Aspen |
|------------------------------|------|--------------|-------------------|----|---------|------------------------|-------|

Rev
Cmnt:

Rev Clearcut to create a dense travel corridor from the lowlands to the east through this valley to the uplands in the west. Retain some black cherry and beech (being mindful of Beecha Bark Disease guidelines).
Spec:

Next
Steps:

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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| Treatment Name | Acres | Stage1 CoverType | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective |
|-----------------------|-------|------------------|-------------------|-----------|----------------|------------------------|---------------------------|
| 43 61034043_south-Cut | 67.0 | 4130 - Aspen | High Density Pole | 51 | Harvest | Clearcut with Reserves | Mixed N. Hardwood - Aspen |

Rev
Cmnt:

Rev Regenerate aspen through the valleys to create travel corridors. This area has several clumps of hardwood (maple, beech, cherry) that could be managed as retention areas. Employ a combination of individual tree and patch retention in this area. Beech Bark Scale is present in the area so any pockets that are heavy to beech should be managed in accordance with the BBD draft guidelines.
Spec:

Next
Steps:

| | | | | | | | |
|-----------------|------|---|------------------|----|---------|-----------------------|----------------------------------|
| 50 61034050-Cut | 12.0 | 4112 - Maple, Beech, Cherry Association | High Density Log | 85 | Harvest | Single Tree Selection | Maple, Beech, Cherry Association |
|-----------------|------|---|------------------|----|---------|-----------------------|----------------------------------|

Rev
Cmnt:

Rev Beech scale present in stand. Apply draft beech bark disease management guidelines when marking stand.
Spec:

Next
Steps:

| | | | | | | | |
|-----------------|------|----------------------------------|------------------|----|---------|-----------------|---------------------------|
| 53 61034053-Cut | 25.5 | 4116 - Mixed N. Hardwood - Aspen | High Density Log | 94 | Harvest | Group Selection | Mixed N. Hardwood - Aspen |
|-----------------|------|----------------------------------|------------------|----|---------|-----------------|---------------------------|

Rev
Cmnt:

Rev Thin areas dominated by hardwood (maple, beech, cherry) and create patches of aspen regeneration in areas dominated by aspen. Beech Bark Scale is in the area, so treat beech in accordance with the draft BBD guidelines. BMP's along seasonal creek in the southwest part of stand may result in less acreage actually being treated.
Spec:

Next
Steps:

| | | | | | | | |
|--------------------------|-----|----------------------------------|------------------|----|---------|----------|---------------------------|
| 56 61034056_clearcut-Cut | 1.2 | 4116 - Mixed N. Hardwood - Aspen | High Density Log | 85 | Harvest | Clearcut | Mixed N. Hardwood - Aspen |
|--------------------------|-----|----------------------------------|------------------|----|---------|----------|---------------------------|

Rev
Cmnt:

Rev No retention. Small area dominated by aspen.
Spec:

Next
Steps:

| | | | | | | | |
|---------------------------|------|----------------------------------|------------------|----|---------|-----------------------|--------------------------------|
| 56 61034056-selection-Cut | 53.5 | 4116 - Mixed N. Hardwood - Aspen | High Density Log | 85 | Harvest | Single Tree Selection | S.Maple, Hard Mast Association |
|---------------------------|------|----------------------------------|------------------|----|---------|-----------------------|--------------------------------|

Rev
Cmnt:

Rev Single tree selection marking of red maple creating some regeneration gaps. Create a few aspen regeneration pockets if/where possible. Retain paper birch for aesthetics. Retain all conifers.
Spec:

Next
Steps:

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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

| | | | | | | | |
|------------------------------|-----|---|------------------|----|---------|----------|-------|
| 60 61034060_clea rcut-Cut | 0.9 | 6119 - Mixed Lowland Deciduous Forest | High Density Log | 85 | Harvest | Clearcut | Aspen |
|------------------------------|-----|---|------------------|----|---------|----------|-------|

Rev
Cmnt:

Rev No retention. Small area dominated by aspen.

Spec:

Next

Steps:

| | | | | | | | |
|-----------------|------|----------------------------------|-------------------|----|---------|---------------------------|-------|
| 69 61034069-Cut | 20.8 | 4139 - Aspen, Mixed Deciduous | High Density Pole | 40 | Harvest | Clearcut with Reserves | Aspen |
|-----------------|------|----------------------------------|-------------------|----|---------|---------------------------|-------|

Rev Block road east of creek when sale is complete to stop ORV activity.

Cmnt:

Rev Clear cut areas dominated by aspen. Leave tree mark or heavily thin areas dominated by red maple. Retain some beech and conifer. Buffered area

Spec: along creek will serve as retention strip.

Next

Steps:

| | | | | | | | |
|-----------------|------|--------------|-------------------|----|---------|---------------------------|-------|
| 84 61034084-Cut | 24.2 | 4130 - Aspen | High Density Pole | 39 | Harvest | Clearcut with Reserves | Aspen |
|-----------------|------|--------------|-------------------|----|---------|---------------------------|-------|

Rev

Cmnt:

Rev Use individual tree retention rather than islands because of the narrow shape of this stand. Retain some trees that could be potential wood duck nesting

Spec: trees as well as some black cherry for mast.

Next

Steps:

| | | | | | | | |
|------------------|------|-----------------------------|-------------------|----|---------|----------------|------------------|
| 102 61034102-Cut | 23.3 | 42110 - Planted Red Pine | High Density Pole | 51 | Harvest | Crown Thinning | Planted Red Pine |
|------------------|------|-----------------------------|-------------------|----|---------|----------------|------------------|

Rev Stand was row thinned last entry period.

Cmnt:

Rev Mark to remove poor quality and suppressed trees.

Spec:

Next

Steps:

| | | | | | | | |
|------------------|------|--------------|-------------------|----|---------|---------------------------|-------|
| 112 61034112-Cut | 27.1 | 4130 - Aspen | High Density Pole | 47 | Harvest | Clearcut with Reserves | Aspen |
|------------------|------|--------------|-------------------|----|---------|---------------------------|-------|

Rev

Cmnt:

Rev There are good opportunities for marking strategic leave trees along Big Four Rd. to address visual management concerns. Retain all conifers.

Spec:

Next

Steps:

**Total Treatment
Acreage Proposed: 801.9**



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| Treatment Name | Acres | Stage1 Cover Type | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective |
|-----------------|-------|-------------------|------------------|-----------|----------------|------------------------|----------------------|
| 46 61034046-Cut | 10.0 | 4130 - Aspen | High Density Log | 54 | Harvest | Clearcut with Reserves | Aspen |

Limiting Factor and Comment: 3B: T & E or special concern (name)
MNFI records indicate a Red-shouldered hawk nest in vicinity of stand. Nest was not located during field inventory. Have MNFI or WLD determine status of nest. When nest is no longer being used, treat the stand.

Rev
Cmnt: Timber Management Pathway runs through stand.

Rev Do not "chase" aspen into hardwood stand. Rather concentrate on expanding regeneration along the edge of the hardwood and into the opening.
Spec: Retain a few large aspen for potential cavity trees around the pond for wood ducks. Possibly drop a few large trees into pond for turtle habitat. Hemlock is confined to an area around the vernal pond. Use this area as a retention island.

Next Steps:

No Treatment Reason: MNFI records indicate a Red-shouldered hawk nest in vicinity of stand. Nest was not located during field inventory. Have MNFI or WLD determine status of nest. When nest is no longer being used, treat the stand.

| | | | | | | | |
|-----------------|------|---|------------------|----|---------|-----------------------|----------------------------------|
| 49 61034049-Cut | 18.4 | 4112 - Maple, Beech, Cherry Association | High Density Log | 85 | Harvest | Single Tree Selection | Maple, Beech, Cherry Association |
|-----------------|------|---|------------------|----|---------|-----------------------|----------------------------------|

Limiting Factor and Comment: 3B: T & E or special concern (name)
MNFI documented Red-shouldered hawk nest was not seen during field inventory. Need to have MNFI or WLD verify status of nest. If nest is no longer in use, treat the stand.

Rev
Cmnt:

Rev Beech scale present in stand. Apply draft beech bark disease management guidelines when marking stand.

Spec:

Next Steps:

No Treatment Reason: MNFI documented Red-shouldered hawk nest was not seen during field inventory. Need to have MNFI or WLD verify status of nest. If nest is no longer in use, treat the stand.

| | | | | | | | |
|-----------------|------|---|------------------|----|---------|-----------------------|----------------------------------|
| 31 61034031-Cut | 53.3 | 4112 - Maple, Beech, Cherry Association | High Density Log | 85 | Harvest | Single Tree Selection | Maple, Beech, Cherry Association |
|-----------------|------|---|------------------|----|---------|-----------------------|----------------------------------|

Limiting Factor and Comment: 3B: T & E or special concern (name)
MNFI documented red-shouldered hawk nest in stand. Nest is still present, however was inactive this year. If nest remains inactive, stand should be treated.

Rev
Cmnt: Stand was partially marked in 1990, but never sold or cut because of an active red-shouldered hawk nest. Nest was still active in 2000, so stand was not treated. Nest is still present in tree, but was inactive this season.

Rev Single tree selection with canopy gaps to encourage black cherry regeneration. Protect hemlock in the sub-canopy. Reduce beech component in accordance with the draft Beech Bark Disease (BBD) guidelines. This compartment is in the BBD advancing front.

Spec:

Next Steps:

No Treatment Reason: MNFI documented red-shouldered hawk nest in stand. Nest is still present, however was inactive this year. If nest remains inactive, stand should be treated.

**Total Treatment
Acreage Proposed: 81.6**



PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

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

Inventory Method: IFMAP

| Stand | SCA Name | Acres | Comments |
|-------|----------|-------|----------|
| | | | |



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 | Archaeological Site | An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available. |
| 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 | Concentrated Recreation Area | Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites. |