



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

**COMPARTMENT # 30      ENTRY YEAR: 2010**

**Compartment Acreage: 1,831      County: Benzie**

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**Stand Examiner:** Craig Allen

**Legal Description:** T25N- R14W; Sections 22, 23, 24, 25, 26, 27, 34, 35, 36

**Management Goals:** Past management plans (The Pere Marquette State Forest Management Plan) identified this area as a part of a larger resource unit primarily designated towards mixed use (timber, wildlife, fisheries, recreation). A variety of forest cover types and age classes will be maintained.

**Soil and Topography:** The terrain is mostly level, However a large topographical feature called “Buck hills” are located in the southwest and northeast portion of the compartment and offer gradual to steep hills. The soils in the area are variable and include Kalkaska- Rubicon and Roscommon- AuGres associations, Leelanau- Emmet- Kalkaska association, Carlisle- Carbondale- Kerston association.

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

Forty percent of the land within the compartment is State owned. State ownership is

**Unique, Natural Features :** The Betsie River and an un-named feeder creek flow through this compartment. The Betsie River is a designated Michigan Natural River system. The designation begins at the Grass Lake Dam, then extending downstream to its mouth at Betsie Lake in Frankfort.

**Archeological, Historical, and Cultural Features:** There is a potential for archaeological sites within this compartment. Early Native Americans would commonly establish settlements along the Betsie River.

**Special Management Designations or Considerations:** Visual management is an important consideration when proposing vegetative management along recreational trails on State lands. Also, all proposed land management activities near the Betsie River should reference the Betsie River Natural River Plan for guidance and consideration.

**Watershed and Fisheries Considerations:** The Betsie River and an unnamed tributary to the Betsie River flow through Compartment 30. Both are Designated Trout Streams. The Betsie River is stocked by MDNR with steelhead and brown trout, and it also has an outstanding annual run of wild adult Chinook salmon. The unnamed tributary is likely much colder than the mainstream of the Betsie River, and it likely provides coldwater habitat that is rare in the Betsie River watershed. The unnamed tributary may support naturally reproducing populations of steelhead, coho salmon, brown trout, and brook trout. For the aspen clearcut planned for Stand 100, 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. (Comments by Mark Tonello, DNR Fisheries Biologist, Cadillac, OSC).

**Wildlife Habitat Considerations:** This compartment is situated on an outwash plain of dry sandy soils that currently supports a mix of aspen, hardwoods, and several pine plantations. Forests on these soils were typically products of wildfires of varying intensities and frequencies. Aspen and pine forests are examples of

fire dependant communities. Several cuts have been scheduled this entry period in order to increase aspen age class diversity and to perpetuate the presence of aspen. Such early successional management on these fire prone soils is appropriate and should continue. The incorporation of snags, leave trees, and downed material in these cuts will help to increase wildlife use by species like grouse, woodcock, golden-winged warbler, deer, and to replicate a wildfire-altered forest.

Future management of pine stands should consider incorporating small (2-5 acre) islands that are left relatively un-thinned within mature stands to provide winter roosting cover for turkeys. Deciduous species should be encouraged within conifer plantations for diversity.

Parts of this landscape were, at times, shielded from fire. Consequently, some management for successional advanced hardwood/conifer stands is fitting. Hardwood treatments should incorporate preservation of tree species diversity, retention of mature mast producing trees (i.e. oak and beech), and protection of den, cavity, and downed trees. Many wildlife species, including broad-winged hawks, wild turkeys, southern flying squirrels, eastern gray squirrels, and Baltimore orioles, are associated with these forest types.

Openings are an integral part of this fire prone landscape. Various opening maintenance projects have been proposed including pruning old fruit trees, brush cutting, and some herbaceous plantings. These projects will benefit species dependant on grass/brush communities, such as cedar waxwing, deer, wild turkey, mourning dove, meadow vole, and red fox.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium, coarse-textured till and lacustrine (lake) sand and gravel. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Devonian Ellsworth Shale, used for cement products. A gravel pit is located in Section 25 and there is potential on the uplands. This area is located north of the Niagaran reef trend and is in an area of Antrim Shale leasing. One well has been drilled. All of the State mineral rights in the Compartment are leased for oil and gas development. -- (Comments by Tom Hoane, Geologist, FMFM division of DNR, 8/15/2008)

Note: There is currently a proposed Antrim gas development project which will involve many new well sites and connecting pipelines within the compartment. (Possibly as many as 14 or more well sites on State lands).

**Vehicle Access:** There are many gravel and seasonal county roads throughout the compartment within this area offering good access to State lands. There are also many forest "2-track" roads in various areas of the compartment that are in good condition and are used for public and DNR land management accessibility

**Survey Needs:** There are survey needs in Sections 22, and 23, around the private property boundaries.

**Recreational Facilities and Opportunities:** The Betsie Valley Trail runs through the center of this compartment on the old railroad grade. The pathway has a nice gravel base and is used for hiking, biking, cross-country skiing and snowmobiling. There is also a spur of the Platte River State Snowmobile trail that ties into the nearby Crystal Mountain facility. Hunting, fishing, kayaking and dispersed camping are popular recreational activities throughout the compartment.

**Fire Protection:** DNR Fire Protection is from the Platte River Field Office. Travel time is acceptable, and access in this compartment is good. There are scattered residences throughout this compartment, but urban interface issues are not too much of a concern. Cover type does not allow for catastrophic fires. VFD protection is from the Thompsonville Volunteer Fire Dept. (Comments by Paul Simmer, DNR Fire Officer Supervisor, Traverse City F.O.).

**Additional Compartment Information:**

- \* **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:**

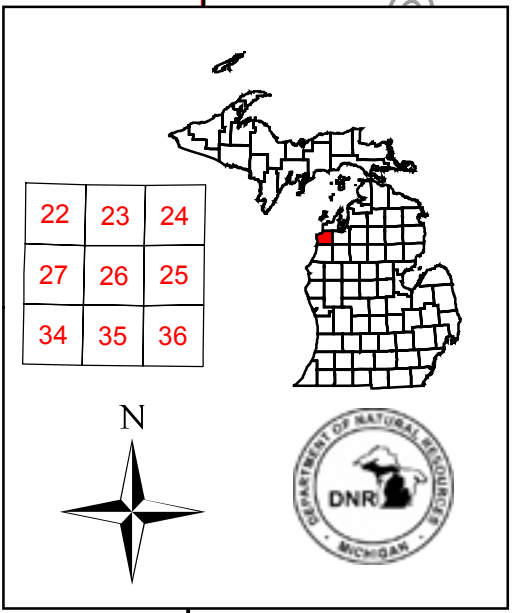
  - Base feature information, stand numbers, cover types**

  - Proposed treatments**

  - Proposed road access system**

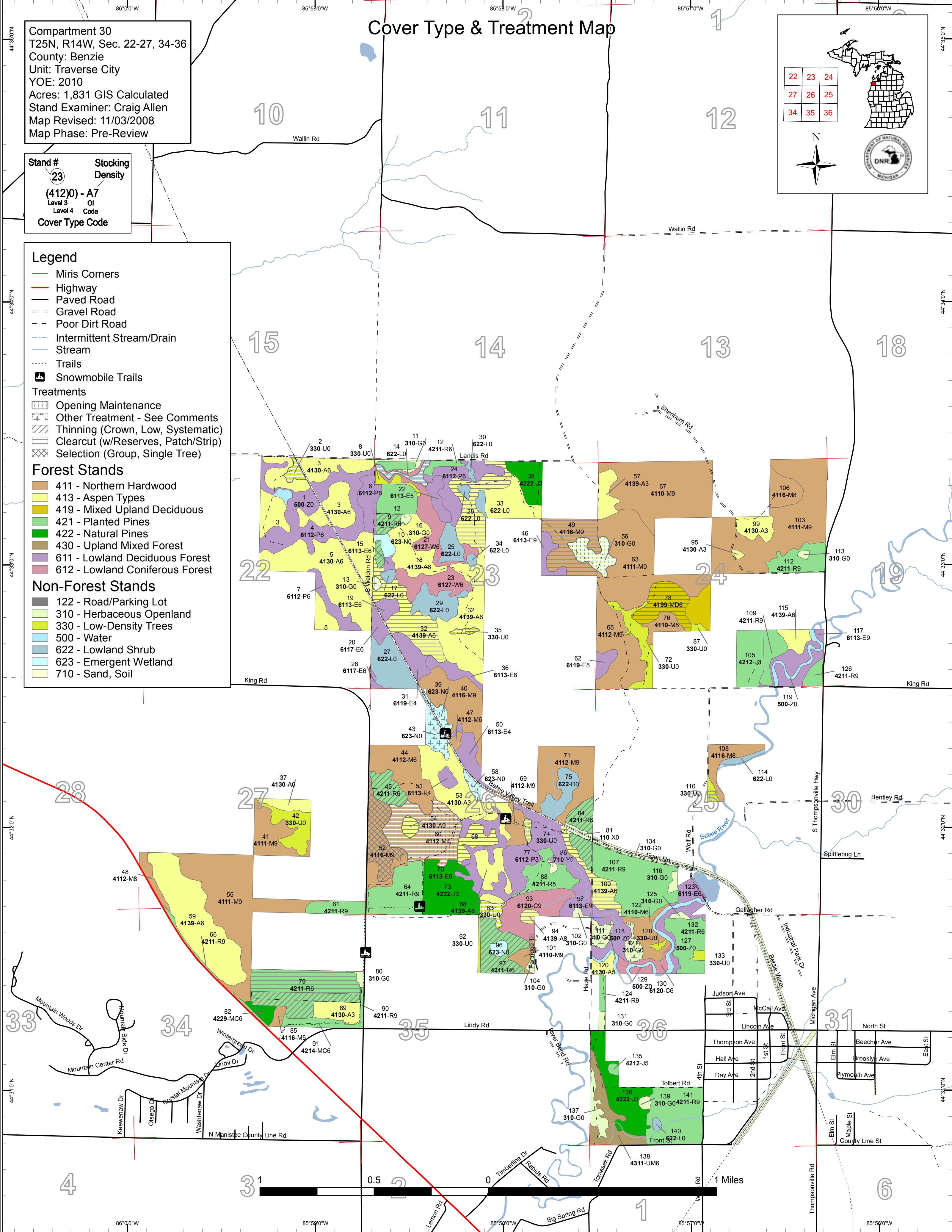
# Cover Type & Treatment Map

Compartment 30  
 T25N, R14W, Sec. 22-27, 34-36  
 County: Benzie  
 Unit: Traverse City  
 YOY: 2010  
 Acres: 1,831 GIS Calculated  
 Stand Examiner: Craig Allen  
 Map Revised: 11/03/2008  
 Map Phase: Pre-Review



**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

- Legend**
- Miris Corners
  - Highway
  - Paved Road
  - Gravel Road
  - - - Poor Dirt Road
  - Intermittent Stream/Drain
  - Stream
  - Trails
  - ☞ Snowmobile Trails
- Treatments**
- ☐ Opening Maintenance
  - ☐ Other Treatment - See Comments
  - ▨ Thinning (Crown, Low, Systematic)
  - ▨ Clearcut (w/Reserves, Patch/Strip)
  - ▨ Selection (Group, Single Tree)
- Forest Stands**
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 421 - Planted Pines
  - 422 - Natural Pines
  - 430 - Upland Mixed Forest
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- 122 - Road/Parking Lot
  - 310 - Herbaceous Openland
  - 330 - Low-Density Trees
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland
  - 710 - Sand, Soil







Traverse City Mgt. Unit

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

Compartment 030 Year of Entry 2010

Report Date: 11/21/2008



|                           | 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        | 48.5        | 187.0        | 0           | 188.4        | 0            | 0           | 16.3         | 0            | 0           | 0        | 0        | 0           | 0          | 450.8         |
| Emergent Wetland          | 21.7         | 0           | 0           | 0            | 0           | 0            | 0            | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 21.7          |
| Herbaceous Openland       | 64.2         | 0           | 0           | 0            | 0           | 0            | 0            | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 64.2          |
| Low Intensity Urban       | 21.0         | 0           | 0           | 0            | 0           | 0            | 0            | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 21.0          |
| Low-Density Trees         | 50.1         | 0           | 0           | 0            | 0           | 0            | 0            | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 50.1          |
| Lowland Coniferous Forest | 0            | 0           | 0           | 0            | 0           | 20.4         | 16.9         | 0           | 0            | 0            | 0           | 0        | 0        | 31.7        | 0          | 69.0          |
| Lowland Deciduous Forest  | 0            | 0           | 13.6        | 68.1         | 0           | 17.9         | 0            | 16.4        | 88.7         | 5.0          | 44.1        | 0        | 0        | 0           | 0          | 253.7         |
| Lowland Shrub             | 72.1         | 0           | 0           | 0            | 0           | 0            | 0            | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 72.1          |
| Mixed Upland Deciduous    | 0            | 0           | 0           | 0            | 0           | 0            | 0            | 0           | 0            | 29.0         | 0           | 0        | 0        | 0           | 0          | 29.0          |
| Natural Pines             | 0            | 73.7        | 0           | 0            | 0           | 4.3          | 0            | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 77.9          |
| Northern Hardwood         | 0            | 0           | 0           | 0            | 48.3        | 72.1         | 0            | 0           | 382.7        | 97.8         | 0           | 0        | 0        | 0           | 0          | 601.0         |
| Planted Pines             | 0            | 0           | 18.5        | 56.7         | 0           | 102.4        | 153.9        | 14.6        | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 346.1         |
| Sand, Soil                | 1.0          | 0           | 0           | 0            | 0           | 0            | 0            | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 1.0           |
| Upland Mixed Forest       | 0            | 0           | 0           | 0            | 0           | 0            | 18.1         | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 18.1          |
| Water                     | 16.3         | 0           | 0           | 0            | 0           | 0            | 0            | 0           | 0            | 0            | 0           | 0        | 0        | 0           | 0          | 16.3          |
| <b>Total</b>              | <b>246.3</b> | <b>84.3</b> | <b>80.6</b> | <b>311.8</b> | <b>48.3</b> | <b>405.4</b> | <b>188.9</b> | <b>31.0</b> | <b>487.7</b> | <b>131.7</b> | <b>44.1</b> | <b>0</b> | <b>0</b> | <b>31.7</b> | <b>0</b>   | <b>2091.8</b> |

**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 |
|----------------|-------|--------------------------|-------------------|-----------|----------------|---------------------|----------------------|
| 9 61030009-Cut | 7.7   | 42110 - Planted Red Pine | High Density Pole | 46        | Harvest        | Systematic Thinning | Planted Red Pine     |

Rev  
Cmnt:

Rev Craig Allen: Thin plantation by cutting every 3rd row.

Spec:

Next

Steps:

|                 |      |                               |                   |    |         |                        |                        |
|-----------------|------|-------------------------------|-------------------|----|---------|------------------------|------------------------|
| 32 61030032-Cut | 25.5 | 4139 - Aspen, Mixed Deciduous | High Density Pole | 47 | Harvest | Clearcut with Reserves | Aspen, Mixed Deciduous |
|-----------------|------|-------------------------------|-------------------|----|---------|------------------------|------------------------|

Rev  
Cmnt:

Rev Craig Allen: Harvest all hardwoods to regenerate aspen. Leave all conifers. Mark some leave trees and/or islands for diversity and retention purposes.

Spec:

Next

Steps:

|                       |      |                               |                   |    |         |                        |                        |
|-----------------------|------|-------------------------------|-------------------|----|---------|------------------------|------------------------|
| 32 61030032sout h-Cut | 29.4 | 4139 - Aspen, Mixed Deciduous | High Density Pole | 47 | Harvest | Clearcut with Reserves | Aspen, Mixed Deciduous |
|-----------------------|------|-------------------------------|-------------------|----|---------|------------------------|------------------------|

Rev  
Cmnt:

Rev Craig Allen: Harvest all hardwoods in effort to regenerate and expand aspen component. Leave all conifers. Mark some leave trees and/or islands for diversity and retention purposes.

Spec:

Next

Steps:

|                 |      |                          |                   |    |         |                     |                  |
|-----------------|------|--------------------------|-------------------|----|---------|---------------------|------------------|
| 45 61030045-Cut | 10.7 | 42110 - Planted Red Pine | High Density Pole | 47 | Harvest | Systematic Thinning | Planted Red Pine |
|-----------------|------|--------------------------|-------------------|----|---------|---------------------|------------------|

Rev  
Cmnt:

Rev Craig Allen: Thin plantation by removal of 1/3 current volume. Most likely achieved by cutting every 3rd tree in each row.

Spec:

Next

Steps:

|                 |      |                                  |                  |    |         |                        |                        |
|-----------------|------|----------------------------------|------------------|----|---------|------------------------|------------------------|
| 49 61030049-Cut | 27.3 | 4116 - Mixed N. Hardwood - Aspen | High Density Log | 48 | Harvest | Clearcut with Reserves | Aspen, Mixed Deciduous |
|-----------------|------|----------------------------------|------------------|----|---------|------------------------|------------------------|

Rev  
Cmnt:

Rev Craig Allen: Harvest hardwoods in effort to regenerate and expand aspen. Leave any conifers for diversity. Select mark sugar maple trees to retain better quality trees. Mark some leave trees and/or islands for diversity and retention purposes.

Spec:

Next

Steps:

|                 |      |                                  |                  |    |         |                 |                           |
|-----------------|------|----------------------------------|------------------|----|---------|-----------------|---------------------------|
| 52 61030052-Cut | 22.1 | 4116 - Mixed N. Hardwood - Aspen | High Density Log | 70 | Harvest | Group Selection | Mixed N. Hardwood - Aspen |
|-----------------|------|----------------------------------|------------------|----|---------|-----------------|---------------------------|

Rev  
Cmnt:

Rev Craig Allen: Where aspen is present in stand, harvest majority of hardwoods to help regenerate and expand aspen component. In areas of stand without aspen, individually mark hardwoods to manage for sugar maple regeneration, leaving variable residual hardwood volumes. Leave 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 |
|-----------------|-------|------------------|------------------|-----------|----------------|------------------------|----------------------|
| 54 61030054-Cut | 3.4   | 4130 - Aspen     | High Density Log | 48        | Harvest        | Clearcut with Reserves | Aspen                |

Rev  
Cmnt:

Rev Craig Allen: Clearcut stand to regenerate and expand aspen.

Spec:

Next

Steps:

|                 |     |                               |                   |    |         |                        |                        |
|-----------------|-----|-------------------------------|-------------------|----|---------|------------------------|------------------------|
| 68 61030068-Cut | 9.4 | 4139 - Aspen, Mixed Deciduous | High Density Pole | 48 | Harvest | Clearcut with Reserves | Aspen, Mixed Deciduous |
|-----------------|-----|-------------------------------|-------------------|----|---------|------------------------|------------------------|

Rev  
Cmnt:

Rev Craig Allen: Harvest all hardwoods to regenerate and expand aspen component for age class diversity. Leave a few trees for diversity and retention purposes.

Spec:

Next

Steps:

|                 |      |                                     |                   |    |         |                        |                        |
|-----------------|------|-------------------------------------|-------------------|----|---------|------------------------|------------------------|
| 78 61030078-Cut | 19.5 | 4199 - Other Mixed Upland Deciduous | High Density Pole | 80 | Harvest | Clearcut with Reserves | Aspen, Mixed Deciduous |
|-----------------|------|-------------------------------------|-------------------|----|---------|------------------------|------------------------|

Rev  
Cmnt:

Rev Craig Allen: Clearcut hardwoods where aspen is present to expand and regenerate aspen. Mark some lower quality oak to cut so they may stump sprout regenerate. Select mark maple to keep better quality trees on site. Cut majority of beech, ash, cherry, but mark a few to leave for mast production and diversity.

Spec:

Next

Steps:

|                 |      |                          |                   |    |         |          |                  |
|-----------------|------|--------------------------|-------------------|----|---------|----------|------------------|
| 79 61030079-Cut | 29.4 | 42110 - Planted Red Pine | High Density Pole | 49 | Harvest | Clearcut | Planted Red Pine |
|-----------------|------|--------------------------|-------------------|----|---------|----------|------------------|

Rev Craig Allen: This stand was originally planted with variable spacing between rows and trees for insect study experimental purposes. No longer needed.

Cmnt:

Rev Craig Allen: Due to variable spacing of rows (and red pine project), clearcut and replant red pine.

Spec:

Next

Steps:

|                       |      |                          |                   |    |         |                     |                  |
|-----------------------|------|--------------------------|-------------------|----|---------|---------------------|------------------|
| 79 61030079sout h-Cut | 19.7 | 42110 - Planted Red Pine | High Density Pole | 49 | Harvest | Systematic Thinning | Planted Red Pine |
|-----------------------|------|--------------------------|-------------------|----|---------|---------------------|------------------|

Rev  
Cmnt:

Rev Craig Allen: Thin plantation by removal of 1/3 volume. Most likely by cutting every third tree in each row.

Spec:

Next

Steps:

|                 |      |                          |                   |    |         |                     |                  |
|-----------------|------|--------------------------|-------------------|----|---------|---------------------|------------------|
| 84 61030084-Cut | 13.6 | 42110 - Planted Red Pine | High Density Pole | 41 | Harvest | Systematic Thinning | Planted Red Pine |
|-----------------|------|--------------------------|-------------------|----|---------|---------------------|------------------|

Rev  
Cmnt:

Rev Craig Allen: Thin plantation by removal of 1/3 volume. Harvest every third row (initial thinning).

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   |
|-----------------|-------|-------------------------------|--------------------|-----------|----------------|------------------------|------------------------|
| 94 61030094-Cut | 2.5   | 4139 - Aspen, Mixed Deciduous | Medium Density Log | 75        | Harvest        | Clearcut with Reserves | Aspen, Mixed Deciduous |

Rev  
Cmnt:

Rev Potential winter habitat cut of aspen in part of the stand. Hand fell some of the deciduous component (aspen, maple, etc) in to produce horizontal cover in the form of coarse woody debris, promote vertical cover and future browse in the form of regenerating deciduous species, and woody browse from downed tree tops that will be available to a variety of herbivores during winter.

Next  
Steps:

|                 |      |                          |                   |    |         |                     |                  |
|-----------------|------|--------------------------|-------------------|----|---------|---------------------|------------------|
| 97 61030097-Cut | 19.9 | 42110 - Planted Red Pine | High Density Pole | 40 | Harvest | Systematic Thinning | Planted Red Pine |
|-----------------|------|--------------------------|-------------------|----|---------|---------------------|------------------|

Rev  
Cmnt:

Rev Craig Allen: Thin plantation by removal of 1/3 volume, by harvesting every third row.

Spec:

Next  
Steps:

|                  |      |                               |                   |    |         |                        |                        |
|------------------|------|-------------------------------|-------------------|----|---------|------------------------|------------------------|
| 100 61030100-Cut | 13.8 | 4139 - Aspen, Mixed Deciduous | High Density Pole | 75 | Harvest | Clearcut with Reserves | Aspen, Mixed Deciduous |
|------------------|------|-------------------------------|-------------------|----|---------|------------------------|------------------------|

Rev  
Cmnt:

Rev Craig Allen: Harvest hardwoods to expand and regenerate aspen. Mark some leave sugar and red maple and leave any conifers and birch. Stay a minimum of 100 feet away from creek.

Next  
Steps:

|                  |      |  |  |   |           |               |                  |
|------------------|------|--|--|---|-----------|---------------|------------------|
| 73 61030073-Prep | 32.0 | 42221 - Natural Jack Pine, Mixed Deciduous |  | 8 | Site Prep | Other-Specify | Planted Red Pine |
|------------------|------|--|--|---|-----------|---------------|------------------|

Rev  
Cmnt: Craig Allen: This stand was prescribed last entry for re-plant to red pine, but was not accomplished.

Rev Craig Allen: Prep site to plant to red pine. Can be accomplished by prescribe fire and/or chopping. Then follow-up with plant to red pine.

Spec:

Next  
Steps:

|                   |      |                           |  |   |           |               |                  |
|-------------------|------|---------------------------|--|---|-----------|---------------|------------------|
| 136 61030136-Prep | 28.4 | 42220 - Natural Jack Pine |  | 7 | Site Prep | Other-Specify | Planted Red Pine |
|-------------------|------|---------------------------|--|---|-----------|---------------|------------------|

Rev  
Cmnt:

Rev Craig Allen: This stand was cut last entry to convert to red pine, but was never planted. Now natural regen has taken hold and needs prep by prescribe fire and/or chopping before site can be planted to red pine.

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 |
|----------------|-------|------------------|--------------|-----------|----------------|------------------|----------------------|
|----------------|-------|------------------|--------------|-----------|----------------|------------------|----------------------|

|           |                          |      |   |    |                       |               |                    |
|-----------|--------------------------|------|---|----|-----------------------|---------------|--------------------|
| <b>60</b> | <b>61030060-BH/Shrub</b> | 41.4 | 4112 - Maple, Beech, Cherry Association | 30 | Non-Forest Management | Brush Cutting | Mixed Upland Shrub |
|-----------|--------------------------|------|---|----|-----------------------|---------------|--------------------|

Rev  
Cmnt:

Rev Brush hog (or hand fell) around select leave trees and/or patches. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.  
Spec:

Next Plant some sumac for wildlife food and cover. Use cages and/or tubex to help establish seedlings.  
Steps:

|          |                       |     |             |   |                       |               |                    |
|----------|-----------------------|-----|-------------|---|-----------------------|---------------|--------------------|
| <b>2</b> | <b>NF_61030002-HF</b> | 3.2 | Unspecified | 0 | Non-Forest Management | Brush Cutting | Mixed Upland Shrub |
|----------|-----------------------|-----|-------------|---|-----------------------|---------------|--------------------|

Rev  
Cmnt:

Rev Hand fell some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Leave stumps to rot to provide future food source for insectivores, etc. Stumps should be tall enough to be visible above the average snow depth.  
Spec:

Next  
Steps:

|           |                           |     |             |   |                       |               |                         |
|-----------|---------------------------|-----|-------------|---|-----------------------|---------------|-------------------------|
| <b>13</b> | <b>NF_61030013-NonFor</b> | 2.7 | Unspecified | 0 | Non-Forest Management | Brush Cutting | Mixed Upland Herbaceous |
|-----------|---------------------------|-----|-------------|---|-----------------------|---------------|-------------------------|

Rev  
Cmnt:

Rev Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.  
Spec:

Next  
Steps:

|           |                       |     |             |   |                       |               |              |
|-----------|-----------------------|-----|-------------|---|-----------------------|---------------|--------------|
| <b>14</b> | <b>NF_61030014-HF</b> | 4.3 | Unspecified | 0 | Non-Forest Management | Brush Cutting | Alder/willow |
|-----------|-----------------------|-----|-------------|---|-----------------------|---------------|--------------|

Rev  
Cmnt:

Rev Cut declining alder and willow in order to stimulate regeneration of these lowland shrubs. Cut should take place during the dormant season.  
Spec:

Next  
Steps:

|           |                           |      |             |   |                       |                 |                        |
|-----------|---------------------------|------|-------------|---|-----------------------|-----------------|------------------------|
| <b>43</b> | <b>NF_61030043-NonFor</b> | 15.4 | Unspecified | 0 | Non-Forest Management | Other - Specify | Mixed Emergent Wetland |
|-----------|---------------------------|------|-------------|---|-----------------------|-----------------|------------------------|

Rev  
Cmnt:

Rev Monitor and treat phragmites per guidelines in "A Guide to the Control and Management of Invasive Phragmites".  
Spec:

Next  
Steps:

|           |                              |      |             |   |                       |               |                         |
|-----------|------------------------------|------|-------------|---|-----------------------|---------------|-------------------------|
| <b>56</b> | <b>NF_61030056-HF/Apples</b> | 11.5 | Unspecified | 0 | Non-Forest Management | Brush Cutting | Mixed Upland Herbaceous |
|-----------|------------------------------|------|-------------|---|-----------------------|---------------|-------------------------|

Rev  
Cmnt:

Rev Hand fell some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Leave stumps to rot to provide future food source for insectivores, etc. Stumps should be tall enough to be visible above the average snow depth.  
Spec:

Next Plant apples or similar fruiting trees for wildlife.  
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 |
|----------------|-------|------------------|--------------|-----------|----------------|------------------|----------------------|
|----------------|-------|------------------|--------------|-----------|----------------|------------------|----------------------|

|    |                |     |             |  |   |                       |               |                    |
|----|----------------|-----|-------------|--|---|-----------------------|---------------|--------------------|
| 74 | NF_61030074-HF | 1.8 | Unspecified |  | 0 | Non-Forest Management | Brush Cutting | Mixed Upland Shrub |
|----|----------------|-----|-------------|--|---|-----------------------|---------------|--------------------|

Rev  
Cmnt:

Rev Hand fell some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Leave stumps to rot to provide future food source for insectivores, etc. Stumps should be tall enough to be visible above the average snow depth.  
Spec:

Next  
Steps:

|    |                |     |             |  |   |                       |               |                    |
|----|----------------|-----|-------------|--|---|-----------------------|---------------|--------------------|
| 83 | NF_61030083-HF | 5.0 | Unspecified |  | 0 | Non-Forest Management | Brush Cutting | Mixed Upland Shrub |
|----|----------------|-----|-------------|--|---|-----------------------|---------------|--------------------|

Rev  
Cmnt:

Rev Hand fell some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Leave stumps to rot to provide future food source for insectivores, etc. Stumps should be tall enough to be visible above the average snow depth.  
Spec:

Next  
Steps:

|     |                      |     |             |  |   |                       |                 |                         |
|-----|----------------------|-----|-------------|--|---|-----------------------|-----------------|-------------------------|
| 104 | NF_61030104-Degraded | 1.3 | Unspecified |  | 0 | Non-Forest Management | Other - Specify | Mixed Upland Herbaceous |
|-----|----------------------|-----|-------------|--|---|-----------------------|-----------------|-------------------------|

Rev  
Cmnt:

Rev Treat site to remove exotics. Then reseed to site appropriate native grasses for wildlife food and cover. Consider also seeding in native forbs.  
Spec:

Next May need to burn or mow to help with establishment of native vegetation.  
Steps:

|     |                     |     |             |  |   |                       |                 |                         |
|-----|---------------------|-----|-------------|--|---|-----------------------|-----------------|-------------------------|
| 111 | NF_61030111-Pruning | 5.7 | Unspecified |  | 0 | Non-Forest Management | Other - Specify | Mixed Upland Herbaceous |
|-----|---------------------|-----|-------------|--|---|-----------------------|-----------------|-------------------------|

Rev  
Cmnt:

Rev Prune remnant apple trees.  
Spec:

Next  
Steps:

|     |                   |     |             |  |   |                       |                 |                         |
|-----|-------------------|-----|-------------|--|---|-----------------------|-----------------|-------------------------|
| 121 | NF_61030121-Grass | 5.3 | Unspecified |  | 0 | Non-Forest Management | Other - Specify | Mixed Upland Herbaceous |
|-----|-------------------|-----|-------------|--|---|-----------------------|-----------------|-------------------------|

Rev  
Cmnt:

Rev Nice area for wildlife planting. Should plant to a low maintenance (perennial) herbaceous cover suitable for wildlife cover and forage. Will need to set back the bracken and probably treat for weeds (spotted knapweed, St. John's wort, etc.).  
Spec:

Next  
Steps:

**Total Treatment  
Acreage Proposed: 411.9**

**PROPOSED TREATMENTS  
WITH LIMITING FACTORS**



S  
t  
a  
n  
d

| Treatment Name | Acres | Stage1 Cover Type | Size Density | Stand Age | Treatment Type | Treatment Method | Cover Type Objective | Page 1 of 1 |
|----------------|-------|-------------------|--------------|-----------|----------------|------------------|----------------------|-------------|
|----------------|-------|-------------------|--------------|-----------|----------------|------------------|----------------------|-------------|

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Limiting Factor  
and Comment:

Rev  
Cmnt:

Rev  
Spec:

Next  
Steps:

No Treatment  
Reason

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**Total Treatment  
Acreage Proposed:      0**



**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   |
|-------------------|-------------------|---|
| HCVA              | Natural Rivers    | There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.   |
| 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. |