



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

COMPARTMENT # 12 ENTRY YEAR: 2009

Compartment Acreage: 822 County: Benzie

Stand Examiner: Timothy Webb

Legal Description: T26N R13W Sections 1, 3, and 15

Management Goals: This compartment had been managed under the Pere Marquette State Forest Plan as part of Resource Management Unit 9, designated for mixed use. Forested lands will continue to be managed for a variety of cover types, including medium quality northern hardwoods, variably aged aspen stands, and some oak and white pine. Forest openings will be maintained to perpetuate some open habitats as well. Timber management should complement increasing dispersed recreation demands in this increasingly populated part of Benzie County.

Soil and Topography: The compartment contains primarily Benzonia, Benona, Grattan, and Kaleva sand soil types, with inclusions of muck soils in wetlands and drainages. Northwest and southwest portions of the compartment are within an outwash plain landscape, with flat to gently rolling terrain and some steeper slopes along streams. The northeast part of the compartment is on pitted outwash plain, and is flat to gently rolling, with some lowlands along Sherman Creek.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Three widely separated blocks of state land make up this compartment. There is more solid state forest ownership to the north, northeast, and southeast, and some to the west along the Platte River corridor. Large areas of private land separate state lands within the compartment, and consist of rural residential parcels, private woodlots, some farmlands, and an elementary school. To the south are some state land parcels and more private woodlots and residences. Parcelization and residential development are continuing in this area.

Unique, Natural Features: Sherman Creek, including some beaver impoundments, flows through state land in section 1. A stream flowing into Bronson Lake flows through section 3. Bronson Lake touches the northwest corner of the compartment.

Archeological, Historical, and Cultural Features: An old abandoned rail grade parallels the unnamed stream through section 3. The same grade is also evident through state land in section 1, including a spur running northeast/southwest through the state parcel. Numerous small clearings can be seen on old aerial photographs, attesting to earlier farming attempts on what is now state forestland.

Special Management Designations or Considerations: None.

Watershed and Fisheries Considerations: The Platte River flows through portions of this compartment. The Platte River is a Designated Trout Stream and supports a diverse cold water fishery including brown, rainbow, and brook trout, coho, and Chinook salmon. All management practices adjacent to aquatic features within this compartment should be consistent with the Water Quality Management Best Management Practices.

Wildlife Habitat Considerations: State land in this compartment is situated on outwash plains of dry sandy soils that support areas of aspen and mixed hardwoods. Forests in this landscape are typically formed by wildfire; however parts of this landscape were at times shielded from fire to a degree. Consequently, some management for successional advanced hardwood/white pine stands is fitting to this compartment. Hardwood treatments are typically designed to incorporate the preservation of tree species diversity, the retention of mature mast producing trees, and the 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.

This compartment also has a history of aspen cutting. Such early successional management is appropriate and will be continued in this area, with additional aspen harvests scheduled this period in order to increase age class diversity. The incorporation of snags, leave trees, and downed logs in these cuts will help to replicate a wildfire-altered forest and increase wildlife use by species like grouse, woodcock, golden-winged warbler, and deer.

Future management of the several pine stands here should consider incorporating small (2-5 acre) islands that are left relatively un-thinned within mature stands to provide winter roosting cover for turkeys.

Openings are an important part of this dry and fire prone landscape. Examples of openings found on this landscape include grasslands and areas of low tree density. Opening maintenance will continue in the compartment to benefit grassland species and species utilizing the edge component of these openings, such as, cedar waxwing, deer, wild turkey, mourning dove, meadow vole, or red fox.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and coarse-textured till. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift are the Devonian Ellsworth and Antrim Shales. These shales are quarried for cement products. The nearest gravel pit is located in Section 9 and potential should be good on the uplands. This area is located in the current Antrim Shale gas play. Most State minerals are leased in this Compartment, and one Antrim Unit Area is located in Section 15.

Vehicle Access: Access is good in sections 3 and 15 for management and recreation. A loop road through section 15 is used for permitted access to a gas well on adjacent private land. Any new trails built for treatments should be closed off when no longer needed.

Douglas Road provides fair access to state land north of Sherman Creek in section 1. Former access to land south of the creek via an old rail grade has been blocked off on private land. Future management here may require construction of a road from Dubonnet Trail if access across private land is not permitted.

Survey Needs: Most of the compartment is well monumented, but the southwest quarter of section 3 could require survey work prior to timber sale preparation to establish property lines.

Recreational Facilities and Opportunities: Short stretches of two streams are accessible from state lands for walk-in fishing. The Shore-to-Shore trail passes through the north half of section 3, including a footbridge across a stream. Other recreational uses include deer and small game hunting, mushrooming, and perhaps some waterfowl hunting on beaver ponds along Sherman Creek.

Fire Protection: This area is protected by the Platte River DNR field office as well as by Almira Township VFD. This area is mixed ownership, with residences on some parcels of private property. Cover type is primarily hardwood. This area is within just a few miles of the Platte River Field Office, and is also close to the Almira Twp. Fire Dept. Access is acceptable for initial attack fire activities.

Additional Compartment Information: The SWNE of section 1 has been acquired since the last inventory, and all state lands in section 2 have been disposed of, resulting in a net loss of about 80 acres of state land.

**** **Cover type details and proposed treatments 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

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

Compartment: 012

Entry Yr: 2009

Date 02/13/2008



| Treatment Name | Acres | Stage1 CovType | Size Density | 1st Age | 2nd Age | Treatment Method | Treatment Purpose | Cover Type Objective |
|----------------|-------|----------------|--------------|---------|---------|-----------------------|-------------------|-------------------------|
| 3 61012003-Cut | 26.5 | | 9 | 87 | 0 | Single Tree Selection | Regeneration | Sugar Maple Association |

Rev Cmnt: There are one or more wet patches within the stand that can easily be avoided during timber marking.

Rev Spec: --Stephen Griffith : 11/16/2007 comments: Create some coarse woody debris (CWD) in areas of the stand where little or none currently exist, during harvest operations. Can be cull lengths, tops of significant volume, or whole unmerchantable trees.

Mark to retain about 80-90 BA, creating some regeneration holes. Create some coarse woody debris during sale operations. Retain species diversity.

Next Steps: --Timothy Webb : 12/18/2007 comments: (per compartment review amendments) regeneration survey to follow harvesting at appropriate interval(s).

| | | | | | | | | |
|----------------|------|--|---|-----|---|-----------------------|--------------|-------------------------|
| 7 61012007-Cut | 65.4 | | 9 | 107 | 0 | Single Tree Selection | Regeneration | Sugar Maple Association |
|----------------|------|--|---|-----|---|-----------------------|--------------|-------------------------|

Rev Cmnt: Some areas of the stand are being left out of the treatment area because of steep slopes, proximity to a stream, and/or low basal area.

Rev Spec: --Stephen Griffith : 11/16/2007 comments: Create some coarse woody debris (CWD) in areas of the stand where little or none currently exist, during harvest operations. Can be cull lengths, tops of significant volume, or whole unmerchantable trees.

Mark to retain about 80-90 BA, creating some regeneration holes. Create some coarse woody debris during sale operations. Retain all conifers. Minimize disturbance to the Shore-to-Shore Trail when marking and during sale operations.

Next Steps: --Timothy Webb : 12/18/2007 comments: (per compartment review amendments) regeneration survey to follow harvesting at appropriate interval(s).

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|----------------|------|--|---|----|---|------------------------|--------------|-------|
| 8 61012008-Cut | 10.7 | | 8 | 64 | 0 | Clearcut with Reserves | Regeneration | Aspen |
|----------------|------|--|---|----|---|------------------------|--------------|-------|

Rev Cmnt: Treatment area excludes the steep slopes leading south to a stream. This bluff has some aspen, pine, and hardwoods, serving as riparian cover and as a retention element for the adjacent proposed sale area.

Rev Spec: --Stephen Griffith : 11/16/2007 comments: Create some (approximately 1-2 trees per acre) coarse woody debris (CWD) during harvest operations, preferably via timber sale specs. These dead and downed logs provide habitat for many wildlife speceis including ruffed grouse, white-footed mice, and redbelly snakes. CWD trees should be log sized or bigger, the more decay resistant the tree species is the better, and cut approximately at breast height (4.5 feet). The log should be left within 3 feet

Next Steps: Stand should regenerate well with aspen sprouts. Some maple and white pine regeneration may also occur and would be acceptable in the mix.

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|-----------------|------|--|---|----|----|------------------------|--------------|-------|
| 13 61012013-Cut | 19.8 | | 5 | 49 | 78 | Clearcut with Reserves | Regeneration | Aspen |
|-----------------|------|--|---|----|----|------------------------|--------------|-------|

Rev Cmnt: The proposed treatment area consists of two patches from the original AOI/stand, selected to create some early successional habitat within a larger mixed deciduous complex.

Rev Spec: --Stephen Griffith : 11/16/2007 comments: Create some (approximately 1-2 trees per acre) coarse woody debris (CWD) during harvest operations, preferably via timber sale specs. These dead and downed logs provide habitat for many wildlife speceis including ruffed grouse, white-footed mice, and redbelly snakes. CWD trees should be log sized or bigger, the more decay resistant the tree species is the better, and cut approximately at breast height (4.5 feet). The log should be left within 3 feet

Next Steps: The cut patches should regenerate well with aspen sprouts, along with some possible ironwood, cherry, and maple seedlings.

| | | | | | | | | |
|--------------------------|-----|-------------------------------------|---|----|----|------------|--------------------|--|
| 13 61012013-Plant_spruce | 0.4 | 4199 - Other Mixed Upland Deciduous | 5 | 49 | 78 | Hand Plant | Habitat Management | |
|--------------------------|-----|-------------------------------------|---|----|----|------------|--------------------|--|

Rev Cmnt: This prescription was proposed last entry period but was not completed. So it was re-prescribed.

Rev Spec: Improve winter cover with four rows of white spruce planted along edge of stand NF stand 16.

Next Steps:

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

Compartment: 012

Entry Yr: 2009

Date 02/13/2008



| Treatment Name | Acres | Stage1 CovType | Size Density | 1st Age | 2nd Age | Treatment Method | Treatment Purpose | Cover Type Objective |
|-----------------|-------|----------------|--------------|---------|---------|---------------------|-------------------|----------------------|
| 20 61012020-Cut | 3.7 | | 8 | 58 | 0 | Systematic Thinning | Intermediate Cut | Planted Mixed Pine |

Rev Road portions of the AOI were not included in the proposed treatment area. This will be a small volume sale and may be difficult to sell. Stand is dense, but if it does not sell, just leave as is. It could be attached to a nearby aspen/hardwood sale if feasible.
Cmnt:

Rev Cut out the middle row of this 5-row roadside planting, plus mark some additional trees in adjacent rows for removal. Slash will need to be placed on the side of the planting away from the roads.
Spec:

Next
Steps:

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|-----------------|-----|--|---|----|---|----------------|------------------|------------------|
| 31 61012031-Cut | 4.2 | | 9 | 50 | 0 | Crown Thinning | Intermediate Cut | Planted Red Pine |
|-----------------|-----|--|---|----|---|----------------|------------------|------------------|

Rev Plantation - no retention needed.
Cmnt:

Rev Mark for thinning. Reduce to about 110-120 BA.
Spec:

Next
Steps:

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|-----------------|------|--|---|----|---|------------------------|--------------|-------|
| 36 61012036-Cut | 21.3 | | 6 | 45 | 0 | Clearcut with Reserves | Regeneration | Aspen |
|-----------------|------|--|---|----|---|------------------------|--------------|-------|

Rev Although stand is not quite fully mature, some patches are being proposed for harvest this entry period to create age class diversity in this part of the compartment. Positioning a cut patch near the white pine stand will also provide some browse for wintering deer.
Cmnt:

Rev --Stephen Griffith : 11/16/2007 comments: Create some (approximately 1-2 trees per acre) coarse woody debris (CWD) during harvest operations, preferably via timber sale specs. These dead and downed logs provide habitat for many wildlife species including ruffed grouse, white-footed mice, and redbelly snakes. CWD trees should be log sized or bigger, the more decay resistant the tree species is the better, and cut approximately at breast height (4.5 feet). The log should be left within 3 feet
Spec:

Next Cut patches should regenerate well with aspen sprouts, and maybe some hardwood and white pine seedlings.
Steps:

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|-----------------|-----|--|---|----|----|----------------|------------------|---------------------------|
| 37 61012037-Cut | 8.4 | | 9 | 75 | 80 | Crown Thinning | Intermediate Cut | Mixed N. Hardwood - Aspen |
|-----------------|-----|--|---|----|----|----------------|------------------|---------------------------|

Rev Proposed thinning will move this stand more toward hardwood management, retaining some diversity within this aspen-dominated block of state forest land.
Cmnt:

Rev --Stephen Griffith : 11/16/2007 comments: Create some coarse woody debris (CWD) in areas of the stand where little or none currently exist, during harvest operations. Can be cull lengths, tops of significant volume, or whole unmerchantable trees.
Spec:

Mark some of the aspen for removal, mainly the older trees. Also mark some hardwoods to improve stand quality. Target residual BA of about 90.

Next
Steps:

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|-----------------|-----|--|---|-----|---|-------------|--------------|---------|
| 49 61012049-Cut | 3.0 | | 9 | 100 | 0 | Shelterwood | Regeneration | Red Oak |
|-----------------|-----|--|---|-----|---|-------------|--------------|---------|

Rev This small stand would be better managed along with the same oak type in adjacent compartment 61 to the east. Start date for this proposed prescription has been set to YOE 2010 to coincide with that compartment's entry period.
Cmnt:

Rev Cut along with same type in adjacent compartment according to specifications set for that stand if/when it comes up for consideration in YOE 2010.
Spec:

Next Do a regen check some time after harvest.
Steps:

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

Compartment: 012

Entry Yr: 2009

Date 02/13/2008



| Treatment Name | Acres | Stage1 CovType | Size Density | 1st Age | 2nd Age | Treatment Method | Treatment Purpose | Cover Type Objective |
|-----------------|-------|----------------|--------------|---------|---------|------------------------|-------------------|----------------------|
| 50 61012050-Cut | 2.7 | | 9 | 76 | 0 | Clearcut with Reserves | Regeneration | Aspen |

Rev Cmnt: This small stand would be best harvested along with an existing sale area to the southwest in compartment 18 (YOE 2007) for efficiency and access purposes. This stand could be added as supplemental timber to that sale. Consequently, the start date has been moved up to 10/1/2007.

Rev Spec: Clearcut to a 2" diameter limit, retaining some individually marked hardwoods and aspen cavity trees.

Next Steps: Stand should regenerate sufficiently with aspen sprouts and maybe some mixed hardwood and white pine.

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|-----------------|-----|--|---|----|---|------------------------|--------------|-------|
| 54 61012054-Cut | 2.0 | | 9 | 65 | 0 | Clearcut with Reserves | Regeneration | Aspen |
|-----------------|-----|--|---|----|---|------------------------|--------------|-------|

Rev Cmnt: Treatment area excludes the south part of the stand along an intermittent drainage. Excluded area will contribute to retention needs for the stand.

Rev Spec: Clearcut to a 2" diameter limit, retaining some individually marked hardwoods for habitat and aesthetics along the road. Slash should be pulled back from the road as much as possible, or chipped.

Next Steps: Stand should regenerate well with aspen sprouts, and maybe some hardwoods and red pine volunteers as well.

| | | | | | | | | |
|------------------------------|-----|-------------|---|---|---|-----------------------|---------------------|--|
| 15 NF_61012015- Hand Fell | 2.2 | Unspecified | 0 | 0 | 0 | Non-Forest Management | Opening Maintenance | |
|------------------------------|-----|-------------|---|---|---|-----------------------|---------------------|--|

Rev Cmnt:

Rev Spec: 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.

Next Steps:

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|------------------------------|------|-------------|---|---|---|-----------------------|--------------------|--|
| 16 NF_61012016- Hand Fell | 12.2 | Unspecified | 0 | 0 | 0 | Non-Forest Management | Habitat Management | |
|------------------------------|------|-------------|---|---|---|-----------------------|--------------------|--|

Rev Cmnt:

Rev Spec: Post completion of adjacent timber harvest, electively 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. Also, post completion of the adjacent timber harvest, white spruce will be planted within the uncut portion of stand 13 along the edge of NF stand 16.

Next Steps:

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|------------------------------|-----|-------------|---|---|---|-----------------------|--------------------|--|
| 17 NF_61012017- Hand Fell | 1.5 | Unspecified | 0 | 0 | 0 | Non-Forest Management | Habitat Management | |
|------------------------------|-----|-------------|---|---|---|-----------------------|--------------------|--|

Rev Cmnt:

Rev Spec: 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.

Next Steps:

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

Compartment: 012

Entry Yr: 2009

Date 02/13/2008



| Treatment Name | Acres | Stage1 CovType | Size Density | 1st Age | 2nd Age | Treatment Method | Treatment Purpose | Cover Type Objective |
|------------------------------|-------|----------------|--------------|---------|---------|-----------------------|--------------------|----------------------|
| 35 NF_61012035- Hand Fell | 3.2 | Unspecified | 0 | 0 | 0 | Non-Forest Management | Habitat Management | |

Rev
Cmnt:

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

Next
Steps:

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|------------------------------|-----|-------------|---|---|---|-----------------------|--------------------|--|
| 48 NF_61012048- Hand Fell | 2.0 | Unspecified | 0 | 0 | 0 | Non-Forest Management | Habitat Management | |
|------------------------------|-----|-------------|---|---|---|-----------------------|--------------------|--|

Rev
Cmnt:

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

Next
Steps:

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|------------------------------|-----|-------------|---|---|---|-----------------------|--------------------|--|
| 55 NF_61012055- Hand Fell | 1.4 | Unspecified | 0 | 0 | 0 | Non-Forest Management | Habitat Management | |
|------------------------------|-----|-------------|---|---|---|-----------------------|--------------------|--|

Rev
Cmnt:

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

Next
Steps:

**Total Treatment
Acreage Proposed: 190.6**

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**

Compartment: 012 Entry Yr: 2009
Date 02/13/2008



| Treatment Name | Acres | Stage1 CovType | Size Density | 1st Age | 2nd Age | Treatment Method | Treatment Purpose | Cover Type Objective |
|----------------|-------|----------------|--------------|---------|---------|------------------|-------------------|----------------------|
|----------------|-------|----------------|--------------|---------|---------|------------------|-------------------|----------------------|

Limiting Factor
and Comment:

Rev
Cmnt:

Rev
Spec:

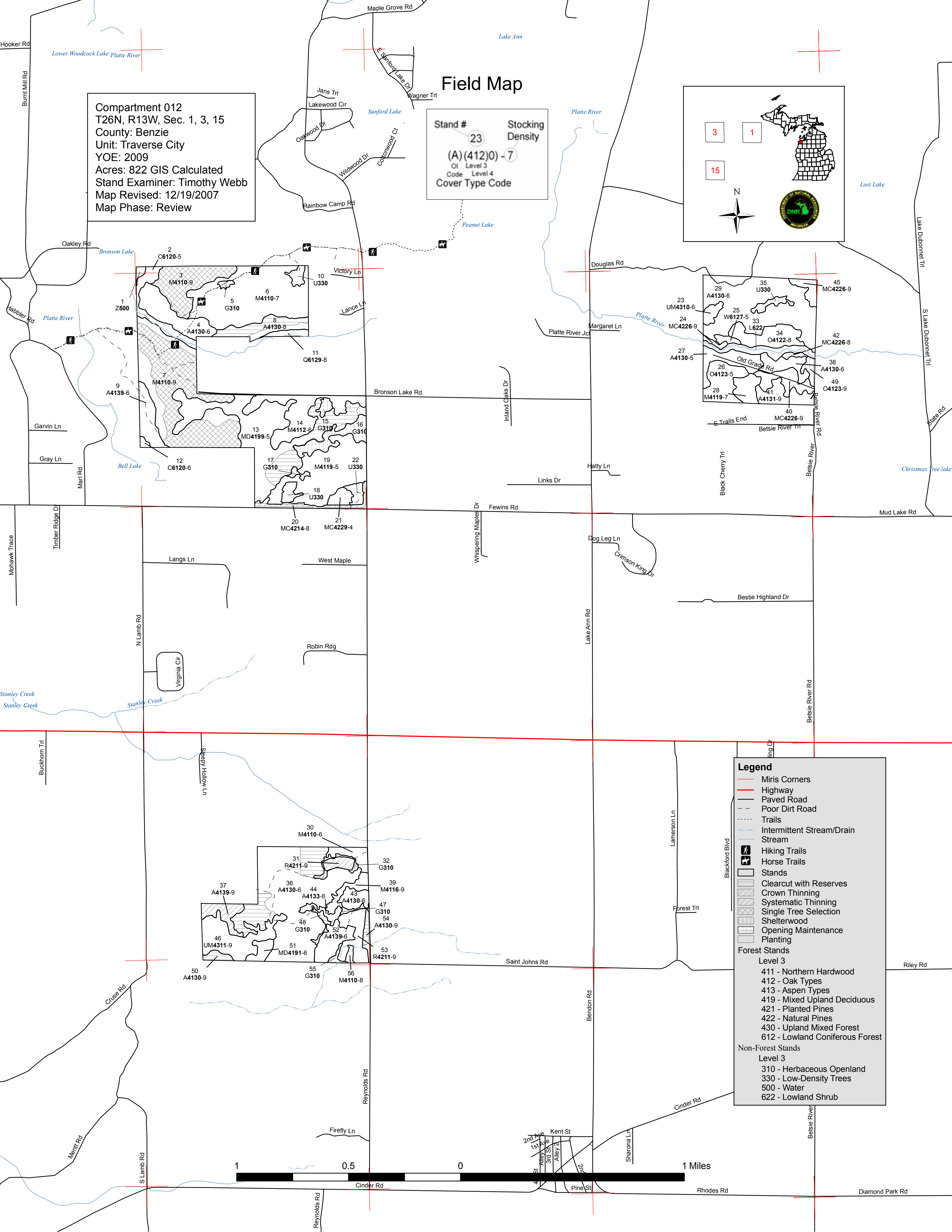
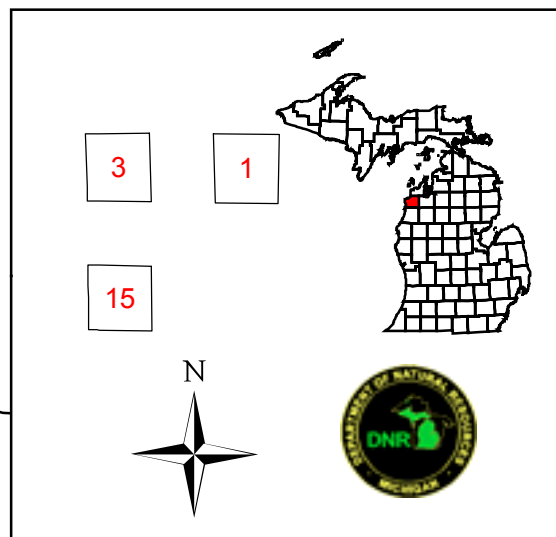
Next
Steps:

**Total Treatment
Acreage Proposed: 0**

Field Map

Compartment 012
 T26N, R13W, Sec. 1, 3, 15
 County: Benzie
 Unit: Traverse City
 YO: 2009
 Acres: 822 GIS Calculated
 Stand Examiner: Timothy Webb
 Map Revised: 12/19/2007
 Map Phase: Review

Stand # 23
 Stocking Density
 (A) (412)0 - 7
 OI Level 3
 Code Level 4
 Cover Type Code



Legend

- Miris Corners
- Highway
- Paved Road
- Poor Dirt Road
- Trails
- Intermittent Stream/Drain
- Stream
- Hiking Trails
- Horse Trails
- Stands
- Clearcut with Reserves
- Crown Thinning
- Systematic Thinning
- Single Tree Selection
- Shelterwood
- Opening Maintenance
- Planting

Forest Stands

Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub

