



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

COMPARTMENT # 39 ENTRY YEAR: 2009

Compartment Acreage: 2464 County: Manistee

Stand Examiner: Scott Lint

Legal Description: T23N, R13W, Sections 6, 7
T23N, R14W, Sections 1, 2, 3, 4, 7, 9, 10, 12, 15, 16
T22N, R14W, Section 18

Management Goals: Mixed Use

Soil and Topography: The terrain in this compartment is flat. The eastern part of the compartment falls into Land Type Association 6149 characterized as a flat lake plain with very poorly drained soils (muck). The western part of the compartment is in LTA 6111, a broad flat lake plain with excessively drained sand and loamy sand. The only exception is the Bear Creek block west of Brethren. This block of land has dramatic topography with changes in elevation of approximately 180 feet between the river bed and the top of the ridges to the west.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is on the southern edge of a large block of state owned land. State land is contiguous to the north. Private ownership borders the compartment on the east, south, and west. Private lands are predominantly rural residential and seasonal recreational along with a few agricultural properties. Residential development in this area remains sparse with little change since last entry period. The Village of Kaleva is just south of the compartment.

The Bear Creek block is surrounded by private property except for on the south which borders USDA Forest Service land. The Spirit of the Woods Conservation Club is located on the NWNE of section 18 just north of state ownership.

Unique, Natural: Lemon Lake is located within the compartment. Lemon Creek, Cedar Creek, Big Beaver Creek, and Bear Creek flow through the compartment. There is a Michigan Natural Features Inventory (MNFI) identified example of a Southern Swamp Community in sections 10 and 15.

Archeological, Historical, and Cultural: none known.

Special Management Designations or Considerations: Special Conservation Areas (SCA) for Northern Swamp Community in sections 10 and 15, nominated SCA of a deeryard in section 15, and a nominated SCA for the steep riparian areas in the Bear Creek Valley area of section 18, T22N, R14W.

Watershed and Fisheries Considerations: Bear Creek, Lemon Creek, Cedar Creek, and Beaver Creek flow through Compartment 39. Lemon Lake is also located within the compartment. The streams in this compartment are all Designated Trout Streams, with naturally reproducing populations of Chinook salmon, coho salmon, brown trout, steelhead, and brook trout. Bear Creek is very heavily fished, particularly for salmon and steelhead. Lemon Lake provides fishing opportunities for largemouth bass, northern pike, bluegill, and yellow perch. A goal for this compartment should be to add riparian frontage along Bear Creek, for watershed protection purposes, as well as to provide better access to Bear Creek for anglers, canoeists, kayakers, etc. There is currently very little access to the “middle” portion of Bear Creek. The small parcel in section 7 might be improved into a better access site, although it is primarily wetland.

Wildlife Habitat Considerations: The northwest portion of this compartment is underlain by excessively drained sandy soils. Pine plantations cover a large percentage of this area. Hardwoods, oak, aspen, shrubs, etc., should be encouraged within these plantations for diversity. When possible, a 2-5 acre island within a mature plantation could be left relatively un-thinned to provide winter roosting cover for turkeys. Aspen stands are found within the compartment and should be managed to provide a variety of age classes. Retention of mast/bud producing trees/shrubs, creation of downed logs during harvest operations, and leaving tops un-chipped are excellent ways to increase wildlife use of regenerating aspen. Several cuts are planned to regenerate aspen needed by many wildlife species, including snowshoe hare, ruffed grouse, deer, woodcock, chestnut-sided warblers, and tiger salamanders. Several hardwood stands also provide diversity amongst the pine plantations. Hardwood treatments are 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. Species benefiting from hardwood forests include northern goshawk, wild turkey, gray squirrels, and eastern box turtles.

The poorly drained soils on the east end support several lowland communities, mostly lowland deciduous forests. Lowland coniferous and brush communities are scattered about the deciduous forests. Great blue herons, deer, wood ducks, red-shouldered hawks, black bear, and wood frogs are just several of the many species that use bottomland forests. Inclusions of drier soils can also be found here and several aspen cuts are planned to produce horizontal cover and browse from downed tops, as well as browse and cover from the flush of regenerating aspen stems. Coniferous components (spruce and fir) within these cuts will be retained for additional wildlife cover. Several land locked parcels have been nominated as SCAs and should be retained in State ownership based on the presence of a valuable deer yard and the fact that MNFI has identified an example of a Southern Swamp community.

Several small forest openings are scattered about this compartment and should be maintained as a source of diversity and forage base among the plantations and forested types. Most of these openings are abandoned well sites and have sandy sterile soils in need of revegetating. Projects scheduled for this entry period, including, selective felling both to retain openings and to encourage aspen to reclaim badly degraded sites; and planting, mowing and fertilizing of grassy openings. Future timber treatments should be utilized to expand grass-shrubland habitat. Non-forested habitats provide essential life requirements for a variety of wildlife in the form of food (herbaceous forage, fruiting shrubs, insects, small mammals, etc.) and cover (clumps of shrubs, tall grasses and ferns, brushy edges, etc.). Turkey, deer, eastern bluebirds, meadow jumping mice, and smooth green snakes are just a sample of the many species that use these openings.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine sand and gravel. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Devonian Ellsworth Shale. The Ellsworth is used for cement products. The nearest gravel pit is located two miles to the west and there may be some potential. 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: Resource Damage Reports (RDR) have been filed for the Bear Creek block. Road east of the creek is in need of repair. Serious rutting and ponding/pooling of water is occurring. This road gets significant amount of use by fisherman accessing the river and also appears to be used by campers or hunters along the ridge above the river.

Survey Needs: none at this time.

Recreational Facilities and Opportunities: There is an unimproved access site at Lemon Lake. There is also access to Bear Creek in section 18 by an unimproved two track. Both of these sites have been reported on Resource Damage Reports and both are in need of improvements. The railroad grade running through sections 3, 9, 10, & 16 is now being used as dedicated snowmobile trail.

Fire Protection: This compartment consists of mixed ownership of state and private, with several small state land blocks of land. Travel time from the Platte River Field Office make it possible for fires to grow some in size, but cover type is such that catastrophic fire is not a real concern. There are scattered homes within the private land, but no real urban interface concerns. VFD is from the Maple Grove VFD.

Additional Compartment Information: none.

**** 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

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective
4 61039004-Cut	6.7		6	47	0	Crown Thinning	Intermediate Cut	Planted Red Pine

Rev
Cmnt:

Rev second thinning

Spec:

Next

Steps:

6 61039006-Cut	35.8		9	56	0	Crown Thinning	Intermediate Cut	Planted Red Pine
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Rev
Cmnt:

Rev marked thinning, remove jack pine and lower quality red pine

Spec:

Next

Steps:

8 61039008-Cut	4.1		5	73	0	Clearcut with Reserves	Habitat Management	Aspen, Mixed Deciduous
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Rev
Cmnt: This cut should encourage deciduous component to expand into adjacent degraded well site and surrounding pine plantation. Will also provide for some early successional deciduous component on the moist soils of this small wetland inclusion. Due to the small acreage of this treatment the retention guidelines should be waived. However, some residual will remain surrounding the vernal pond.

Rev Harvest quaking aspen and red maple with surrounding timber sale. Do not cut any oak. Be careful to buffer/protect vernal pond.

Spec:

Next

Steps: Regeneration survey and possible addition of wetland shrub planting.

10 61039010-Cut	66.6		9	57	0	Clearcut	Regeneration	Planted Red Pine
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Rev
Cmnt:

Rev Clear cut and replant to red pine. No retention.

Spec:

Next

Steps:

13 61039013-Cut	30.3		9	58	0	Crown Thinning	Intermediate Cut	Planted Red Pine
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Rev
Cmnt:

Rev marked thinning

Spec:

Next

Steps:

14 61039014-Cut	30.6		6	47	0	Crown Thinning	Intermediate Cut	Planted Red Pine
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Rev
Cmnt:

Rev second thinning

Spec:

Next

Steps:

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

Compartment: 039

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
15 61039015-Cut	9.5		6	73	0	Crown Thinning	Intermediate Cut	Maple, Beech, Cherry Association

Rev
Cmnt:

Rev Thin to release good quality red maple. Retain minor species (sugar maple, black cherry, white ash, and elm).
Spec:

Next
Steps:

22 61039022-Cut	1.1		5	53	0	Clearcut with Reserves	Habitat Management	Aspen, Mixed Deciduous
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Rev This cut should encourage deciduous component to expand into adjacent degraded well site and surrounding pine plantation. Will also provide for some early successional deciduous component on the moist soils of this small wetland inclusion. Due to the small acreage of this treatment the retention guidelines should be waived. However, some residual will remain surrounding the vernal pond.
Cmnt:

Rev Harvest quaking aspen and red maple with surrounding timber sale. Do not cut any yellow birch. Be careful to buffer/protect vernal pond.
Spec:

Next Regeneration survey and possible addition of wetland shrub planting.
Steps:

24 61039024-Cut	7.8		6	47	0	Shelter Wood with Reserves	Regeneration	Planted Red Pine
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Rev --Scott Lint : 01/02/2008 comments:
Cmnt:

Stand was coded improperly prior to review. Comments describe a shelterwood treatment, but stand was coded for a thinning. Coding changed after to review to reflect original intent of described treatment.

Rev WLD desired this stand to be clear cut last entry period and converted to hardwood (this was not done). Shelterwood cut to encourage hardwood regeneration. No advanced regeneration present at this time. Combine with adjacent treatment in stand 33.
Spec:

Next
Steps:

27 61039027-Cut	16.2		6	46	0	Crown Thinning	Intermediate Cut	Planted Red Pine
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Rev
Cmnt:

Rev second thinning
Spec:

Next
Steps:

28 61039028-Cut	2.8		5	54	0	Clearcut with Reserves	Habitat Management	Aspen, Mixed Deciduous
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Rev This cut should encourage deciduous component to expand into adjacent degraded well site and surrounding pine plantation. Will also provide for some early successional deciduous component on the moist soils of this small wetland inclusion. Due to the small acreage of this treatment the retention guidelines should be waived. However, some residual will remain surrounding the vernal pond.
Cmnt:

Rev Harvest quaking aspen and red maple with surrounding timber sale. Do not cut any oak. Be careful to buffer/protect vernal pond.
Spec:

Next Regeneration survey and possible addition of wetland shrub planting.
Steps:

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective
29 61039029-Cut	16.6		6	46	0	Crown Thinning	Intermediate Cut	Planted Red Pine

Rev
Cmnt:
Rev second thinning
Spec:
Next
Steps:

31 61039031-Cut	7.4		6	46	0	Crown Thinning	Intermediate Cut	Planted Red Pine
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Rev
Cmnt:
Rev second thinning
Spec:
Next
Steps:

33 61039033-Cut	41.4		9	57	0	Seed Tree with Reserves	Regeneration	Planted Red Pine
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Rev
Cmnt:
Rev Reserve some areas around the vernal pond, and mark strategic leave trees for visual management.
Spec:
Next replant red pine if natural regeneration is unsuccessful
Steps:

41 61039041-Cut	12.4		6	46	0	Crown Thinning	Intermediate Cut	Planted Red Pine
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Rev
Cmnt:
Rev second thinning
Spec:
Next
Steps:

42 61039042-Cut	1.5		9	90	0	Clearcut	Habitat Management	Aspen
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Rev
Cmnt:
Rev small habitat cut, combine with commercial red pine thinning of stand 41
Spec:
Next
Steps:

65 61039065-Cut	15.2		6	47	0	Crown Thinning	Intermediate Cut	Planted Red Pine
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Rev
Cmnt:
Rev second thinning
Spec:
Next
Steps:

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

Compartment: 039

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
9 NF_61039009-Harvest	2.5	Unspecified	0	0	0	Non-Forest Management	Habitat Management	

Rev
Cmnt:

Rev Small wetland type on N edge. Healy Lake Rd is about 3 chains to west. Surrounded by red pine stand. Easy access. Could cut aspen at north end to
Spec: expand aspen into opening to encourage deciduous compenent within larger pine plantation.

Next
Steps:

11 NF_61039011-Revegetate	1.5	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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Rev
Cmnt:

Rev Old oil well pad. Not bad for an old well pad. Could encourage existing grasses with fertilizer, seeding, and/or weed treatment.

Spec:

Next
Steps:

30 NF_61039030-Harvest	2.2	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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Rev
Cmnt:

Rev Harvest trees via adjacent pine thinnings. Mark trees to leave (i.e. BC, AB). Bracken provides some cover but there is no veg for forage.

Spec:

Next
Steps:

**Total Treatment
Acreage Proposed: 311.9**

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**

Compartment: 039 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
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Limiting Factor
and Comment:

Rev
Cmnt:

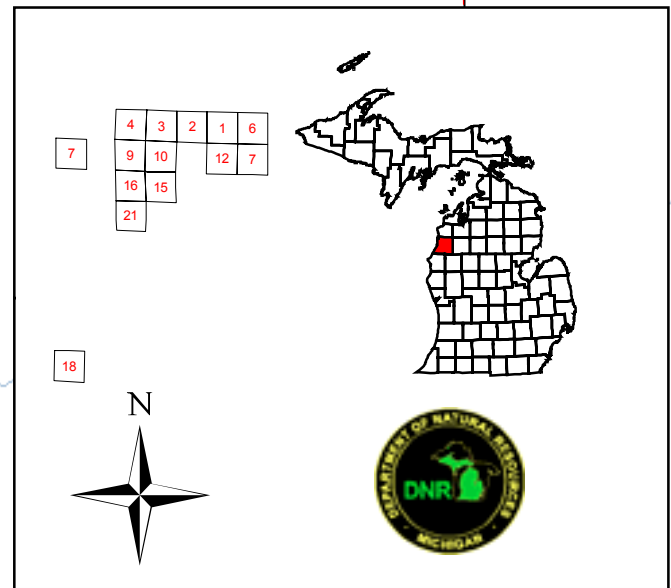
Rev
Spec:

Next
Steps:

**Total Treatment
Acreage Proposed: 0**

Field Map

Compartment 039
 T23N, R14W, Sec. 1-4, 7, 9, 10, 12, 15, 16, 21
 T23N, R13W, Sec. 6, 7
 T22N, R14W, Sec. 18
 County: Manistee
 Unit: Traverse City
 YOE: 2009
 Acres: 2,464 GIS Calculated
 Stand Examiner: Scott Lint
 Map Revised: 12/19/2007
 Map Phase: Pre-review



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

Legend

- Miris Corners
 - Interstate/Limited Access Hwy.
 - State/Federal Highway
 - Paved Road
 - ▬ Gravel Road
 - - - Poor Dirt Road
 - ⋯ Intermittent Stream/Drain
 - Stream
 - ▭ Lakes and Rivers
 - ▭ Stands
 - ▨ SCA - Special Conservation Area
 - ▨ Clearcut
 - ▨ Clearcut with Reserves
 - ▨ Single Tree Selection
 - ▨ Crown Thinning
 - ▨ Seed Tree with Reserves
 - ▨ Opening Maintenance
 - ▨ Other Treatment - See Comments
- 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
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 110 - Low Intensity Urban
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 710 - Sand, Soil
 - 790 - Other Bare/Sparsely Vegetated

