



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

**COMPARTMENT # 28 ENTRY YEAR: 2009**

**Compartment Acreage: 1,846      County: Benzie**

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**Revision Date:** 10/24/07

**Stand Examiner:** Craig Allen

**Legal Description:** T25N- R14W; Sections 19, 20, 29, 30  
Political Township: Weldon

**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 will be maintained.

**Soil and Topography:** Section 29 is level terrain. The terrain in the other sections are gently rolling with the exception of the valleys created by the Betsie River and Dair Creek. Some steeper slopes can be found along both drainages. The soil types in this area include Roscommon sands, Kalkaska sands and loams.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Ownership around the compartment is mostly state to the north and south, mixed ownership to the east and private to the west. There is little new development to the north, west, and south. However, Crystal Mountain Resort is located directly adjacent to the east edge of section 29 and is an expanding recreational facility with associated housing and subdivisions.

**Unique, Natural Features:** The Betsie River and Dair Creek flow through the 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. There are numerous springs and feeder streams in forest stands which border the Betsie River in section 30.

**Archeological, Historical, and Cultural Features:** Dair Creek pond dam was located on Dair Mill road where the creek empties into the Betsie River. The dam was originally built in 1943 and washed out in the 1980's. The site is on private property.

**Special Management Designations or Considerations:** Management for long-lived forest vegetation will continue to be a priority along the Betsie River. Visual management is particularly important along the Betsie River Pathway and along the M-115 travel corridor. Other management considerations involve all proposed treatments (see attached).

**Watershed and Fisheries Considerations:** The Betsie River and Dair Creek flow through Compartment 28. 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. Dair Creek is much colder than the mainstem of the Betsie River, and it provides coldwater habitat that is rare in the Betsie River watershed. Dair Creek supports naturally reproducing populations of steelhead, coho salmon, brown trout, and brook trout. In any operations near the Betsie River, Natural Rivers buffers and BMPs should be adhered to. The Natural Rivers plan calls for a buffer of 100' on the Betsie River and Dair Creek. Beaver Dams on the lower end of Dair Creek would be extremely undesirable, as it would result in a loss of access to spawning habitat for migratory steelhead, salmon, and brown trout from the Betsie River, and also because it would elevate the water temperature of Dair Creek. This portion of Dair Creek has been heavily impacted by beavers in the past, and is still in the recovery stage.

**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 formed by and are dependant on wildfire; however 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.

This compartment also has a history of aspen cutting. Such early successional management on these fire prone soils is appropriate. Additional aspen cuts have been scheduled in order to increase age class diversity. 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 unthinned within mature stands to provide winter roosting cover for turkeys. Deciduous species should be encouraged within conifer plantations for diversity.

Most openings here are a result of timber activity or are old orchards that have reverted to State ownership. Openings are an integral part of this fire prone landscape. Various opening maintenance projects have been proposed including pruning old orchards, mowing, 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. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Devonian Ellsworth Shale, used for cement products. A gravel pit is located two miles to the southeast and there could be some potential. This area is located just north of the Niagaran reef trend and is in an area of Antrim Shale leasing. There has not been development in this area yet. All of the State mineral rights in the Compartment are leased for oil and gas development. (Tom Hoane, DNR Geologist, 6/14/07).

**Vehicle Access:** There are many gravel and seasonal county roads throughout the compartment within this area offering good and easy 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 no survey needs in this compartment.

**Recreational Facilities and Opportunities:** The Betsie River Pathway runs through sections 29 and 30. The pathway is used for hiking, biking, and cross-country skiing. Hunting, fishing, canoeing/kayaking and dispersed camping are popular recreational activities throughout the compartment.

**Fire Protection:** This area has wildfire protection by Thompsonville Fire Dept., and the DNR Platte River Field Office. Access is acceptable in this compartment. The majority of this compartment is a hardwood type, so the opportunity for a large fire is minimal. Urban Interface is not a major concern.

**Additional Compartment Information:** none.

➤ **Lands recommended for disposal:** There are no lands within the compartment recommended for disposal.

➤ **Lands recommended for acquisition:** Any private lands that lie within the compartment would be considered for acquisition if the opportunity became available. Also, the large block of private ownership in the NE of section 20 would greatly help to fill-in state ownership between compartments 28, 27 and 29 thereby making land management easier, providing better access and allowing more contiguous land area for Public enjoyment and use.

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

- ◆ **Base feature information, stand numbers, cover types**
- ◆ **Proposed treatments**



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Traverse City Mgt. Unit  
Inventory Method: IFMAP

**PROPOSED TREATMENTS  
NO LIMITING FACTORS**

Compartment: 028

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
7 61028007-Cut	32.9		9	80	0	Single Tree Selection	Intermediate Cut	Sugar Maple Association

Rev  
Cmnt:

Rev --Stephen Griffith : 11/17/2007 comments: Create some coarse woody debris (CWD) in areas of the stand where little or none currently exist, during  
Spec: harvest operations. Can be cull lengths, tops of significant volume, or whole unmerchantable trees.

Mark down to residual BA of approx. 80 to 90.  
Follow compleat marker guidelines.

Next  
Steps:

14 61028014-Cut	23.9		9	60	0	Group Selection	Regeneration	Mixed N. Hardwood - Aspen
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Rev Retention areas to be left around the springs/drainages.  
Cmnt:

Rev --Stephen Griffith : 11/17/2007 comments: Create some coarse woody debris (CWD) in areas of the stand where little or none currently exist, during  
Spec: harvest operations. Can be cull lengths, tops of significant volume, or whole unmerchantable trees. Including in areas of aspen patch cuts.

Majority of stand select mark for northern hardwood types down to residual BA of approximately 70 to 90. Group select cut areas where aspen concentrations are highest to regenerate aspen.

Next Anticipate mix of aspen and maple regeneration in aspen areas of stand. Other areas expect mix of maple, beech, ironwood as acceptable.  
Steps:

25 61028025-Habitat Cuts_1	0.5	6120 - Lowland Cedar	6	77	0	Other	Habitat Management	
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Rev  
Cmnt:

Rev 1-3 habitat cuts ranging from 1/3 to 1/2 acre and irregular in shape to be placed outside of 100' buffer of Dair Creek. Hand fell aspen and red maple and  
Spec: any declining tag alder. Do not cut any conifers.

Next  
Steps:

25 61028025-Habitat Cuts_2	0.3	6120 - Lowland Cedar	6	77	0	Other	Habitat Management	
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Rev  
Cmnt:

Rev 1-3 habitat cuts ranging from 1/3 to 1/2 acre and irregular in shape to be placed outside of 100' buffer of Dair Creek. Hand fell aspen and red maple and  
Spec: any declining tag alder. Do not cut any conifers.

Next  
Steps:

25 61028025-Habitat Cuts_3	0.3	6120 - Lowland Cedar	6	77	0	Other	Habitat Management	
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Rev  
Cmnt:

Rev 1-3 habitat cuts ranging from 1/3 to 1/2 acre and irregular in shape to be placed outside of 100' buffer of Dair Creek. Hand fell aspen and red maple and  
Spec: any declining tag alder. Do not cut any conifers.

Next  
Steps:

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Traverse City Mgt. Unit  
Inventory Method: IFMAP

**PROPOSED TREATMENTS  
NO LIMITING FACTORS**

Compartment: 028 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
28 61028028-Cut	44.9		9	57	0	Clearcut with Reserves	Regeneration	Aspen

Rev Leave a couple no cut retention islands within sale boundary  
Cmnt: Per agreement in Review: Leave a minimum of 100' buffer between creek and sale boundary along entire length of Dair Creek. Run sale boundary along top of topography break maintaining a minimum of 100' of buffer. In areas where topography break is 100' or less from creek and there is no conifer component, then add on an additional 25-50 foot buffer.

Rev --Stephen Griffith : 11/17/2007 comments: Create some (approximately 1-2 trees per acre) coarse woody debris (CWD) during harvest operations, preferably via timber sale specs. 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 it's stump.

Clearcut area primarily for aspen regeneration. Retain some sugar maple, cherry, beech, birch, and all conifers. Kee

Next Steps: Majority of regeneration expected to be aspen. A mix of aspen, maple, cherry, is acceptable.

36 61028036-Cut	20.4		9	75	0	Single Tree Selection	Intermediate Cut	Maple, Beech, Cherry Association
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Rev  
Cmnt:

Rev --Stephen Griffith : 11/17/2007 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.

Select mark stand to residual BA of approximately 70 to 90. Follow compleat marker guidelines.

Next Steps:

40 61028040-Hand Fell	6.7	4110 - Sugar Maple Association	4	70	0	Non-Forest Management	Habitat Management	
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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. Pile slash along edge for small mammal cover.

Next Steps:

72 61028072-Cut	21.7		6	44	0	Systematic Thinning	Intermediate Cut	Planted Red Pine, Mixed Deciduous
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Rev Thinning of red pine plantation, so no retention needed at this time.  
Cmnt:

Rev Possibly row thin red pine plantation, but may have to mix with select marking of pine and hardwoods in order to facilitate access due to thick hardwood subcanopy.  
Spec:

Next Steps:

83 61028083-Cut	77.6		6	44	0	Systematic Thinning	Intermediate Cut	Planted Red Pine
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Rev No retention needed at this time due to thinning of a pine plantation.  
Cmnt:

Rev This would be first thinning of this plantation. Thin by removal of every third row.  
Spec:

Next 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
11 NF_61028011-Mowing	4.9	Unspecified	0	0	0	Non-Forest Management	Habitat Management	

Rev  
Cmnt:

Rev Periodically top dress and mow to stimulate and maintain existing grass cover. Be sure to get soil sample(s).  
Spec:

Next  
Steps:

18 NF_61028018-Prune Apples	25.4	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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Rev  
Cmnt:

Rev Prune remnant apple trees.  
Spec:

Next  
Steps:

19 NF_61028019-Hand Fell	1.4	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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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. Pile slash for small mammal cover.

Next  
Steps:

33 NF_61028033-Hand Fell	2.7	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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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. Pile slash for small mammal cover.

Next  
Steps:

38 NF_61028038-Hand Fell	2.2	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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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. Pile slash for small mammal cover.

Next  
Steps:

50 NF_61028050-Prune Apples	74.0	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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Rev  
Cmnt:

Rev Prune remnant apple trees.  
Spec:

Next  
Steps:

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Traverse City Mgt. Unit  
Inventory Method: IFMAP

**PROPOSED TREATMENTS  
NO LIMITING FACTORS**

Compartment: 028

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
55 NF_61028055- Prune Apples	25.6	Unspecified	0	0	0	Non-Forest Management	Habitat Management	

Rev  
Cmnt:

Rev Prune remnant apple trees.  
Spec:

Next  
Steps:

57 NF_61028057- Plant	13.0	Unspecified	0	0	0	Hand Plant	Regeneration	
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Rev plant red pine  
Cmnt:

Rev --Stephen Griffith : 11/17/2007 comments: Retain as much as possible, if not all of existing deciduous trees to provide diversity.  
Spec: Trench and plant red pine. May have to cut or remove some of the existing hardwoods to facilitate planting.

Next  
Steps:

57 NF_61028057- Prune Apples	15.2	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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Rev  
Cmnt:

Rev Prune remnant apple trees.  
Spec:

Next  
Steps:

62 NF_61028062- Hand Fell	2.6	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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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. Pile slash for small mammal cover.

Next  
Steps:

70 NF_61028070- Plant	9.8	Unspecified	0	0	0	Hand Plant	Regeneration	
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Rev  
Cmnt:

Rev --Stephen Griffith : 11/17/2007 comments: Retain as much as possible, if not all of existing deciduous trees to provide diversity.  
Spec: Plant this opening to red pine. May have to cut a few of the existing cherry trees to facilitate planting.

Next  
Steps:

75 NF_61028075- Hand Fell	3.3	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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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. Pile slash for small mammal cover.

Next  
Steps:

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Traverse City Mgt. Unit  
Inventory Method: IFMAP

**PROPOSED TREATMENTS  
NO LIMITING FACTORS**

Compartment: 028

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
<b>76 NF_61028076-WSG</b>	19.6	Unspecified	0	0	0	Non-Forest Management	Habitat Management	

Rev This stand is only a short distance from M-115.  
Cmnt:

Rev Consider native WSG planting leaving all woody vegetation but seedlings. Could cut some patches of BC. Preserve sumac (which are currently  
Spec: seedlings) that are found mainly along two track.

Next  
Steps:

<b>86 NF_61028086-Hand Fell</b>	4.1	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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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. Maybe girdle some of the logs. Pile slash for small mammal cover. Possible planting of forage grasses in NW finger of stand.

Next  
Steps:

<b>88 NF_61028088-Hand Fell</b>	1.0	Unspecified	0	0	0	Non-Forest Management	Habitat Management	
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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. Pile slash for small mammal cover. Consider removing the skw/ls and adding grasses. This would be a 4x4 quad type food plot.

Next  
Steps:

**Total Treatment  
Acreage Proposed: 433.9**

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Traverse City Mgt. Unit  
Inventory Method: IFMAP

### PROPOSED TREATMENTS WITH LIMITING FACTORS

Compartment: 028      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:

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**Total Treatment Acreage Proposed:      0**

Compartment 28  
 T25N, R14W, Sec. 19, 20, 29, 30  
 County: Benzie  
 Unit: Traverse City  
 YOE: 2009  
 Acres: 1,846 GIS Calculated  
 Stand Examiner: Craig Allen  
 Map Revised: 12/17/2007  
 Map Phase: Pre-review

# Field Map

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

## Legend

- Miris Corners
  - Highway
  - Gravel Road
  - Poor Dirt Road
  - Trails
  - Intermittent Stream/Drain
  - Stream
  - State Highway
  - Hiking Trails
  - Stands
  - Clearcut with Reserves
  - Systematic Thinning
  - Single Tree Selection
  - Group Selection
  - Opening Maintenance
  - Other Treatment - See Comments
  - Planting
  - Mowing
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 421 - Planted Pines
  - 422 - Natural Pines
  - 423 - Other Upland Conifers
  - 429 - Mixed Upland Conifers
  - 431 - 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
  - 320 - Upland Shrub
  - 330 - Low-Density Trees
  - 622 - Lowland Shrub

**Multi-Part Stands**  
 Stand 1, 2 Parts, Split by stand 2  
 Stand 16, 2 Parts, Split by stand 5  
 Stand 39, 2 Parts, Split by private area  
 Stand 41, 2 Parts, Split by private area  
 Stand 42, 7 Parts, Alternating Jack Pine/Red Pine  
 Stand 52, 3 Parts, Contained within stand 55  
 Stand 55, 3 Parts, Split by stand 44 and 65  
 Stand 58, 2 Parts, Split by stand 39  
 Stand 72, 3 Parts, Split by stand 72  
 Stand 78, 3 Parts, Split by stand 39 and 41  
 Stand 81, 3 Parts, Split by stand 80  
 Stand 82, 2 Parts, Contained within stand 83  
 Stand 84, 2 Parts, Split by stand 41

