



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

COMPARTMENT # 25 ENTRY YEAR: 2011

Compartment Acreage: 1913 County: Benzie

Stand Examiner: Craig Allen

Legal Description: T25N- R14W; Sections 3, 10, 15

Management Goals: Past management plans (The Pere Marquette State Forest Management Plan, now expired) identified this area as a part of a larger resource unit primarily designated towards intensive timber management. A variety of forest cover types and age classes will be maintained. There are large stands dominated by aspen in this compartment in the 40 to 60 age class range. An effort to begin staggering these age classes by harvesting various locations was started 10 years ago and we will continue with this effort. Jack pine grows very poorly in this area often dying out early or growing in poor form and/or stunted growth. There are two large pine plantations within this compartment containing all or a portion of jack pine. These areas will be final harvested to replant to red pine. Red pine in this area grows extremely well and is a preferred plantation species in this region. This will also help the state's "red pine project" by getting new plantations of red pine started to help balance out the age class distribution of red pine throughout the state.

Soil and Topography: The terrain is mostly level, except for some steep slopes along Dair Creek in the northwest portion of section 15. The soils in the area are mostly Kalkaska- Rubicon association with Roscommon-AuGres-Croswell association in the low areas around Dair Creek.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is entirely state owned except for the S1/2 of the SW ¼ of section 15. The areas bordering the compartment are approximately 60% state owned, being part of a fairly solid block of state ownership. Pioneer Road borders the west side of the compartment and is the only paved road within the compartment.

Unique, Natural Features: Dair Creek flows through this compartment and is a tributary to the Betsie River. The Betsie River is a designated Michigan Natural River system. The designation begins at the Grass Lake Dam, then extends downstream to its mouth at Betsie Lake in Frankfort and includes all tributaries.

Archeological, Historical, and Cultural Features: The old Ann Arbor railroad grade runs through section 15, and southeast corner of section 10. This grade is now used as non-motorized riding and hiking trail called the Betsie Valley Trail. It is also used for snowmobiling (it's only authorized motorized use) during the winter months.

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 Dair creek should reference the Betsie River Natural River Plan for guidance and consideration.

Watershed and Fisheries Considerations: (Comments pending by Mark Tonello, DNR Fisheries Biologist, Cadillac, OSC).

Wildlife Habitat Considerations: Maintain a mosaic of forest in various successional stages, including openings and young aspen-dominated stands, as well as some mid-successional stands where white pine and red maple are allowed to succeed aspen. Later successional stages should be present in maple-beech stands with a component of older white pine. Dair Creek bottomlands should be maintained in cedar-hemlock dominated forest. Several of these lowland conifer stands provide valuable wintering habitat for deer. Pine plantations should be managed to maintain or create a hardwood component. Also, treatments 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. Some bush hogging, seeding of grasses/forbs appropriate for forage, and hand felling of trees, and planting of fruiting shrubs is appropriate to maintain value of openings for grassland and forest-edge wildlife. Future management of grasslands should utilize prescribed burning to set back woody encroachment, increase species diversity, stimulate herbaceous vegetation, promote berry production, and recycle nutrients. Specifications for down logs should be included in all aspen harvests to create drumming logs for ruffed grouse and habitat for small mammals and herps in regenerating stands. Species associated with aspen-white pine-hardwoods associations and intervening grassy/brushy openings include but are not limited to white-tailed deer, hog-nosed snake, ruffed grouse, pileated woodpecker, hermit thrush, chestnut-sided warbler, coyote, wild turkey, gray catbird, and broad-winged hawk. (Comments by Wildlife Division, Traverse City F.O.)

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 600 and 800 feet. Beneath the glacial drift is the Devonian Ellsworth Shale, used for cement products. A gravel pit is located 3.5 miles to the east, but there may be potential on the uplands. This area is located north of the Niagaran reef trend and is in an area of Antrim Shale leasing. Part of Section 15 is included in an Antrim UA. 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, Lansing office)

Note: There is currently a proposed Antrim gas development project which may involve several new well sites and connecting pipelines within the compartment and the surrounding areas in the near future.

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 no known survey needs within this compartment at this time.

Recreational Facilities and Opportunities: The Betsie Valley Trail runs through the compartment on the old railroad grade. The pathway has a nice gravel base and is used for hiking, biking, cross-country skiing and snowmobiling. The Platte River State Snowmobile trail also runs across the compartment. Hunting, fishing, and dispersed camping are other 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. Urban interface issues are not much of a concern in this compartment. The Cover types in the compartment do 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 25
 T25N, R14W, Sec. 3, 10, 15
 County: Benzie
 Unit: Traverse City
 YOE: 2011
 Acres: 1,913 GIS Calculated
 Stand Examiner: Craig Allen
 Map Revised: 5/27/2009
 Map Phase: Pre-Review

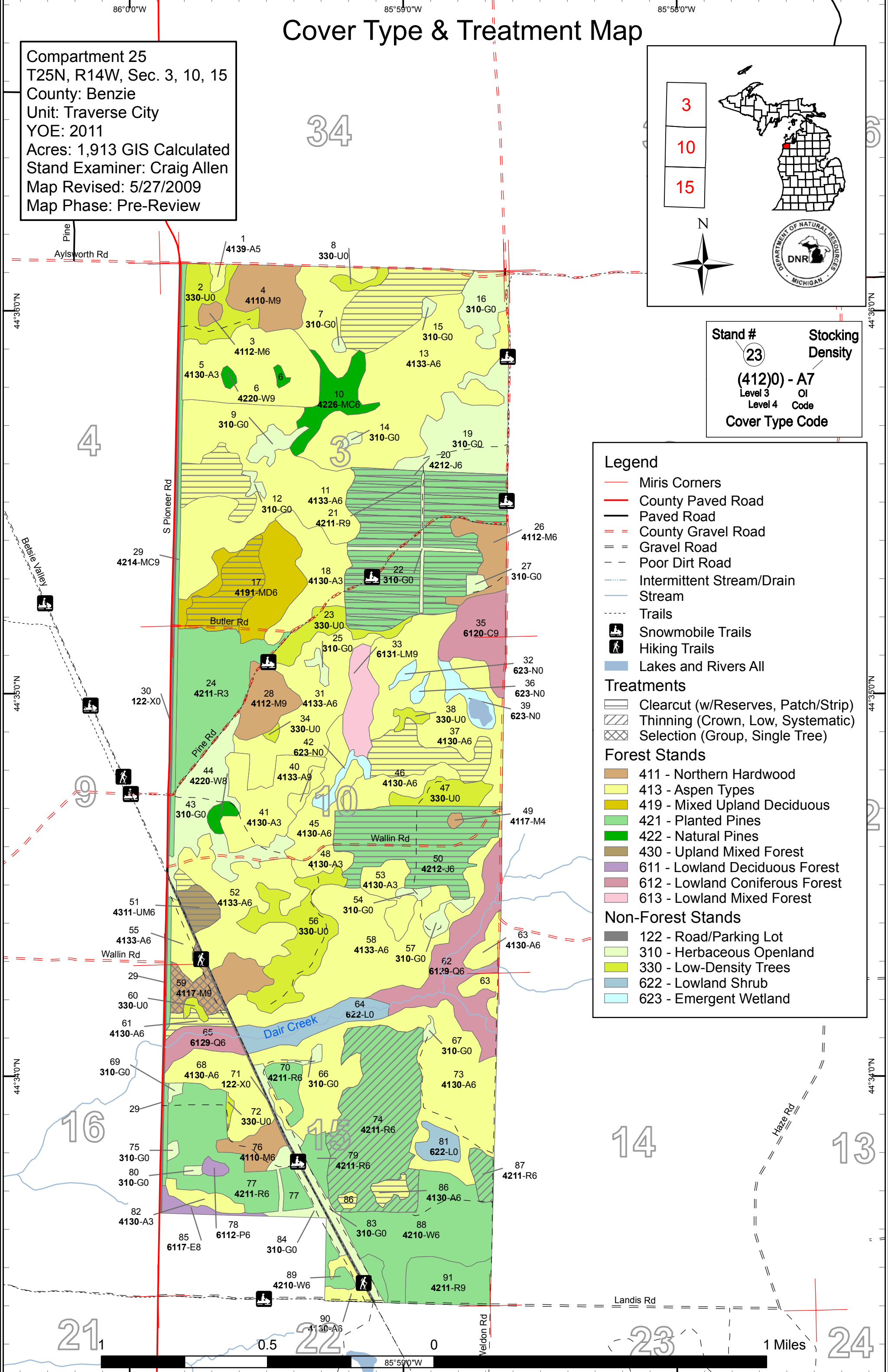
3
 10
 15



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

Legend

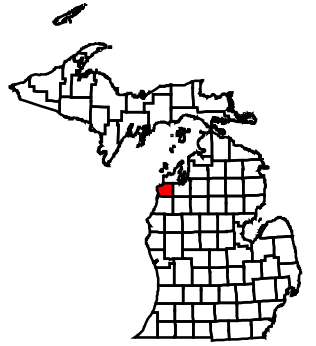
- Miris Corners
 - County Paved Road
 - Paved Road
 - - County Gravel Road
 - - Gravel Road
 - - - Poor Dirt Road
 - Intermittent Stream/Drain
 - Stream
 - - - Trails
 - Snowmobile Trails
 - Hiking Trails
 - Lakes and Rivers All
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
 - Thinning (Crown, Low, Systematic)
 - Selection (Group, Single Tree)
- Forest Stands**
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 430 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- 122 - Road/Parking Lot
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland



Stand Boundary Map

Compartment 25
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3
 10
 15



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

Legend

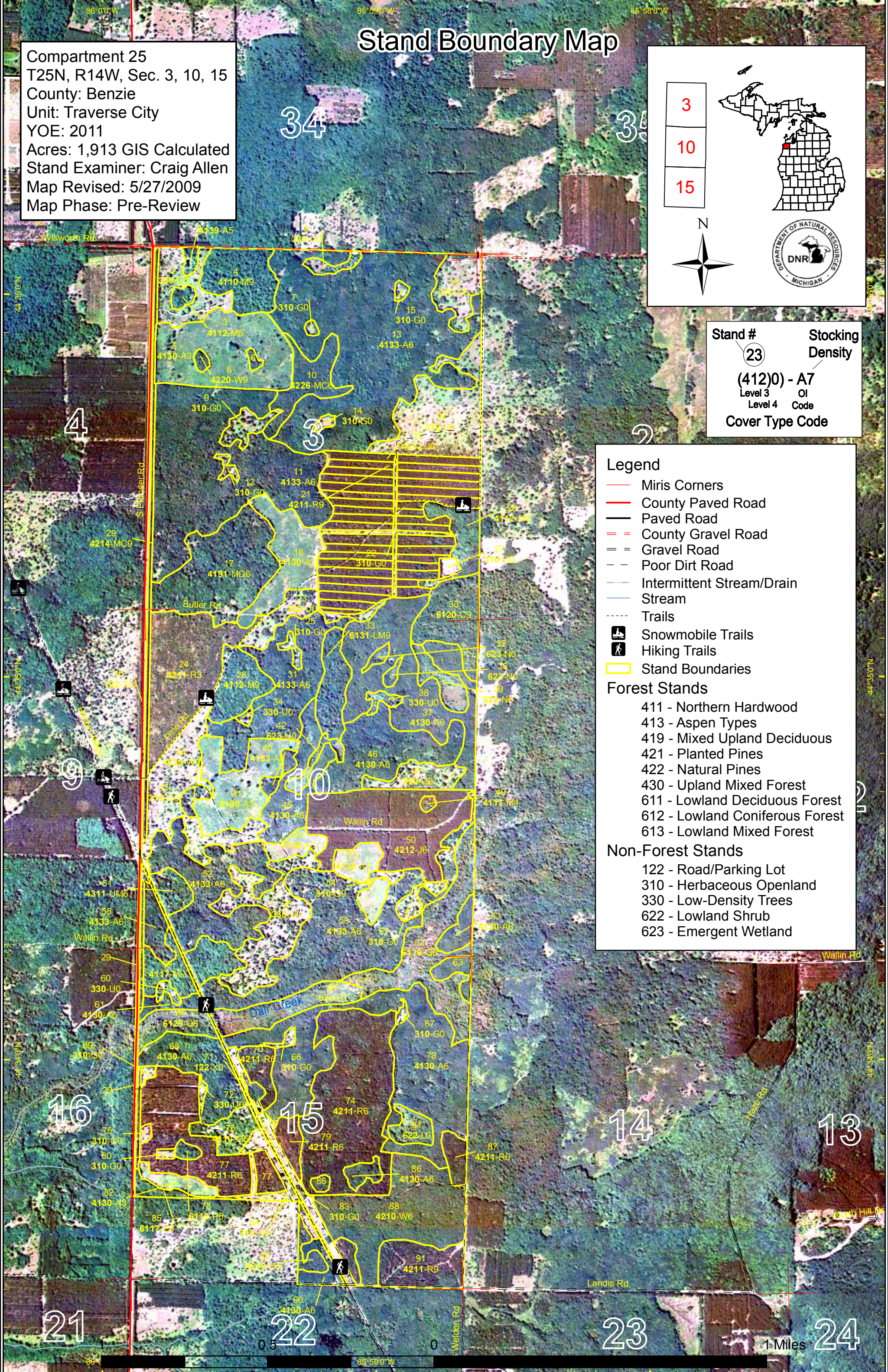
- Miris Corners
- County Paved Road
- Paved Road
- - County Gravel Road
- = = Gravel Road
- - - Poor Dirt Road
- Intermittent Stream/Drain
- Stream
- - - Trails
- Snowmobile Trails
- Hiking Trails
- Stand Boundaries

Forest Stands

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16

15

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1 Miles

86°00'W 85°50'W 85°58'W

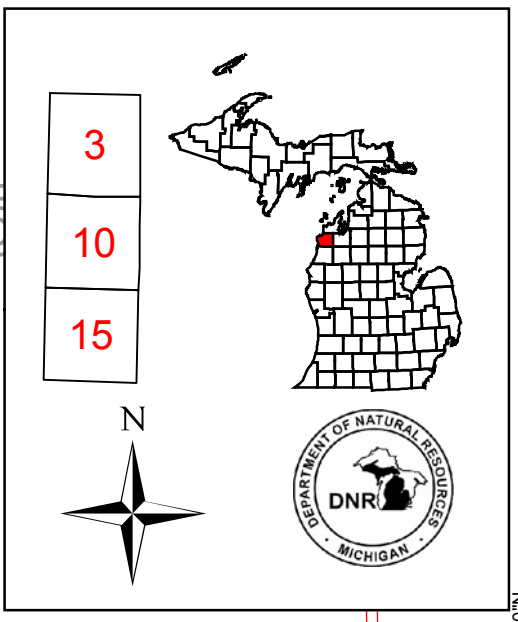
86° 85°59'W

44°30'N 44°35'N 44°40'N

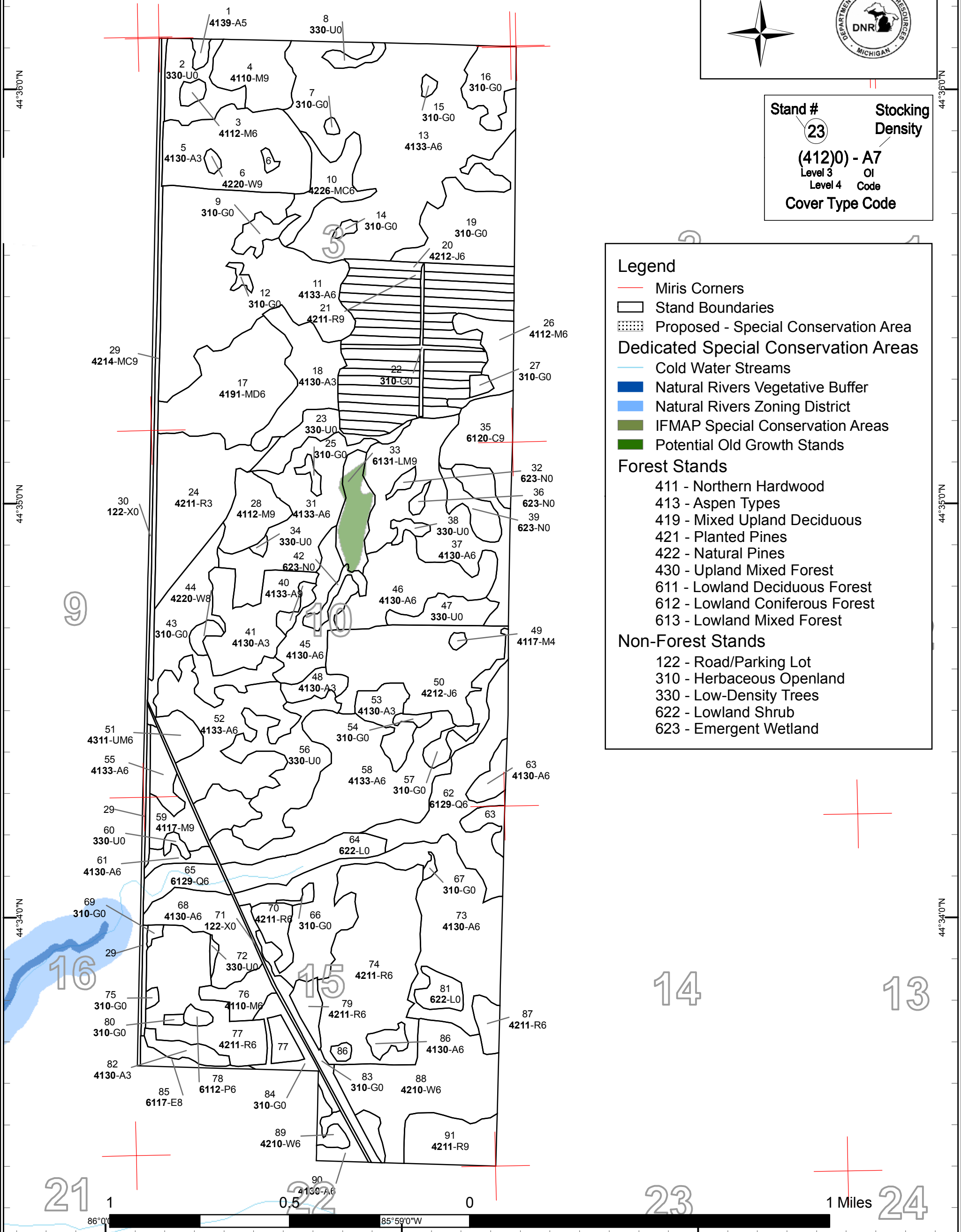
44°30'N 44°35'N 44°40'N

Dedicated & Proposed Special Conservation Area Map

Compartment 25
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 Acres: 1,913 GIS Calculated
 Stand Examiner: Craig Allen
 Map Revised: 5/27/2009
 Map Phase: Pre-Review



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



Legend

- Miris Corners
- Stand Boundaries
- Proposed - Special Conservation Area

Dedicated Special Conservation Areas

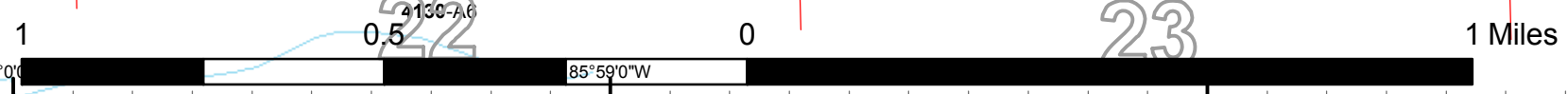
- Cold Water Streams
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- IFMAP Special Conservation Areas
- Potential Old Growth Stands

Forest Stands

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Traverse City Mgt. Unit

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

Compartment 025 Year of Entry 2011

Report Date: 05/28/2009



	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	137.3	0	275.1	27.0	416.7	14.0	0	0	2.1	0	0	0	0	0	872.4
Emergent Wetland	16.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.6
Herbaceous Openland	146.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146.6
Low-Density Trees	88.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88.4
Lowland Coniferous Forest	0	0	0	0	0	0	0	0	24.4	0	55.1	0	0	0	0	79.5
Lowland Deciduous Forest	0	0	0	0	0	0	2.1	0	0	4.5	0	0	0	0	0	6.6
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	15.4	0	0	0	0	0	15.4
Lowland Shrub	26.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26.1
Mixed Upland Deciduous	0	0	0	0	0	0	0	51.7	0	0	0	0	0	0	0	51.7
Natural Pines	0	0	0	0	0	0	0	20.0	0	3.2	0	0	0	0	0	23.1
Northern Hardwood	0	0	0	10.2	0	3.7	0	0	20.8	17.1	36.8	0	0	0	0	88.7
Planted Pines	0	0	50.2	0	0	233.6	168.2	0	17.2	0	0	0	0	0	0	469.1
Road/Parking Lot	21.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.3
Upland Mixed Forest	0	0	0	0	0	0	0	0	7.5	0	0	0	0	0	0	7.5
Total	299.0	137.3	50.2	285.4	27.0	654.1	184.3	71.7	69.9	42.3	92.0	0	0	0	0	1913.1

**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
11 61025011cut	18.9	4133 - Aspen, Mixed Pine	High Density Pole	45	Harvest	Clearcut with Reserves	Aspen, Mixed Pine

Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Cut all hardwoods to focus on regen of aspen. Leave all pine, except, may possibly cut some of the smaller DBH
Spec: white pine in effort to open-up stand enough to allow sufficient sunlight for regen of aspen. Mark some leave cherry for mast and leave any sugar maple for diversity.

Next
Steps:

13 61025013cut	34.6	4133 - Aspen, Mixed Pine	High Density Pole	45	Harvest	Clearcut with Reserves	Aspen, Mixed Pine
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Cut all hardwoods to focus on regen of aspen. Leave all pine, except, may possibly cut some of the smaller DBH
Spec: white pine in effort to open-up stand enough to allow sufficient sunlight for regen of aspen. Mark some leave cherry for mast and leave any sugar maple for diversity. May leave some pockets uncut where sugar maple advanced regen is present (if available).

Next
Steps:

17 61025017cut	21.4	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	66	Harvest	Clearcut with Reserves	Aspen, Mixed Pine
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Cut all hardwoods to focus on regen of aspen. Leave all pine, except, may possibly cut some of the smaller DBH
Spec: white pine in effort to open-up stand enough to allow sufficient sunlight for regen of aspen. Mark some leave cherry for mast and leave any sugar maple for diversity. May leave some pockets uncut where sugar maple advanced regen is present (if available).

Next
Steps:

20 61025020	51.9	42120 - Planted Jack Pine	High Density Pole	58	Harvest	Clearcut	Planted Red Pine
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Clearcut this strip planted jack pine with the adjacent strip planted red pine and replant the entire area to red
Spec: pine. Retain small band of pine along south edge of plantation for winter deer cover.

Next
Steps:

21 61025021	56.9	42110 - Planted Red Pine	High Density Log	58	Harvest	Clearcut	Planted Red Pine
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Clearcut these strip planted red pine with the adjacent strip planted jack pine and replant the entire area to red
Spec: pine. Retain small band of pine along south edge of plantation for winter deer cover.

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
46 61025046-Cut	23.0	4130 - Aspen	High Density Pole	44	Harvest	Clearcut with Reserves	Aspen

Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Final harvest to begin staggering aspen age classes in this area. Leave a component of white pine and cherry in
Spec: the stand.

Next
Steps:

50 61025050	59.4	42120 - Planted Jack Pine	High Density Pole	58	Harvest	Clearcut	Planted Red Pine
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Clearcut this stunted jack pine stand and re-plant area to red pine. Retain 3 small areas uncut for use by deer for
Spec: winter cover.

Next
Steps:

51 61025051	9.1	4311 - Pine, Aspen Mix	High Density Pole	79	Harvest	Clearcut with Reserves	Aspen, Mixed Pine
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Harvest aspen and a portion of white pine (most likely the smaller DBH pine) to open up the stand for aspen
Spec: regen. mark some maple ..keeping some good maple seed trees. and retaining some of the older sugar trees for diversity and future den tree possibilities.

Next
Steps:

59 61025059-Cut	10.6	4117 - Mixed N. Hardwood - Pine	High Density Log	79	Harvest	Single Tree Selection	Mixed N. Hardwood - Pine
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Select mark stand to open up stand for potential sugar maple regen. Try to maintain approx. 70- 85 avg BA for
Spec: residual stand, but will be ok to have less in some areas where may want some aspen regen or some regen openings for maple.

Next
Steps:

61 61025061	4.9	4130 - Aspen	High Density Pole	55	Harvest	Clearcut with Reserves	Aspen
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Harvest all hardwoods to regenerate and expand aspen. Leave some sugar maple if present in stand. Leave
Spec: most or all 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
74 61025074-Cut	77.9	42110 - Planted Red Pine	High Density Pole	48	Harvest	Systematic Thinning	Planted Red Pine

Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Thin plantation (harvest approximately 1/3 of current volume). May have to select mark individual trees and/or
Spec: rows due to irregular rows and spacing problems. May have to mark some hardwoods to cut in order to facilitate maneuvering of logging equipment.

Next
Steps:

86 61025086-Cut	5.7	4130 - Aspen	High Density Pole	55	Harvest	Clearcut with Reserves	Aspen
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Harvest hardwoods to regenerate and expand aspen component. Retain all pine and elm. (Note: This stand
Spec: should be cut this cycle due to adjacent stand that surrounds this stand is scheduled for thinning).

Next
Steps:

87 61025087-Cut	5.9	42110 - Planted Red Pine	High Density Pole	48	Harvest	Systematic Thinning	Planted Red Pine
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Rev
Cmnt:

Rev --Craig Allen : 05/27/2009 comments: Thin plantation (remove about 1/3 of current volume). This will be first thinning for this plantation.
Spec:

Next
Steps:

**Total Treatment
Acreage Proposed: 380.2**

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Traverse City Mgt. Unit
Inventory Method: IFMAP

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**

Compartment: 025 Entry Yr: 2011
Date 05/28/2009



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

**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.
SCA	Potential Old Growth Areas	This category contains stands were identified for a broad range of reasons and were coded in the OI database as stand condition 8 as potential old growth (POG). Approximately 310,000 acres have been identified through the Operations Inventory (OI)/Compartment Review process. For stands in Year of Entry 2008 and forward, potential old growth is managed for the identified objective until it is: 1) vetted through the Biodiversity Conservation Planning Process (BCPP) and given a specific designation and objective (as an ERA, HCVA, or other type of SCA) and is released from the potential old growth designation; or 2) it is released from the potential old growth designation via the Compartment Review process.