



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

COMPARTMENT # 32 ENTRY YEAR: 2014

Compartment Acreage: 1,511 County: Benzie

Revision Date: 5/22/2012

Stand Examiner: Craig Allen

Legal Description: T25N- R13W; Sections 22, 23, 24, 27

Management Goals: The management goals will focus mainly on forest habitat management for various wildlife species using the area. This area is heavily used by deer during the winter months and they require various plants and young trees at their browsing level in order to survive. The aspen saplings and pole size stands provide critical nesting and escape habitat for grouse and woodcock. The large blocks of aspen and lowland aspen-maple mix stands in the northwest portion of the compartment were cut around 1977 for these reasons. These stands are just now becoming large enough in size class to be merchantable. We need to begin harvesting a few areas within these large blocks to create variable ages and size classes of this resource for wildlife habitat reasons and to create sustainable forest product cutting cycles. This process will also lessen the visual impact of large scale harvesting operations like those that occurred around 1977. This large scale cutting would again become necessary if this area was left untouched, thereby becoming mature all at once. This vast lowland hardwood complex has many stands that grow in wet drainage environments. These forest stands contain water (both stagnant and flowing) throughout most of the year and consist primarily of red maple trees.

Vehicle access into this compartment is very limited. In the 1970's logging access roads were placed in areas of very poor drainage creating a large number of water holes on the road system. Subsequently, illegal off-road use began making these holes larger and creating even more mud bogging holes along the edges of the access roads. These access roads were then completely blocked off to all vehicle access to stop the illegal off road vehicle damage that was occurring in this area. These large water holes still exist throughout the compartment but these road blocks were effective allowing the roads and water holes to slowly heal- in with invading vegetation. Future vehicle access into the compartment will need to be discussed and likely be much limited to protect the fragile wetland areas. However, with less access roads, some timber will likely become inaccessible for commercial logging operations.

Soil and Topography: The topography is mostly level and low-lying. There is a sandy ridge that runs diagonally through sections 22 and 23. The soils series in the area include: Leelanau -Emmet- Kalkaska and Roscommon- Augres- Croswell.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is at the south end of State land that starts 5 miles to the north at Cinder road, in an area that contains the Grass Lake Flooding. Much of it is in lowland and swamp vegetative covers types and is an important wildlife area. Private lands consist of low density residential areas and farms. Due to poor access, any properties that border Karlin road and State lands would be desirable acquisitions.

Unique, Natural Features (include only non-site specific and non-sensitive information): The upper headwater of the Little Betsie River runs through the center of this compartment.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): No known features within this compartment, however, the Betsie River corridor and its tributaries were used by Early Native Americans for hunting and settlements.

Special Management Designations or Considerations: In the mid nineties, a large block of this compartment was included as a part of a larger area delineated as “potential old growth”. This area was then forwarded into a Special Conservation Area (SCA) designation as a part of “Grass Lake Flooding SCA” (see map).

Also of special management consideration is the Little Betsie river a tributary to the Betsie river which is a designated “Michigan Natural River”.

Watershed and Fisheries Considerations: The Little Betsie River flows through Compartment 32. The Little Betsie River is a designated Trout Stream, and is also covered under the Betsie River Natural Rivers plan. The Little Betsie River is a very high quality, cold water trout stream with naturally reproducing populations of brown trout, brook trout, rainbow trout, coho salmon, and chinook salmon. The Little Betsie is of particular importance to the Betsie River watershed in that it is a source of wild, naturally reproduced steelhead to the watershed and to Lake Michigan. The Betsie River suffers from warmer-than-ideal temperatures which make it difficult (or impossible in some years) for steelhead to reproduce naturally in the mainstream. Therefore, Fisheries Division views the Little Betsie River as a critical stream in need of the utmost protection. Fisheries Division supports the proposed Old Growth designation for the stands along the Little Betsie. (comments by Mark Tonello and Heather Hettinger , DNR Fisheries Biologists, 5/22/2012).

Wildlife Habitat Considerations: Most of state ownership in compartment 32 is flat and consists of poorly drained organic soils. Access to this compartment is limited due to the high water table and flooded roads. The resulting “walk-in” experience is relatively unique for this part of the State Forest system and great care should be taken to preserve this characteristic.

The Little Betsie River originates in this compartment. This riparian corridor consists of a mosaic of lowland hardwoods of varying age classes with small inclusions of lowland shrubs and lowland aspen. Allowing the forest along this riparian corridor to naturally mature would benefit species such as wood frogs, red-shouldered hawks, great blue herons, wintering deer, raccoons, and black bears. There are opportunities outside the Natural Vegetation Buffer to mimic small blowdown events with scattered habitat cuts.

Outside the riparian corridor the land remains at or near the water table. Much of the same cover types are found here, lowland hardwoods and aspen, leather leaf bogs, as well as several spruce cover plantings. There are several openings situated on low ridges that are in need of some maintenance to set back encroachment. Red fox, garter snakes, northern flickers, bear, and deer make use of these small grassy openings interspersed through the lowlands.

Some of the aspen in this compartment is becoming merchantable and harvests should be pursued to diversify the age class of this resource. Care should be taken to minimize any potential issue with seasonably wet soils. Harvest operations should be utilized to create some (approximately 1-2 trees per acre) coarse woody debris (CWD), 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 its stump. Retaining conifers and snags is important for cover, vertical structure, and future coarse woody debris. Sales here should preferably leave tops unchipped.

(Comments by Steve Griffith, DNR Wildlife Biologist, 5/22/2012).

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine sand and gravel, glacial outwash sand and gravel and postglacial alluvium and minor end moraine of coarse-textured glacial till. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial

drift is the Devonian Ellsworth Shale that is quarried for cement. The nearest gravel pit is two miles to the northeast and gravel potential may be limited to the uplands. This area is located northwest of the current Antrim Shale gas play. The Guelph (Niagaran) reef trend is located to the south and has limited potential. Most of the State land is currently leased for oil and gas development and the Antrim appears to have potential. (Comments by Tom Hoane, 4/17/2012).

Vehicle Access: This compartment currently has no vehicular access due to high water tables and old access roads that were bermed, many years ago, due to soil damage from 4-wheel drive trucks. Future access will be discussed at the compartment review (see also comments in “Management Goals” above)

Survey Needs: There are currently no survey needs in this compartment.

Recreational Facilities and Opportunities: Recreational opportunities in this compartment include hunting, hiking, trapping, fishing and dispersed camping.

Fire Protection: This area has wildfire protection by DNR and local Volunteer Fire Departments.

Additional Compartment Information:

* **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

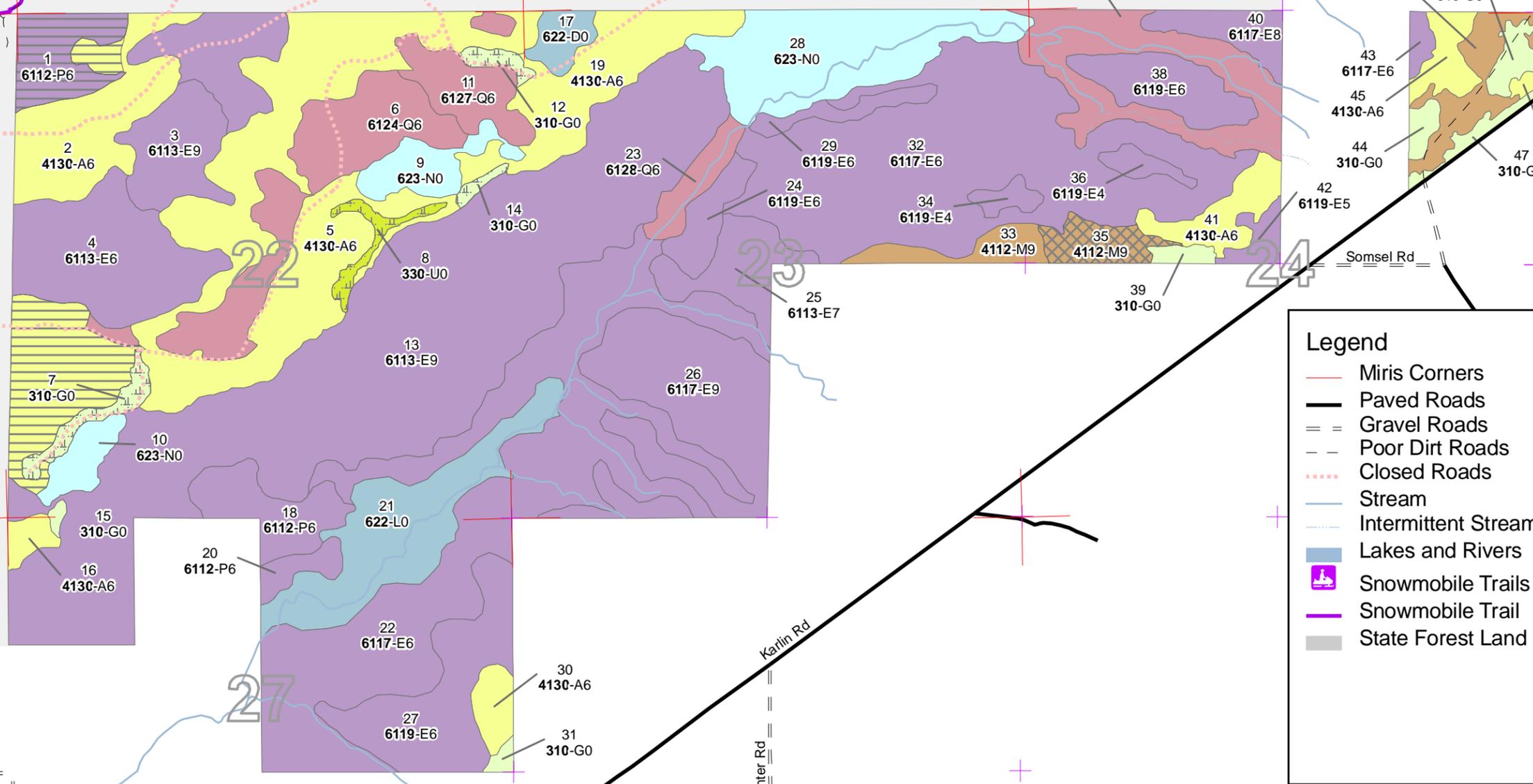
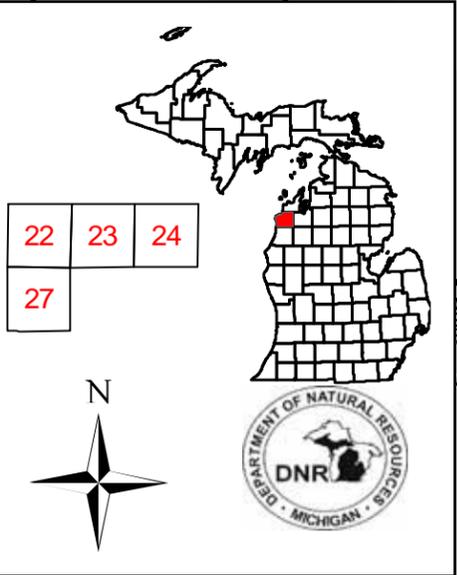
Proposed treatments

Proposed SCAs

Cover Type & Treatment Map

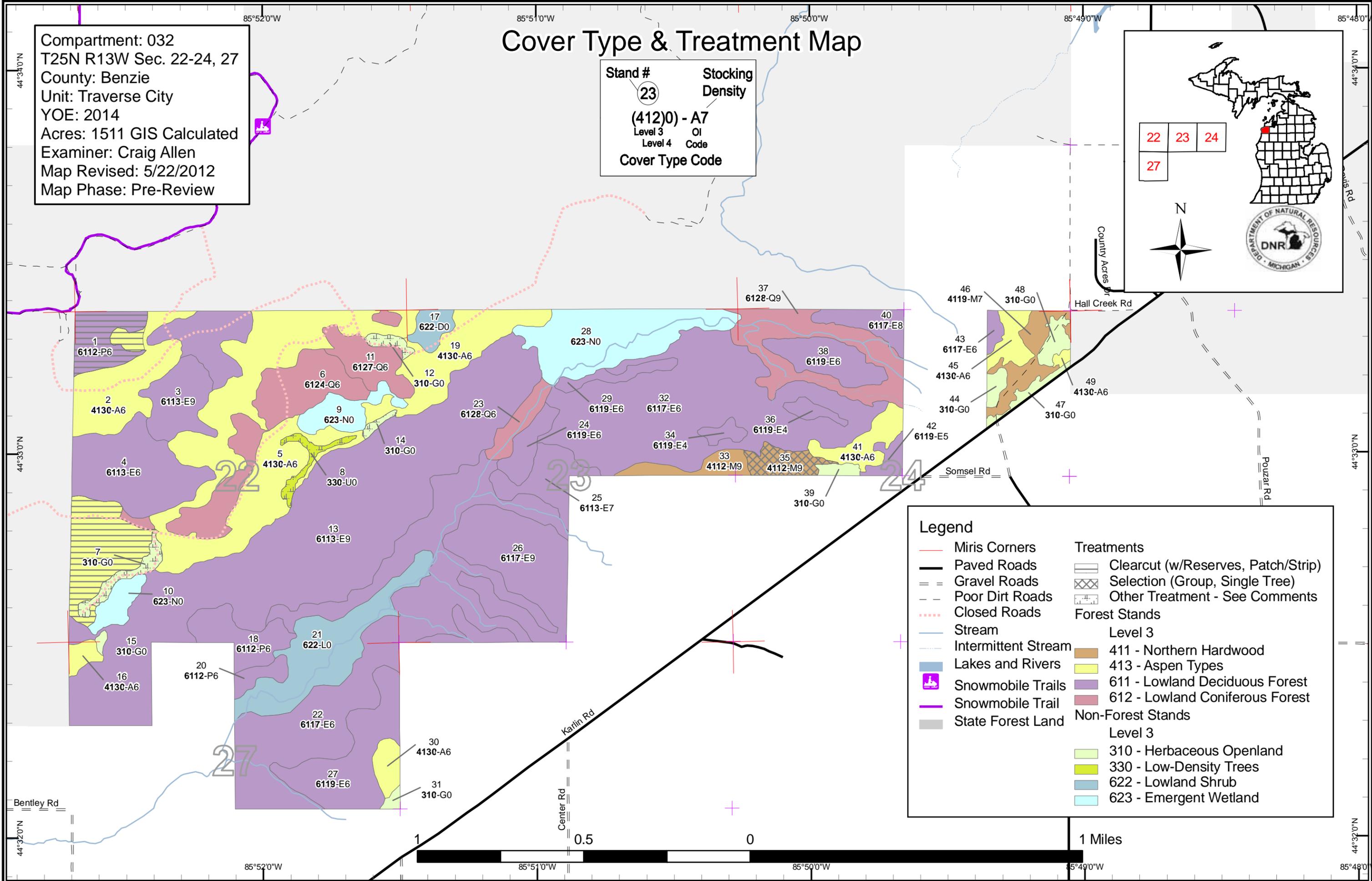
Compartment: 032
 T25N R13W Sec. 22-24, 27
 County: Benzie
 Unit: Traverse City
 YOE: 2014
 Acres: 1511 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 5/22/2012
 Map Phase: Pre-Review

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



Legend

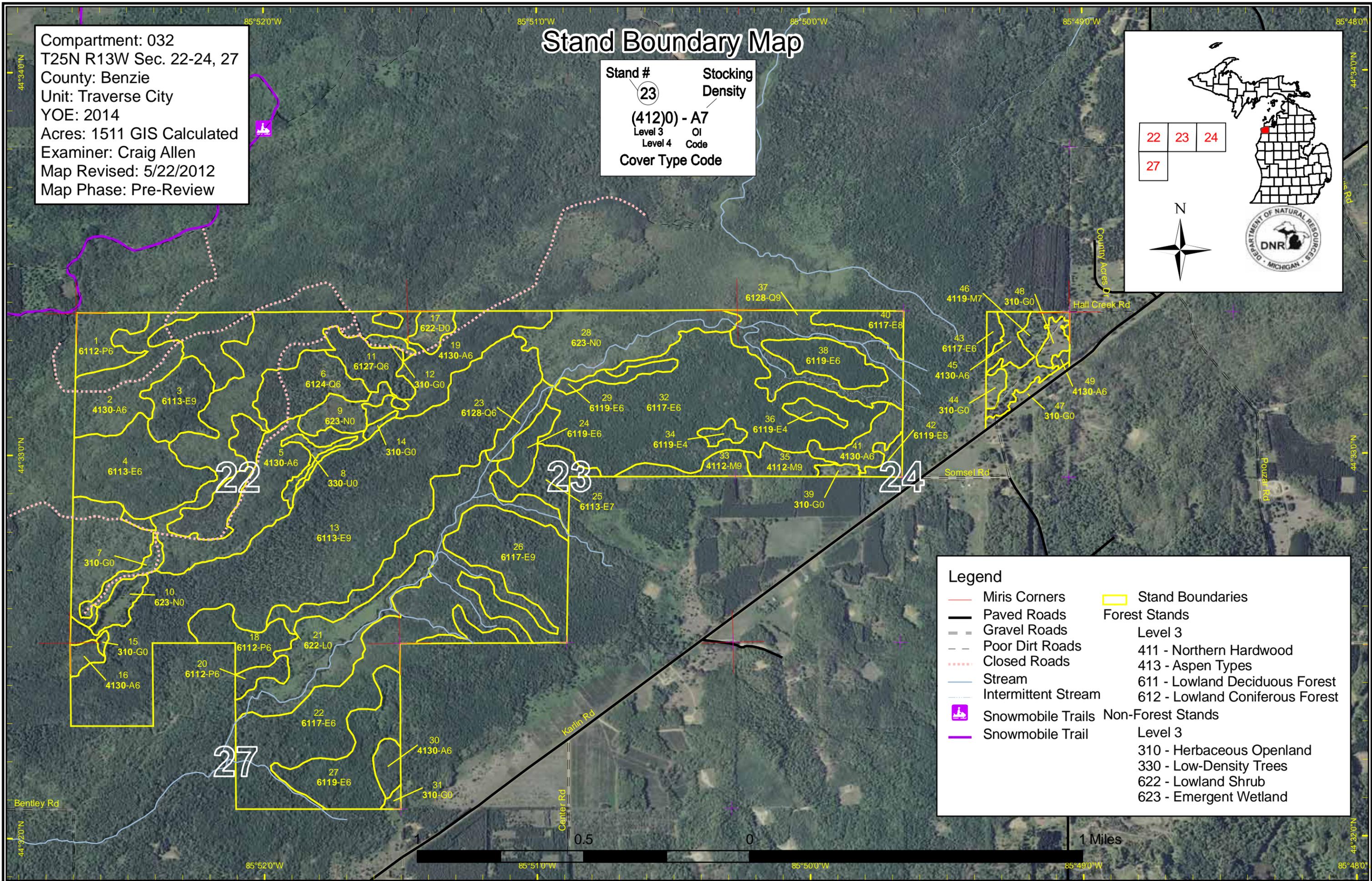
| | |
|---------------------------|------------------------------------|
| — Miris Corners | Clearcut (w/Reserves, Patch/Strip) |
| — Paved Roads | Selection (Group, Single Tree) |
| == Gravel Roads | Other Treatment - See Comments |
| - - - Poor Dirt Roads | Forest Stands |
| ... Closed Roads | Level 3 |
| — Stream | 411 - Northern Hardwood |
| - - - Intermittent Stream | 413 - Aspen Types |
| Lakes and Rivers | 611 - Lowland Deciduous Forest |
| Snowmobile Trails | 612 - Lowland Coniferous Forest |
| Snowmobile Trail | Non-Forest Stands |
| State Forest Land | Level 3 |
| | 310 - Herbaceous Openland |
| | 330 - Low-Density Trees |
| | 622 - Lowland Shrub |
| | 623 - Emergent Wetland |



Stand Boundary Map

Compartment: 032
 T25N R13W Sec. 22-24, 27
 County: Benzie
 Unit: Traverse City
 YOE: 2014
 Acres: 1511 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 5/22/2012
 Map Phase: Pre-Review

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



Legend

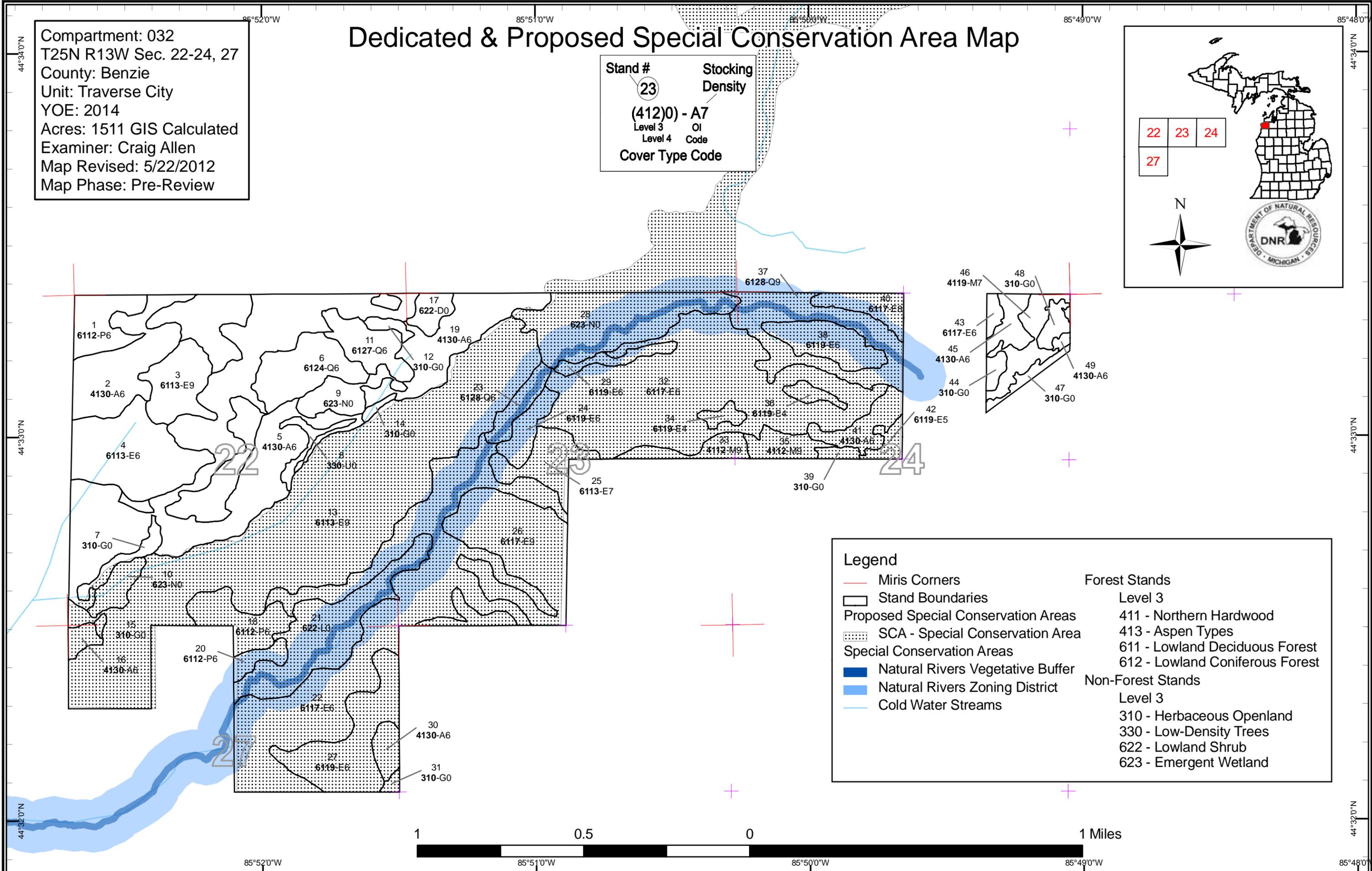
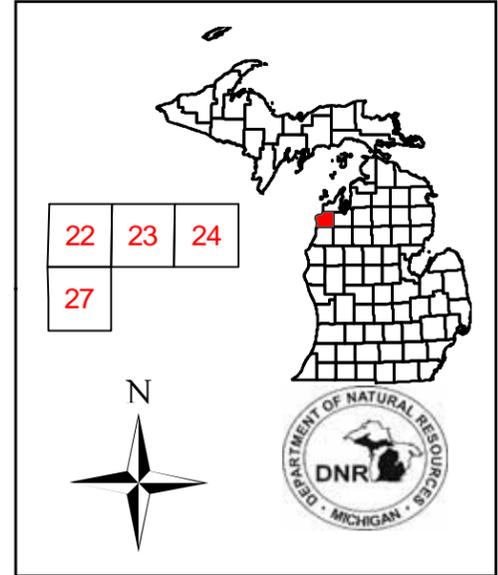
| | | | |
|--|---------------------|--|---------------------------------|
| | Miris Corners | | Stand Boundaries |
| | Paved Roads | | Forest Stands |
| | Gravel Roads | | Level 3 |
| | Poor Dirt Roads | | 411 - Northern Hardwood |
| | Closed Roads | | 413 - Aspen Types |
| | Stream | | 611 - Lowland Deciduous Forest |
| | Intermittent Stream | | 612 - Lowland Coniferous Forest |
| | Snowmobile Trails | | Non-Forest Stands |
| | Snowmobile Trail | | Level 3 |
| | | | 310 - Herbaceous Openland |
| | | | 330 - Low-Density Trees |
| | | | 622 - Lowland Shrub |
| | | | 623 - Emergent Wetland |



Dedicated & Proposed Special Conservation Area Map

Compartment: 032
 T25N R13W Sec. 22-24, 27
 County: Benzie
 Unit: Traverse City
 YOE: 2014
 Acres: 1511 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 5/22/2012
 Map Phase: Pre-Review

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



| | |
|-------------------------------------|---------------------------------|
| Legend | |
| Miris Corners | Forest Stands |
| Stand Boundaries | Level 3 |
| Proposed Special Conservation Areas | 411 - Northern Hardwood |
| SCA - Special Conservation Area | 413 - Aspen Types |
| Natural Rivers Vegetative Buffer | 611 - Lowland Deciduous Forest |
| Natural Rivers Zoning District | 612 - Lowland Coniferous Forest |
| Cold Water Streams | Non-Forest Stands |
| | Level 3 |
| | 310 - Herbaceous Openland |
| | 330 - Low-Density Trees |
| | 622 - Lowland Shrub |
| | 623 - Emergent Wetland |



Table 1 – Total Acres by Cover Type and Age Class



| | Age Class | | | | | | | | | | | | | Total | |
|-----------------------------|------------|----------|-----------|------------|-----------|----------|----------|-----------|------------|------------|----------|----------|----------|----------|-------------|
| | 0-9 | 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 | 0 | 0 | 0 | 236 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 268 |
| Herbaceous Openland | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| Low-Density Trees | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Lowland Aspen/Balsam Poplar | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| Lowland Conifers | 0 | 0 | 0 | 51 | 20 | 0 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 124 |
| Lowland Deciduous | 0 | 0 | 41 | 92 | 0 | 0 | 0 | 0 | 354 | 380 | 0 | 0 | 0 | 0 | 867 |
| Lowland Shrub | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| Marsh | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| Northern Hardwood | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 21 | 0 | 0 | 0 | 0 | 36 |
| Treed Bog | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Total | 171 | 0 | 41 | 425 | 52 | 0 | 0 | 15 | 354 | 453 | 0 | 0 | 0 | 0 | 1511 |



Table 2 – Proposed Treatment Summaries

Traverse City Mgt. Unit
Year of Entry 2014

Compartment 032
Total Compartment Acres: 1511

Acres by Treatment Type

| | | | | |
|-------------------------|--------------------------|-------------------|---------------------|-----------|
| Commercial Harvest - 68 | Site Prep - 0 | Tree Planting - 0 | Prescribed Burn - 0 | Other - 0 |
| Habitat Cut - 0 | Opening Maintenance - 17 | Tree Seeding - 0 | Pesticide - 0 | |

Cover Type by Harvest Method

| | Clearcut | Selection | Seed Tree | Shelterwood | Thinning | Other - Specify | Total Acres |
|-----------------------------|----------|-----------|-----------|-------------|----------|-----------------|-------------|
| Aspen | 39 | 0 | 0 | 0 | 0 | 0 | 39 |
| Lowland Aspen/Balsam Poplar | 19 | 0 | 0 | 0 | 0 | 0 | 19 |
| Northern Hardwood | 0 | 11 | 0 | 0 | 0 | 0 | 11 |
| Total | 58 | 11 | 0 | 0 | 0 | 0 | 68 |



| Stand | Treatment Name | Acres | CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|-----------------------------------------|-------------------|-----------|----------|----------------|------------------------|-----------------------------------------|-----------------------|
| 1 | 61032001-Cut | 18.7 | 6112 - Lowland Aspen | High Density Pole | 35 | | Harvest | Clearcut with Reserves | 6112 - Lowland Aspen | Cmpt. Review Proposal |
| <p><u>Prescription:</u> Harvest all aspen, red maple, and ash to regenerate and expand aspen component for wildlife habitat management. Leave a few retention islands along compartment edges to breakup "straight line affects" of compartment edges. Leave any conifers that may be in the stand. Also, avoid cutting or damaging oak in the stand.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p> | | | | | | | | | | |
| 2 | 61032002 | 3.5 | 4130 - Aspen | High Density Pole | 35 | | Harvest | Clearcut with Reserves | 4130 - Aspen | Cmpt. Review Proposal |
| <p><u>Prescription:</u> Harvest all aspen, red maple, and ash to regenerate and expand aspen component for wildlife habitat management. Leave a few retention islands along compartment edges to breakup "straight line affects" of compartment edges. Leave any conifers that may be in the stand. Also, avoid cutting or damaging oak in the stand.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p> | | | | | | | | | | |
| 5 | 61032005-Cut | 35.5 | 4130 - Aspen | High Density Pole | 35 | | Harvest | Clearcut with Reserves | 4130 - Aspen | Cmpt. Review Proposal |
| <p><u>Prescription:</u> Harvest all hardwoods primarily to regenerate and expand aspen to help stagger age classes of the hardwoods in this area for wildlife habitat purposes. Leave a few retention islands within the cuts. Leave any conifers that may be on site for diverstiy.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p> | | | | | | | | | | |
| 35 | 61032035-Cut | 10.6 | 4112 - Maple, Beech, Cherry Association | High Density Log | 95 | 111-140 | Harvest | Single Tree Selection | 4112 - Maple, Beech, Cherry Association | Cmpt. Review Proposal |
| <p><u>Prescription:</u> Select thin this hardwood stand reducing average BA to approximatly 85. Follow compleat marker guidelines. Access to this stand will only be possible across private lands to the south. Access has not yet been obtained.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p> | | | | | | | | | | |



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| Treatment Name | Acres | CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------|--------------|-----------|----------|--------------------------|------------------|-----------------------------------|--------------------------|
| 7 NF_61032007- NonFor | 7.0 | 3105 - Mixed Upland Herbaceous | | | | Non-Forest Management | Other - Specify | 3105 - Mixed Upland Herbaceous | Cmpt. Review Proposal |
| <u>Prescription</u> This opening was a traditional wildlife planting. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture <u>Specs:</u> mix (i.e. clover/alfalfa). | | | | | | | | | |
| <u>Other</u> This opening is in a difficult to access, semi-remote area. Road improvements will probably occur via timber harvest in this compartment, and a <u>Comments:</u> gate will be installed. Care needs to be taken to maintain the semi-remote nature of this area. | | | | | | | | | |
| <u>Next</u> Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment. <u>Steps:</u> | | | | | | | | | |
| <u>Proposed</u> <u>Start Date:</u> Unspecified | | | | | | | | | |

| | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------|--|--|--|--------------------------|-----------------|-----------------------------------|--------------------------|
| 8 NF_61032008- NonFor1 | 5.3 | 3303 - Mixed Low Density Trees | | | | Non-Forest Management | Other - Specify | 3105 - Mixed Upland Herbaceous | Cmpt. Review Proposal |
| <u>Prescription</u> This opening was a traditional wildlife planting. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture <u>Specs:</u> mix (i.e. clover/alfalfa). | | | | | | | | | |
| <u>Other</u> This opening is in a difficult to access, semi-remote area. Road improvements will probably occur via timber harvest in this compartment, and a <u>Comments:</u> gate will be installed. Care needs to be taken to maintain the semi-remote nature of this area. | | | | | | | | | |
| <u>Next</u> Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment. <u>Steps:</u> | | | | | | | | | |
| <u>Proposed</u> <u>Start Date:</u> Unspecified | | | | | | | | | |

| | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------|--|--|--|--------------------------|-----------------|-----------------------------------|--------------------------|
| 12 NF_61032012- NonFor | 3.2 | 3105 - Mixed Upland Herbaceous | | | | Non-Forest Management | Other - Specify | 3105 - Mixed Upland Herbaceous | Cmpt. Review Proposal |
| <u>Prescription</u> This opening was a traditional wildlife planting. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture <u>Specs:</u> mix (i.e. clover/alfalfa). | | | | | | | | | |
| <u>Other</u> This opening is in a difficult to access, semi-remote area. Road improvements will probably occur via timber harvest in this compartment, and a <u>Comments:</u> gate will be installed. Care needs to be taken to maintain the semi-remote nature of this area. | | | | | | | | | |
| <u>Next</u> Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment. <u>Steps:</u> | | | | | | | | | |
| <u>Proposed</u> <u>Start Date:</u> Unspecified | | | | | | | | | |

| | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------|--|--|--|--------------------------|-----------------|-----------------------------------|--------------------------|
| 14 NF_61032014- NonFor | 1.7 | 3105 - Mixed Upland Herbaceous | | | | Non-Forest Management | Other - Specify | 3105 - Mixed Upland Herbaceous | Cmpt. Review Proposal |
| <u>Prescription</u> This opening was a traditional wildlife planting. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture <u>Specs:</u> mix (i.e. clover/alfalfa). | | | | | | | | | |
| <u>Other</u> This opening is in a difficult to access, semi-remote area. Road improvements will probably occur via timber harvest in this compartment, and a <u>Comments:</u> gate will be installed. Care needs to be taken to maintain the semi-remote nature of this area. | | | | | | | | | |
| <u>Next</u> Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment. <u>Steps:</u> | | | | | | | | | |
| <u>Proposed</u> <u>Start Date:</u> Unspecified | | | | | | | | | |

**Total Treatment
Acreage Proposed: 85.5**

**Table 4 -- Treatments Prescribed with
a Limiting Factor**



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| Treatment Name | Acres | CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|----------------|-------|-----------|--------------|-----------|----------|----------------|------------------|----------------------|-----------------|
|----------------|-------|-----------|--------------|-----------|----------|----------------|------------------|----------------------|-----------------|

#Error

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Error

Limiting Factor and No
Treatment Reason

**Total Treatment
Acreage Proposed: 0**

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2014



| Treatment Name | Acres | CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Approval Status |
|------------------------|-------|-----------|--------------|-----------|----------|----------------|------------------------|----------------------|------------------------------------|
| 61043_OutOfY OE-Cut | 2.1 | | | | | Harvest | Clearcut with Reserves | 4131 - Aspen, Oak | Cmpt. Review Proposal - Incomplete |

Prescription

Specs: retain some pine and oak for mast and seed production, Follow WLD guidance for CWD creation. Harvest all stems that are not retained.

Other New stand should have mix of oak, pine, aspen and maple.

Comments:

Next

Steps:

Proposed

Start Date: 09/01/2009

| | | | | | | | | | |
|-------------------------|-----|--|--|---|--|---------|--------------|------------------|-----------------------|
| 61231_OutOfY OE-Thin | 4.6 | | | 0 | | Harvest | Low Thinning | 4122 - Oak, Pine | Cmpt. Review Proposal |
|-------------------------|-----|--|--|---|--|---------|--------------|------------------|-----------------------|

Prescription Within harvest area, remove all aspen. Heavily thin oak and maple to a residual BA of about 50 sf. Leave retention in patches or strips sufficient to meet minimum retention goals.

Other Topography is rather hilly. Combine with treatment in Compartment 133.

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 6.7**

| Stand | Traverse City Mgt. Unit | | 5 – Forested Stands | | | Compartment: 032 | General Comments: |
|-------|--------------------------------------------|-------------------|---------------------|-----------|----------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | Year of Entry: 2014 | |
| 1 | 6112 - Lowland Aspen | High Density Pole | 18.7 | 35 | | | Also, contains a few scattered Bur Oak various sizes and scattered bur oak saplings. |
| 2 | 4130 - Aspen | High Density Pole | 40.6 | 35 | | | |
| 3 | 6113 - Lowland Maple | High Density Log | 23.5 | 95 | 51-80 | | |
| 4 | 6113 - Lowland Maple | High Density Pole | 73.9 | 35 | | | |
| 5 | 4130 - Aspen | High Density Pole | 152.9 | 35 | | | Harvest a portion of the stand (southwest end) in order to stagger age class in this area and break-up some of this large expanse of same-age aspen and maple within this compartment. Cut all aspen, maple, ash. Leave a couple islands for retention. |
| 6 | 6124 - Lowland Spruce-Fir | High Density Pole | 51.5 | 35 | 81-110 | | Planted for wildlife winter cover |
| 11 | 6127 - Lowland Pine | High Density Pole | 20.1 | 47 | 111-140 | | |
| 13 | 6113 - Lowland Maple | High Density Log | 264.2 | 95 | 1-50 | | |
| 16 | 4130 - Aspen | High Density Pole | 4.5 | 35 | | | |
| 18 | 6112 - Lowland Aspen | High Density Pole | 20.2 | 35 | | | Habitat cut |
| 19 | 4130 - Aspen | High Density Pole | 38.0 | 36 | | | |
| 20 | 6112 - Lowland Aspen | High Density Pole | 6.2 | 35 | | | Habitat cut |
| 22 | 6117 - Lowland Deciduous, Mixed Coniferous | High Density Pole | 159.1 | 80 | | | |
| 23 | 6128 - Lowland Coniferous, Mixed Deciduous | High Density Pole | 9.7 | 90 | | | |
| 24 | 6119 - Mixed Lowland Deciduous Forest | High Density Pole | 11.0 | 38 | | | Habitat cut |
| 25 | 6113 - Lowland Maple | Low Density Log | 19.7 | 80 | | | |
| 26 | 6117 - Lowland Deciduous, Mixed Coniferous | High Density Log | 67.3 | 90 | | | |



| S t a n d | Traverse City Mgt. Unit | | 5 – Forested Stands | | | Compartment: 032 | General Comments: |
|-----------------------|--------------------------------------------------|------------------------|---------------------|--------------|-------------|---------------------|---------------------------------------------------------------------------------------------|
| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | Year of Entry: 2014 | |
| 27 | 6119 - Mixed Lowland Deciduous Forest | High Density Pole | 41.4 | 28 | | | |
| 29 | 6119 - Mixed Lowland Deciduous Forest | High Density Pole | 7.1 | 38 | | | Habitat cut |
| 30 | 4130 - Aspen | High Density Pole | 7.2 | 45 | | | |
| 32 | 6117 - Lowland Deciduous, Mixed Coniferous | High Density Pole | 150.1 | 80 | | | |
| 33 | 4112 - Maple, Beech, Cherry Association | High Density Log | 10.3 | 95 | 81-110 | | |
| 34 | 6119 - Mixed Lowland Deciduous Forest | Low Density Pole | 4.1 | 90 | 1-50 | | A marsh wetland...cattails and marsh grasses. |
| 35 | 4112 - Maple, Beech, Cherry Association | High Density Log | 10.6 | 95 | 111-140 | | |
| 36 | 6119 - Mixed Lowland Deciduous Forest | Low Density Pole | 4.5 | 80 | | | Lots of Cattails and marsh grasses. |
| 37 | 6128 - Lowland Coniferous, Mixed Deciduous | High Density Log | 42.8 | 90 | 51-80 | | |
| 38 | 6119 - Mixed Lowland Deciduous Forest | High Density Pole | 20.6 | 90 | | | |
| 40 | 6117 - Lowland Deciduous, Mixed Coniferous | Medium Density Log | 12.0 | 80 | 1-50 | | scattered skunk cabbage at ground level |
| 41 | 4130 - Aspen | High Density Pole | 14.3 | 40 | | | Mostly dry when inventoried, but has potential to be seasonably flooded...high water table. |
| 42 | 6119 - Mixed Lowland Deciduous Forest | Medium Density Pole | 5.6 | 80 | | | Autumn olive |
| 43 | 6117 - Lowland Deciduous, Mixed Coniferous | High Density Pole | 3.1 | 80 | | | |
| 45 | 4130 - Aspen | High Density Pole | 9.2 | 46 | | | Also contains a few large white oak and sugar maple, a couple hemlock |
| 46 | 4119 - Mixed Northern Hardwoods | Low Density Log | 15.3 | 75 | 1-50 | | Lots of natural white oak regen |
| 49 | 4130 - Aspen | High Density Pole | 1.3 | 46 | | | |





| Stand | Cover Type | Acres | Managed Site | Management Priority (Objective) | General Comments: |
|-------|--------------------------------|-------|--------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7 | 3105 - Mixed Upland Herbaceous | 7.0 | No | High (NonForested) | CA-Has had past cultivation work for wildlife habitat. 5/21/12 SG-This one in a series of five narrow man-made wildlife openings constructed in the 1970s. |
| 8 | 3303 - Mixed Low Density Trees | 5.3 | No | High (NonForested) | 5/21/12 SG-This one in a series of five narrow man-made wildlife openings constructed in the 1970s. |
| 9 | 6239 - Mixed Emergent Wetland | 14.0 | N/A | Unspecified | |
| 10 | 623 - Emergent Wetland | 9.1 | N/A | Unspecified | |
| 12 | 3105 - Mixed Upland Herbaceous | 3.2 | No | High (NonForested) | 5/21/12 SG-This one in a series of five narrow man-made wildlife openings constructed in the 1970s. |
| 14 | 3105 - Mixed Upland Herbaceous | 1.7 | No | High (NonForested) | 5/21/12 SG-This one in a series of five narrow man-made wildlife openings constructed in the 1970s. |
| 15 | 3102 - Grass | 1.0 | N/A | Unspecified | |
| 17 | 6224 - Treed Bog | 7.5 | N/A | Unspecified | |
| 21 | 6229 - Mixed lowland shrub | 49.5 | N/A | Unspecified | |
| 28 | 623 - Emergent Wetland | 54.8 | N/A | Unspecified | |
| 31 | 310 - Herbaceous Openland | 1.6 | N/A | Unspecified | |
| 39 | 310 - Herbaceous Openland | 2.9 | N/A | Unspecified | |
| 44 | 310 - Herbaceous Openland | 3.4 | N/A | Unspecified | |
| 47 | 310 - Herbaceous Openland | 4.4 | N/A | Unspecified | |
| 48 | 310 - Herbaceous Openland | 5.5 | N/A | Unspecified | |



7 – 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.

| Stand | SCA Type | SCA Name | Acres | Comments |
|-------|----------|----------|-------|----------|
| | | | | |



8 – 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 |
|-------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |
| 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. |