



## TRAVERSE CITY FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 45 ENTRY YEAR: 2014

Compartment Acreage:      Counties: Grand Traverse

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**Stand Examiner:** Patrick Ruppen

**Legal Description:** T26N – R9W – Sections 25-35

**Management Goals:** Three sub-sections of the Land Type Association (LTA) VII .2 High Plains are found in this Compartment. A portion of the Compartment (lands in sections 25,26 and 35) falls within LTA 2221. This is described as coarse textured end moraine with Roselawn Loamy sands. Currently much of this land supports plantation pine which was planted on old depleted farm fields. Some of these plantations have been harvested recently and re-started while others are still under a thinning regime. State managed lands in sections 26-30 are found on LTA 5.1..1.1 which is described as flat or gently rolling with deep sandy outwash. This LTA is relatively low in fertility and productivity. Historically fire dependant conifers were found in association with oak and red maple. Jack, White and Red pine were common in mixed densities. Northern hardwoods would be found on less fire prone sites and in association with Kalkaska Sands. Fires on this sub-section were extensive, intense, and often covered several square miles. The stands on these sites were generally created after the last cycle of fires; which followed extensive harvesting in the early part of the last century. Stands of jack pine, oak aspen and birch were generated after the fires. Some stands have a red pine component due to planting efforts following the fires. The remaining (un harvested) pine oak stands from this genesis are past desired rotation age and attention should be given to restarting some of these stands. A definite trend is evident for some of these pine dominated stands to move toward a heavier oak component. Oak should be encouraged where possible. Red pine could be re-planted as a component of some of these stands to grow in with naturally forming white and jack pine, oak ,red maple and aspen. A number of stands were partially harvested with shelter wood or seed tree harvests in previous entries. If adequate regeneration has formed in the sub-canopy, re-treat these stands to remove most remaining canopy; with the intention of releasing the advanced regeneration. Some aspen clones are found on this sub-section and should be managed for age class distribution. Sub-section 5.1.2.1 is deep well drained outwash mainly composed of Rubicon and Croswell loamy sands. This cover the parts of this compartment in Sections 32-34. These soils are slightly more fertile than surrounding soils. This area is laced with drainages of Parker Creek and associated headwaters. Upland areas are mainly aspen dominated stands with pines and oak. These stands should be managed for age class distribution. Some lowland areas in this part of the compartment have extensive blowdown but associated with this is heavy natural regeneration with an impressive amount of cedar. The tangled blowdown areas seem to be impenetrable for deer. An opportunity exists on a part of this compartment to manage for a high aged natural pine complex. This area between forks of Twenty-two Creek involves stands 108, 103, 118, 126, 141, 147, 149. A Special Conservation Area has been proposed for this area to manage towards old aged natural pine/oak.

**Soil and Topography:** Rubicon –Roselawn, Croswell and Roscommon Sands with Rifle Peat and Lupton Muck along creeks. The area is level to very slightly rolling.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Stand and private land are inter-mingled. Primarily state lands to the north and west. Private lands are rural in nature.

**Unique, Natural Features:** a branch of twenty-two creek goes underground in sec 28.

**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):** The grave of Emma Northrup '1875' ("The Little girl's grave") is located within this compartment. An old homestead was located in section 25.

**Special Management Designations or Considerations:** Headwaters of Parker Creek in Sections 33 and 34

**Watershed and Fisheries Considerations:** This compartment contains portions of Parker Creek (both the North and the South Branches) and Twenty Two Creek. All of these streams are State designated trout streams, and Twenty Two Creek falls under the jurisdiction of the Boardman River Natural Rivers Plan. Parker Creek has a history of beaver activity which impacts the local trout population, and cuts that encourage beaver activity should be avoided. All three of these streams are hosts to naturally reproducing populations of brook trout and brown trout, and are considered high quality cold-water tributaries to the Boardman River.

**Wildlife Habitat Considerations:** A very small percentage of this compartment falls on a ground moraine which typically has some of the better soils in this area. Existing mixes of pine/oak/aspens/hardwood forest should be maintained with small patch cuts and thinning, retaining snags and other habitat elements as much as possible. Some succession to mature white pine forest and hardwood is desirable in the long run.

Most of the compartment falls on an outwash plain which was historically prone to frequent burning and harbored mixed pine forests, barrens, and some components of oak and northern hardwoods. This landscape should continue to be managed for a variety of successional stages of pine-oak-aspens forest and grass-scrub openings, with some mid to late successional forest in places. A few stands could be allowed to gradually succeed to mixed pine forest, while others should be set back through timber harvesting. Such harvesting should incorporate residual live trees, snags, and some down logs to replicate within-stand habitat structure left after wildfires. Prescribed burning will also help maintain barrens habitat. Oak is a very important component of forests here and should be maintained or regenerated as much as possible. Species associated with pine-oak-aspens mixed forest and Openland habitat, such as badger, wild turkey, scarlet tanager, hog-nosed snake, ruffed grouse, Cooper's hawk, red-backed salamander, deer, hairy woodpecker, and gray squirrel will benefit from management here. Pine plantations should incorporate tree species and structural diversity as much as possible. Important deer yarding areas along creek bottoms should be maintained in swamp conifer cover.

There is also a section of outwash plain that lies south of Parker Creek and is somewhat protected from running wildfires by the ground moraine to the southwest and the creek to the north. Consequently, historic forests consisted of beech-maple, mixed pine-hemlock, and cedar in low areas. Past management resulted in stands of aspens. Much of the area has a high water table. The productive game habitat here is popular with many hunters. Some areas could be allowed to succeed naturally if access is a barrier. Beaver flooding along Parker Creek has created important aquatic habitat for herons, wood duck, tree swallows, and bats, and many other species.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of coarse-textured till. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Coldwater Shale that has no current economic use. The nearest gravel pit is two miles to the east and potential should be good along the south and east. This area is located along the south edge of the prolific Silurian Guelph (Niagaran) reef trend. Most of the Compartment is leased and held by old leases. Additional

reefs may be found in this compartment. The Antrim Shale has not been developed in this area and may be too deep

**Vehicle Access:** Access south or Parker Creek drainages is difficult due to private lands. Access is generally good throughout the rest of the compartment.

**Survey Needs:** None known at this time.

**Recreational Facilities and Opportunities:** North Country Trail, Shore to Shore Horseback Trail , Grand Traverse Motorcycle Trail and the Boardman Valley Snowmobile Trail

**Fire Protection:**

**Additional Compartment Information:**

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\*\*\*\* The following information is displayed on the attached compartment maps:

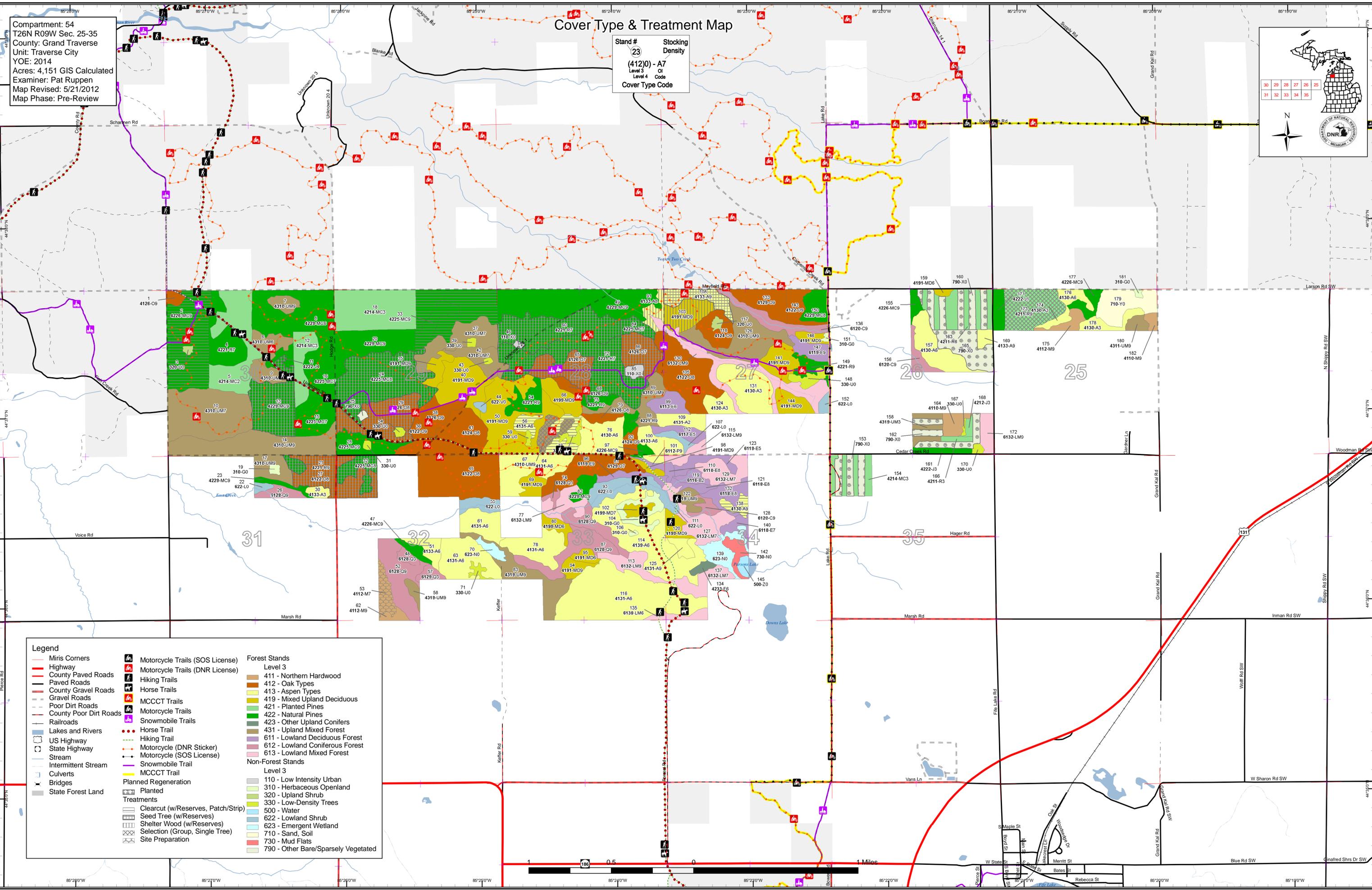
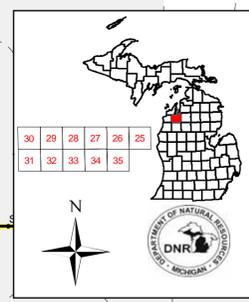
**Base feature information, stand numbers, cover types**

**Suggested potential old growth**

Compartment: 54  
 T26N R09W Sec. 25-35  
 County: Grand Traverse  
 Unit: Traverse City  
 YOY: 2014  
 Acres: 4,151 GIS Calculated  
 Examiner: Pat Ruppen  
 Map Revised: 5/21/2012  
 Map Phase: Pre-Review

# Cover Type & Treatment Map

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



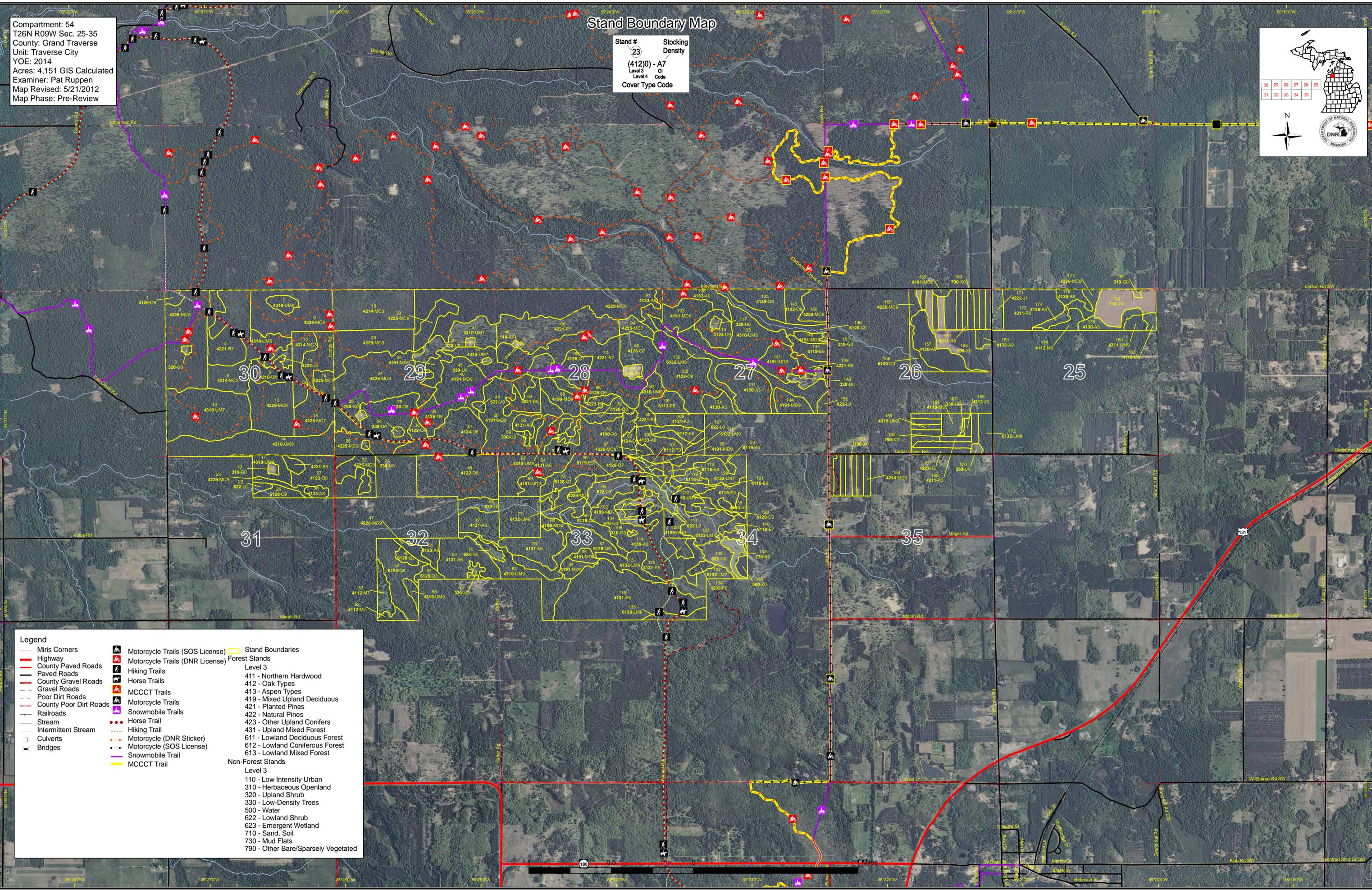
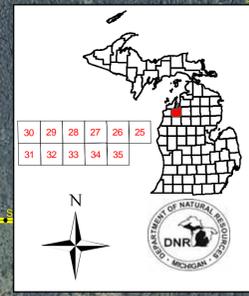
**Legend**

<ul style="list-style-type: none"> <li>— Miris Corners</li> <li>— Highway</li> <li>— County Paved Roads</li> <li>— Paved Roads</li> <li>— County Gravel Roads</li> <li>— Gravel Roads</li> <li>— Poor Dirt Roads</li> <li>— County Poor Dirt Roads</li> <li>— Railroads</li> <li>— Lakes and Rivers</li> <li>— US Highway</li> <li>— State Highway</li> <li>— Stream</li> <li>— Intermittent Stream</li> <li>— Culverts</li> <li>— Bridges</li> <li>— State Forest Land</li> </ul>	<ul style="list-style-type: none"> <li>— Motorcycle Trails (SOS License)</li> <li>— Motorcycle Trails (DNR License)</li> <li>— Hiking Trails</li> <li>— Horse Trails</li> <li>— MCCCT Trails</li> <li>— Motorcycle Trails</li> <li>— Snowmobile Trails</li> <li>— Horse Trail</li> <li>— Hiking Trail</li> <li>— Motorcycle (DNR Sticker)</li> <li>— Motorcycle (SOS License)</li> <li>— Snowmobile Trail</li> <li>— MCCCT Trail</li> <li>— Planned Regeneration</li> <li>— Planted</li> <li>— Clearcut (w/Reserves, Patch/Strip)</li> <li>— Seed Tree (w/Reserves)</li> <li>— Shelter Wood (w/Reserves)</li> <li>— Selection (Group, Single Tree)</li> <li>— Site Preparation</li> </ul>	<p><b>Forest Stands</b></p> <p>Level 3</p> <ul style="list-style-type: none"> <li>411 - Northern Hardwood</li> <li>412 - Oak Types</li> <li>413 - Aspen Types</li> <li>419 - Mixed Upland Deciduous</li> <li>421 - Planted Pines</li> <li>422 - Natural Pines</li> <li>423 - Other Upland Conifers</li> <li>431 - Upland Mixed Forest</li> <li>611 - Lowland Deciduous Forest</li> <li>612 - Lowland Coniferous Forest</li> <li>613 - Lowland Mixed Forest</li> </ul> <p><b>Non-Forest Stands</b></p> <p>Level 3</p> <ul style="list-style-type: none"> <li>110 - Low Intensity Urban</li> <li>310 - Herbaceous Openland</li> <li>320 - Upland Shrub</li> <li>330 - Low-Density Trees</li> <li>500 - Water</li> <li>622 - Lowland Shrub</li> <li>623 - Emergent Wetland</li> <li>710 - Sand, Soil</li> <li>730 - Mud Flats</li> <li>790 - Other Bare/Sparsely Vegetated</li> </ul>
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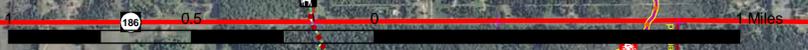
# Stand Boundary Map

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



**Legend**

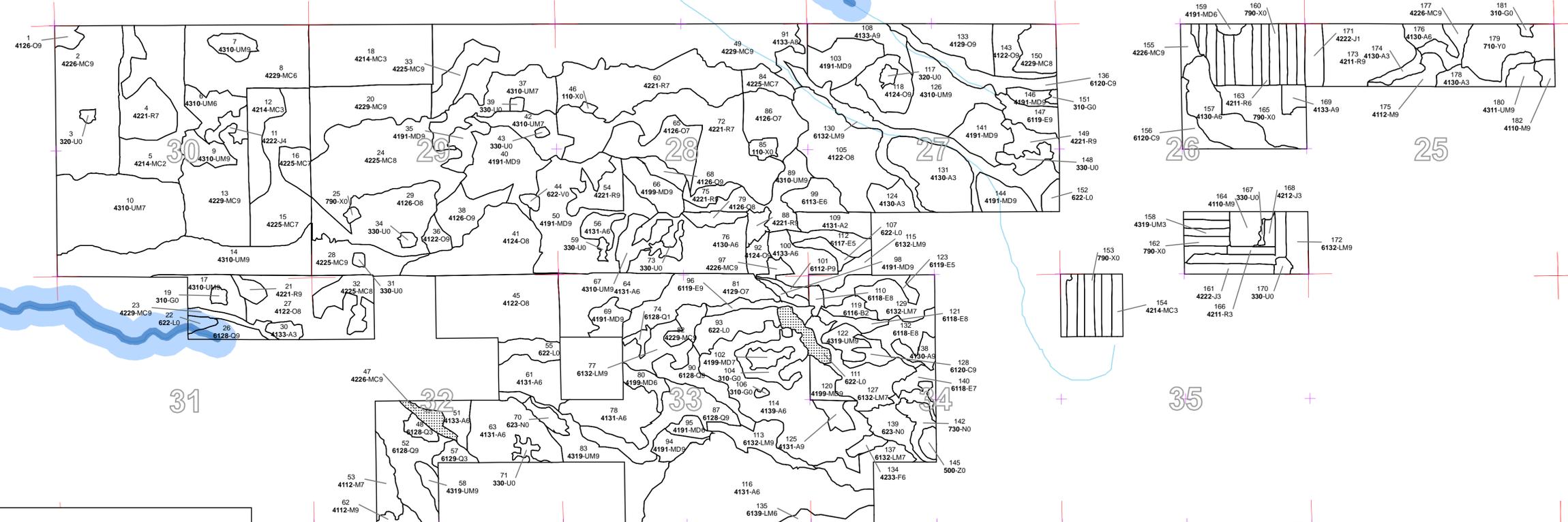
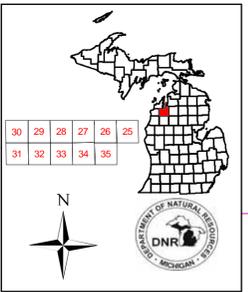
Miris Corners	Motorcycle Trails (SOS License)	Stand Boundaries
Highway	Motorcycle Trails (DNR License)	Forest Stands
County Paved Roads	Hiking Trails	<b>Level 3</b>
Paved Roads	Horse Trails	411 - Northern Hardwood
County Gravel Roads	MCCCT Trails	412 - Oak Types
Gravel Roads	Motorcycle Trails	413 - Aspen Types
Poor Dirt Roads	Snowmobile Trails	419 - Mixed Upland Deciduous
County Poor Dirt Roads	Horse Trail	421 - Planted Pines
Railroads	Hiking Trail	422 - Natural Pines
Stream	Motorcycle (DNR Sticker)	423 - Other Upland Conifers
Intermittent Stream	Motorcycle (SOS License)	431 - Upland Mixed Forest
Culverts	Snowmobile Trail	611 - Lowland Deciduous Forest
Bridges	MCCCT Trail	612 - Lowland Coniferous Forest
		613 - Lowland Mixed Forest
		<b>Non-Forest Stands</b>
		<b>Level 3</b>
		110 - Low Intensity Urban
		310 - Herbaceous Openland
		320 - Upland Shrub
		330 - Low-Density Trees
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		622 - Lowland Shrub
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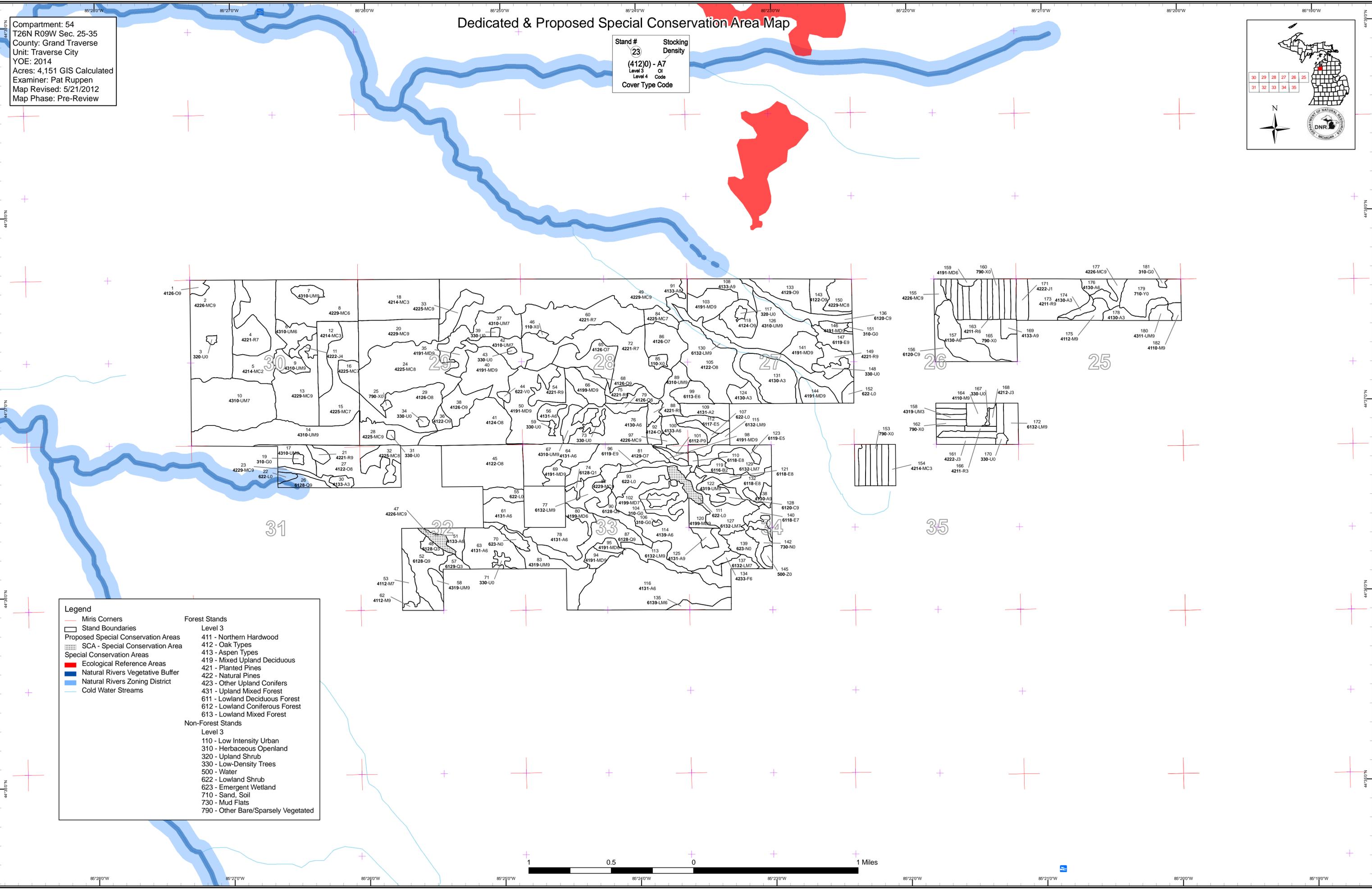
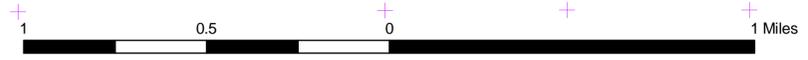
# Dedicated & Proposed Special Conservation Area Map

Compartment: 54  
 T26N R09W Sec. 25-35  
 County: Grand Traverse  
 Unit: Traverse City  
 YOE: 2014  
 Acres: 4,151 GIS Calculated  
 Examiner: Pat Ruppen  
 Map Revised: 5/21/2012  
 Map Phase: Pre-Review

Stand #  
 (412)0 - A7  
 Level 3  
 Level 4 Code  
 Cover Type Code



- Legend**
- Miris Corners
  - Stand Boundaries
  - Proposed Special Conservation Areas
  - Special Conservation Areas
  - Ecological Reference Areas
  - Natural Rivers Vegetative Buffer
  - Natural Rivers Zoning District
  - Cold Water Streams
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
  - 412 - Oak Types
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 421 - Planted Pines
  - 422 - Natural Pines
  - 423 - Other 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
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland
  - 710 - Sand, Soil
  - 730 - Mud Flats
  - 790 - Other Bare/Sparsely Vegetated



**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	20	63	0	351	144	8	9	23	18	0	0	0	0	35	669
Bare/Sparsely Vegetated	108	0	0	0	0	0	0	0	0	0	0	0	0	0	108
Bog	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Cedar	0	0	0	0	0	0	0	0	0	0	0	23	18	0	41
Herbaceous Openland	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Jack Pine	0	25	8	0	0	0	0	0	0	0	0	0	0	0	33
Low-Density Trees	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Lowland Conifers	0	3	5	0	0	0	0	37	0	0	0	0	10	69	126
Lowland Deciduous	0	0	0	13	0	28	18	14	29	0	0	0	0	0	101
Lowland Mixed Forest	0	0	0	0	0	0	0	10	33	51	30	19	25	33	202
Lowland Shrub	63	0	0	0	0	0	0	0	0	0	0	0	0	0	63
Marsh	28	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Mixed Upland Deciduous	0	0	0	16	7	0	25	23	36	0	4	0	0	177	288
Natural Mixed Pines	0	0	0	0	0	0	4	396	169	0	29	0	0	152	749
Northern Hardwood	0	0	0	0	0	0	20	10	0	5	12	0	0	0	46
Oak	0	0	0	0	0	0	0	30	60	79	52	93	0	234	548
Paper Birch	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
Planted Mixed Pines	0	20	170	0	0	0	0	0	0	0	0	0	0	0	191
Red Pine	0	37	0	0	0	50	0	222	12	0	13	0	0	18	351
Sand, Soil	46	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Upland Mixed Forest	0	12	0	0	0	17	5	65	11	0	19	134	10	199	472
Upland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Spruce/Fir	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
Urban	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
<b>Total</b>	<b>337</b>	<b>167</b>	<b>184</b>	<b>379</b>	<b>155</b>	<b>102</b>	<b>81</b>	<b>830</b>	<b>372</b>	<b>135</b>	<b>158</b>	<b>270</b>	<b>63</b>	<b>917</b>	<b>4151</b>



## Table 2 – Proposed Treatment Summaries

Traverse City Mgt. Unit  
Year of Entry 2014

Compartment 054  
Total Compartment Acres: 4151

### Acres by Treatment Type

Commercial Harvest - 875	Site Prep - 14	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

### Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	34	0	23	10	0	0		66
Mixed Upland Deciduous	0	0	0	27	0	0		27
Natural Mixed Pines	171	0	191	0	0	0		362
Oak	0	0	173	0	0	0		173
Red Pine	0	50	183	0	0	0		232
Upland Mixed Forest	0	14	0	0	0	0		14
<b>Total</b>	<b>205</b>	<b>64</b>	<b>569</b>	<b>37</b>	<b>0</b>	<b>0</b>		<b>875</b>



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	61054002-Cut	92.0	42260 - Natural Pine, Mixed Deciduous	High Density Log	75	51-80	Harvest	Clearcut with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Mark some red pine and well formed oak and also retain white pine and oak 6" or less. Jack pine dominated stand is converting to oak. Attempt to protect advanced regeneration. Retain only trees of good form and health that can remain through next generation. Consider green up requirements due to un-cut sale along part of west border-across road. Leave a buffer along that sale with heavier retention -greater than 10 sq. ft basal area.</p> <p><u>Other</u> Expect new stand to form consisting of oak, jack pine, red maple and to a lesser amount white and red pine.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
13	61054013-Cut	59.5	42290 - Natural Mixed Pine	High Density Log	75	111-140	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Stand has old barrens characteristics with large scatted oak and pine and 75 age grown in. Remove jack pine, cherry, aspen, red maple and poorly formed oak. Retain (some/all) red and white pine and large diameter oak 20+" dbh. Mark some other well formed oak to retain from younger age classes. Stand should fill in with jack pine, white pine, oak and red maple and psosible aspen if found in stand. ORV trail in stand. Consider during sale prep.</p> <p><u>Other</u> Stand should regenrate to mixed pine, oak, red maple, aspen.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
21	61054021-Cut	5.8	42210 - Natural Red Pine	High Density Log	82	81-110	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Remove most red pine to promote advanced regeneration that has formed in understory. Attempt to protect regeration as possible.</p> <p><u>Specs:</u></p> <p><u>Other</u> Harvest with surrounding stand. Cruise this stand sepearate.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
24	61054024-Cut	101.1	42250 - Pine, Oak	Medium Density Log	83	51-80	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Remove most remaining overstory to release advanced regeneration in understory. Retain some pine and well formed oak for mast and seed production. Snowmobile and motorcycle trail pass through stand. Consider during sale prep.</p> <p><u>Specs:</u></p> <p><u>Other</u> Expect new age to consist of mixed oak, pine, aspen, red maple.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>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
27 61054027-Cut	51.8	4122 - Oak, Pine	Medium Density Log	102	1-50	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal

Prescription Remove most overstory to release advanced regeneration that has formed in understory. Retain well formed oak and pine 10-30 Ba. Attempt to protect thicker pockets of regeneration.

Other Comments: Expect regeration of mixed oak and pine and red maple with some aspen.

Next Steps:

Proposed Start Date: 10/01/2013

29 61054029-Cut	57.1	4126 - White, Black, N. Pin Oak	Medium Density Log	117	51-80	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
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Prescription Mark some well formed oak and pine for retention and remove the rest of the remaining canopy to release advanced regeneration in understory. Motorcycle trail adjacent to SW corner of stand and snowmobile trail passes through. Consider

Other Comments: Attempt to protect heavy pockets of regeneration. Expect regeneration of mixed oak and pine with red maple and aspen.

Next Steps:

Proposed Start Date: 10/01/2013

32 61054032-Cut	19.1	42250 - Pine, Oak	Medium Density Log	82	51-80	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
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Prescription Remove most red pine to promote advanced regeneration that has formed in understory. Attempt to protect regeneration as possible.

Other Comments: Harvest with surrounding stand. Cruise this stand separate.

Next Steps:

Proposed Start Date: 10/01/2013

33 61054033-Cut	18.0	42250 - Pine, Oak	High Density Log	75	81-110	Harvest	Clearcut with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
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Prescription Treat this stand with st 49. Final harvest but retain red pine , Oak < 6" dbh and also green mark some well formed oak >6"dbh. This stand has more of a component of large crowned oak than surrounding stand.. Retain 10-40 ba of well formed oak to keep this strip heavier to oak. Consider green-up requirements due to recently harvested sale along south border. There should not be an issue by the time that this stand is treated due to the age of the other stand.

Other Comments: expect regeneration of oak, jack pine and red maple with a smaller component of red pine and white pine.

Next Steps:

Proposed Start Date: 10/01/2013



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
49	61054049_sm all-Cut	61.2	42290 - Natural Mixed Pine	High Density Log	75	81-110	Harvest	Clearcut with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest jack pine stand that is converting to oak. Retain all red pine and oak 6" or less. Also mark some well formed (over 6" dbh) oak for retention and final harvest remaining merchantable stems. Retained stems will remain through next cycle. Consider green up requirements due to recently harvested sale along south border. There should not be an issue by the time that this stand is treated due to the age of the other stand.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u> Expect stand to regenerate to oak, jack pine, and red maple with a smaller amount of white pine and red pine.</p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
56	61054056-Cut	8.9	4131 - Aspen, Oak	High Density Pole	60	81-110	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Retain some well formed trees in canopy of oak, pine, red maple and final harvest remaining stand to regenerate. Retain no aspen to encourage regeneration unless cavity trees are found. Mark 1-3 trees /acre to drop for CWD/drumming logs. Motorcycle trail passes through NE part of stand. Consider during sale preparation.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u> Looks like remnant barrens area extending through small natural openings and stand 79. Treat with adjacent stands.</p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
60	61054060-Cut	74.7	42210 - Natural Red Pine	Low Density Log	75	81-110	Harvest	Seed Tree	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Remove most remaining overstory. Retain some well formed oak and pine for mast and seed. Consider retaining small diameter oak by contract specification. Chip tops to prepare site for trenching and planting. Motorcycle trail passes through stand. Consider during sale prep and site prep for planting.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u> Trench open areas of stand and plant red pine in a weave pattern.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
65	61054065-Cut	34.0	4126 - White, Black, N. Pin Oak	Low Density Log	75	51-80	Harvest	Seed Tree	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Remove most remaining overstory to release advanced regeneration in understory. Retain some well formed oak and pine from different age groups for mast and seed production. Motorcycle trail and Snowmpasses through the stand. Consider during sale preparation.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u> expect regeneration of mixed oak and pine along with red maple and aspen (POSSIBLE PLANTED PINE) Evaluate after harvest if it would be feasible to supplement natural regeneration with planted pine. Adjacent stands will be trenched and planted. .</p> <p><u>Next</u> <u>Steps:</u> Monitor regeneration and supplement with planted red pine if needed to attain desired stocking.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
67	61054067-Cut	14.1	4310 - Pine, Oak Mix	High Density Log	80	81-110	Harvest	Single Tree Selection	42250 - Pine, Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Manage for island within areas of regenerated aspen. Remove jack pine and aspen then mark remaining stand for crop tree release. Some areas of thick white pine poles/saps may need to be marked around or perhaps they can be thinned as well, Motorcycle trail passes through stand. Consider during sale preparation.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
72	61054072-Cut	102.2	42210 - Natural Red Pine	Low Density Log	75	81-110	Harvest	Seed Tree	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> Remove most remaining overstory to release advanced regeneration and to prep site for planting. Require chipping in contract to reduce slash load so that trenching is possible. Retain some well formed oak and pine for mast and seed production. Motorcycle trail and Snowmobile trail pass through stand. Consider during sale preparation.</p> <p><u>Specs:</u></p> <p><u>Other</u> Trench and plant red pine in a weave pattern, planting open areas after harvest.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
76	61054076_sm all-Cut	16.5	4130 - Aspen	High Density Pole	47	51-80	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Retain some well formed oak, pine, maple and final harvest remaining stems to regenerate stand. No aspen will be retained unless cavities are found to encourage aspen regeneration. Mark 1-3 trees /acre to drop and leave for CWD/drumming logs following TC guidelines. Motorcycle trail in northwest part of stand and North Country and Shore to Shore follow Cedar Creek Road. Consider during sale prep.</p> <p><u>Specs:</u></p> <p><u>Other</u> Expect regeneration of oak, aspe, pine, maple and cherry.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
84	61054084-Cut	10.9	42250 - Pine, Oak	Low Density Log	75	1-50	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Remove most of remaining canopy to promote advanced regeneration in sub-canopy. Retain some well formed oak and pine from represented age classes.</p> <p><u>Specs:</u></p> <p><u>Other</u> expect regeneration of oak and pine, maple and aspen.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>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
<b>86 61054086-Cut</b>	30.2	4126 - White, Black, N. Pin Oak	Low Density Log	75	51-80	Harvest	Seed Tree	4122 - Oak, Pine	Cmpt. Review Proposal

Prescription Remove most of remaining overstory to promote advanced regeneration in understory layer. Retain some well formed pine and oak for mast and seed production. North Country, ORV and Snowmobile Trail all pass through stand. Consider trails in sale prep.

Other Expect regeneration of mixed oak, pine, aspen and maple.

Comments:

Next Steps:

Proposed Start Date: 10/01/2013

<b>91 61054091-Cut</b>	10.1	4133 - Aspen, Mixed Pine	Medium Density Log	87	81-110	Harvest	Shelter Wood with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
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Prescription Remove aspen and jack pine and red maple-possible low quality oak and pine to regenerate through canopy of pine and oak. Treat with stands 103 and 108.

Other Expect regeneration of aspen, oak, pines and maple.

Comments:

Next Steps:

Proposed Start Date: 10/01/2013

<b>61054103-Cut</b>	26.9					Harvest	Shelter Wood with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Remove aspen, red maple, jack pine and poorly formed oak and pine to open up canopy to encourage formation of new stand. Area has a big pine look and stand is filling in with white and red pine. Stands between these two drainages will be managed to old pine and oak. Retain trees with the intention of leaving them till new stand is mature. This should promote big pine look in this area between the drainages. Motorcycle trail passes through stand. Consider trail during sale prep.

Other Expect new age class to form of mixed pine, oak aspen and red maple. Manage this stands toward old pine and oak

Comments:

Next Steps:

Proposed Start Date: 10/01/2013

<b>61054108-Cut</b>	22.7					Harvest	Seed Tree	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Harvest aspen, jack pine, red maple, and poor quality oak. Intention is to regenerate the aspen and pine in this stand but in the long term to manage the area between the two drainage for old pine and oak. A good bit of advanced pine and oak regeneration is present. Retain well formed oak and pine for seed and mast.

Other Expect regeneration of pine, oak, aspen and red maple.

Comments:

Next Steps:

Proposed Start Date: 10/01/2013

**Table 3 -- Treatments Prescribed  
with No Limiting Factor**



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval
										Status
173	61054173-Cut	49.5	42110 - Planted Red Pine	High Density Log	54	171-200	Harvest	Single Tree Selection	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Reduce basal area to approximately 120.

Specs:

Other May need marked or may be able to achieve goal with contract specification -every third or fourth tree.

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2013

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**Total Treatment  
Acreage Proposed: 866.5**

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



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
138	61054138-Cut	8.1	4130 - Aspen	High Density Log	89	111-140	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
<p><u>Prescription</u> Retain some well formed red maple and pine if found and final harvest aspen to regenerate.</p> <p><u>Specs:</u></p> <p><u>Other Comment:</u> expect regeneration of aspen, red maple, pine and blasam fir</p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p> <p><u>Limiting Factor and No Treatment Reason</u> 2B: Unknown if access through adjacent landowner(s) is possible Would be desirable if access could be attained.</p>										

53	61054053-Prep	14.4	4112 - Maple, Beech, Cherry Association	Low Density Log	62	1-50	Site Prep	Trenching	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> Trench and plant red pine</p> <p><u>Specs:</u></p> <p><u>Other Comment:</u> private access needed</p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> Unspecified</p> <p><u>Limiting Factor and No Treatment Reason</u> 2B: Unknown if access through adjacent landowner(s) is possible Stand was accessed in past but current access not known</p>										

**Total Treatment Acreage Proposed: 22.5**

**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 - Incomplete
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Prescription Within harvest area, remove all aspen. Heavily thin oak and maple to a residual BA of about 50 sf. Leave retention by acreage 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**

## Traverse City Mgt. Unit

## 5 – Forested Stands

Compartment: 054  
Year of Entry: 2014

Stand	Traverse City Mgt. Unit			5 – Forested Stands		Compartment: 054 Year of Entry: 2014
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4126 - White, Black, N. Pin Oak	High Density Log	5.5	112	81-110	
2	42260 - Natural Pine, Mixed Deciduous	High Density Log	92.0	75	51-80	
4	42210 - Natural Red Pine	Low Density Log	36.3	73	51-80	Was R7 stand age 83. 20 may be first age.
5	42141 - Planted Mixed Pine, Mixed Deciduous	Medium Density	66.7	20	1-50	
6	4310 - Pine, Oak Mix	High Density Pole	17.5	57	81-110	New stand added.
7	4310 - Pine, Oak Mix	High Density Log	9.7	140	111-140	
8	42290 - Natural Mixed Pine	High Density Pole	73.7	75	51-80	
9	4310 - Pine, Oak Mix	High Density Log	12.9	75	51-80	stands 12,8,7 were all one J6 stand in o/i.
10	4310 - Pine, Oak Mix	Low Density Log	92.9	115	1-50	
11	42220 - Natural Jack Pine	Low Density Pole	8.1	20	1-50	
12	42141 - Planted Mixed Pine, Mixed Deciduous	High Density Sapling	26.2	20	1-50	
13	42290 - Natural Mixed Pine	High Density Log	59.5	Uneven Age	111-140	
14	4310 - Pine, Oak Mix	High Density Log	79.7	Uneven Age	81-110	
15	42250 - Pine, Oak	Low Density Log	59.6	Uneven Age	1-50	
16	42250 - Pine, Oak	Low Density Log	12.4	75	1-50	
17	4310 - Pine, Oak Mix	High Density Log	18.7	102	51-80	
18	42141 - Planted Mixed Pine, Mixed Deciduous	High Density Sapling	77.4	20	1-50	
20	42290 - Natural Mixed Pine	High Density Log	51.0	83	81-110	

S t a n d	Traverse City Mgt. Unit		5 – Forested Stands			Compartment: 054	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2014	
21	42210 - Natural Red Pine	High Density Log	5.8	82	81-110		
23	42290 - Natural Mixed Pine	High Density Log	6.8	82	81-110		
24	42250 - Pine, Oak	Medium Density Log	101.1	83	51-80		
26	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	10.2	136	111-140		
27	4122 - Oak, Pine	Medium Density Log	51.8	102	1-50		First age 102 or 83 from previous.
28	42250 - Pine, Oak	High Density Log	28.4	75	81-110		
29	4126 - White, Black, N. Pin Oak	Medium Density Log	57.1	117	51-80		
30	4133 - Aspen, Mixed Pine	High Density Sapling	5.5	15	1-50		was hooked with PI stand 23 in o/i and was in TS# 044-95 with PI stand 23, 28. TCR 11/96.
32	42250 - Pine, Oak	Medium Density Log	19.1	Uneven Age	51-80		
33	42250 - Pine, Oak	High Density Log	18.0	75	81-110		
35	4191 - Mixed Upland Deciduous with Conifer	High Density Log	11.9	75	81-110		
36	4122 - Oak, Pine	High Density Log	6.8	Uneven Age	81-110		New stand added.
37	4310 - Pine, Oak Mix	Low Density Log	41.4	112	1-50		TS# 069-06 Cut all jp aspen wp rm bc. TCR 5/09.
38	4126 - White, Black, N. Pin Oak	High Density Log	22.2	110	81-110		New stand added.
40	4191 - Mixed Upland Deciduous with Conifer	High Density Log	45.7	Uneven Age	81-110		
41	4124 - Red with White Oak	Medium Density Log	60.3	83	1-50		
42	4310 - Pine, Oak Mix	Low Density Log	22.0	75	1-50		
45	4122 - Oak, Pine	Medium Density Log	81.6	Uneven Age	1-50		



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## Traverse City Mgt. Unit

## 5 – Forested Stands

Compartment: 054

Year of Entry: 2014



Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42260 - Natural Pine, Mixed Deciduous	High Density Log	7.2	Uneven Age	171-200	
6128 - Lowland Coniferous, Mixed Deciduous	High Density Sapling	5.5	20	1-50	2002FMD: C5F5C7E4 s stand 42 is main part of o/i stand that also included stands 38 45 and east half 49. 2011FMD; Most of old canopy is blown down. Stand is thick saplings and poles with a lot of cedar.
42290 - Natural Mixed Pine	High Density Log	160.1	75	81-110	
4191 - Mixed Upland Deciduous with Conifer	High Density Log	78.1	Uneven Age	81-110	
4133 - Aspen, Mixed Pine	High Density Pole	12.7	Uneven Age	111-140	
6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	42.8	Uneven Age	51-80	
4112 - Maple, Beech, Cherry Association	Low Density Log	14.4	62	1-50	
42211 - Natural Red Pine, Mixed Deciduous	High Density Log	18.2	Uneven Age		
4131 - Aspen, Oak	High Density Pole	8.9	60	81-110	New stand added.
6129 - Mixed Coniferous Lowland Forest	High Density Sapling	6.6	Uneven Age	1-50	
4319 - Mixed Upland Forest	High Density Log	5.4	60	111-140	2002FMD: M5 Hardwood Ridge in swamp. 2011FMD red maple oak and white pine with balsam and spruce.
42210 - Natural Red Pine	Low Density Log	74.7	75	81-110	New stand added.
4131 - Aspen, Oak	High Density Pole	25.0	48	51-80	
4112 - Maple, Beech, Cherry Association	High Density Log	5.4	62	51-80	
4131 - Aspen, Oak	High Density Pole	45.4	39	81-110	
4131 - Aspen, Oak	High Density Pole	44.9	34	81-110	
4126 - White, Black, N. Pin Oak	Low Density Log	34.0	Uneven Age	51-80	New stand added.

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## Traverse City Mgt. Unit

## 5 – Forested Stands

Compartment: 054  
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4199 - Other Mixed Upland Deciduous	High Density Log	18.6	Uneven Age	51-80	
4310 - Pine, Oak Mix	High Density Log	14.1	Uneven Age	81-110	
4126 - White, Black, N. Pin Oak	High Density Log	7.0	92	51-80	
4191 - Mixed Upland Deciduous with Conifer	High Density Log	11.4	Uneven Age	81-110	
42210 - Natural Red Pine	Low Density Log	102.2	75	81-110	New stand added.
6128 - Lowland Coniferous, Mixed Deciduous	Low Density Sapling	3.4	13	1-50	
42211 - Natural Red Pine, Mixed Deciduous	High Density Log	8.4	75	81-110	
4130 - Aspen	High Density Pole	51.0	47	51-80	
6132 - Mixed Lowland Forest with Cedar	High Density Log	19.0	107	81-110	
4131 - Aspen, Oak	High Density Pole	34.4	34	51-80	
4126 - White, Black, N. Pin Oak	Medium Density Log	7.2	92	51-80	
4199 - Other Mixed Upland Deciduous	High Density Pole	9.0	34	51-80	
4129 - Mixed Oak	Low Density Log	43.4	92	1-50	
42290 - Natural Mixed Pine	High Density Log	10.0	85	51-80	
4319 - Mixed Upland Forest	High Density Log	39.0	Uneven Age	111-140	
42250 - Pine, Oak	Low Density Log	10.9	75	1-50	New stand added.
4126 - White, Black, N. Pin Oak	Low Density Log	30.2	75	51-80	New stand added.
6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	37.4	75	81-110	

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## Traverse City Mgt. Unit

## 5 – Forested Stands

Compartment: 054  
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
88	42210 - Natural Red Pine	High Density Log	6.3	82	111-140	
89	4310 - Pine, Oak Mix	High Density Log	30.2	75	81-110	
90	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	19.7	Uneven Age	51-80	
91	4133 - Aspen, Mixed Pine	Medium Density Log	10.1	87	81-110	
92	4124 - Red with White Oak	High Density Log	8.0	110	81-110	
94	4191 - Mixed Upland Deciduous with Conifer	High Density Log	9.4	65	81-110	New stand added.
95	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	6.6	34	81-110	2002FMD: E5
96	6119 - Mixed Lowland Deciduous Forest	High Density Log	9.7	82	81-110	
97	42260 - Natural Pine, Mixed Deciduous	High Density Log	4.1	65	111-140	
98	4191 - Mixed Upland Deciduous with Conifer	High Density Log	4.3	103	51-80	
99	6113 - Lowland Maple	High Density Pole	15.8	55	51-80	
100	4133 - Aspen, Mixed Pine	High Density Pole	21.9	42	81-110	
101	6112 - Lowland Aspen	High Density Log	3.5	85	171-200	
102	4199 - Other Mixed Upland Deciduous	Low Density Log	6.6	43	1-50	
103	4191 - Mixed Upland Deciduous with Conifer	High Density Log	26.9	83		
105	4122 - Oak, Pine	Medium Density Log	67.6	Uneven Age	1-50	
108	4133 - Aspen, Mixed Pine	High Density Log	22.7	75	81-110	Scattered old pine and oak then most is 75 age. Some oak and pine poles seem to be 40-50 yr old. Big old aspen. Areas with a lot of white pine saps and poles. Could cut this and grow aspen/oak and pine regen through retained oak and pine.

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## Traverse City Mgt. Unit

## 5 – Forested Stands

Compartment: 054  
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
109	4131 - Aspen, Oak	Medium Density	15.4	Uneven Age	1-50	
110	6118 - Lowland Deciduous with Cedar	Medium Density Log	3.6	89	1-50	
112	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	11.9	55	81-110	
113	6132 - Mixed Lowland Forest with Cedar	High Density Log	19.5	111	141-170	
114	4139 - Aspen, Mixed Deciduous	High Density Pole	91.9	32	81-110	
115	6132 - Mixed Lowland Forest with Cedar	High Density Log	10.5	106	111-140	
116	4131 - Aspen, Oak	High Density Pole	134.0	34	81-110	
118	4124 - Red with White Oak	High Density Log	21.0	92	81-110	
119	6116 - Lowland Birch	Medium Density	7.5	18	1-50	
120	4199 - Other Mixed Upland Deciduous	High Density Log	11.1	72	111-140	
121	6118 - Lowland Deciduous with Cedar	Medium Density Log	7.3	89	51-80	
122	4319 - Mixed Upland Forest	High Density Log	10.7	89	141-170	New stand added.
123	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	12.5	30	51-80	
124	4130 - Aspen	High Density Sapling	12.5	14	1-50	
125	4131 - Aspen, Oak	High Density Log	7.6	55	81-110	
126	4310 - Pine, Oak Mix	High Density Log	59.3	Uneven Age	81-110	
127	6132 - Mixed Lowland Forest with Cedar	Low Density Log	33.0	88		
128	6120 - Lowland Cedar	High Density Log	7.3	125	171-200	New stand added.

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## Traverse City Mgt. Unit

## 5 – Forested Stands

Compartment: 054  
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
129	6132 - Mixed Lowland Forest with Cedar	Low Density Log	25.3	120	1-50	
130	6132 - Mixed Lowland Forest with Cedar	High Density Log	51.3	96	111-140	
131	4130 - Aspen	High Density Sapling	44.8	14	1-50	
132	6118 - Lowland Deciduous with Cedar	Medium Density Log	17.6	65		
133	4129 - Mixed Oak	High Density Log	27.7	Uneven Age	51-80	
134	42330 - Upland Fir	High Density Pole	4.8	42	111-140	
135	6139 - Mixed Lowland Forest	High Density Pole	10.2	75	141-170	
136	6120 - Lowland Cedar	High Density Log	23.2	116	200+	
137	6132 - Mixed Lowland Forest with Cedar	Low Density Log	19.6	Uneven Age	1-50	
138	4130 - Aspen	High Density Log	8.1	89	111-140	New stand added.
140	6118 - Lowland Deciduous with Cedar	Low Density Log	8.3	89	1-50	New stand added.
141	4191 - Mixed Upland Deciduous with Conifer	High Density Log	23.5	Uneven Age	111-140	New stand added.
143	4122 - Oak, Pine	High Density Log	16.7	Uneven Age	81-110	
144	4191 - Mixed Upland Deciduous with Conifer	High Density Log	15.9	65	111-140	
146	4191 - Mixed Upland Deciduous with Conifer	High Density Log	6.7	80	51-80	New stand added.
147	6119 - Mixed Lowland Deciduous Forest	High Density Log	14.3	78	51-80	
149	42210 - Natural Red Pine	High Density Log	12.9	106	81-110	
150	42290 - Natural Mixed Pine	Medium Density Log	18.1	106	51-80	

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## Traverse City Mgt. Unit

## 5 – Forested Stands

Compartment: 054  
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
154	42140 - Planted Mixed Pine	High Density Sapling	20.5	16		
155	42260 - Natural Pine, Mixed Deciduous	High Density Log	6.2	Uneven Age	51-80	
156	6120 - Lowland Cedar	High Density Log	10.7	124	141-170	
157	4130 - Aspen	High Density Pole	36.5	46	111-140	
158	4319 - Mixed Upland Forest	High Density Sapling	11.6	15	1-50	
159	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	2.7	85	51-80	
161	42220 - Natural Jack Pine	High Density Sapling	9.6	15		
163	42110 - Planted Red Pine	High Density Pole	32.6	16		
164	4110 - Sugar Maple Association	High Density Log	11.9	105	81-110	
166	42110 - Planted Red Pine	High Density Sapling	4.0	15		
168	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	3.4	15		
169	4133 - Aspen, Mixed Pine	High Density Log	6.3	Uneven Age	51-80	
171	42220 - Natural Jack Pine	Low Density Sapling	11.8	10		
172	6132 - Mixed Lowland Forest with Cedar	High Density Log	13.5	Uneven Age	51-80	
173	42110 - Planted Red Pine	High Density Log	49.5	54	171-200	
174	4130 - Aspen	High Density Sapling	6.1	7	1-50	2002FMD A5
175	4112 - Maple, Beech, Cherry Association	High Density Log	10.0	75	1-50	
176	4130 - Aspen	High Density Pole	9.7	47	111-140	2002 FMD A6 47 age

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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 054  
Year of Entry: 2014



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
177	42260 - Natural Pine, Mixed Deciduous	High Density Log	11.0	105	81-110	.
178	4130 - Aspen	High Density Sapling	13.5	7		2002:A5
180	4311 - Pine, Aspen Mix	High Density Log	7.0	Uneven Age	51-80	
182	4110 - Sugar Maple Association	High Density Log	4.6	92	51-80	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	3202 - Autumn Olive/Honeysuckle	1.7	No	Unspecified	Old well pad planted to autumn olive-filling in with jack pine.
19	3102 - Grass	2.5	No	Unspecified	
22	6229 - Mixed lowland shrub	3.6	No	Unspecified	
25	790 - Other Bare/Sparsely Vegetate	1.7	No	Unspecified	
31	3302 - Low Density Conifer Trees	1.6	No	Unspecified	
34	3303 - Mixed Low Density Trees	2.3	No	Unspecified	
39	3302 - Low Density Conifer Trees	1.9	No	Unspecified	
43	3302 - Low Density Conifer Trees	1.2	No	Unspecified	
44	6225 - Bog	2.4	No	Unspecified	
46	11 - Low Intensity Urban	1.3	No	Unspecified	
55	6220 - Alder/willow	16.9	No	Unspecified	Stand swapped from Forested to Non-Forested.
59	3303 - Mixed Low Density Trees	1.8	No	Unspecified	
70	6232 - Wet Prairie	6.6	No	Unspecified	dead cedar killed by high water small pond flowing water grassy
71	3303 - Mixed Low Density Trees	3.7	No	Unspecified	
73	3303 - Mixed Low Density Trees	5.2	No	Unspecified	
85	11 - Low Intensity Urban	5.1	No	Unspecified	
93	6223 - Inundated Shrub Swamp	21.7	No	Unspecified	Beaver flooded area. Trees dead-cattail and tag alder.
104	3102 - Grass	18.2	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
106	3102 - Grass	1.0	No	Unspecified	
107	6229 - Mixed lowland shrub	6.0	No	Unspecified	
111	6223 - Inundated Shrub Swamp	10.2	No	Unspecified	
117	3202 - Autumn Olive/Honeysuckle	2.6	No	Unspecified	
139	6230 - Cattail	21.1	No	Unspecified	
142	730 - Mud Flats	10.3	No	Unspecified	
145	50 - Water	4.6	No	Unspecified	
148	3302 - Low Density Conifer Trees	8.7	No	Unspecified	
151	3102 - Grass	1.2	No	Unspecified	
152	6229 - Mixed lowland shrub	4.8	No	Unspecified	
153	790 - Other Bare/Sparsely Vegetate	19.5	Planted	Red Pine	Site harvested 2010 and trenched 2011 to be re-planted in spring 2012 if trees available.
160	790 - Other Bare/Sparsely Vegetate	29.7	Planted	Red Pine	FMD 2008: nominated for out of YOE harvest and re-plant in 2008. RPP. Trenched 1n 2011. Should plant in 2012 if trees available.
162	790 - Other Bare/Sparsely Vegetate	22.2	Planted	Red Pine	FMD 2008: Nominated for out of YOE harvest and re-plant. RPP. Trenched in 2011. Should re-plant rp in 2012 if trees available.
165	790 - Other Bare/Sparsely Vegetate	35.0	Planted	Red Pine	2008FMD: nominated in 2008 for out of YOE harvest and re-planting RPP. Trenched in 2011. Plant in 2012 if trees available. Scattered apple trees.
167	3302 - Low Density Conifer Trees	1.1	No	Unspecified	
170	3301 - Low Density Deciduous Tree	2.6	No	Unspecified	apple trees
179	710 - Sand, Soil	36.1	Yes	Red Pine	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
181	3105 - Mixed Upland Herbaceous	1.5	No	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
47	Unique Site - SCA	61054047	7.2	2002FMD: W9 W8M4W4 Old Growth Stand. 2011FMD: Stand has old growth characteristics but aspen and red maple have been cut in past. Should set up as unique site -type 2 old growth? Left large white pine, hemlock and oak last entry in pretty good stocking levels. Keep as old stand.
111	Unique Site - SCA	NF_61054111	10.2	part of SCA old aged stands



**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.