



COMPARTMENT REVIEW PRESENTATION

GAYLORD FOREST MANAGEMENT UNIT

COMPARTMENT: 51

ENTRY YEAR: 2012

ACREAGE: 2458

COUNTY: Antrim

Revision Date: 04/29/2010

Stand Examiner: Kimberly Lentz

Legal Description: T31N, R6W, Sections 7, 17, 18, 27, 28, 29, 30, 31, 32, & 33

Management Goals: To provide for the protection, integrated management and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

Soil and Topography: Major soils are Kalkaska on upland, Croswell-AuGres & Tawas Muck, and Roscommon Mucky sand on lowland sites. Terrain is level to very steep with slopes in some areas being up to 40%.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State ownership in compartment is intermixed with small tracts of private land. General use on state land is recreational camping, fishing, hunting for deer and upland small game.

Unique, Natural Features:

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: The Jordan River which is a designated wild & scenic river runs through part of the compartment which is also classified under the Natural Rivers Act. The stands adjacent to the Jordan river and its associated tributaries have been nominated for a High Conservation Value Area which includes a strip 400' on either side of these waterways.

Watershed and Fisheries Considerations: This compartment is within the Jordan River watershed and contains portions of the Jordan River, Severance Creek, Gook Creek, as well as two un-named streams, all of which are designated trout streams. Stand 91 is adjacent to the unnamed trout stream in Section 33, where sufficient buffers should be left near riparian areas in order to discourage beaver activity and dams.

Wildlife Habitat Considerations: This small compartment consists of a mixture of upland and lowland areas. The majority of the lowland area lies along the Jordan River. This area is used by a variety of species including waterfowl, amphibians, and various furbearers. The upland area contains a mixture of upland hardwood and aspen. Stands 73, 80, and 91 are going to be clear cut to provide early successional habitat used by white-tailed deer, wild turkey, ruffed grouse, and American woodcock. Stands 6, 85, 90, and 99 are going to be treated and will some structural diversity in these areas.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of coarse textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift are the Ellsworth Shale and Antrim Shale. These shales are quarried for cement products, elsewhere in the State. Several gravel pits were located on the uplands in this area. All State lands located on the uplands have good gravel potential. Oil and gas potential in the area is primarily for the Antrim Shale gas play. This compartment is partially in the Jordan River Management Plan area and leasing is restricted to non-development.

Vehicle Access: The compartment is located along M-66 highway with county maintained roads being Sweet Road, Mt. Bliss Road, Webster Bridge Road, Old State Road, and a portion of Graves Crossing Road. Remote trail roads are limited by vast wetland types in several sections. No road closures recommended at this time.

Survey Needs: Survey request will be submitted for section 7 in the vicinity of the new state acquisition.

Recreational Facilities and Opportunities: Graves Crossing state forest campground is in the southeast quarter of section 32. Swiss Hideaway private canoe livery is operated just east of the campground. There is also an established access site to the Jordan River located in the northwest quarter of section 7, off Webster Bridge Road. The Jordan Valley snowmobile trail is located on old railroad grades and utility lines as noted on the map.

Fire Protection:

Additional Compartment Information:

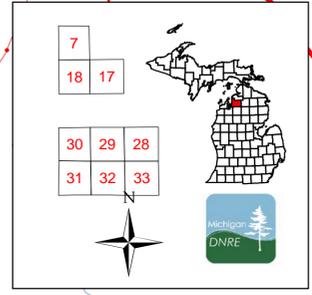
- **The following 3 reports from the IFMAP Inventory System are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Suggested potential and current SCA's**

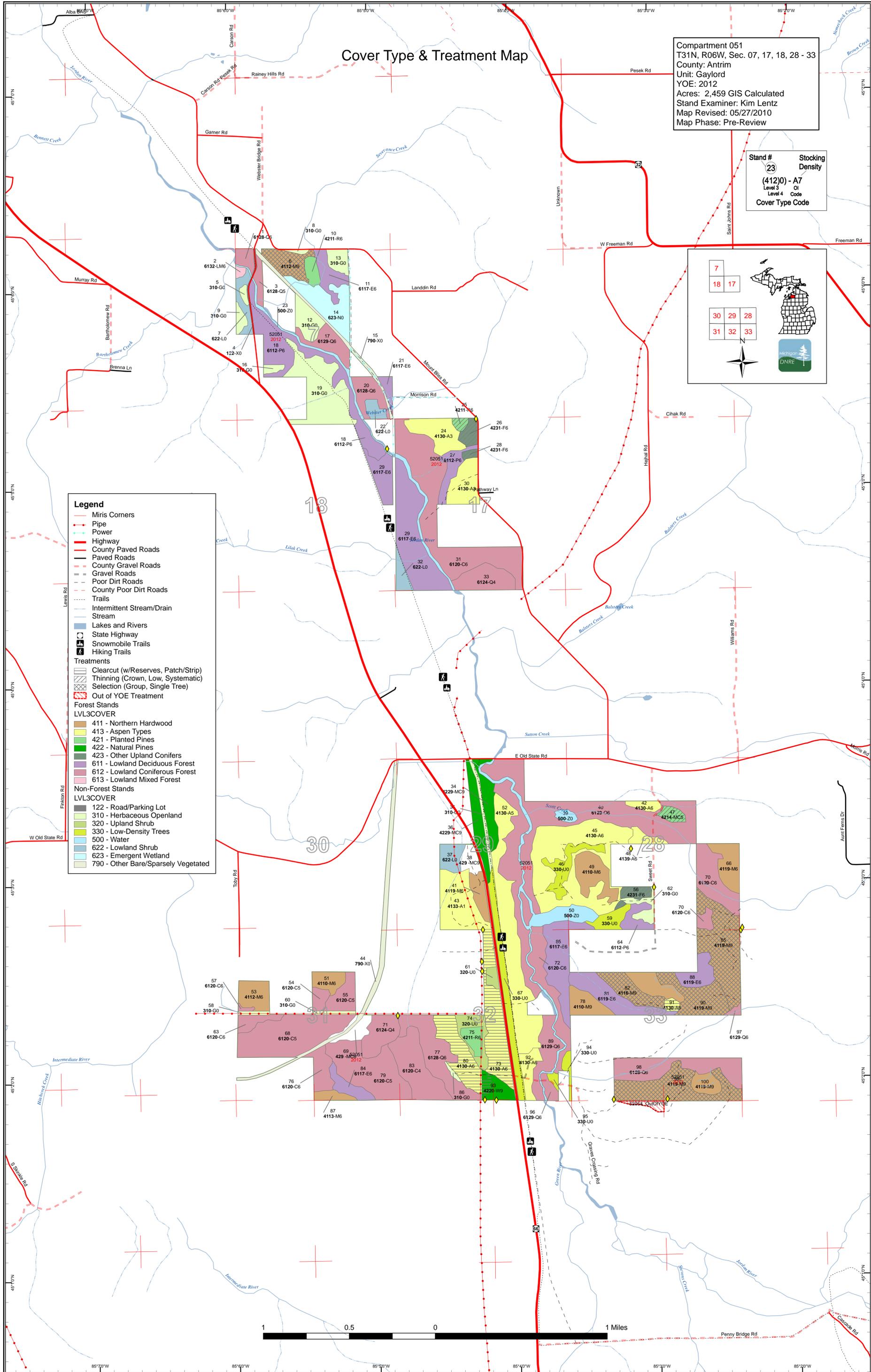
Cover Type & Treatment Map

Compartment 051
 T31N, R06W, Sec. 07, 17, 18, 28 - 33
 County: Antrim
 Unit: Gaylord
 YOE: 2012
 Acres: 2,459 GIS Calculated
 Stand Examiner: Kim Lentz
 Map Revised: 05/27/2010
 Map Phase: Pre-Review

Stand # **23** Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code



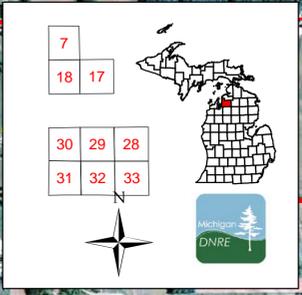
- Legend**
- Miris Corners
 - Pipe
 - Power
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trails
 - Intermittent Stream/Drain
 - Stream
 - Lakes and Rivers
 - State Highway
 - Snowmobile Trails
 - Hiking Trails
 - Treatments
 - Clearcut (w/Reserves, Patch/Strip)
 - Thinning (Crown, Low, Systematic)
 - Selection (Group, Single Tree)
 - Out of YOE Treatment
 - Forest Stands
 - LVL3COVER
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
 - Non-Forest Stands
 - LVL3COVER
 - 122 - Road/Parking Lot
 - 310 - Herbaceous Openland
 - 320 - Upland Shrub
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 790 - Other Bare/Sparsely Vegetated



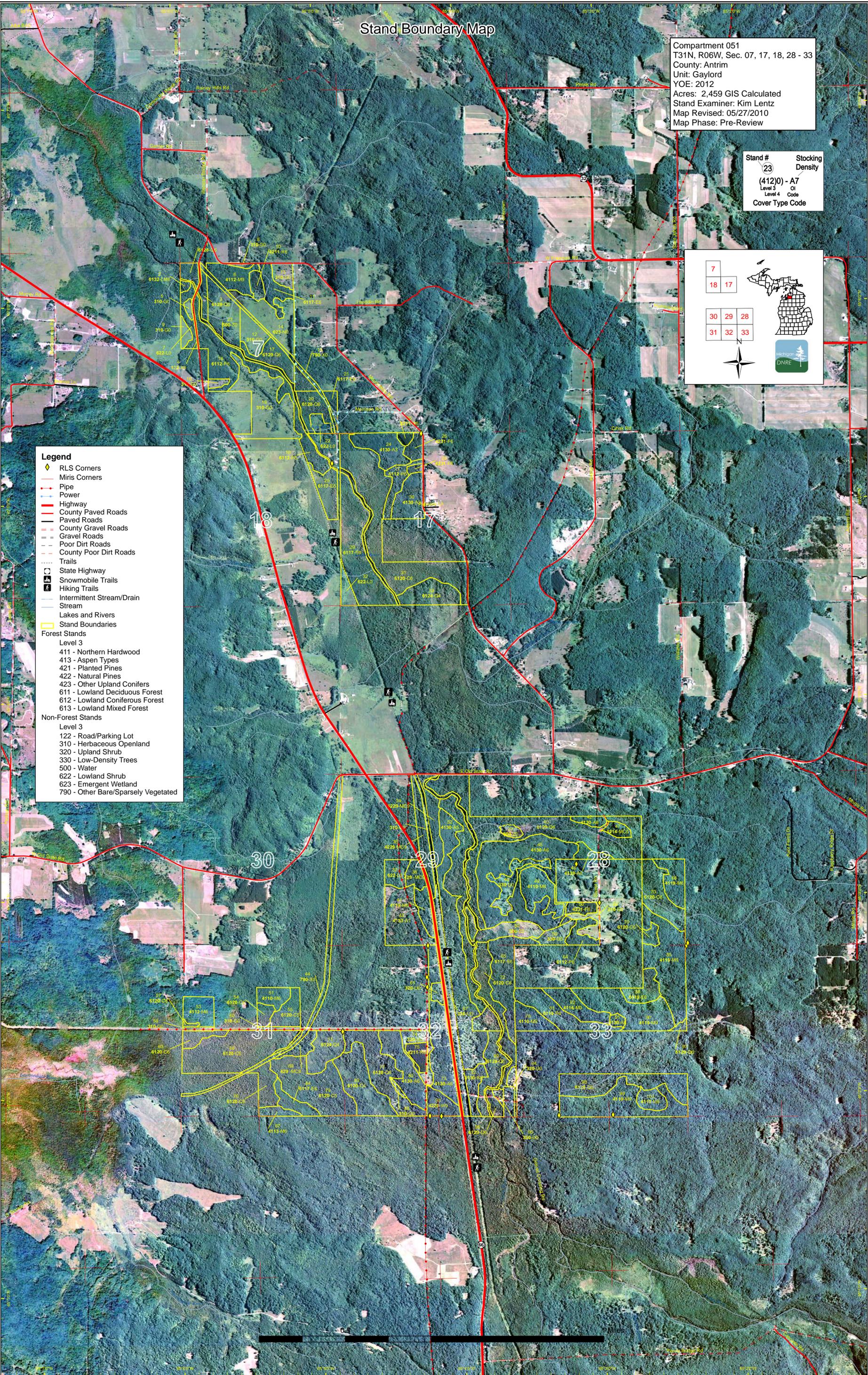
Stand Boundary Map

Compartment 051
 T31N, R06W, Sec. 07, 17, 18, 28 - 33
 County: Antrim
 Unit: Gaylord
 YOE: 2012
 Acres: 2,459 GIS Calculated
 Stand Examiner: Kim Lentz
 Map Revised: 05/27/2010
 Map Phase: Pre-Review

Stand # 23
 Stacking Density
 (412)0 - A7
 Level 3
 Level 4
 Code
 Cover Type Code



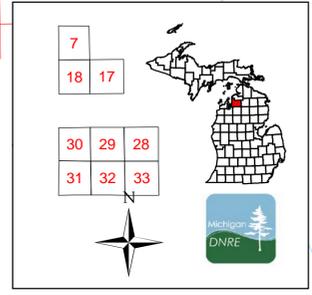
- Legend**
- ◆ RLS Corners
 - ◆ Miris Corners
 - Pipe
 - Power
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
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- Forest Stands**
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Dedicated & Proposed Special Conservation Area Map

Compartment 051
 T31N, R06W, Sec. 07, 17, 18, 28 - 33
 County: Antrim
 Unit: Gaylord
 YOE: 2012
 Acres: 2,459 GIS Calculated
 Stand Examiner: Kim Lentz
 Map Revised: 05/27/2010
 Map Phase: Pre-Review

Stand # **23** Stocking Density
(412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code



- Legend**
- Miris Corners
 - Stand Boundaries
 - Forest Stands**
 - Level 3**
 - 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
 - 431 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
 - Non-Forest Stands**
 - Level 3**
 - 121 - Airports
 - 110 - Low Intensity Urban
 - 122 - Road/Parking Lot
 - 211 - Cropland
 - 212 - Non-Tilled Herbaceous Agriculture
 - 221 - Christmas Trees
 - 222 - Orchards/Vineyards/Nursery
 - 310 - Herbaceous Openland
 - 320 - Upland Shrub
 - 330 - Low-Density Trees
 - 500 - Water
 - 621 - Floating Aquatic
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 629 - Mixed non-forested wetland
 - 710 - Sand, Soil
 - 720 - Exposed Rock
 - 730 - Mud Flats
 - 790 - Other Bare/Sparsely Vegetated
 - Proposed Special Conservation Areas**
 - SCA - Special Conservation Area
 - SCA Removal
 - Dedicated Special Conservation Areas**
 - Natural Rivers Vegetative Buffer
 - Natural Rivers Zoning District
 - Dedicated Management Areas
 - Campgrounds
 - Boat Access Sites
 - Cold Water Streams

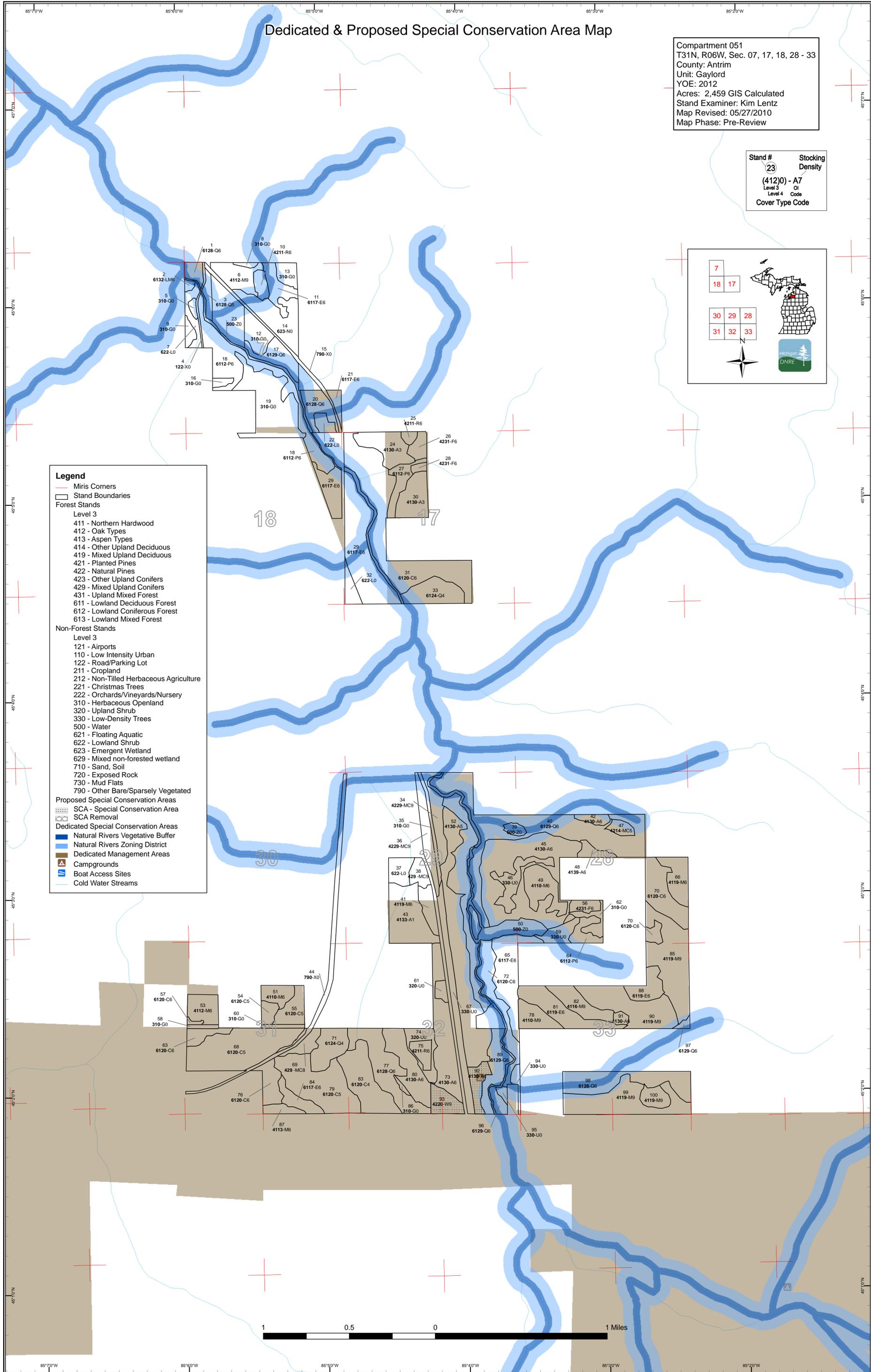


Table 1 – Total Acres by Cover Type and Age Class
(Level 3 Cover Type)



	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	0	0	107	149	35	14	7	4	0	0	0	0	0	100	416
Emergent Wetland	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Herbaceous Openland	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130
Low-Density Trees	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
Lowland Coniferous Forest	0	0	0	0	0	0	0	0	167	409	107	129	0	0	27	839
Lowland Deciduous Forest	0	0	0	0	44	0	11	0	106	111	0	0	0	0	40	313
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Lowland Shrub	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Mixed Upland Conifers	0	0	0	0	0	0	0	0	0	11	0	0	0	0	10	21
Natural Pines	0	0	0	0	0	0	0	0	0	0	40	0	0	0	15	55
Northern Hardwood	0	0	0	0	0	0	7	19	13	142	91	0	0	0	79	350
Other Bare/Sparsely Vegetated	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Other Upland Conifers	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20
Planted Pines	0	0	0	0	8	20	0	0	0	0	0	0	0	0	0	28
Road/Parking Lot	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Shrub	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Water	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68
Total	414	0	0	107	201	75	32	26	290	676	239	129	0	0	271	2459



Table 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2012

Compartment 051
Total Compartment Acres: 2459

Acres by Treatment Type

Commercial Harvest - 326	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Aspen	93	0	0	0	0	0	93
Northern Hardwood	0	203	0	0	0	0	203
Planted Mixed Pines	0	0	0	0	7	0	7
Red Pine	0	0	0	0	4	0	4
Upland Spruce/Fir	0	0	0	0	20	0	20
Total	93	203	0	0	31	0	326



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	52051006-Cut	21.5	4112 - Maple, Beech, Cherry Association	High Density Log	90	Harvest	Single Tree Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Selection cut needed to harvest some of mature sawlogs. Survey work may be needed due to new acquisition. Mark to create regeneration holes, and crop tree release where feasible.</p> <p><u>Other Comments:</u> Northern hardwood log stand with high percentage of red maple. New acquisition with private ownership in nw corner. Overmature aspen logs in stand.</p> <p><u>Next Steps:</u> Monitor the succes of hardwood regeneration.</p>									
25	52051025-Cut	3.6	42110 - Planted Red Pine	High Density Pole	49	Harvest	Systematic Thinning	Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Row thin to remove 1/3 volume. Cut every third row, and cut small clones of aspen between spruce & red pine plantation. The aspen is located between stands 25 & 26.</p> <p><u>Other Comments:</u> Excellent site red pine with 6 stick ave. Pine have never been thinned. Natural small opening in southwest corner of stand.</p> <p><u>Next Steps:</u> Evaluate stand in ten years.</p>									
26	52051026-Cut	8.6	42310 - Planted Spruce	High Density Pole	49	Harvest	Systematic Thinning	Planted Spruce	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Row thin to remove approximately 1/3 of stand. Some rows are narrow & might have to cut two rows or mark skid rows. Expand stand to salvage aspen on edge and upland ridges. Leave scattered white pine on edge of stand. Protect Gook Creek.</p> <p><u>Other Comments:</u> White spruce plantation. Some aspen on edges of stand.</p> <p><u>Next Steps:</u> Evaluate in ten years.</p>									
28	52051028-Cut	2.8	42310 - Planted Spruce	High Density Pole	49	Harvest	Systematic Thinning	Planted Spruce	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Row thin to remove approximately 1/3 of spruce. some rows are narrow, might have to cut two rows or mark out skid rows wide enough for equipment operation. Buffer Gook Creek 100' which should be easily done with spruce up on a ridge away from the creek.</p> <p><u>Other Comments:</u> Small white spruce plantation. East half of stand has larger diameter trees and lower BA, West half of stand is poletimber & higher density.</p> <p><u>Next Steps:</u> Evaluate in ten years.</p>									
47	52051047-Cut	6.8	42141 - Planted Mixed Pine, Mixed Deciduous	Medium Density Pole	45	Harvest	Systematic Thinning	Planted Mixed Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Mark out skidways and rows to remove red pine up the slopes perpendicular to the rows. Cut out all merchantable aspen in stand. Leave white pine along Sweet Road for visual mgt. Thinning with no other retention needed. Protect adjacent swamp conifer.</p> <p><u>Other Comments:</u> Mixed stand of planted red pine on a slope with some aspen clones, and some open grown white pine along road side.</p> <p><u>Next Steps:</u> Re-evaluate in ten years during next inventory cycle.</p>									
56	52051056-Cut	8.8	42310 - Planted Spruce	High Density Pole	48	Harvest	Systematic Thinning	Planted Spruce	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Row thinning might have to cut two rows, leave three in order to create wide enough skid rows. Thinning objective is to remove approximately 1/3 of spruce.</p> <p><u>Other Comments:</u> White spruce plantation on upland site. 3-4 stick average. Slightly rolling terrain</p> <p><u>Next Steps:</u> Re-evaluate in ten years.</p>									



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73	52051073-Cut	50.7	4130 - Aspen	High Density Pole	38	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest aspen, red maple, black cherry. Leave minor component of white pine and balsam fir as Reserves for visual management along M-66 which is a travel influence. No other retention needed.</p> <p><u>Other</u> Quaking aspen with evidence of hypoxylon canker, conks, and mortality at a young age. Cleared pipeline along west boundary. Aspen clones in north half along M-66 are 55 yrs. old. Minor component of balsam fir, black cherry, white pine, red maple in stand.</p> <p><u>Next Steps:</u> Monitor the success of aspen regeneration.</p>									
80	52051080-Cut	38.3	4130 - Aspen	High Density Pole	45	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest this stand. Retention: Leave old relic white pine uncut. Cut aspen, balsam fir, red maple, white birch, black cherry, and white ash.</p> <p><u>Other</u> Mix of quaking and bigtooth aspen with some balsam fir in understory. Minor component of old relic White Pine log size trees. Younger stand with evidence of hypoxylon and decline.</p> <p><u>Next Steps:</u> Monitor the success of regeneration.</p>									
85	52051085-Cut	66.3	4119 - Mixed Northern Hardwoods	High Density Log	88	Harvest	Single Tree Selection	Mixed Northern Hardwoods	Cmpt. Review Proposal
<p><u>Prescription</u> Prescribe selection cut to remove mature and or high risk sawlogs, and create regeneration openings. Species thin merchantable aspen.</p> <p><u>Specs:</u> Protect wetland drainage. Retention areas will include steep slopes, or areas adjacent to wetlands. Old logging trails can be utilized for access.</p> <p><u>Other</u> Northern hardwood sawtimber. Big tooth aspen in small clones on hills in SENE. Most of terrain is rolling to hilly, but workable. Adjacent landowner has informed state of an old access trail road (decertified county road) that can be utilized to gain access to this stand.</p> <p><u>Next Steps:</u> Check for hardwood regeneration.</p>									
90	52051090-Cut	34.9	4119 - Mixed Northern Hardwoods	High Density Log	88	Harvest	Single Tree Selection	Mixed Northern Hardwoods	Cmpt. Review Proposal
<p><u>Prescription</u> Propose selection cut in the area of interest. Mark to cut mature, high risk trees creating regeneration openings. Include salvage cut of aspen in stand. Protect wetland drainages, intermittent creek, and steep hills during sale layout.</p> <p><u>Other</u> Northern hardwood sawtimber on rolling to steep hilly terrain. This stand has an intermittent creek running in a northwesterly direction out of the compartment to a small marsh. Timber is accessible on the north side of creek and around the southeast which is beyond the start of the seep/creek. The south side of creek has a steep hill.</p> <p><u>Next Steps:</u> Monitor the success of northern hardwood regeneration.</p>									
99	52051099-Cut	57.9	4119 - Mixed Northern Hardwoods	High Density Log	98	Harvest	Single Tree Selection	Mixed Northern Hardwoods	Cmpt. Review Proposal
<p><u>Prescription</u> Prescribe a selection cut to utilize mature logs & create regeneration openings in canopy. Protect swamp conifer wetland to the north, and the seeps located in adjacent stand of hardwood. Seek permission to include a portion of the hardwood in stand 18- (6 acres) & stand 19- (10 acres) of Compartment 54 to utilize the logging trails and hill top for better access.</p> <p><u>Other</u> Northern hardwood sawlog stand with network of old skid trails that could be re-opened. Southwest corner hilly with workable draws.</p> <p><u>Next Steps:</u> Monitor for success of hardwood regeneration.</p>									

**Total Treatment
Acreage Proposed: 300.2**



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
82	52051082-Cut	22.1	4116 - Mixed N. Hardwood - Aspen	High Density Log	85	Harvest	Single Tree Selection	Mixed N. Hardwood - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Select mark northern hardwoods to create canopy gaps, and crop tree release where appropriate. Species thin out merchantable aspen. Limit									
<u>Specs:</u> factor due to difficult access.									
<u>Other</u> Northern hardwood mixed with large tooth aspen on hills, and quaking aspen on adjacent low ground. Difficult access with private to the north,									
<u>Comment:</u> hilly terrain, and creeks in area.									
<u>Next</u> Pursue access, if cut, monitor success of regeneration.									
<u>Steps:</u>									
<u>Limiting Factor and No</u> 2A: Adjacent landowner denies									
<u>Treatment Reason</u> access									
91	52051091-Cut	3.8	4130 - Aspen	High Density Pole	77	Harvest	Clearcut	Aspen	Cmpt. Review Proposal
<u>Prescription</u> Prescribe aspen stand for a final harvest. Limit factor due to access. Timber will need to be forwarded northeast over a quarter of a mile. No									
<u>Specs:</u> retention. Protect adjacent wetland to the south.									
<u>Other</u> Mixture of big tooth aspen and quaking aspen with some intermixed hardwood. Stand is adjacent to a lowland hardwood, intermittent creek, and									
<u>Comment:</u> wetland to the south. Access is difficult with private to the north.									
<u>Next</u> If cut, monitor success of aspen regeneration.									
<u>Steps:</u>									
<u>Limiting Factor and No</u> 2A: Adjacent landowner denies									
<u>Treatment Reason</u> access									
Total Treatment Acreage Proposed:		25.9							



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
52054_OutOfYOE- Cut	5.2				Harvest	Single Tree Selection	Sugar Maple Association
<u>Prescription</u> Selection mark to create regeneration gaps, and crop tree release where needed. Include this with adjacent selection cut to north for access. <u>Specs:</u> <u>Other</u> Access from Graves Crossing Road from Compartment 54 existing trails. <u>Comments:</u> <u>Next</u> Monitor for regeneration success. <u>Steps:</u>							
52184_OutOfYOE- CCWR	5.1			0	Harvest	Clearcut with Reserves	Fir, Aspen, Maple
<u>Prescription</u> Clearcut stand to regenerate. Do not cut cedar, spruce, or white pine. <u>Specs:</u> <u>Other</u> Include this area with stand 38 in Compartment 185 when setting up timber sale. <u>Comments:</u> <u>Next</u> <u>Steps:</u>							
Total Treatment Acreage Proposed:		10.3					

Stand	Gaylord Mgt. Unit			5 – Forested Stands		Compartment: 051
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012
						General Comments:
1	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	7.5	85	51-80	Swamp conifer, mixed deciduous with red maple, black ash, & quaking aspen. Riparian zone of the Jordan River, and the Webster Bridge boat access site. HCVA corridor.
2	6132 - Mixed Lowland Forest with Cedar	High Density Pole	2.1	85	51-80	Lowland deciduous with ash, red maple, and swamp conifer component.
3	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	7.0	83	81-110	Lowland with mixed deciduous & swamp conifer species.
6	4112 - Maple, Beech, Cherry Association	High Density Log	21.5	90	141-170	Northern hardwood log stand with high percentage of red maple. New acquisition with private ownership in nw corner. Overmature aspen logs in stand.
10	42110 - Planted Red Pine	High Density Pole	7.6	35	81-110	Red pine plantation with some patchy openings in rows. 2-3 stick ave. per tree. Limby with some porcupine damage.
11	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	17.0	85	81-110	Severance creek is on west side of stand, and it is too wide to cross. Unique stand with mix of hardwood & hemlock, swamp conifer. East finger of stand has quaking aspen on wet soils making logging difficult.
17	6129 - Mixed Coniferous Lowland Forest	High Density Pole	18.8	83	111-140	Swamp conifer with minor component of lowland deciduous.
18	6112 - Lowland Aspen	High Density Pole	64.9	85	51-80	Quaking aspen with swamp conifer with standing water on site. Stand border Jordan River, Webster bridge, and old r.r. grade which is a groomed snowmobile trail. Old quaking aspen logs are cull.
20	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	18.2	82	81-110	Swamp conifer, deciduous mix. Some standing water, BMP concerns. Some mortality in balsam fir. Access road is private, Morrison Road with creeks flowing in multiple directions in road ditch.
21	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	5.7	Uneven Age	1-50	Small stand of overmature quaking aspen, lowland hardwood, and mixed conifer species. Very wet stand with creeks. BMP concerns, stand is divided by private road, multiple creeks, and overhead powerline.
24	4130 - Aspen	High Density Sapling	27.7	Uneven Age		Aspen stand regenerating with scattered white pine logs. Stand looks good.
25	42110 - Planted Red Pine	High Density Pole	3.6	49	200+	Excellent site red pine with 6 stick ave. Pine have never been thinned. Natural small opening in southwest corner of stand.
26	42310 - Planted Spruce	High Density Pole	8.6	49	141-170	White spruce plantation. Some aspen on edges of stand.
27	6112 - Lowland Aspen	High Density Pole	14.8	75	1-50	Moderately stocked quaking aspen with intermixed swamp conifer species. Gook creek runs through stand as a river bottom.



S t a n d	Gaylord Mgt. Unit		5 – Forested Stands			Compartment: 051	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Inventory Method: IFMAP	
28	42310 - Planted Spruce	High Density Pole	2.8	49	111-140		Small white spruce plantation. East half of stand has larger diameter trees and lower BA, West half of stand is poletimber & higher density.
29	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	91.5	78	1-50		Lowland deciduous with patches of swamp conifer. Very wet. overall size 6" dbh black ash. Conifer is larger diameter and concentrated along the Jordan River. Foot bridge across river by private.
30	4130 - Aspen	High Density Sapling	25.7	Uneven Age			Harvest done in 1982. Featured stand is young aspen regenerating with some scattered white pine logs.
31	6120 - Lowland Cedar	High Density Pole	111.0	72	81-110		Swamp conifer with creek running parallel with Mt. Bliss Rd. Note: Narrow strip of hardwoods along the road not mapped out separately.
33	6124 - Lowland Spruce-Fir	Low Density Pole	27.1	Uneven Age	1-50		Lowly stocked swamp conifer with mortality noted due to high water table. Lots of Q2 in understory.
34	42290 - Natural Mixed Pine	High Density Log	19.2	95	141-170		Natural White Pine with intermixed deciduous. Most of aspen is cull, defective. This stand is split by overhead powerline that is 95' wide. Swamp conifer adjacent influencing swamp conifer component.
36	42290 - Natural Mixed Pine	High Density Log	21.0	95	141-170		Natural White Pine stand with deciduous mix. Unique pine stand along M-66.
38	429 - Mixed Upland Conifers	High Density Log	9.8	Uneven Age	81-110		Featured stand is natural white pine.
40	6129 - Mixed Coniferous Lowland Forest	High Density Pole	180.0	83	111-140		Swamp conifer stand with Scott's Creek running through it. High water table. Deer yard. Some of stand is in Q3 with smaller diameter.
41	4119 - Mixed Northern Hardwoods	High Density Pole	12.6	Uneven Age	51-80		Small stand with clump grown red maple & balsam fir.
42	4130 - Aspen	High Density Pole	6.2	39	1-50		Majority of stand is a 39 yr. old aspen stand. Inclusion of older aspen on steep hill adjacent to Sweet Road.
43	4133 - Aspen, Mixed Pine	Low Density Sapling	46.6	Uneven Age			Stand was cut in 2006 creating a young stand of well stocked aspen. Scattered clumps of white pine left.
45	4130 - Aspen	High Density Pole	107.2	27	1-50		Well established aspen regeneration. Stand was cut in 1983. Some 1-2 stick aspen developing. Beaver flooding & dam along north edge of stand. Also, intermittent creek flowing west with A5 type left in this riparian zone in the SENW, Sec. 28.
47	42141 - Planted Mixed Pine, Mixed Deciduous	Medium Density Pole	6.8	45	111-140		Mixed stand of planted red pine on a slope with some aspen clones, and some open grown white pine along road side.



Stand	Gaylord Mgt. Unit			5 – Forested Stands		Compartment: 051	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012	
48	4139 - Aspen, Mixed Deciduous	High Density Pole	7.4	60	81-110		East half of stand is a wetland with standing water influenced by Scott Creek. West half is a steep hill adjacent to Sweet Rd. and private. Aspen on west side leads into a northern hardwood stand on hilly terrain.
49	4110 - Sugar Maple Association	High Density Pole	27.7	80	1-50		Hillside of moderately stocked northern hardwood. Limby, more open grown. Intermittent creek running westerly at north edge of this stand.
51	4110 - Sugar Maple Association	High Density Pole	12.5	72	111-140		Northern hardwood on steep terrain. Access is across private. Polestand with small logs.
52	4130 - Aspen	Medium Density Pole	92.1	36	1-50		Aspen stand that was cut in 1974. The south end of the stand has lower stocking with upland brush intermixed. There was also aspen left uncut creating various age classes.
53	4112 - Maple, Beech, Cherry Association	High Density Pole	18.6	64	81-110		Northern hardwood stand on very steep terrain which blocks access from north.
54	6120 - Lowland Cedar	Medium Density Pole	7.2	70	1-50		Swamp conifer stand.
55	6120 - Lowland Cedar	Medium Density Pole	16.6	103	1-50		Swamp conifer stand.
56	42310 - Planted Spruce	High Density Pole	8.8	48	141-170		White spruce plantation on upland site. 3-4 stick average. Slightly rolling terrain.
57	6120 - Lowland Cedar	High Density Pole	1.5	87	51-80		Sporadic stocking of swamp conifer & mixed deciduous. Some blowdown.
63	6120 - Lowland Cedar	High Density Pole	10.0	87	51-80		Some blowdown. Sporadic stocking of swamp conifer stand.
64	6112 - Lowland Aspen	High Density Pole	11.3	52	51-80		Wet aspen with a creek and standing water flowing from Sweet Road westerly.
65	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	44.4	35	81-110		Young stand of quaking aspen with intermixed balsam fir.
66	4119 - Mixed Northern Hardwoods	High Density Pole	21.2	82	81-110		Northern hardwood polestand on hilly terrain with red maple component. Access difficult with Scotts Creek, and private.
68	6120 - Lowland Cedar	Medium Density Pole	75.4	98	1-50		Swamp conifer with patchy stocking.
69	429 - Mixed Upland Conifers	Medium Density Log	11.5	89	51-80		Semi-open mixed stand of natural white pine, balsam fir, and aspen. Old CCC camp site.



Stand	Gaylord Mgt. Unit			5 – Forested Stands		Compartment: 051
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012
						General Comments:
70	6120 - Lowland Cedar	High Density Pole	40.0	88	111-140	Swamp conifer stand with some lowland deciduous mix. Black ash, yellow birch, basswood on edges. Primarily polestand with some 12 cedar & hemlock logs. Blowdown, slash on ground. Duplicate stand to the south with swamp conifer and lowland hardwoods.
71	6124 - Lowland Spruce-Fir	Low Density Pole	24.8	80	1-50	Low density white cedar, black spruce, & balsam fir in a tag alder lowland. Stand is 25% forested with heavy to tag alder.
72	6120 - Lowland Cedar	High Density Pole	32.0	90	81-110	Mixed coniferous with deciduous. Winter deeryard.
73	4130 - Aspen	High Density Pole	50.7	38	51-80	Quaking aspen with evidence of hypoxylon canker, conks, and mortality at a young age. Cleared pipeline along west boundary. Aspen clones in north half along M-66 are 55 yrs. old. Minor component of balsam fir, black cherry, white pine, red maple in stand.
75	42110 - Planted Red Pine	High Density Pole	9.8	47	111-140	Mixture of planted red pine and jack pine. Plantation was thinned in 2006 with a marked thinning.
76	6120 - Lowland Cedar	High Density Pole	16.6	80	111-140	Swamp conifer of variable quality.
77	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	48.8	72	81-110	Lowland conifer, mixed deciduous stand with variable density.
78	4110 - Sugar Maple Association	High Density Log	17.7	88	81-110	Northern hardwood sawtimber in isolated corner between private and a wetland creek. Swamp complex to the southwest on state land.
79	6120 - Lowland Cedar	Medium Density Pole	65.9	103	81-110	Swamp conifer with variable stocking that is highest density in the east half.
80	4130 - Aspen	High Density Pole	34.7	45	51-80	Mix of quaking and bigtooth aspen with some balsam fir in understory. Minor component of old relic White Pine log size trees. Younger stand with evidence of hypoxylon and decline.
81	6119 - Mixed Lowland Deciduous Forest	High Density Pole	34.4	Uneven Age	1-50	Wet, lowland deciduous band with intermittent creek running westerly through stand. Multi-storied with black ash being predominant.
82	4116 - Mixed N. Hardwood - Aspen	High Density Log	22.1	85	81-110	Northern hardwood mixed with large tooth aspen on hills, and quaking aspen on adjacent low ground. Difficult access with private to the north, hilly terrain, and creeks in area.
83	6120 - Lowland Cedar	Low Density Pole	46.5	103	1-50	Tag alder with scattered swamp conifer trees.
84	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	12.8	80	1-50	Lowland hardwoods with black ash & swamp conifer species. Patches of lowland brush.



Stand	Gaylord Mgt. Unit		5 – Forested Stands			Compartment: 051	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Inventory Method: IFMAP	
85	4119 - Mixed Northern Hardwoods	High Density Log	66.3	Uneven Age	111-140	Northern hardwood sawtimber. Big tooth aspen in small clones on hills in SENE. Most of terrain is rolling to hilly, but workable. Adjacent landowner has informed state of an old access trail road (abandoned county road) that can be utilized to gain access to this stand.	
87	4113 - R.Maple, Conifer	High Density Pole	7.2	52	81-110	Mixed stand with red maple, balsam fir, & white cedar. Stream noted in stand.	
88	6119 - Mixed Lowland Deciduous Forest	High Density Pole	16.7	85	1-50	Mixture of lowland deciduous and swamp conifer species. Wetland site.	
89	6129 - Mixed Coniferous Lowland Forest	High Density Pole	25.4	83	111-140	Swamp conifer along Jordan River.	
90	4119 - Mixed Northern Hardwoods	High Density Log	53.3	88	111-140	Northern hardwood sawtimber on rolling to steep hilly terrain. This stand has an intermittent creek running in a northwesterly direction out of the compartment to a small marsh. Timber is accessible on the north side of creek and around the southeast which is beyond the start of the seep/creek. The south side of creek has a steep hill.	
91	4130 - Aspen	High Density Pole	3.8	77	111-140	Mixture of big tooth aspen and quaking aspen with some intermixed hardwood. Stand is adjacent to a lowland hardwood, intermittent creek, and wetland to the south. Access is difficult with private to the north.	
92	4130 - Aspen	High Density Pole	13.7	55	1-50	Graves Crossing Campground site near the Jordan River. Noted as a unique site due to the recreational use with camping and adjacent canoe access site. Mix of quaking aspen, red maple, balsam fir, and clumps of planted white spruce in campground. Heavier to white pine on south side of Graves Crossing Rd.	
93	42200 - Natural White Pine	High Density Log	15.1	Uneven Age	111-140	Unique stand with large diameter natural White Pine and balsam fir understory. Travel influence.	
96	6129 - Mixed Coniferous Lowland Forest	High Density Pole	7.1	83	111-140	Swamp conifer along the Jordan River.	
97	6129 - Mixed Coniferous Lowland Forest	High Density Pole	2.4	83	111-140	Swamp conifer stand with high water table.	
98	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	49.5	87	81-110	Swamp conifer with lowland deciduous mix. Noted some balsam fir mortality, standing snags, and slash.	
99	4119 - Mixed Northern Hardwoods	High Density Log	57.9	98	111-140	Northern hardwood sawlog stand with network of old skid trails that could be re-opened. Southwest corner hilly with workable draws.	
100	4119 - Mixed Northern Hardwoods	High Density Log	11.6	98	81-110	Northern hardwood sawtimber on steep hills with seeps flowing downward in a westerly direction.	





Stand	Cover Type	Acres	Gen Cmts:
4	122 - Road/Parking Lot	3.5	
5	310 - Herbaceous Openland	2.6	
7	6220 - Alder/willow	10.1	
8	310 - Herbaceous Openland	2.0	
9	310 - Herbaceous Openland	5.0	
12	310 - Herbaceous Openland	17.4	
13	310 - Herbaceous Openland	9.8	
14	623 - Emergent Wetland	36.6	
15	790 - Other Bare/Sparsely Vegetate	13.4	
16	310 - Herbaceous Openland	3.4	
19	310 - Herbaceous Openland	64.7	
22	622 - Lowland Shrub	6.7	
23	50 - Water	20.9	
32	622 - Lowland Shrub	8.6	
35	310 - Herbaceous Openland	7.8	
37	622 - Lowland Shrub	12.9	
39	50 - Water	4.7	
44	790 - Other Bare/Sparsely Vegetate	32.5	



Stand	Cover Type	Acres	Gen Cmts:
46	3301 - Low Density Deciduous Tree	20.1	
50	50 - Water	42.0	
58	310 - Herbaceous Openland	2.7	
59	3301 - Low Density Deciduous Tree	12.0	
60	310 - Herbaceous Openland	3.5	
61	320 - Upland Shrub	4.9	
62	310 - Herbaceous Openland	9.3	
67	330 - Low-Density Trees	32.3	
74	320 - Upland Shrub	14.9	
86	310 - Herbaceous Openland	1.8	
94	330 - Low-Density Trees	4.9	
95	330 - Low-Density Trees	2.6	

**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.

Inventory Method: IFMAP

Stand	SCA Type	SCA Name	Acres	Comments
92	Unique Site - SCA	52051092	13.7	This stand is part of the Graves Crossing Campground. Recreational use only.
93	Unique Site - SCA	52051093	15.1	Nominated for a Ecological Reference Area.



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.
SCA	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific management uses through the promulgation of rules, as governed by Part 5, Department of Natural Resources, of the NREPA (MCL 324.502(2) and 324.504). Section 38 of the Administrative Procedures Act (MCL 24.238) provides for public requests for the promulgation of rules. This is an active program, with one proposed site currently under review by the DNR.
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	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.