



COMPARTMENT REVIEW PRESENTATION

GAYLORD FOREST MANAGEMENT UNIT

COMPARTMENT: 3

ENTRY YEAR: 2012

ACREAGE: 1512

COUNTY: OTSEGO

Revision Date: 04/29/2010

Stand Examiner: Kimberly Lentz

Legal Description: T29N, R1W, Sections 13, 14, & 15

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 soil type is Roselawn-Rubicon Sand (80%) with 20% being Rifle Peat-Carbondale Muck and Saugatuck-Newton Sand. Drainage is extremely rapid in 80% of the compartment while 20% of water table is near the surface or 1 to 3 feet below surface. Terrain is level to 15% slopes with pited outwash plains and subdued moraines.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership around the compartment is 90% state land south of Old State Road. A private subdivision surrounds Caulkins Lake area and north of Old State Road. Land use is recreational, which includes hunting deer and upland birds. There is also extensive gas well development throughout the compartment with buried gas pipelines and gas wells.

Unique, Natural Features: The northwest corner of section 14 and northeast corner of section 15 were classified as part of a pine barren natural community. The jack pine stand in this area has been treated as a pine barren which is fire-dominated, coniferous savanna with scattered trees. The ground cover for this community includes hill's thistle, pale agoseris, rough fescue, and Alleghany plum.

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: Management of the pine barren natural community which is described in detail by Michigan Natural Features Inventory (MNFI) summary.

Watershed and Fisheries Considerations: This compartment is in the area of Caulkins Lake and Gee Lake, which are within the Big Creek watershed, which drains into the Au Sable River. A 100' buffer should be maintained on the north end of Gee Lake, and there should be no cutting in the wet areas of stands 6 and 10. The headwaters of Big Creek begin in section 14 and special management considerations will be given to protect quality of Big Creek.

Wildlife Habitat Considerations: This compartment contains mostly upland areas with a small wetland inclusion in the middle of section 14 and a small area in the southeast corner section 15. These wetland areas are used by a variety of wildlife species; including ducks, geese, beaver, otter, and various amphibians. The rest of the compartment contains a mix of upland habitats consisting of aspen, oak, red, jack and white pine. Stands 2, 4, 6, 23, 58, and 69 are going to be clear cut to provide early successional forests favored by grouse, woodcock, deer, and turkey. Stands 10 and 15 are going to be treated to regenerate oak for future mast production and scattered oaks will be left for a seed source and current mast production. Stand 20 is going to be burned for the benefit of various pine/oak barren species along with game species. This area receives considerable hunting pressure for white-tailed deer, grouse, and woodcock.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift is the Coldwater Shale, which has no current economic use. There are no gravel pits in this area, and gravel potential is considered low. All State land in the compartment has been leased for oil and gas development. The Antrim Shale has been developed and additional wells have been permitted. The oil and gas potential for Guelph (Niagaran) reefs is limited.

Vehicle Access: Access is good throughout the compartment.

Survey Needs: None needed at this time.

Recreational Facilities and Opportunities: There are designated ORV and horse trails within the compartment.

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**

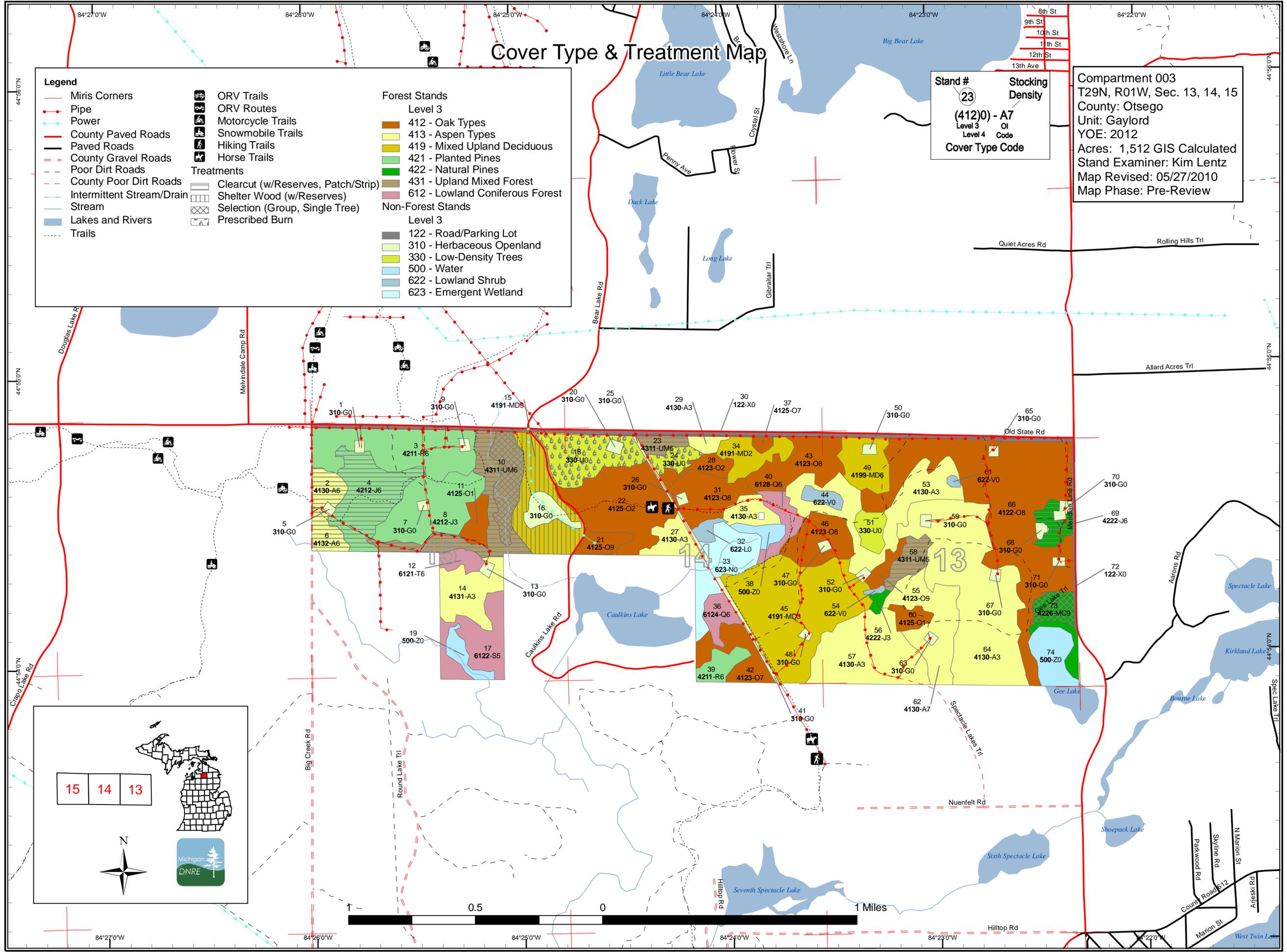
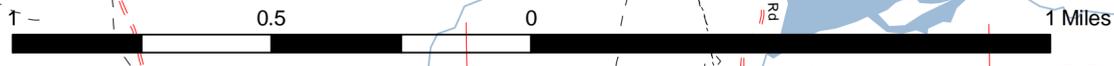
- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Suggested potential and current SCA's**

Cover Type & Treatment Map

Legend		Forest Stands	
	Miris Corners		412 - Oak Types
	Pipe		413 - Aspen Types
	Power		419 - Mixed Upland Deciduous
	County Paved Roads		421 - Planted Pines
	Paved Roads		422 - Natural Pines
	County Gravel Roads		431 - Upland Mixed Forest
	Poor Dirt Roads		612 - Lowland Coniferous Forest
	County Poor Dirt Roads		122 - Road/Parking Lot
	Intermittent Stream/Drain		310 - Herbaceous Openland
	Stream		330 - Low-Density Trees
	Lakes and Rivers		500 - Water
	Trails		622 - Lowland Shrub
	ORV Trails		623 - Emergent Wetland
	ORV Routes		
	Motorcycle Trails		
	Snowmobile Trails		
	Hiking Trails		
	Horse Trails		
	Clearcut (w/Reserves, Patch/Strip)		
	Shelter Wood (w/Reserves)		
	Selection (Group, Single Tree)		
	Prescribed Burn		

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

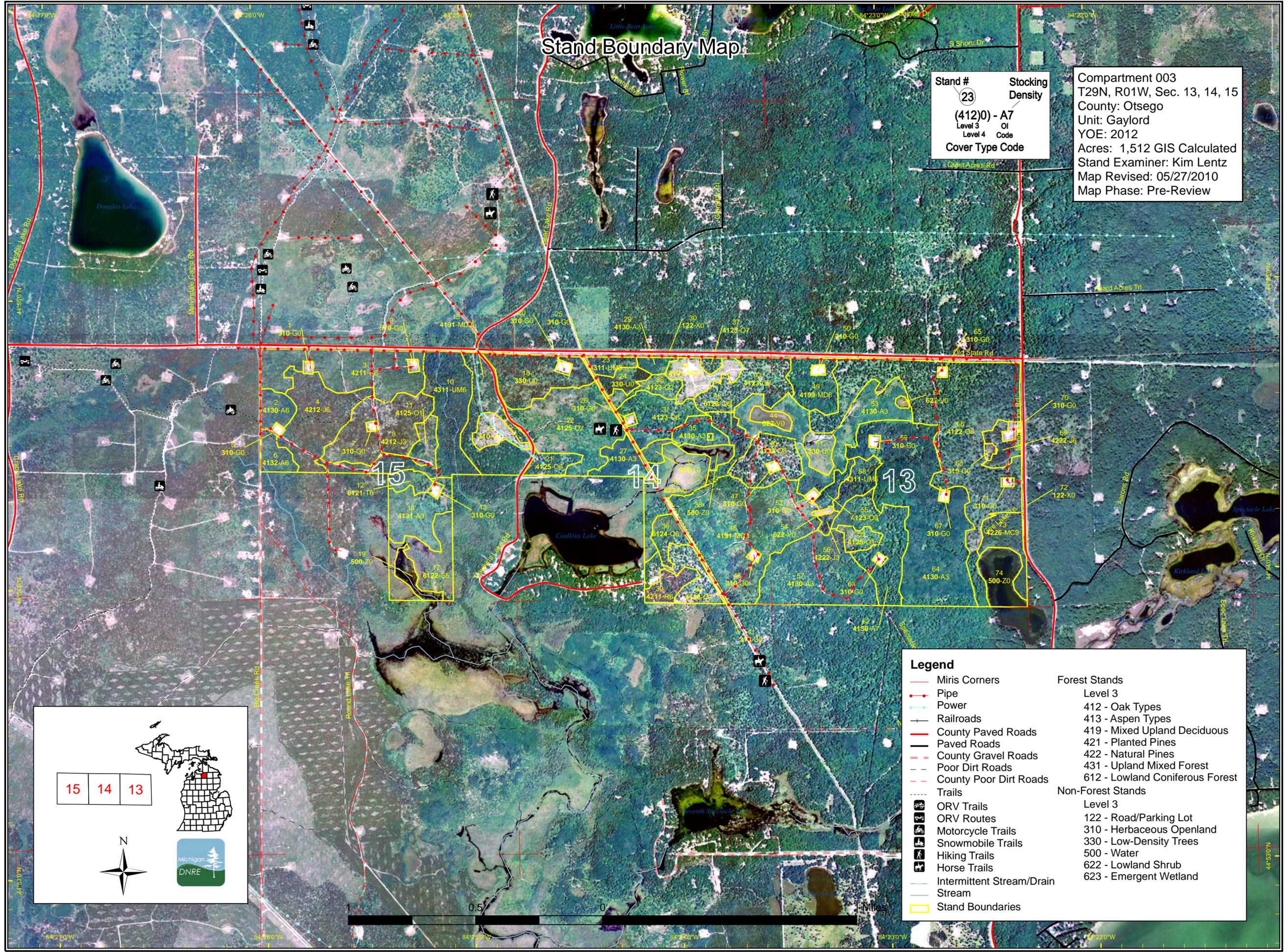
Compartment 003
 T29N, R01W, Sec. 13, 14, 15
 County: Otsego
 Unit: Gaylord
 YOY: 2012
 Acres: 1,512 GIS Calculated
 Stand Examiner: Kim Lentz
 Map Revised: 05/27/2010
 Map Phase: Pre-Review

Stand Boundary Map

Stand #
23
(4120) - A7
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 Level 4 Code
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Legend

— Miris Corners	Forest Stands
● Pipe	Level 3
— Power	412 - Oak Types
— Railroads	413 - Aspen Types
— County Paved Roads	419 - Mixed Upland Deciduous
— Paved Roads	421 - Planted Pines
— County Gravel Roads	422 - Natural Pines
— Poor Dirt Roads	431 - Upland Mixed Forest
— County Poor Dirt Roads	612 - Lowland Coniferous Forest
— Trails	Non-Forest Stands
ORV Trails	Level 3
ORV Routes	122 - Road/Parking Lot
Motorcycle Trails	310 - Herbaceous Openland
Snowmobile Trails	330 - Low-Density Trees
Hiking Trails	500 - Water
Horse Trails	622 - Lowland Shrub
— Intermittent Stream/Drain	623 - Emergent Wetland
— Stream	
— Stand Boundaries	

Michigan DNR



Dedicated & Proposed Special Conservation Area Map

Legend

- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
- Cold Water Streams
- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Kirtland Warbler Habitat
- Forest Stands
 - Level 3
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 431 - Upland Mixed Forest
 - 612 - Lowland Coniferous Forest
- Non-Forest Stands
 - Level 3
 - 122 - Road/Parking Lot
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland

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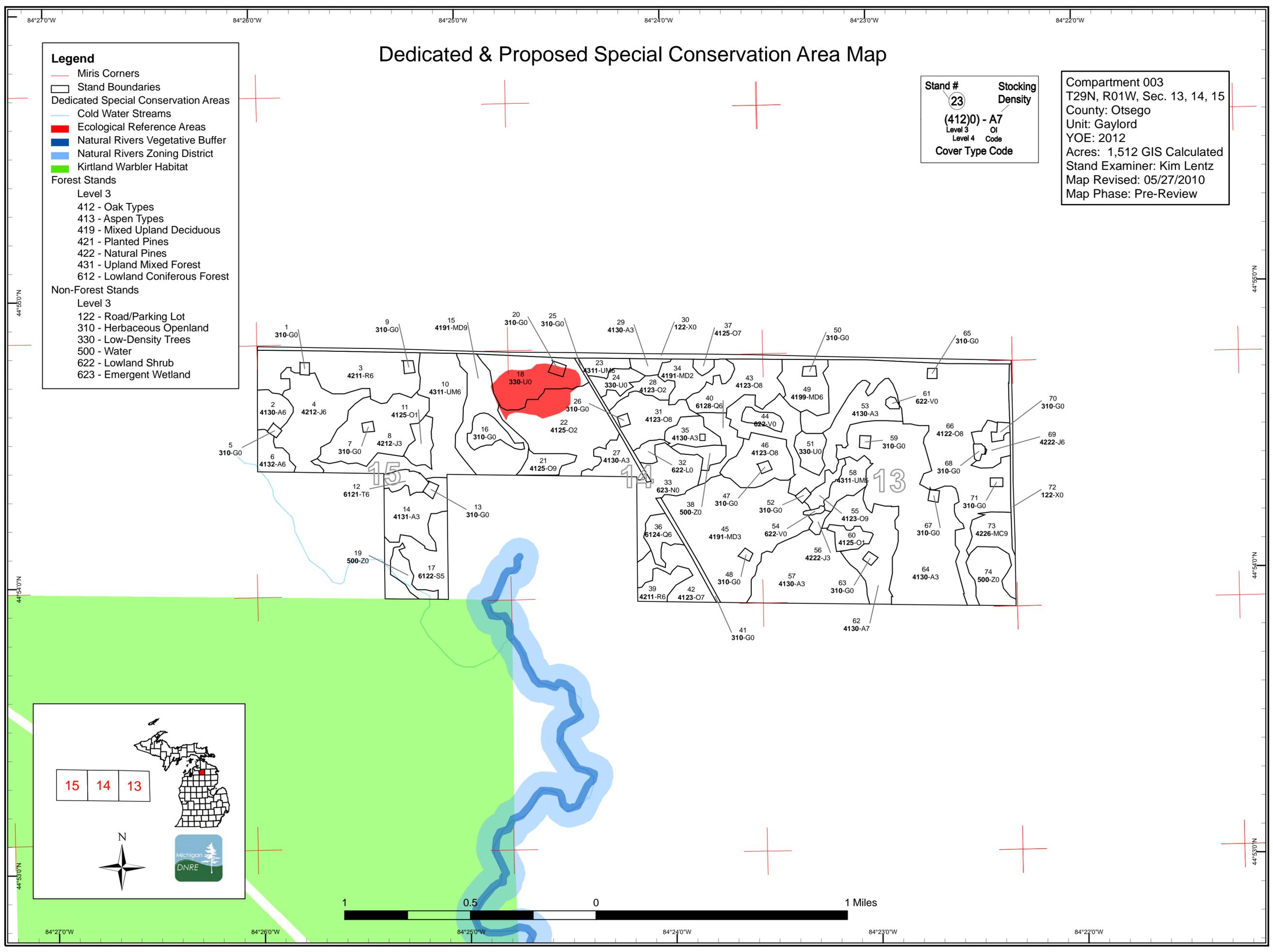
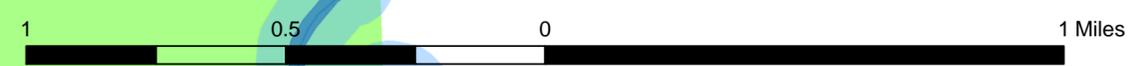
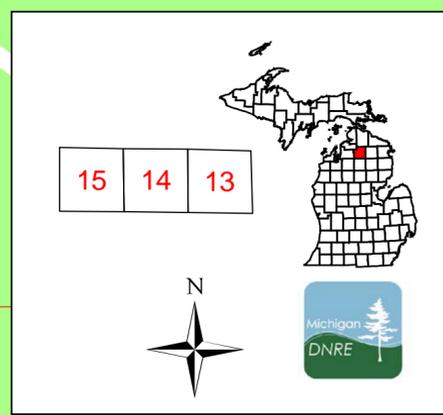
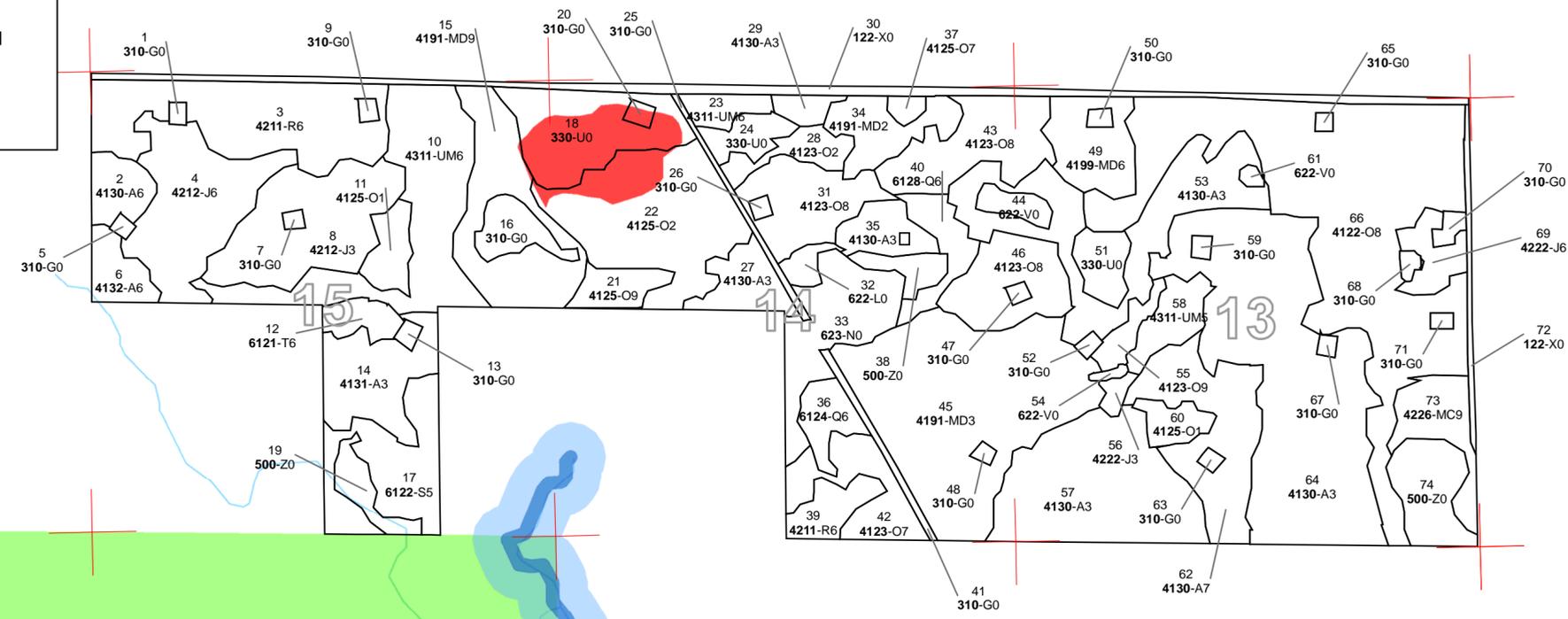


Table 1 – Total Acres by Cover Type and Age Class
 (Level 3 Cover Type)



	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	57	80	128	16	11	0	0	0	0	0	0	0	83	375
Emergent Wetland	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Herbaceous Openland	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
Low-Density Trees	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
Lowland Coniferous Forest	0	0	0	0	0	0	0	8	0	34	0	0	0	0	24	65
Lowland Shrub	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Mixed Upland Deciduous	0	18	0	108	0	0	0	0	0	42	0	0	0	0	22	190
Natural Pines	0	0	0	3	0	0	0	11	0	19	0	0	0	0	0	32
Oak Types	0	0	0	91	0	0	0	0	30	10	22	0	0	0	228	381
Planted Pines	0	0	0	61	49	0	11	49	0	0	0	0	0	0	0	170
Road/Parking Lot	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Upland Mixed Forest	0	0	0	0	0	0	13	59	7	0	0	0	0	0	0	79
Water	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Total	219	18	57	343	177	16	35	127	37	104	22	0	0	0	358	1512



Table 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2012

Compartment 003
Total Compartment Acres: 1512

Acres by Treatment Type

Commercial Harvest - 215	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 46	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	22	0	0	0	0	0	22
Jack Pine	60	0	0	0	0	0	60
Mixed Upland Deciduous	0	0	0	42	0	0	42
Natural Mixed Pines	0	12	0	0	0	0	12
Upland Mixed Forest	55	24	0	0	0	0	79
Total	137	36	0	42	0	0	215



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	52003002-Cut	11.5	4130 - Aspen	High Density Pole	40	Harvest	Clearcut	Aspen	Cmpt. Review Proposal
<p><u>Prescription:</u> Final harvest with no retention. <u>Specs:</u> <u>Other Comments:</u> West edge of stand has some newly established regeneration to protect. <u>Next Steps:</u> Monitor success of regeneration. Acceptable regeneration with a mix of aspen, oak, and mixed pine.</p>									
4	52003004-Cut	48.9	42120 - Planted Jack Pine	High Density Pole	63	Harvest	Clearcut	Planted Jack Pine	Cmpt. Review Proposal
<p><u>Prescription:</u> Final harvest prescribed, no retention. <u>Specs:</u> <u>Other Comments:</u> Protect ORV trail during sale operations. <u>Next Steps:</u> Site prep and plant jack pine.</p>									
6	52003006-Cut	10.9	4132 - Aspen, Jack Pine	High Density Pole	58	Harvest	Clearcut with Reserves	Aspen, Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription:</u> Final harvest with the exception of leaving any scattered old relic red & white pine. Inclusion of small diameter aspen & jack pine in northwest corner of stand which should be left as retention & buffer along Big Creek Rd. <u>Specs:</u> <u>Other Comments:</u> Mixed stand with aspen along Big Creek Rd., and jack pine along the north & east half of stand which is adjacent to stand 66. Inclusion of tag alder along the south central edge of stand which will be protected during harvest. Tree length if possible to encourage jack pine seed dispersal. <u>Next Steps:</u> MO is aspen and mixed pine. Stand will need to check for natural regeneration success. No planting recommended at this time.</p>									
10	52003010_selection cut	23.7	4311 - Pine, Aspen Mix	High Density Pole	62	Harvest	Single Tree Selection	Natural Red Pine	Cmpt. Review Proposal
<p><u>Prescription:</u> Select mark White & Red Pine Sawtimber. <u>Specs:</u> <u>Other Comments:</u> Combine this with adjacent aspen harvest. <u>Next Steps:</u> Monitor success of regeneration.</p>									
10	52003010-cc	35.6	4311 - Pine, Aspen Mix	High Density Pole	62	Harvest	Clearcut with Reserves	Aspen, Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription:</u> Final harvest aspen areas to include cutting aspen, balsam fir, black spruce, jack pine & white birch. Select mark White and Red Pine sawtimber. No retention of aspen except protect wetland sites with tag alder. Protect hawthorne. Mark Oak to leave along the south stand boundary in SWNE, Sec. 15. <u>Specs:</u> <u>Other Comments:</u> Mixed stand with quaking aspen in low-lying areas and natural White & Red Pine sawtimber on adjacent upland. Aspen has evidence of hypoxylon canker with evidence of stand maturity. May have to be a winter cut. <u>Next Steps:</u> Monitor the success of natural regeneration. No planting recommended.</p>									



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
15	52003015-Cut	41.5	4191 - Mixed Upland Deciduous with Conifer	High Density Log	84	Harvest	Shelterwood	Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Shelterwood Cut to reduce basal area to 30-40 sq.ft. per acre. Leave white & scattered red pine for visual since stand is along Caulkins Lake Rd. Salvage all mature jack pine. Leave the most vigorous, straight stem oak as residual. The only retention will be the Oak residual of 30-40 sq.ft per acre.</p> <p><u>Other Comments:</u> During marking, leave adequate trees along Caulkins Lake Rd. for visual mgt.</p> <p><u>Next Steps:</u> Monitor the success of regeneration. No planting recommended at this time.</p>									
23	52003023-Cut	7.2	4311 - Pine, Aspen Mix	High Density Pole	75	Harvest	Clearcut with Reserves	Aspen, Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest. Leave minor component of red & white pine, and buffer Old State Road. No other retention.</p> <p><u>Other Comments:</u> Cut aspen, jack pine, red maple, and any white birch.</p> <p><u>Next Steps:</u> Monitor for regeneration success.</p>									
58	52003058-Cut	12.6	4311 - Pine, Aspen Mix	Medium Density Pole	55	Harvest	Clearcut with Reserves	Aspen, Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest. Leave old relic red pine and white oak uncut. No other retention.</p> <p><u>Other Comments:</u> Cut aspen, jack pine, minor component of oak. Some mortality noted in these species.</p> <p><u>Next Steps:</u> Monitor regeneration success. No planting recommended at this time.</p>									
69	52003069-Cut	10.7	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	64	Harvest	Clearcut	Aspen, Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest with no retention needed. Protect small marsh along west boundary.</p> <p><u>Other Comments:</u> Mature stand of aspen and jack pine with some blowdown slash on ground.</p> <p><u>Next Steps:</u> Success of natural regeneration should be checked prior to considering any planting. Stand should regenerate to aspen with some natural jack pine.</p>									
73	52003073-Cut	12.1	42260 - Natural Pine, Mixed Deciduous	High Density Log	85	Harvest	Single Tree Selection	Natural Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Select mark to remove mature white pine, red pine, oak, red maple. Species thin out aspen. Leave approximately 40 - 50 BA residual. Leave a 100' buffer along Gee Lake. Trees along east side of Gee Lake will be another uncut buffer.</p> <p><u>Other Comments:</u> Natural stand of white pine, red pine logs intermixed with oak, aspen, and red maple.</p> <p><u>Next Steps:</u> Monitor the success of natural regeneration favoring mixed pine.</p>									

**Total Treatment
Acreage Proposed: 214.6**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comment:

Next
Steps:

Limiting Factor and No
Treatment Reason

**Total Treatment
Acreage Proposed: 0**

Stand	Gaylord Mgt. Unit		5 – Forested Stands			Compartment: 003	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Inventory Method: IFMAP	
2	4130 - Aspen	High Density Pole	11.5	40	51-80	Quaking aspen poletimber with evidence of hypoxylon canker. 6-8"dbh - A5.	
3	42110 - Planted Red Pine	High Density Pole	60.7	23	51-80	Red Pine plantation has developed into 1 stick trees, ave. 5" dbh. Narrow buffer strip along Big Creek Rd. was cut in 2006, and natural regen of jack pine, oak and aspen is adequate.	
4	42120 - Planted Jack Pine	High Density Pole	48.9	63	81-110	Mature jack pine stand with ORV trail in stand. Some mortality noted.	
6	4132 - Aspen, Jack Pine	High Density Pole	10.9	58	51-80	Mixed stand with aspen along Big Creek Rd., and jack pine along the north & east half of stand which is adjacent to stand 66. Inclusion of tag alder along the south central edge of stand which will be protected during harvest. Inclusion of small diameter aspen & jack pine in northwest corner of stand which should be left as retention & buffer along Big Creek Rd.	
8	42120 - Planted Jack Pine	High Density Sapling	48.9	34	1-50	Jack pine is developing from a sapling to a small pole stand 3-6"dbh. Jack pine is more sparse near gas well, but not mapped out separately in ifmap.	
10	4311 - Pine, Aspen Mix	High Density Pole	59.3	62		Mixed stand with quaking aspen in low-lying areas and natural White & Red Pine sawtimber on adjacent upland. Aspen has evidence of hypoxylon canker with evidence of stand maturity.	
11	4125 - Black, N. Pin Oak	Low Density Sapling	10.1	20		Semi-open upland brush type with northern pin oak reproduction, small A3 clone, and intermixed sapling size jack pine.	
12	6121 - Tamarack	High Density Pole	7.9	65	51-80	Mixed stand with a moderately stocked tamarack stand in lowland, and an inclusion of (1ac.) Red Pine logs adjacent to gas well.	
14	4131 - Aspen, Oak	High Density Sapling	29.1	Uneven Age		Stand was cut in 2004, and quaking aspen and pin oak is adequately regenerating. Upland ridges left with Log size pin oak, red pine, and black spruce poles. Lowland pockets with tag alder that were protected during the logging. A3, O2.	
15	4191 - Mixed Upland Deciduous with Conifer	High Density Log	41.5	84	51-80	Mature n. pin oak and jack pine. Some pin oak mortality noted. 09, J4	
17	6122 - Black Spruce	Medium Density Pole	33.7	80	51-80	Small diameter black spruce, ave. dbh 6" intermixed with small diameter white birch, balsam poplar, quaking aspen 4-6" dbh. Wet soils.	
21	4125 - Black, N. Pin Oak	High Density Log	9.8	84	51-80	Oak log stand with a mixed conifer component. Travel, aesthetic influence. Also, adjacent to the north shore of Caulkins Lake & the Caulkins Lake subdivision.	
22	4125 - Black, N. Pin Oak	Medium Density	63.2	28		Low quality pin oak regenerating along with aspen clones & upland brush inclusions. O2,A3,U Some scattered 16" dbh red pine in stand.	



Stand	Gaylord Mgt. Unit		5 – Forested Stands			Compartment: 003
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012
						General Comments:
23	4311 - Pine, Aspen Mix	High Density Pole	7.2	75		Mixed stand with aspen, pine, and mature northern pin oak.
27	4130 - Aspen	High Density Sapling	14.3	28		Stand was previously part of stand 71, but it is delineated due to being a dense vigorous, aspen regenerated stand.
28	4123 - Red Oak	Medium Density	10.3	28		Stand has advanced regeneration oak, aspen, and some pine. Part of the Big Creek fire and salvage in 1982. Minor overstory of Oak not included in BA.
29	4130 - Aspen	High Density Sapling	4.9	45		Well stocked aspen regeneration.
31	4123 - Red Oak	Medium Density Log	27.3	76	1-50	This stand was part of the Big Creek Burn in 1982. Oak stand has been salvage cut. Stand has notable advanced regeneration of deciduous & coniferous species. Some well established aspen clones in south part of stand.
34	4191 - Mixed Upland Deciduous with Conifer	Medium Density	18.1	5		Final harvest completed in 2005. Representative stand is an O2, J2 with clones of aspen regen also.
35	4130 - Aspen	High Density Sapling	12.1	Uneven Age	1-50	13 yr. old aspen stand that is primarily saps, but developing into 1 stick aspen. 5% of overstory canopy is residual oak, red maple, & white pine left. Lowland, water influence to south of stand with some lowland conifers mix.
36	6124 - Lowland Spruce-Fir	High Density Pole	10.8	Uneven Age	1-50	Overall stand is lowland conifer with a deciduous understory of red maple, white birch, & conifers. The most southerly finger of this stand is an upland white pine poletimber ridge which is an inclusion.
37	4125 - Black, N. Pin Oak	Low Density Log	2.7	76		Stand was treated in 2205. Cut jack pine, red maple, aspen & marked oak. Some mortality in pin oak. Adequate regen. in understory at this time.
39	42110 - Planted Red Pine	High Density Pole	11.2	50	111-140	A third row thinning was completed in 2005. Rolling terrain with n.pin oak and aspen left in uncut rows.
40	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	13.0	Uneven Age	81-110	Swamp conifer adjacent to marsh. Some tag alder wetland in stand. Good wildlife cover & diversity of species. Mix of aspen & balsam fir to the north.
42	4123 - Red Oak	Low Density Log	22.0	90	1-50	Harvest completed in 2005. Aspen, red maple, & marked oak removed. Good regeneration developing with red maple, oak, and quaking aspen.
43	4123 - Red Oak	Medium Density Log	32.9	Uneven Age	1-50	Selection cut completed in 2005. Main canopy is O8, with variety of conifer & deciduous species in sub-canopy. Red maple, pin oak, & aspen also sprouting from recent cut. Inclusion: South fingers of stand has conifer component with white pine, jack pine, & balsam fir.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	108.2	29		Mixed stand regenerating from a fire that occurred in 1981, then salvage cut. Stand is a mix of natural jack pine, aspen, and n. pin oak. Minor component of red pine poles, small logs south of gas well site. Minor upland brush inclusions.
46	4123 - Red Oak	Medium Density Log	26.6	Uneven Age	1-50	Shelterwood cut completed in 2005. Red maple, pin oak, and aspen regen in understory.
49	4199 - Other Mixed Upland Deciduous	High Density Pole	22.1	Uneven Age	51-80	Mixed stand influenced by adjacent cuts. O8, A5, M4, M3.
53	4130 - Aspen	High Density Sapling	56.6	13		Stand was cut in 1997. 13 yr. old aspen, A3, O2 regenerating. Small inclusions of upland brush with frost pockets. Some scattered jack pine & black cherry. Elk tracks evident.
55	4123 - Red Oak	High Density Log	6.7	Uneven Age	51-80	Oak ridge with a mix of red maple, white oak, & minor component of aspen, red pine. Surrounding stands have been burnt, salvage cut.
56	42221 - Natural Jack Pine, Mixed Deciduous	High Density Sapling	2.8	29		Natural jack pine regenerated from fire in 1980, located on east side of bog.
57	4130 - Aspen	High Density Sapling	65.7	29		Young aspen regenerating in the 2-4" dbh size class. Minor component of Red Oak, Jack Pine, White Oak, & Red Pine log size trees.
58	4311 - Pine, Aspen Mix	Medium Density Pole	12.6	55	1-50	Mature aspen & jack pine. Some mortality noted in both species.
60	4125 - Black, N. Pin Oak	Low Density Sapling	7.8	29		Semi-open with pin oak & jack pine saplings. Crown closure approx. 25%.
62	4130 - Aspen	Low Density Log	42.2	Uneven Age	1-50	Red Oak, Red Pine overstory with the remainder of stand being A3, O2. Part of a large fire & salvage cuts from 1980 -82. Regeneration is outstanding with a variety of conifer & deciduous species including oak.
64	4130 - Aspen	High Density Sapling	128.1	38	51-80	Aspen stand 4-6"dbh, with 1-3 sticks. Healthy, young, pre-mature stand.
66	4122 - Oak, Pine	Medium Density Log	161.9	Uneven Age	51-80	Select cut completed in Oct.2004. Featured stand is O8, W7, R7. Understory species includes red maple, oak, aspen, red pine, and white pine. Noted beaver activity cutting aspen saplings by Gee Lake.
69	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	10.7	64	1-50	Mature jack pine & aspen. Some blowdown & woody debris on ground. Protect marsh during logging.
73	42260 - Natural Pine, Mixed Deciduous	High Density Log	18.7	85	51-80	Natural stand of white pine, red pine logs with internixed oak, red maple, big tooth aspen.



Stand	Cover Type	Acres	Gen Cmts:
1	310 - Herbaceous Openland	1.2	
5	310 - Herbaceous Openland	1.1	
7	310 - Herbaceous Openland	1.1	
9	310 - Herbaceous Openland	1.3	
13	310 - Herbaceous Openland	1.5	
16	310 - Herbaceous Openland	11.1	
18	3302 - Low Density Conifer Trees	37.0	Managed pine barren.
19	50 - Water	8.6	
20	310 - Herbaceous Openland	1.8	
24	3302 - Low Density Conifer Trees	9.1	Managed pine barren.
25	310 - Herbaceous Openland	4.3	
26	310 - Herbaceous Openland	1.2	
30	122 - Road/Parking Lot	30.3	Several buried gas pipelins along Old State Rd.
32	622 - Lowland Shrub	4.4	Stand has been changed to non-forested due to less than 25% canopy cover of swamp conifer trees.
33	623 - Emergent Wetland	33.4	
38	50 - Water	7.2	
41	310 - Herbaceous Openland	4.6	
44	6225 - Bog	5.8	



Stand	Cover Type	Acres	Gen Cmts:
47	310 - Herbaceous Openland	1.1	
48	310 - Herbaceous Openland	1.1	
50	310 - Herbaceous Openland	1.4	
51	330 - Low-Density Trees	10.3	
52	310 - Herbaceous Openland	1.3	
54	6225 - Bog	1.1	
59	310 - Herbaceous Openland	1.4	
61	6225 - Bog	1.3	
63	310 - Herbaceous Openland	1.1	
65	310 - Herbaceous Openland	1.0	
67	310 - Herbaceous Openland	1.2	
68	310 - Herbaceous Openland	1.6	
70	310 - Herbaceous Openland	2.5	
71	310 - Herbaceous Openland	1.1	
72	122 - Road/Parking Lot	5.4	
74	50 - Water	21.1	



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
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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	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.
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.