



Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 23

Entry Year 2016

Acreage: 1,101

County Otsego

Management Area: AuSable Outwash

Revision Date: 02/21/2014

Stand Examiner: Zach Crew

Legal Description:

T30N R01W sections, 34, 35, and 36

Identified Planning 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:

Graycalm and Lindquist sands dominate the southern portion of the compartment. Blue Lake and Mancelona loamy sands become prevalent as you go north and west in the compartment.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

There is heavy Oil and Gas activity in this compartment and the surrounding area. State land accounts for roughly 60 percent of the 3 sections. There is heavy recreational use around Big Bear Lake and via the snowmobile and ORV trails. The majority of private ownership in the area is centered around Big Bear Lake.

Unique Natural Features:

Big Bear Lake and the associated recreational use.

Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

Two SCA's in this compartment surround both Bear Lake Campgrounds.

Watershed and Fisheries Considerations:

This compartment contains portions of Big Bear and Little Bear Lakes. These lakes have cool- and warmwater fish communities. Big Bear Lake is stocked with walleye and Great Lakes-strain muskellunge, and has a public access at the State Forest Campground. Little Bear Lake has an unimproved, sandy access, and is fished primarily by local residents. The prescribed clearcut for stand 61 (northwest corner of Big Bear Lake) gets too close to a riparian wetland/backwater of the lake. I recommend maintaining a 100' buffer from this area.

Wildlife Habitat Considerations:

Treatments in this compartment will maintain age class diversity in aspen and oak while creating early successional habitat benefiting deer, grouse, and woodcock. Clumps of mature oak will be left in these treatments for mast production for deer, wild turkey and grouse.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of an end moraine of medium-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 1,000 feet. The Mississippian Coldwater Shale subcrops below the glacial drift. The Coldwater does not have an economic use. A gravel pit is located in the Section 34 and potential may be good on the uplands. Most of the compartment appears to be developed for Antrim Shale gas production and is located on the southern edge of the Niagaran reef trend and appears to have limited reef potential.

Vehicle Access:

Good Access to the compartment via County Roads and Oil & Gas development roads.

Survey Needs:

None

Recreational Facilities and Opportunities:

Big Bear Lake Campground, and Big Bear Lake Point Campground and associated recreational uses. Atlanta-Gaylord Snowmobile connector and ORV trail run through the compartment.

Fire Protection:

Most stands in this compartment do not exhibit characteristics that would be conducive to large scale fire potential. However there is still the potential for smaller localized fires in the area, specially after any red pine plantings.

Additional Compartment Information:

The following reports from the Inventory are attached:

- Total Acres by Cover Type and Age Class
- Cover Type by Harvest Method
- Proposed Treatments – No Limiting Factors
- Proposed Treatments – With Limiting Factors
- Stand Details (Forested and Nonforested)
- Dedicated and Proposed Special Conservation Areas
- Site Condition Details

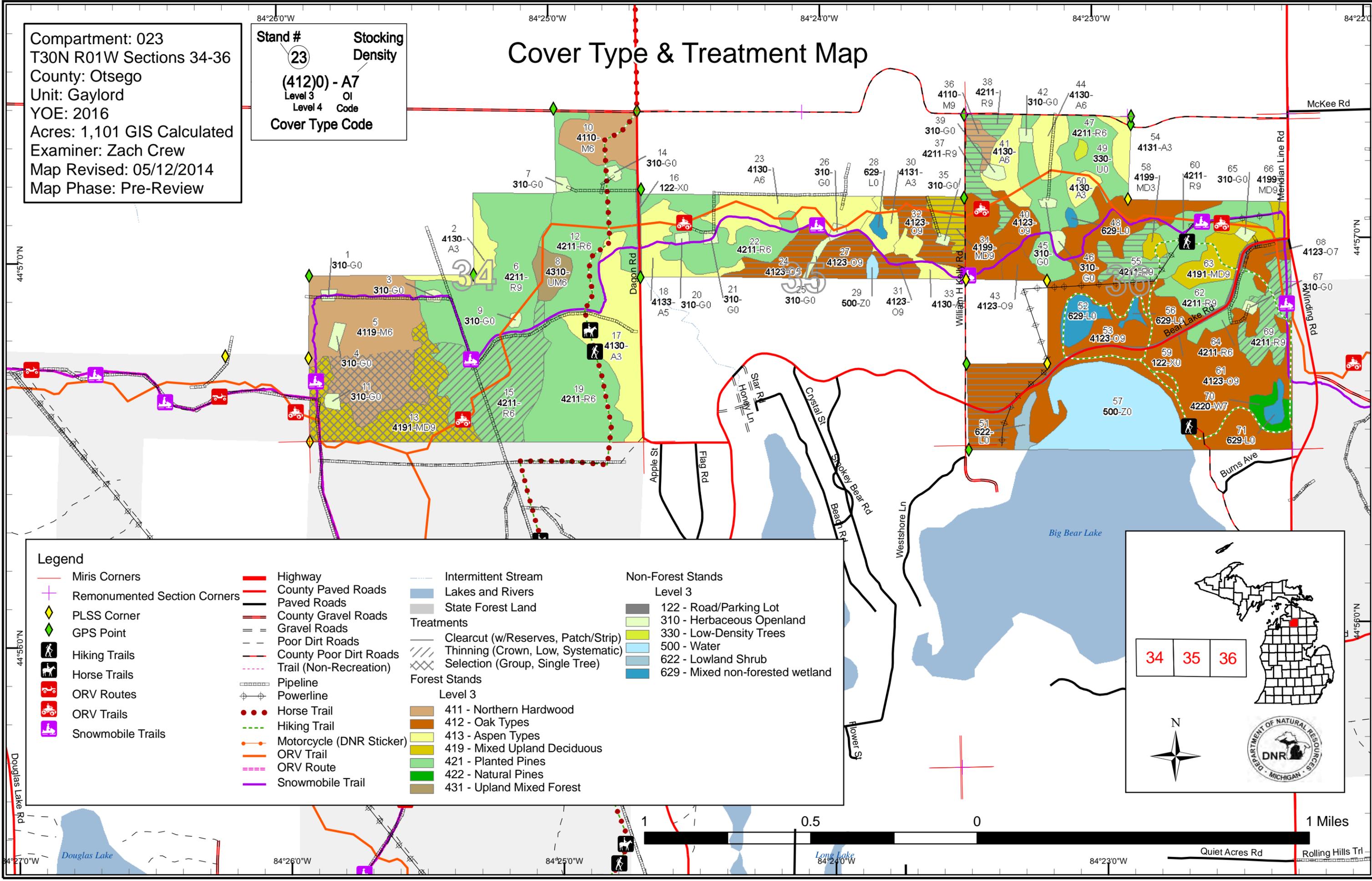
The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers
- Proposed treatments
- Site condition boundaries
- Details on the road access system

Cover Type & Treatment Map

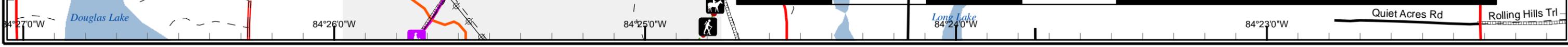
Compartment: 023
 T30N R01W Sections 34-36
 County: Otsego
 Unit: Gaylord
 YOE: 2016
 Acres: 1,101 GIS Calculated
 Examiner: Zach Crew
 Map Revised: 05/12/2014
 Map Phase: Pre-Review

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



Legend

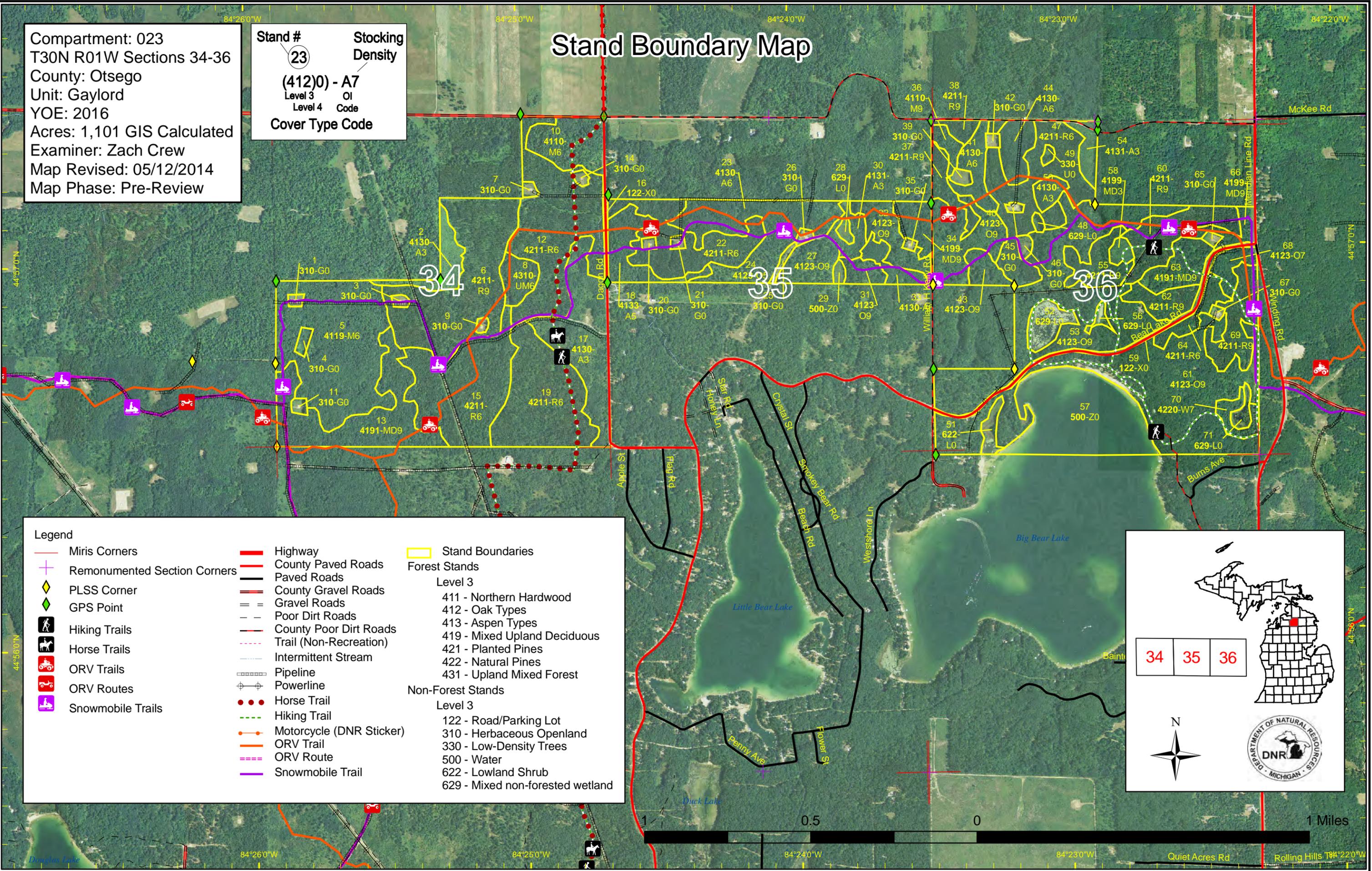
<ul style="list-style-type: none"> Miris Corners Remonumented Section Corners PLSS Corner GPS Point Hiking Trails Horse Trails ORV Routes ORV Trails Snowmobile Trails 	<ul style="list-style-type: none"> Highway County Paved Roads Paved Roads County Gravel Roads Gravel Roads Poor Dirt Roads County Poor Dirt Roads Trail (Non-Recreation) Pipeline Powerline Horse Trail Hiking Trail Motorcycle (DNR Sticker) ORV Trail ORV Route Snowmobile Trail 	<ul style="list-style-type: none"> Intermittent Stream Lakes and Rivers State Forest Land <p>Treatments</p> <ul style="list-style-type: none"> Clearcut (w/Reserves, Patch/Strip) Thinning (Crown, Low, Systematic) Selection (Group, Single Tree) <p>Forest Stands</p> <p>Level 3</p> <ul style="list-style-type: none"> 411 - Northern Hardwood 412 - Oak Types 413 - Aspen Types 419 - Mixed Upland Deciduous 421 - Planted Pines 422 - Natural Pines 431 - Upland Mixed Forest 	<p>Non-Forest Stands</p> <p>Level 3</p> <ul style="list-style-type: none"> 122 - Road/Parking Lot 310 - Herbaceous Openland 330 - Low-Density Trees 500 - Water 622 - Lowland Shrub 629 - Mixed non-forested wetland
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Stand Boundary Map

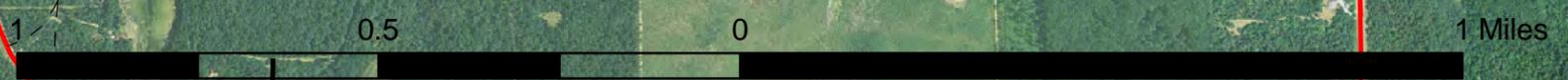


Legend

—+— Miris Corners	— Highway	— Stand Boundaries
—+— Remonumented Section Corners	— County Paved Roads	Forest Stands
◆ PLSS Corner	— Paved Roads	Level 3
◆ GPS Point	— County Gravel Roads	411 - Northern Hardwood
— Hiking Trails	— Gravel Roads	412 - Oak Types
— Horse Trails	— Poor Dirt Roads	413 - Aspen Types
— ORV Trails	— County Poor Dirt Roads	419 - Mixed Upland Deciduous
— ORV Routes	— Trail (Non-Recreation)	421 - Planted Pines
— Snowmobile Trails	— Intermittent Stream	422 - Natural Pines
	— Pipeline	431 - Upland Mixed Forest
	— Powerline	Non-Forest Stands
	— Horse Trail	Level 3
	— Hiking Trail	122 - Road/Parking Lot
	— Motorcycle (DNR Sticker)	310 - Herbaceous Openland
	— ORV Trail	330 - Low-Density Trees
	— ORV Route	500 - Water
	— Snowmobile Trail	622 - Lowland Shrub
		629 - Mixed non-forested wetland

34 35 36

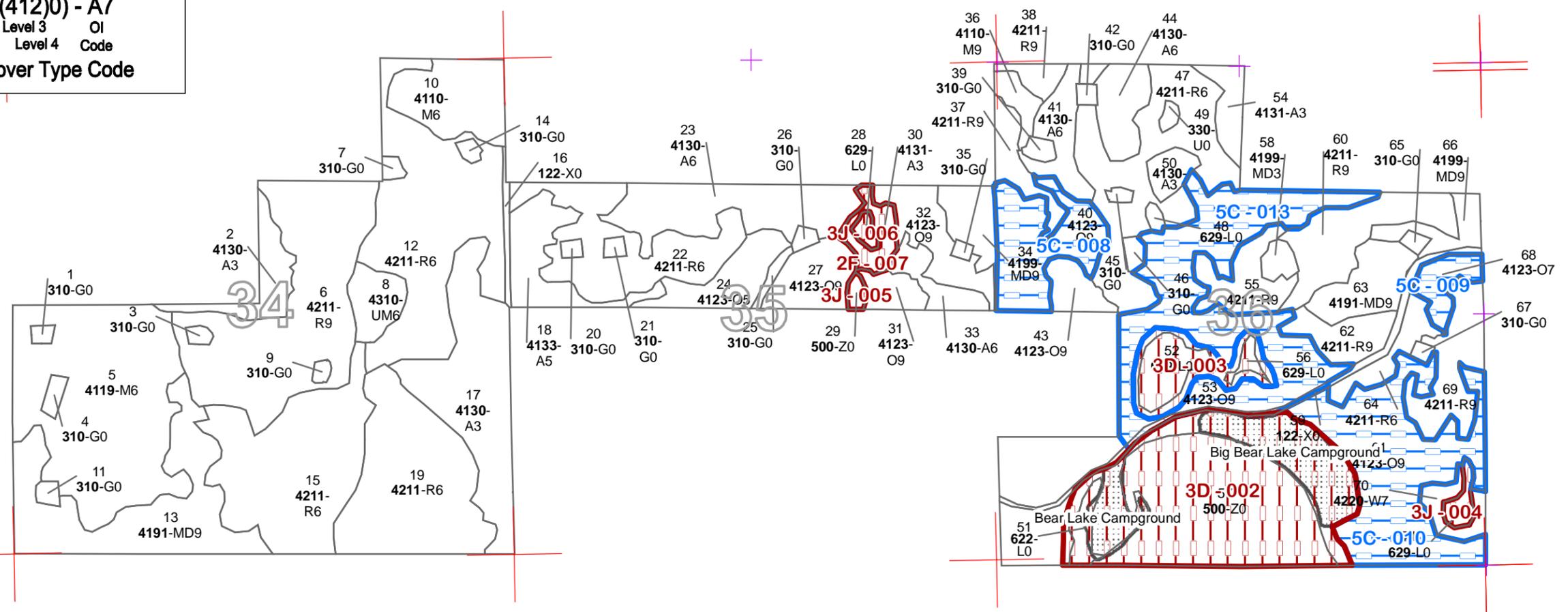
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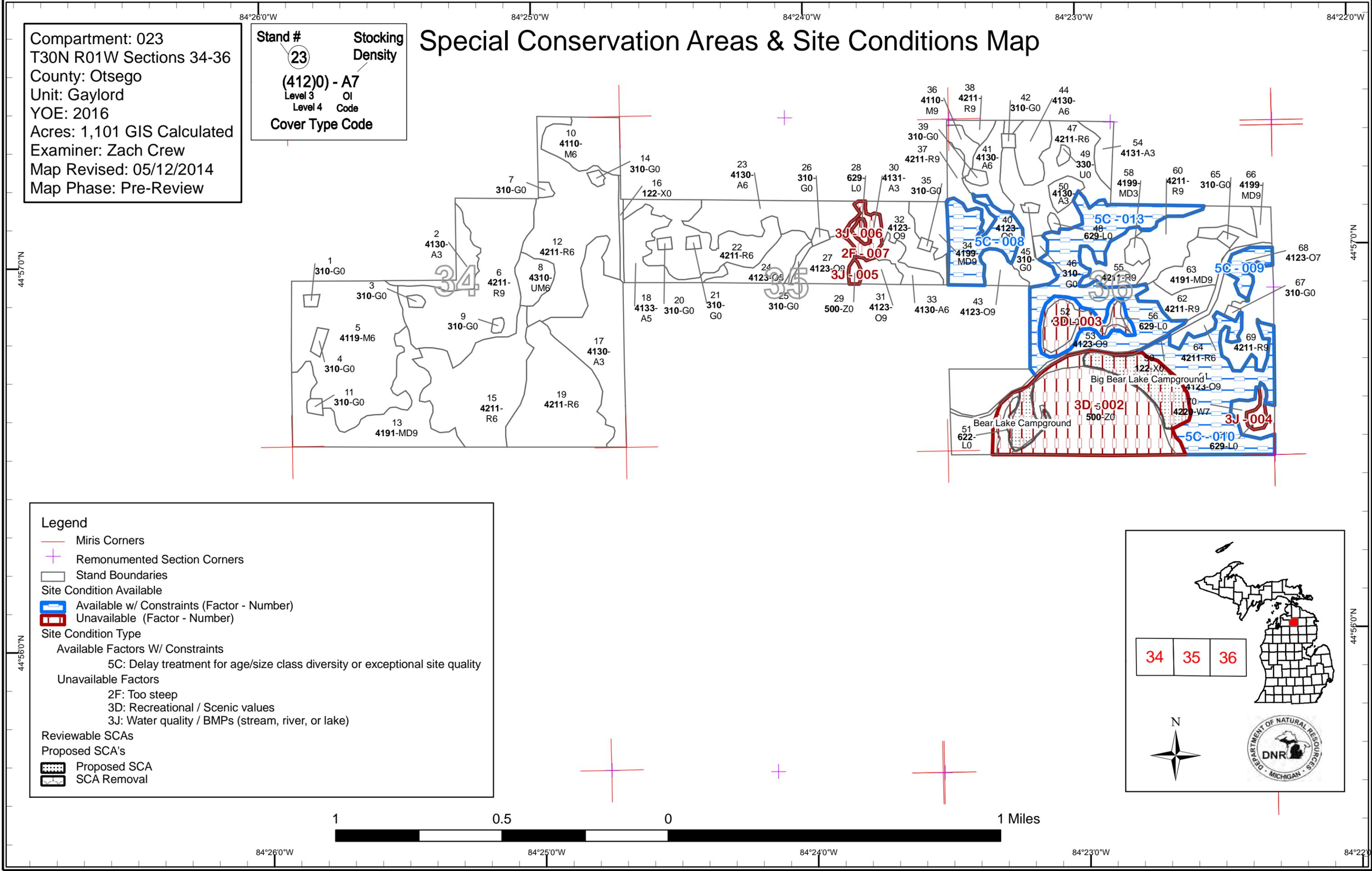
Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

Special Conservation Areas & Site Conditions Map



Legend

- Miris Corners
- Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
 - Available w/ Constraints (Factor - Number)
 - Unavailable (Factor - Number)
- Site Condition Type
 - Available Factors W/ Constraints
 - 5C: Delay treatment for age/size class diversity or exceptional site quality
 - Unavailable Factors
 - 2F: Too steep
 - 3D: Recreational / Scenic values
 - 3J: Water quality / BMPs (stream, river, or lake)
- Reviewable SCAs
- Proposed SCA's
 - Proposed SCA
 - SCA Removal



Report 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	17	0	55	55	16	0	0	0	0	0	0	0	0	0	144
Herbaceous Openland	21	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Low-Density Trees	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Shrub	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Mixed Upland Deciduous	3	0	0	0	0	0	30	44	0	0	0	0	0	0	76
Northern Hardwood	0	0	0	0	0	24	0	75	0	0	0	0	0	0	100
Oak	0	0	0	0	0	14	143	26	86	0	0	0	0	0	268
Red Pine	0	0	0	0	375	12	0	0	0	0	0	0	0	0	387
Upland Mixed Forest	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9
Urban	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Water	59	0	0	0	0	0	0	0	0	0	0	0	0	0	59
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Total	131	0	55	55	16	384	50	173	144	86	0	0	0	6	1101



Report 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2016

Compartment 023
Total Compartment Acres: 1,101

Acres by Treatment Type

Commercial Harvest - 252 Tree Planting - 16 Other - 0
 Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Mixed Upland Deciduous	9	44	0	0	0	0	53
Northern Hardwood	4	29	0	0	0	0	33
Oak Types	71	0	0	0	0	0	71
Planted Pines	25	0	0	0	71	0	96
Total	109	72	0	0	71	0	252



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	52023005-Cut_small	28.5	4119 - Mixed Northern Hardwoods	High Density Pole	87	51-80	Harvest	Group Selection	412 - Oak	Cmpt. Review Proposal
<p><u>Prescription:</u> In areas dominated by oak, establish regen gaps at least 150 ft in diameter by removing all species in those gaps. In between the gaps thin stand to 70 - 80 BA. Canopy gaps should cover more than 10% of the stand but no more than 25% of the stand.</p> <p><u>Specs:</u></p> <p><u>Other</u> Expected regen should be a mix of deciduous species in the canopy gaps that is hopefully dominated by oak.</p> <p><u>Comments:</u></p> <p><u>Next</u> regen survey</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</p>										
13	52023013-Cut	43.6	4191 - Mixed Upland Deciduous with Conifer	High Density Log	82	111-140	Harvest	Group Selection	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription:</u> In areas heavy to oak/aspens, consider establishing regen gaps at least 150 feet in diameter. All species should be removed in these gaps.</p> <p><u>Specs:</u> Outside the gaps the stand should be thinned to a BA of 60 with the idea of promoting and releasing the white pine established in the understory. Be sure to keep a minimum distance of 2 chains between gaps. Be sure to protect both the snowmobile and orv trail during the admin of the sale.</p> <p><u>Other</u> In the gaps regen should be dominated by oak with a mix of aspen and red maple. Outside the gaps the white pine already present in the</p> <p><u>Comments:</u> understory should be released with more seedlings encouraged to grow.</p> <p><u>Next</u> Regen survey</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</p>										
15	52023015-Cut	53.0	42110 - Planted Red Pine	High Density Pole	51	141-170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription:</u> Establish skid rows heading east and west from the pipeline that splits the stand. Make sure the rows are wide enough for logging equipment to skid down them. Mark out trees in these rows with orange paint. Rows should be staggered on each side of the pipeline so that they don't meet at the same point on the pipeline. Be sure to protect both the snowmobile trail and the ORV trail during the sale. Target a residual BA of 120</p> <p><u>Specs:</u></p> <p><u>Other</u> The purpose of this harvest is to establish rows in the stand so that it is accessible during the next entry.</p> <p><u>Comments:</u></p> <p><u>Next</u> monitor the growth of the residual trees.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</p>										
24	52023024-Cut	13.1	4123 - Red Oak	Medium Density Pole	82	51-80	Harvest	Clearcut with Reserves	412 - Oak	Cmpt. Review Proposal
<p><u>Prescription:</u> Clearcut stand, leave 3 - 5 oak in scattered clumps. Make sure to protect the snowmobile trail during operations.</p> <p><u>Specs:</u></p> <p><u>Other</u> Expected regen is a mix of oak, aspen, and red maple. There is a possibility of oak wilt in this stand, keep in mind that the prescription might</p> <p><u>Comments:</u> change based on recommendations from the specialist</p> <p><u>Next</u> monitor regen</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</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
27	52023027-Cut	12.6	4123 - Red Oak	High Density Log	84	81-110	Harvest	Clearcut with Reserves	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> clearcut stand, leave 3 - 5 trees in scattered clumps. Make sure to protect the snowmobile trail during operations.										
<u>Specs:</u>										
<u>Other</u> Expected regen is a mix of aspen, oak, and red maple. Keep in mind that there is a possibility of Oak wilt in this stand, and that the prescription										
<u>Comments:</u> might change based on the recommendations of the specialist										
<u>Next</u> monitor regen										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
31	52023031-Cut	5.6	4123 - Red Oak	High Density Log	76	81-110	Harvest	Clearcut with Reserves	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand, leave 3 - 5 oak and pine in clumps. Limit damage to any white pine in the understory as much as possible. Focus clumps along										
<u>Specs:</u> snowmobile trail. Protect snowmobile trail at all times.										
<u>Other</u> Expected regen is mainly oak with a small component of aspen and red maple, if the understory white pine isn't damaged that will be in the mix										
<u>Comments:</u> as well.										
<u>Next</u> monitor regen										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
32	52023032-Cut	14.0	4123 - Red Oak	High Density Log	69	81-110	Harvest	Clearcut with Reserves	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand, leave 3 - 5 oak in clumps as retention, do not be afraid to mix in other species as well. Focus clumps along orv and snowmobile										
<u>Specs:</u> trail as well as private boundary to the north. Make sure to protect the snowmobile trail.										
<u>Other</u> Regen is expected to be mainly oak with a mix of aspen and red maple.										
<u>Comments:</u>										
<u>Next</u> monitor regen										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
34	52023034-Cut	9.2	4199 - Other Mixed Upland Deciduous	High Density Log	74	81-110	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand, leave oak in clumps of 3 - 5 trees, do not be afraid to leave other species as well. Focus clumps along orv trail and private										
<u>Specs:</u> boundary to the north. Protect ORV trail during harvest operations.										
<u>Other</u> expected regen should be mainly aspen with a mix of oak and red maple										
<u>Comments:</u>										
<u>Next</u> monitor regen										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
36	52023036-Cut	4.3	4110 - Sugar Maple Association	High Density Log	68	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut. No retention due to small stand size and regen concerns.										
<u>Specs:</u>										
<u>Other</u> Prep site and plant to red pine. Site prep may include trenching, the use of herbicide, prescribed burning, etc.										
<u>Comments:</u>										
<u>Next</u> Monitor red pine seedlings										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37	52023037-Cut	6.4	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	61	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut and replant to Red Pine, clearcut area south of orv trail and let it naturally regenerate. No retention due to small stand size and regen concerns.										
<u>Specs:</u>										
<u>Other</u> prep site and replant to red pine north of the ORV trail. Site prep may include trenching, herbicide application, prescribed fire, etc.										
<u>Comments:</u>										
<u>Next</u> monitor the survival of Red Pine seedlings										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
37	52023037- Cut_small	1.7	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	61	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand south of ORV trail and let it naturally regenerate. Protect ORV trail during harvest operations.										
<u>Specs:</u>										
<u>Other</u> No retention due to small stand size and regen concerns.										
<u>Comments:</u>										
<u>Next</u> regen survey.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
38	52023038-Cut	3.7	42110 - Planted Red Pine	High Density Log	61	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand. No retention due to small stand size and regen concerns.										
<u>Specs:</u>										
<u>Other</u> Site prep and re plant to Red Pine. Site prep may include trenching, herbicide application, prescribed fire, etc.										
<u>Comments:</u>										
<u>Next</u> monitor the success of the Red Pine seedlings										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
53	52023053- Cut_small	16.3	4123 - Red Oak	High Density Log	95	51-80	Harvest	Clearcut with Reserves	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand leaving 3 to 5 oak in clumps scattered throughout as retention, do not cut white pine.										
<u>Specs:</u>										
<u>Other</u> Expected regen is a mixture of oak, aspen, and red maple.										
<u>Comments:</u>										
<u>Next</u> continue to monitor stand and regen										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
55	52023055-Cut	12.9	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	51	111-140	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand to allow natural seeding to take place.										
<u>Specs:</u>										
<u>Other</u> Leave Oak and Pine in clumps of 3 - 5 trees every few acres for aesthetic and wildlife values.										
<u>Comments:</u>										
<u>Next</u> A mixed deciduous stand with a small pine component either in the canopy or the understory is the expected regen.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
61	52023061- Cut_small	9.0	4123 - Red Oak	High Density Log	79	81-110	Harvest	Clearcut with Reserves	412 - Oak	Cmpt. Review Proposal

Prescription Clearcut stand, leave 3 to 5 oak in clumps as retention. Do not cut white pine

Specs:

Other Expected regen is a mixture of aspen oak and red maple.

Comments:

Next regen survey

Steps:

Proposed

Start Date: 10/01/2015

69	52023069-Cut	18.4	42110 - Planted Red Pine	High Density Log	51	141-170	Harvest	Crown Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription thin stand to 120 BA, do not mark non Red Pine unless they impede equipment operations. Protect the hawthorne on the east side of the stand.

Specs: Protect recreation strails in stand.

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2015

**Total Treatment
Acreage Proposed: 252.5**



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

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Gaylord Mgt. Unit
Zach Crew : Examiner

Compartment 023
Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	5C	3D	2F
	Available	Not Available					
143	137	7	Aspen	137			7
76	76		Mixed Upland Deciduous	76			
100	100		Northern Hardwood	100			
267	226	42	Oak	78	148	42	
386	386		Red Pine	386			
9	9		Upland Mixed Forest	9			
6	6		White Pine	6			
987	939	49	Total Forested Acres	791	148	42	7
	95%	5%	Relative Percent				

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	3D: Recreational / Scenic values	96	3J: Water quality / BMPs (stream, river, or lake)			
Comments:							
003	Not Available	3D: Recreational / Scenic values	19	3J: Water quality / BMPs (stream, river, or lake)			
Comments:							
004	Not Available	3J: Water quality / BMPs (stream, river, or lake)	3				
Comments:							

Report 5 – Site Conditions

Gaylord Mgt. Unit
Zach Crew : Examiner

Compartment 023
Year of Entry 2016

005	Not Available	3J: Water quality / BMPs (stream, river, or lake)	1	
Comments:				
006	Not Available	3J: Water quality / BMPs (stream, river, or lake)	2	
Comments:				
007	Not Available	2F: Too steep	7	3J: Water quality / BMPs (stream, river, or lake)
Comments:				
008	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	24	
Comments:				
009	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	
Comments:				
010	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	55	
Comments:				

Report 5 – Site Conditions

Gaylord Mgt. Unit
Zach Crew : Examiner

Compartment 023
Year of Entry 2016

013	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	64
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Comments:



Report 6 – 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.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Bear Lake Campground Comments	Concentrated Recreation Area	State Forest Campground	SCA	8.1
Big Bear Lake Campground Comments beach, beach walkway, boat ramp	Concentrated Recreation Area	State Forest Campground	SCA	19.1



Report 7 – 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	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4130 - Aspen	High Density Sapling	10.5	6		Stand final harvested in 2007 as part of Lone Turkey Hardwood sale. Good regen.
5	4119 - Mixed Northern Hardwoods	High Density Pole	75.1	87	51-80	Northern hardwood stand, amount of oak gradually increases as you head south.
6	42110 - Planted Red Pine	High Density Log	65.1	51	141-170	Stand thinned and completed in 2008 as part of Comp 34 RP. Responding to thinning well.
8	4310 - Pine, Oak Mix	High Density Pole	8.5	51	51-80	
10	4110 - Sugar Maple Association	High Density Pole	20.1	64	81-110	Stand thinned in December of 2007 as part of Lone Turkey Hardwoods. Small pocket of aspen in the nw corner of the stand.
12	42110 - Planted Red Pine	High Density Pole	60.5	51	81-110	Stand thinned as part of Comp 34 RP in november of 2008. Stocking is spotty in some spots.
13	4191 - Mixed Upland Deciduous with Conifer	High Density Log	43.6	82	111-140	"Dukes Mix", a mix of nice log size wp, rp, and red oak in most areas, some intermixed paper birch, red maple, and aspen. Lots of nicely developing pockets of wp in the understory
15	42110 - Planted Red Pine	High Density Pole	53.0	51	141-170	Lots of variety in tree size, not sure why that is since according to records it was planted at the same time as the rest of the RP in the compartment.
17	4130 - Aspen	High Density Sapling	41.6	27		Aspen stand starting to develop into pole timber but not there yet. Good stocking, lots of saps. Age from previous OI data, couldn't find cutting record and trees are too small to be core sampled.
18	4133 - Aspen, Mixed Pine	Medium Density Pole	15.8	45	51-80	The red pine in this stand was planted in 1962. Doesn't appear that it survived very well, lots of areas with underdeveloped aspen and red maple coming in, some oak as well.
19	42110 - Planted Red Pine	High Density Pole	49.1	51	81-110	Stand thinned in november of 2008 as part of Comp 34 RP. stocking is poor in areas.
22	42110 - Planted Red Pine	High Density Pole	33.5	51	141-170	Planted Red Pine in 1962. Stocking poor in some areas, acceptable in others. Rows hard to distinguish
23	4130 - Aspen	High Density Pole	29.3	35	1-50	Starting develop into pole timber, it will probably be another 10 or 20 years before the trees are ready to be harvested, good regen and growth.
24	4123 - Red Oak	Medium Density Pole	13.1	82	51-80	Oak stand that was thinned in 2007 as part of Vista Veue Oak, where oak was cut it is sprouting and regenerating.
27	4123 - Red Oak	High Density Log	12.6	84	81-110	Almost pure oak stand, scattered white pine and aspen. Thinned in the fall of 2007 as part of Vista Veue Oak sale. Lots of oak regen on the eastern slope of the stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	4131 - Aspen, Oak	High Density Sapling	6.6	20		Stand surrounding small wet area, appears to be in the early stages of development, mixture of aspen oak and birch.
31	4123 - Red Oak	High Density Log	5.6	76	81-110	Oak thinned last YOE, not a whole lot of regen other than some aspen and red maple stump sprouts
32	4123 - Red Oak	High Density Log	14.0	69	81-110	Red Oak stand, appears to have been thinned with all the aspen and red maple removed
33	4130 - Aspen	High Density Pole	6.9	29		Age is an estimate, no cutting record found, trees too small to core
34	4199 - Other Mixed Upland Deciduous	High Density Log	9.2	74	81-110	Similiar to the surrounding stands but with a higher component of aspen
36	4110 - Sugar Maple Association	High Density Log	4.3	68	51-80	Small stand of low quality hardwood SI for sugar maple is 50 on this site
37	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	8.1	61	111-140	Pine planted in 1952 according to planting records, "3rd row thinned" last YOE. Very squirraly rows, a lot of the red pine is suppressed by larger Aspen and Red Maple, other spots almost no RP
38	42110 - Planted Red Pine	High Density Log	3.7	61	111-140	Pine planted in 1952, patchy stocking, some trees supressed by Aspen and Red Maple
40	4123 - Red Oak	High Density Log	24.4	79	81-110	Log stand of oak, it appears the aspen was removed sometime in the past 30 years
41	4130 - Aspen	High Density Pole	11.0	32		Nicely regenerating aspen stand, couldn't find a cutting record and trees are too small to core so the age is a just a guess.
43	4123 - Red Oak	High Density Log	6.6	77	51-80	The only difference between this stand and 71 is the presence of a nicely developing white pine understory. Also looks like all the aspen was removed 20 or 30 years ago
44	4130 - Aspen	High Density Pole	10.6	32		Similiar to stand 41, could find no record of cutting so age is a guess
47	42110 - Planted Red Pine	High Density Pole	43.4	51	111-140	lots of variability in stocking
50	4130 - Aspen	High Density Sapling	4.6	30		
53	4123 - Red Oak	High Density Log	86.0	95	51-80	
54	4131 - Aspen, Oak	High Density Sapling	6.5	6		

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Gaylord Mgt. Unit

Report 8 – Forested Stands

Compartment: 023
Year of Entry: 2016

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
55	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	12.9	51	111-140	New stand added. poorly stocked plantation
58	4199 - Other Mixed Upland Deciduous	High Density Sapling	2.9	6		Stand looks like a small wildlife cut, could not find record of sale, age is a guess, regen mostly a mix of aspen, red maple, and oak
60	42110 - Planted Red Pine	High Density Log	21.6	51	141-170	poor quality in the eastern end. better in west. lots of red oak saplings in places
61	4123 - Red Oak	High Density Log	99.0	79	81-110	both bear lake campgrounds in stand nice oak and wp
62	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	10.0	51	111-140	Planted Pine stand, areas where stocking is poor or trees are heavily suppressed.
63	4191 - Mixed Upland Deciduous with Conifer	High Density Log	13.5	74	111-140	parts of pine plantation mixed in stand. some areas look thinned
64	42110 - Planted Red Pine	High Density Pole	7.8	51	81-110	Stand thinned last YOE, stocking is poor the further away from the road you get. Rows are squirrely
66	4199 - Other Mixed Upland Deciduous	High Density Log	7.1	74	51-80	all aspen taken oak on steep slopess left
68	4123 - Red Oak	Low Density Log	7.1	78	51-80	looks like all aspen was thinned and oak left 20 yrs ago
69	42110 - Planted Red Pine	High Density Log	18.4	51	141-170	
70	42200 - Natural White Pine	Low Density Log	5.9	Uneven Age	1-50	wp super canopy...hdwds coming up unerneath



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	310 - Herbaceous Openland	1.0	Unspecified	Unspecified	
3	310 - Herbaceous Openland	1.1	Unspecified	Unspecified	
4	310 - Herbaceous Openland	1.7	Unspecified	Unspecified	
7	310 - Herbaceous Openland	1.2	Unspecified	Unspecified	
9	310 - Herbaceous Openland	0.9	Unspecified	Unspecified	
11	310 - Herbaceous Openland	1.3	Unspecified	Unspecified	
14	310 - Herbaceous Openland	1.1	Unspecified	Unspecified	
16	122 - Road/Parking Lot	2.1	Unspecified	Unspecified	
20	310 - Herbaceous Openland	0.9	Unspecified	Unspecified	
21	310 - Herbaceous Openland	1.0	Unspecified	Unspecified	
25	310 - Herbaceous Openland	1.5	Unspecified	Unspecified	
26	310 - Herbaceous Openland	1.2	Unspecified	Unspecified	
28	629 - Mixed non-forested wetland	1.5	Unspecified	Unspecified	
29	50 - Water	1.4	Unspecified	Unspecified	
35	310 - Herbaceous Openland	0.8	Unspecified	Unspecified	
39	310 - Herbaceous Openland	1.6	Unspecified	Unspecified	
42	310 - Herbaceous Openland	1.1	Unspecified	Unspecified	
45	310 - Herbaceous Openland	0.9	Unspecified	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
46	310 - Herbaceous Openland	1.7	Unspecified	Unspecified	
48	629 - Mixed non-forested wetland	1.0	Unspecified	Unspecified	
49	330 - Low-Density Trees	1.1	Unspecified	Unspecified	
51	6229 - Mixed lowland shrub	4.1	Unspecified	Unspecified	
52	629 - Mixed non-forested wetland	8.9	Unspecified	Unspecified	
56	629 - Mixed non-forested wetland	1.7	Unspecified	Unspecified	
57	50 - Water	57.6	Unspecified	Unspecified	
59	122 - Road/Parking Lot	8.1	Unspecified	Unspecified	
65	310 - Herbaceous Openland	1.1	Unspecified	Unspecified	
67	310 - Herbaceous Openland	0.9	Unspecified	Unspecified	
71	629 - Mixed non-forested wetland	2.8	Unspecified	Unspecified	