

Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 118 Entry Year 2016 Acreage: 1,542 County Emmet Management Area: Mackinaw Lake Plain

Revision Date: 02/27/2014

Stand Examiner: Paul Roell

Legal Description:

T38N R5W Sections 1-3, 10-13, 15

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:

The lowland areas are dominated by Carbondale and Tawas muck which contain deep poorly drained organic soils. The majority of the upland areas are Blue Lake soils which are a well drained loamy sand.

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

Wilderness State Park is to the north and west of this compartment. The state ownership breaks up to the south and mixes in with full time residences, second homes and farms.

Unique Natural Features:

High quality wooded dune and swale complex* and dry-mesic northern forest* extend into compartment from adjacent Wilderness State Park. There is potential for pine drops, ram's head orchid, Hill's pondweed, dwarf lake iris, Houghton's goldenrod, for calypso orchid and limestone oak fern. Potential wildlife include red-shouldered hawk and goshawk, eagle, merlin, osprey and great blue heron rookery. There is also potential for early hairstreak, migrant loggerhead shrike, massasauga, wood turtle, black tern and Blanding's turtle.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Treatments in this compartment will maintain age class diversity in lowland aspen while creating early successional habitat benifiting deer, grouse, and woodcock. Hardwood treatments will provide within stand structural diversity.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel, dune sand, coarse-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 100 and 400 feet. The Devonian Detroit River Group subcrops below the glacial drift. The Detroit River could be used for stone. The nearest gravel pit is located just to the south and potential appears to be good on the uplands. The nearest oil and gas production, the Antrim Shale gas play, is located 36 miles to the south. There is no known oil and gas potential in the area.

Vehicle Access:

Areas of section 1, 2 and 11 have very limited access due to the wet soils, draiages and being blocked by private property.

Survey Needs:

There are none at this time.

Recreational Facilities and Opportunities:

There are oppurtunties for deer hunting and O'Neal and Lawerence Lakes provide the potential for water fowl hunting. Wilderness State Park is to the north of this compartment which has a skiing/hiking trail that borders this compartment.

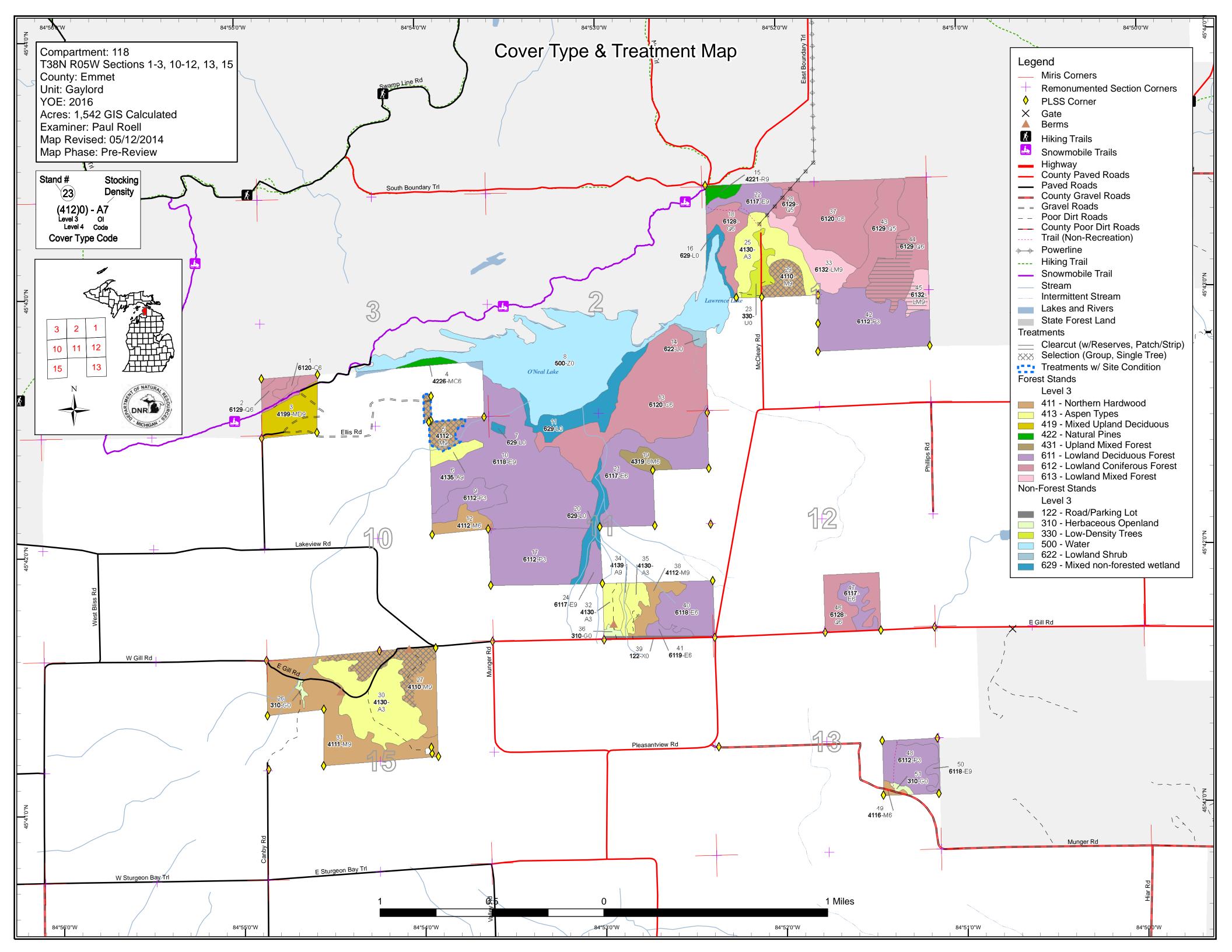
Fire Protection:

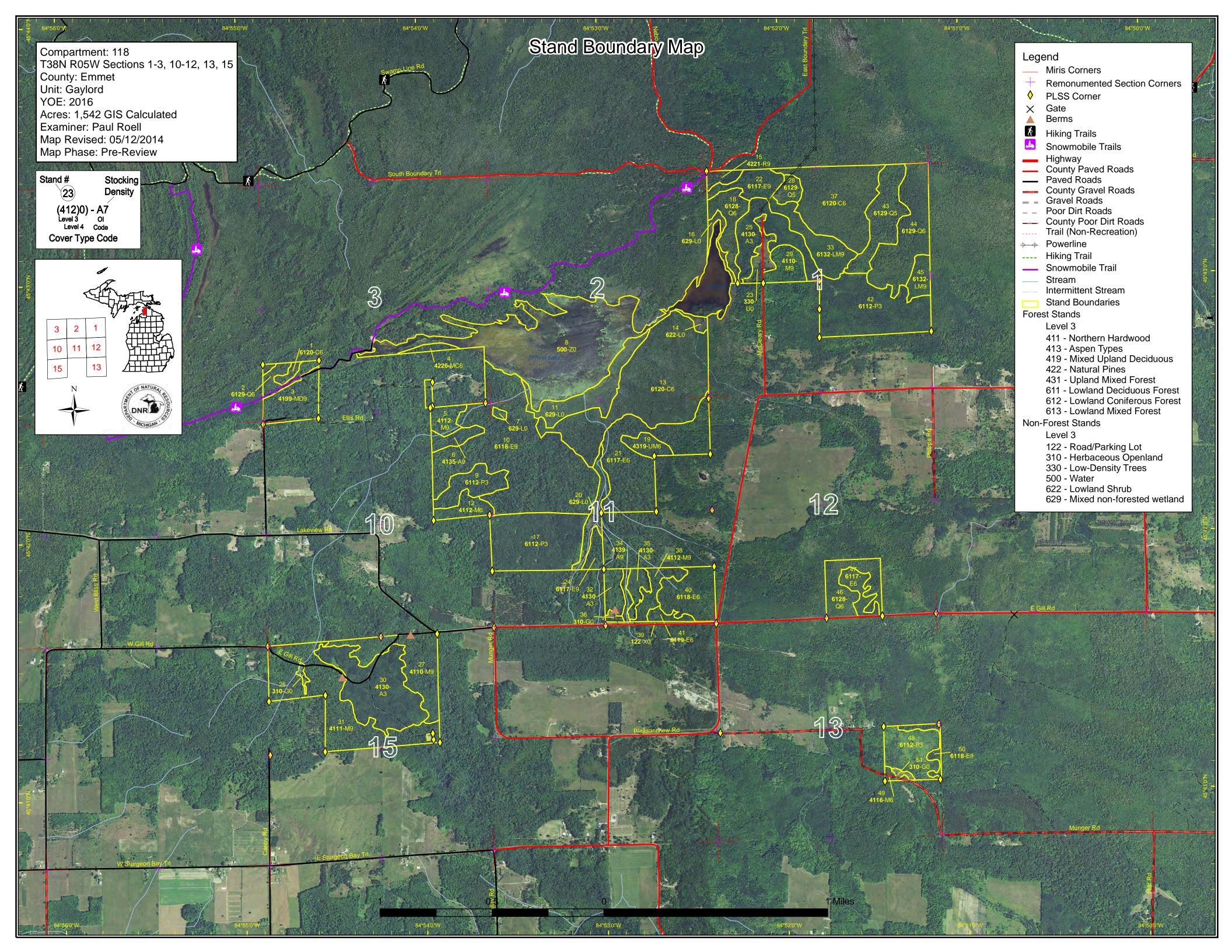
There are no major concerns with in this compartment.

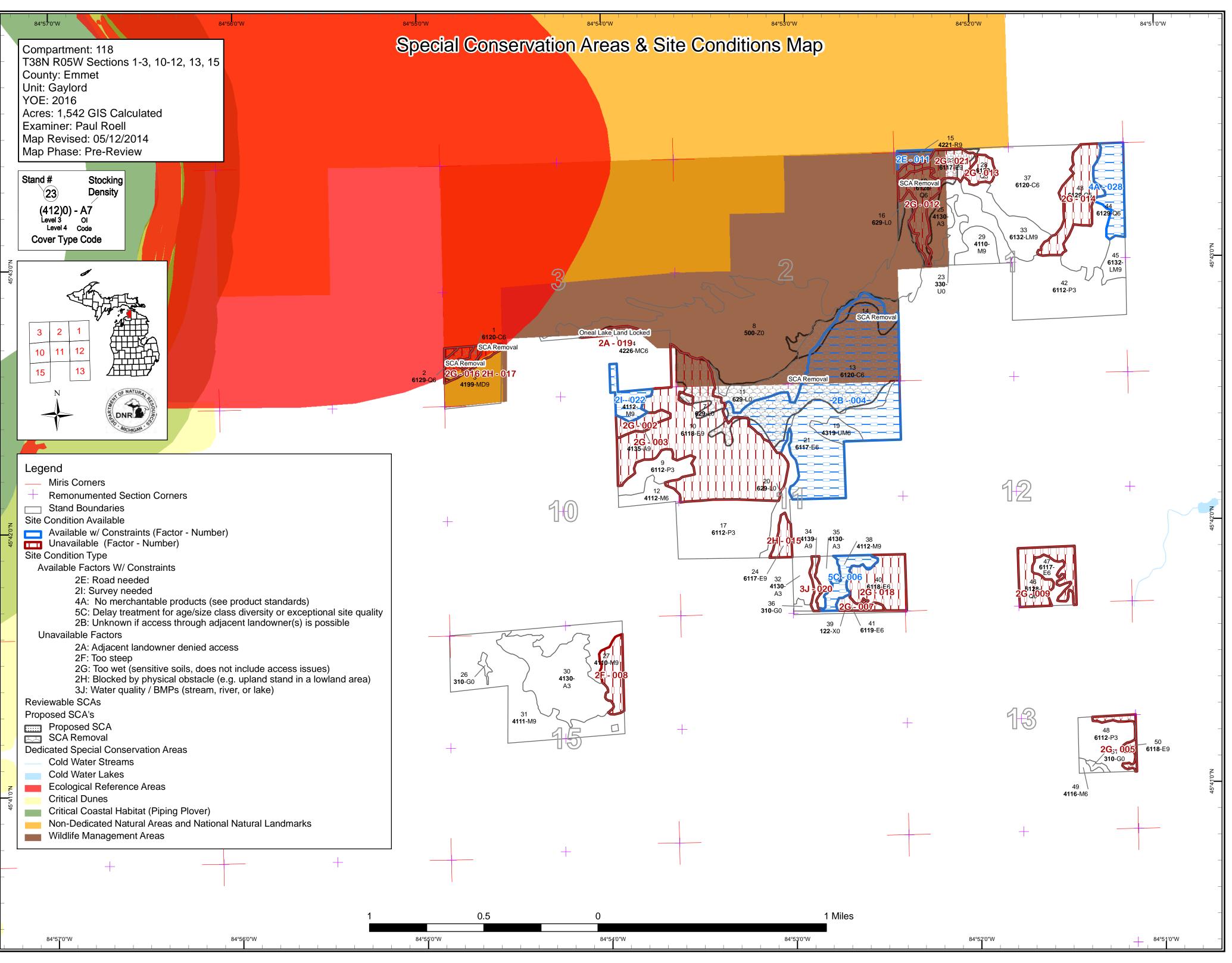
Additional Compartment Information:

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







Report 1 – Total Acres by Cover Type and Age Class

Gaylord Mgt. Unit Paul Roell : Examiner Compartment 118 Year of Entry 2016



Age Class

						-										
		00	10 ¹⁰	10 ⁻¹⁰	³⁰ 39	AL AL	95:05	69 [.] 09	A A	690-00	66:00	100,100	170,779	200×10	A A A	,00, 10,00
Aspen	20	37	68	0	0	0	0	4	9	0	0	0	0	0	138	
Cedar	0	0	0	0	0	0	0	0	0	4	200	0	0	0	204	
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Low-Density Trees	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
Lowland Aspen/Balsam Poplar	30	0	158	0	0	0	0	0	0	0	0	0	0	0	188	
Lowland Conifers	0	0	0	0	0	11	0	29	22	8	89	0	0	0	158	
Lowland Deciduous	0	0	0	12	0	0	38	254	8	5	0	0	0	0	316	
Lowland Mixed Forest	0	0	0	0	0	0	0	38	0	0	0	0	0	0	38	
Lowland Shrub	58	0	0	0	0	0	0	0	0	0	0	0	0	0	58	
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	27	0	0	0	0	27	
Natural Mixed Pines	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	
Northern Hardwood	0	0	0	0	0	0	0	12	2	170	0	0	0	0	184	
Red Pine	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	
Upland Mixed Forest	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10	
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Water	192	0	0	0	0	0	0	0	0	0	0	0	0	0	192	
Total	319	37	227	21	0	11	38	341	40	219	288	0	0	0	1542	



MICHIGAN	Gaylord Mgt. Unit Year of Entry 2016								Compartment Total Compartment Acres:	
				Acres by 1	[reatm	ent Ty	ре			
	Commercial Harvest - 89	Tree Planting -	0	Other -	0					
	Habitat Cut - 0	enance - 0								
				Cover Ty	pe by H	larves	st Meth	nod		
				to to the second	000 000 00 00 00 00 00 00 00 00 00 00 0	esternood	Cristing OF			
	Lowland Coniferous Forest 27 0 0 0 0 27									
	Lowland Mixed Fores	6	0 0	0	0	0	6			
	Northern Hardwood		0	56 0	0	0	0	56		
		Total	33	56 0	0	0	0	89		
		L								

Compartment: 118 Gaylord Mgt. Unit **Report 3 -- Treatments Prescribed** Year of Entry 2016 with No Limiting Factor s t а Treatment BA Treatment Treatment Cover Type Acres CoverType Size Stand Approval n d Name Density Age Range Type Method Objective Status Cmpt. Review 27.6 4110 - Sugar Maple High 111-140 4110 - Sugar Maple 27 52118027-Cut 98 Harvest Single Tree Density Log Association Selection Association Proposal Prescription Mark Stand for harvest to a residual b.a. of 80 square feet per acre. In addition harvest all beech and ash. Place 100 foot canopy gaps every 2-3 acres. Leave tree mark 1-2 beech per acre for wildlife Specs: Other Comments: Regen survey, acceptable regeneration is a mixed of hardwood species. Next Steps: Proposed 10/01/2015 Start Date: High 29 52118029-Cut 15.4 4110 - Sugar Maple 93 111-140 Harvest Single Tree 4110 - Sugar Maple Cmpt. Review Association Density Log Selection Association Proposal Prescription Mark Stand for harvest to a residual b.a. of 70-80 square feet per acre. In addition harvest all beech and ash. Place 100 foot canopy gaps every 2-3 acres. Leave tree mark 1-2 beech per acre for wildlife Specs: Other Comments: Regen survey, acceptable regeneration is a mixed of hardwood species. Next Steps: Proposed 10/01/2015 Start Date: 44 52118044-Cut 27.2 6129 - Mixed High 103 81-110 Harvest Clearcut with 6129 - Mixed Cmpt. Review **Coniferous Lowland** Density Reserves **Coniferous Lowland** Proposal Forest Pole Forest Prescription Clear cut all trees two inches and greater in diameter. Follow retention guidelines. The stand is wet so only allow cut to length equipment and winter only harvesting both of which could change upon written agreement. Consider habitat cuting within this stand if treatment can't be done Specs: commercially. Other Comments: Regeneration survey two growing seasons after the sale has been harvested. Acceptable regeneration is cedar, tamarack, spruce, fir, aspen and <u>Next</u> Steps: birch. Proposed 10/01/2015 Start Date: 45 52118045-Cut 6.2 6132 - Mixed High 75 Harvest Clearcut with 6132 - Mixed Cmpt. Review Lowland Forest with Density Log Lowland Forest with Reserves Proposal Cedar Cedar Prescription Clear cut all trees two inches and greater in diameter. Follow retention guidelines. The stand is wet so only allow cut to length equipment and Specs: winter only harvesting both of which could change upon written agreement. Consider habitat cuting within this stand if treatment can't be done commercially Other Comments: Regeneration survey two growing seasons after the sale has been harvested. Acceptable regeneration is cedar, tamarack, spruce, fir, aspen and <u>Next</u> Steps: birch. Proposed 10/01/2015 Start Date:

Total Treatment Acreage Proposed: 76.4

S t a		Gayl	a Limiting Factor Ye						Compartment: 118 Year of Entry 2016	DNR MATURAL
n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	52118005-Cut	12.8	4112 - Maple, Beech, Cherry Association	High Density Log	96	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal
<u>Pres</u> Spec			est to a residual b.a ark 1-2 beech per a						Place 100 foot canopy ent.	japs every 2-3

<u>Other</u> Comment:

<u>Next</u> Regen survey, acceptable regeneration is a mixed of hardwood species.. Steps:

Proposed Start Date: 10/01/2015

Limiting Factor 2I: Survey needed

Total Treatment 12.8 Acreage Proposed:

Report 5 – Site Conditions

Gaylord Mgt. Unit

Paul Roell : Examiner

Compartment 118 Year of Entry 2016

Availability for Management

Total	Acres	Acres	De	Dominant Site Conditions										
Acres	Available	Not Available		No	5C	4A	3J	21	2H	2G	2F	2E	2B	2A
138	125	13	Aspen	125			4			9				
204	199	4	Cedar	71					4				128	
188	188		Lowland Aspen/Balsam Poplar	188										
158	53	105	Lowland Conifers	27		26				105				
316	87	229	Lowland Deciduous	12					8	222			75	
38	38		Lowland Mixed Forest	38										
27	27		Mixed Upland Deciduous	27										
4		4	Natural Mixed Pines											4
184	167	17	Northern Hardwood	141	13			13			17			
6	6		Red Pine									6		
10	10		Upland Mixed Forest										10	
1,271	899	372	Total Forested Acres	628	13	26	4	13	12	335	17	6	213	4
	71%	29%	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.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	2G: Too wet (sensitive soils, does not include access issues)	9	2D: Portable Bridge Needed (Dept. bridge will be adequate)			
C	comments:						
003	Not Available	2G: Too wet (sensitive soils, does not include access issues)	162				
С	comments:						
N	lany scattered drai	nages throughout stand.					
	-						

		aylord Mgt. Unit Roell : Examiner		Report 5 – Site Co	nditions	Compartment 118 Year of Entry 2016	
004	Available	2B: Unknown if access through adjacent landowner(s) is possible	213				
С	omments:						
005	Not Available	2G: Too wet (sensitive soils, does not include access issues)	6	No Limiting Factor			
С	omments:						
006	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13				
С	omments:						
007	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5				
С	omments:						
008	Not Available	2F: Too steep	17				
С	omments:						
009	Not Available	2G: Too wet (sensitive soils, does not include access issues)	29				
С	omments:						

		aylord Mgt. Unit Roell : Examiner		Report 5 – Site Conditions	Compartment 118 Year of Entry 2016
011	Available	2E: Road needed	6		
C	Comments:				
012	Not Available	2G: Too wet (sensitive soils, does not include access issues)	22		
C	Comments:				
013	Not Available	2G: Too wet (sensitive soils, does not include access issues)	8		
C	Comments:				
014	Not Available	2G: Too wet (sensitive soils, does not include access issues)	35	4A: No merchantable products (see product standards)	
C	Comments:				
015	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	8		
C	Comments:				
0 16	Comments: Not Available	2G: Too wet (sensitive soils, does not include access issues)	11		

		ylord Mgt. Unit Roell:Examiner		Report 5 – Site Cor	nditions	Compartment 118 Year of Entry 2016	
017	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	4				
C	comments:						
018	Not Available	2G: Too wet (sensitive soils, does not include access issues)	32				
	comments: Iany drainages rur	ning through the stand					
019	Not Available	2A: Adjacent landowner denied access	4	3J: Water quality / BMPs (stream, river, or lake)			
С	comments:						
020	Not Available	3J: Water quality / BMPs (stream, river, or lake)	4				
C	comments:						
021	Not Available	2G: Too wet (sensitive soils, does not include access issues)	18				
C	comments:						
022	Available	2I: Survey needed	13	2I: Survey needed			
	ommenta.						

		aylord Mgt. Unit I Roell :Examiner	Report 5 – Site Conditions	Compartment 118 Year of Entry 2016
028	Available	4A: No merchantable products (see product standards)	26	
Co	omments:			



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
SCA Removal Comments	Potential Old Growth		SCA Removal	0.2
Oneal Lake Land Locked Comments SMALL STRIP OF STATE L	Potential Old Growth AND. DATA COPIED FROM STAND	13. PART OF LARGE AREA OF	SCA Removal	4.3 L.
SCA Removal Comments	Potential Old Growth		SCA Removal	11.5
SCA Removal Comments	Potential Old Growth		SCA Removal	23.8
SCA Removal Comments	Potential Old Growth		SCA Removal	51.2
SCA Removal Comments SOME VERY NICE CEDAR. GROWTH.	Potential Old Growth AREAS THICK WITH SMALL NON	MERCH C AND BS. PART OF LA	SCA Removal RGE AREA OF POTENTIA	163.8 L OLD



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.

Conservat Area	ion Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical r sites of cultural and historical significance that may occur upon to bottomlands. They include thousands of Native American settler and British outposts, nineteenth century logging camps, mines a the Great Lakes, there are shipwrecks and other remains docum be identified by Natural heritage data from the State Historic Pres this compartment will be implemented in such a manner as to ma the sensitive nature of this information, no further detail about loc	errestrial areas and Great Lakes nents and burial sites, as well as French and homesteads. Beneath the waters of enting the maritime trade. Such sites may servation Office. Proposed treatments in aintain the integrity of these sites. Due to
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildli and Waterfowl Production Areas, deer wintering complexes in lov openings and savannas. Habitat areas are distinct from critical h endangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in coopera	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more rendangered species, and are not
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wil proposed for legal dedication, but for which legal dedication by le nomination process is defined by Part 351, Wilderness and Natu Environmental Protection Act, 1994 PA 451. The program is adm require the submittal of a Natural Areas Nomination Packet to the proposed sites in various stages of review. Final dedication of no Areas is accomplished through legislative action.	egislature has not occurred. The Iral Areas, of the Natural Resources and hinistered by the DNR. Nominations e DNR. This is an active program, with
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and and Environmental Protection Act, 1994 PA 451. The program is require the submittal of a Natural Areas Nomination Packet to the proposed sites in various stages of review. Final dedication of no Areas is accomplished through legislative action.	administered by the DNR. Nominations e DNR. This is an active program, with
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Element (Excellent) or B (Good) and a Global (G) or State (S) element (ra threatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations managed for restoration and maintenance of natural ecological p submit recommendations for lands as ERAs using the DNR Cons	al Features Inventory (MNFI) within the t Occurrences with viability ranks of A arity) ranking of endangered (1), may be located upon any ownership in of natural community types that are processes and values. The public may

S t	Gaylor	d Mgt. Unit		Report 8	– Forested Stands	Compartment: 118 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	High Density Pole	4.4	95		
2	6129 - Mixed Coniferous Lowland Forest	High Density Pole	10.7	55		
3	4199 - Other Mixed Upland Deciduous	High Density Log	26.7	92	51-80	
4	42260 - Natural Pine, Mixed Deciduous	High Density Pole	4.0	70		
5	4112 - Maple, Beech, Cherry Association	High Density Log	12.8	96	111-140	
6	4135 - Aspen, Cedar	High Density Log	8.9	82	111-140	
9	6112 - Lowland Aspen	High Density Sapling	20.9	20		
10	6118 - Lowland Deciduous with Cedar	High Density Log	161.5	75	51-80	
12	4112 - Maple, Beech, Cherry Association	High Density Pole	12.1	78	81-110	
13	6120 - Lowland Cedar	High Density Pole	128.2	104		
15	42210 - Natural Red Pine	High Density Log	5.8	93	111-140	
17	6112 - Lowland Aspen	High Density Sapling	65.9	21		
18	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	21.6	89		
19	4319 - Mixed Upland Forest	High Density Pole	9.9	35	51-80	
21	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	75.1	78		
22	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	17.5	72		
24	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	7.5	81		

S t	Gaylord Mgt. Unit			Report 8 – Forested Stands		Compartment: 118 Year of Entry: 2016	OF NATURAL RESOURCE
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	Michigan .
25	4130 - Aspen	High Density Sapling	37.0	16			
27	4110 - Sugar Maple Association	High Density Log	44.4	98	111-140		
28	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	7.6	94	51-80		
29	4110 - Sugar Maple Association	High Density Log	15.4	93	111-140		
30	4130 - Aspen	High Density Sapling	68.4	25			
31	4111 - S.Maple, Hard Mast Association	High Density Log	83.9	98	51-80		
32	4130 - Aspen	High Density Sapling	10.6	7			
33	6132 - Mixed Lowland Forest with Cedar	High Density Log	27.0	75			
34	4139 - Aspen, Mixed Deciduous	High Density Log	4.2	75			
35	4130 - Aspen	High Density Sapling	9.0	5			
37	6120 - Lowland Cedar	High Density Pole	71.3	103			
38	4112 - Maple, Beech, Cherry Association	High Density Log	13.3	94	111-140	New stand added.	
40	6118 - Lowland Deciduous with Cedar	High Density Pole	32.0	67			
41	6119 - Mixed Lowland Deciduous Forest	High Density Pole	5.2	94	81-110		
42	6112 - Lowland Aspen	High Density Sapling	71.3	21			
43	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	35.3	103	51-80		
44	6129 - Mixed Coniferous Lowland Forest	High Density Pole	53.4	103	81-110		
45	6132 - Mixed Lowland Forest with Cedar	High Density Log	10.5	75			

S t a n d	Gaylord Mgt. Unit			Report 8 – Forested Stands		Compartment: 118 Year of Entry: 2016	DIR DIRAC REPORT
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	P. MICHIGAN .
46	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	29.3	79			
47	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	11.6	32	51-80		
48	6112 - Lowland Aspen	High Density Sapling	29.9	7			
49	4116 - Mixed N. Hardwood - Aspen	High Density Pole	2.2	87	81-110		
50	6118 - Lowland Deciduous with Cedar	High Density Log	6.0	65			

Gaylord Mgt. Unit

Compartment: 118 Year of Entry: 2016



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:	WICHIGA!
7	629 - Mixed non-forested wetland	1.5	No	Unspecified		
8	50 - Water	192.2	Unspecified	Unspecified		
11	629 - Mixed non-forested wetland	32.8	Unspecified	Unspecified		
14	622 - Lowland Shrub	3.3	No	Unspecified		
16	629 - Mixed non-forested wetland	5.6	No	Unspecified		
20	629 - Mixed non-forested wetland	14.4	No	Unspecified		
23	3303 - Mixed Low Density Trees	11.1	No	Unspecified		
26	310 - Herbaceous Openland	1.7	No	Unspecified		
36	310 - Herbaceous Openland	1.9	No	Unspecified		
39	122 - Road/Parking Lot	3.7	No	Unspecified		
51	310 - Herbaceous Openland	1.7	No	Unspecified		