

Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 52054 Entry Year 2020 Acreage: 971

County Antrim

Management Area: Jordan Valley

Revision Date: 2018-03-12 Stand Examiner: Zach Crew

Legal Description:

T30N R06W Sec. 5, 6, 8

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:

Lowlands are comprised of mainly soils in the Tawas Muck series. Uplands are a combination of soils in the Kalkaska series, mainly sands and sandy loams

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

The north and east boundaries of the compartment borders contiguous state ownership in the Jordan River Valley. The rest of the compartment is mainly bordered by private property.

Unique Natural Features:

The Jordan River and Green River run through the compartment.

Archeological, Historical, and Cultural Features:

None

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. This compartment is also part of the Jordan Valley Management Area which has a specific management plan that can be referenced at the Gaylord Office.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

This compartment offers a mixture of upland hardwood types along with lowland conifer, providing a mixture of wildlife food and cover. Characteristics of the lowland types offer good winter cover for deer and pileated woodpecker sign is observed in both the upland and lowland types.

Mineral Resource and Development Concerns and/or Restrictions

An active sand/gravel pit is located one mile north, and there may be some sand & gravel potential within the compartment on the uplands. The compartment is within the Antrim Shale gas play but is excluded from Antrim UAs and there are no active leases, due to the fact the lands are in the Jordan Valley Management Area (classified non-leasable). The compartment is offset by numerous producing wells and is probably being drained of hydrocarbons. Potential for oil & gas within the compartment from formations other than the Antrim appears to be minimal.

Vehicle Access:

M 66 is a major state highway that runs between Mancelona and East Jordan. Graves Crossing Road turns to a private road with a state easement in Section 5. Pinney Bridge Road provides access to the compartment in section 8.

Survey Needs:

None

Recreational Facilities and Opportunities:

The Jordan Valley snowmobile trail runs down Pinney Bridge Road and then turns north and runs parallel to M 66 along an existing power line. There is a river access site on Graves Crossing Road.

Fire Protection:

Fire protection in this area is provided out of the Bellaire Field Office and the Gaylord Field Office. Forest Types in this compartment due not yield concerns for large scale fire events, though access may be an issue in certain areas.

Additional Compartment Information:

The portion of the compartment that was located in section 31 has been reassigned to compartment 53.

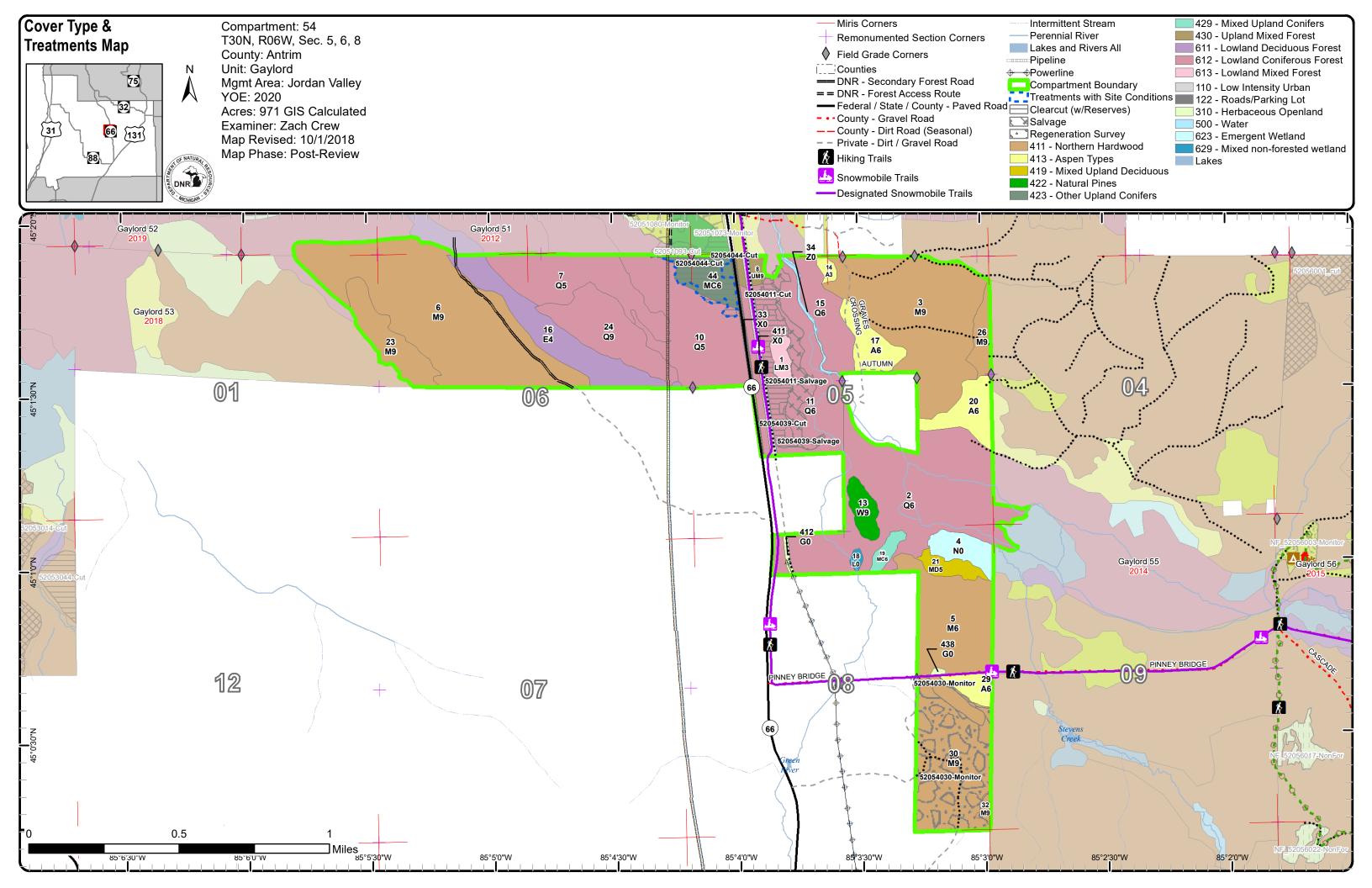
The following reports from the Inventory are attached:

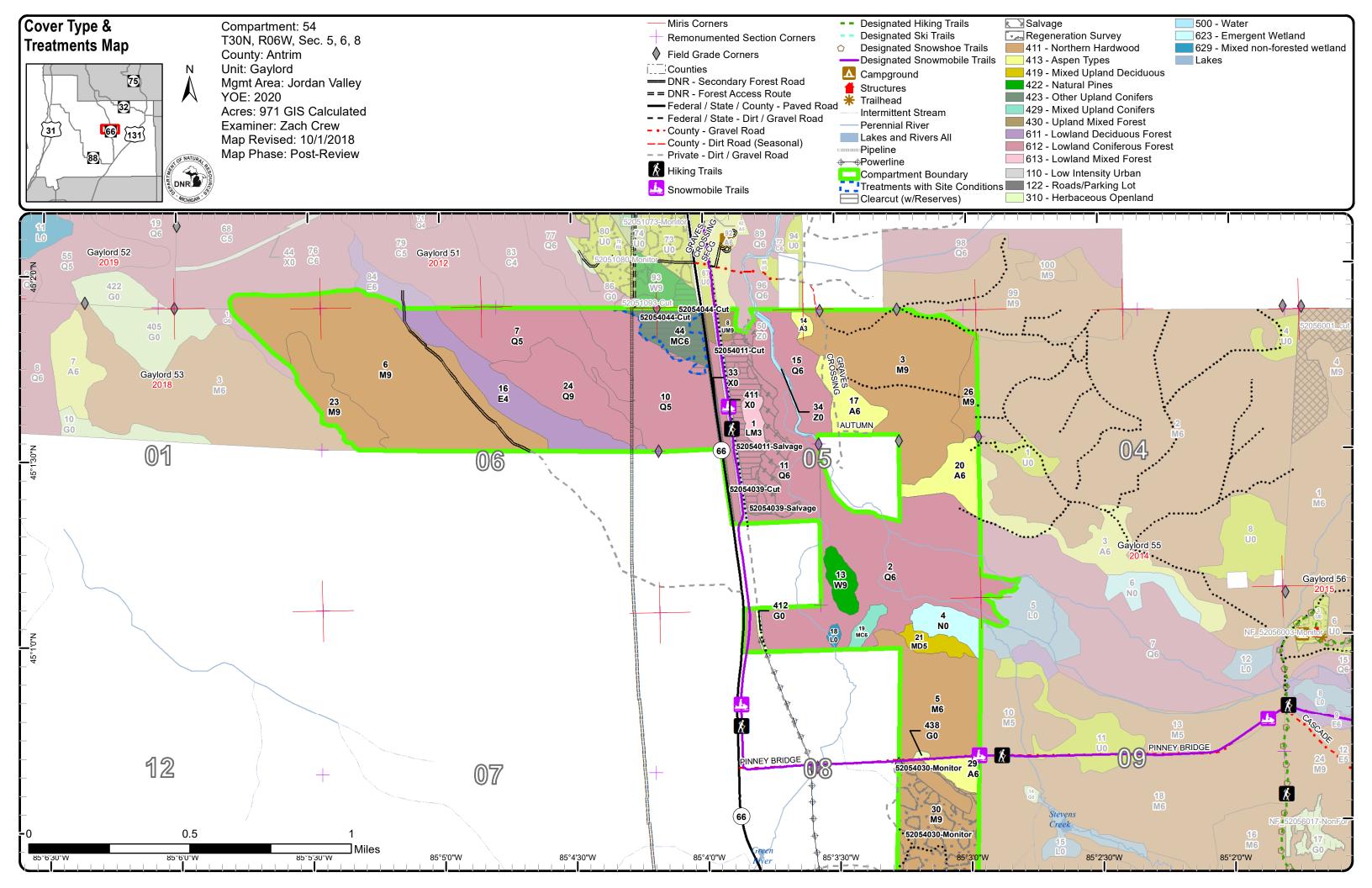
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

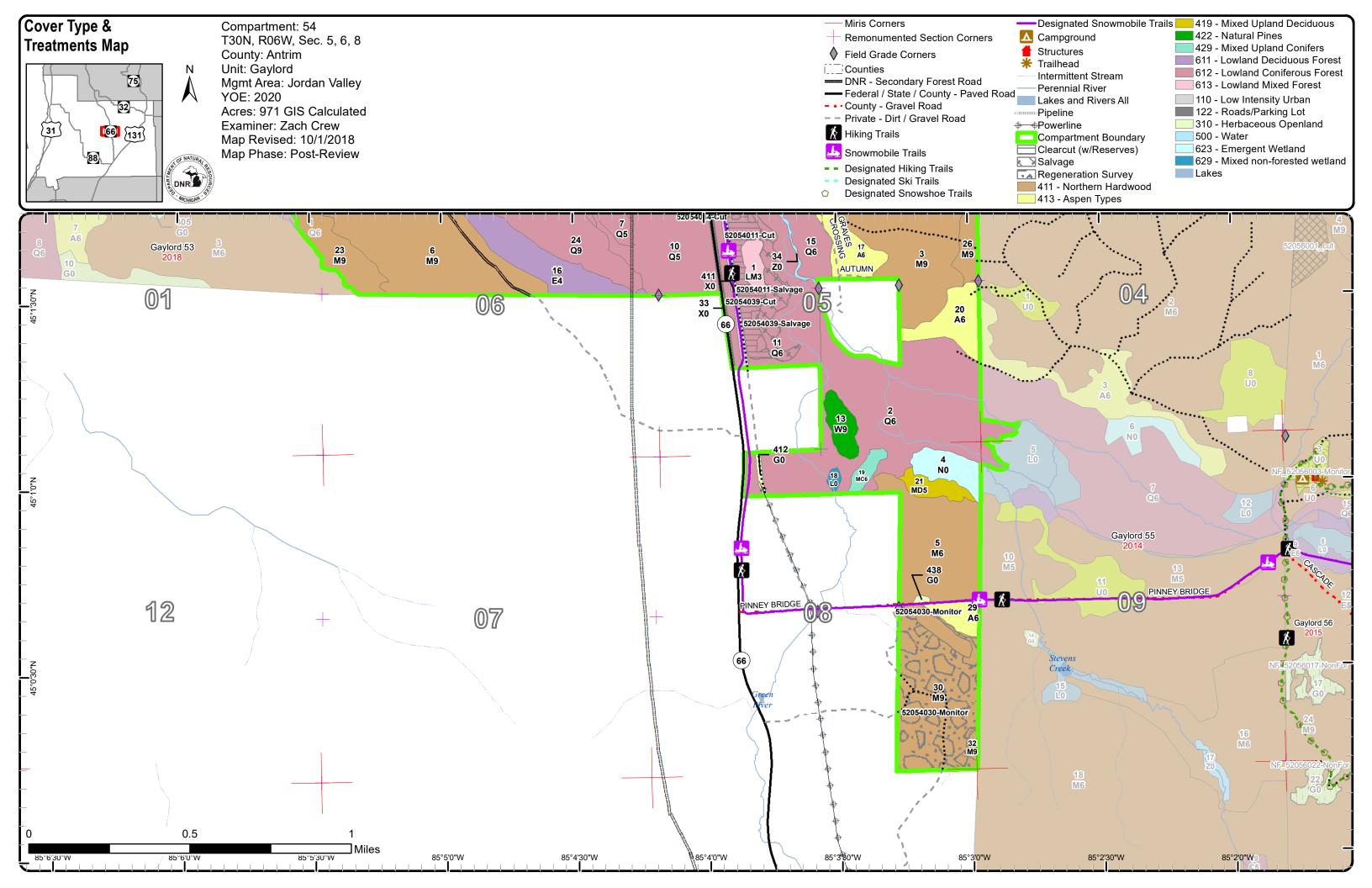
The following information is displayed, where pertinent, on the attached compartment maps:

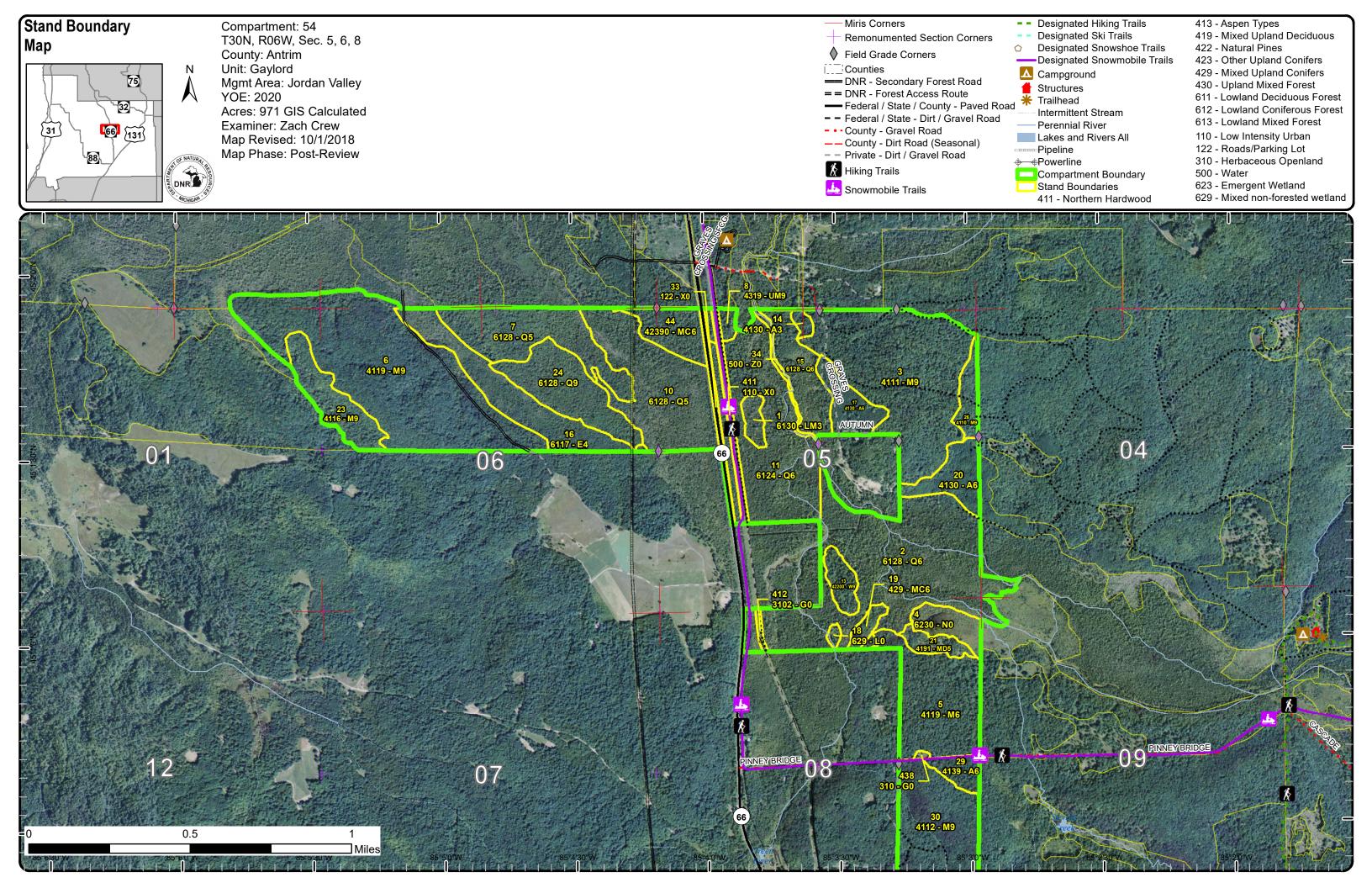
Base feature information, stand boundaries, cover types, and numbers

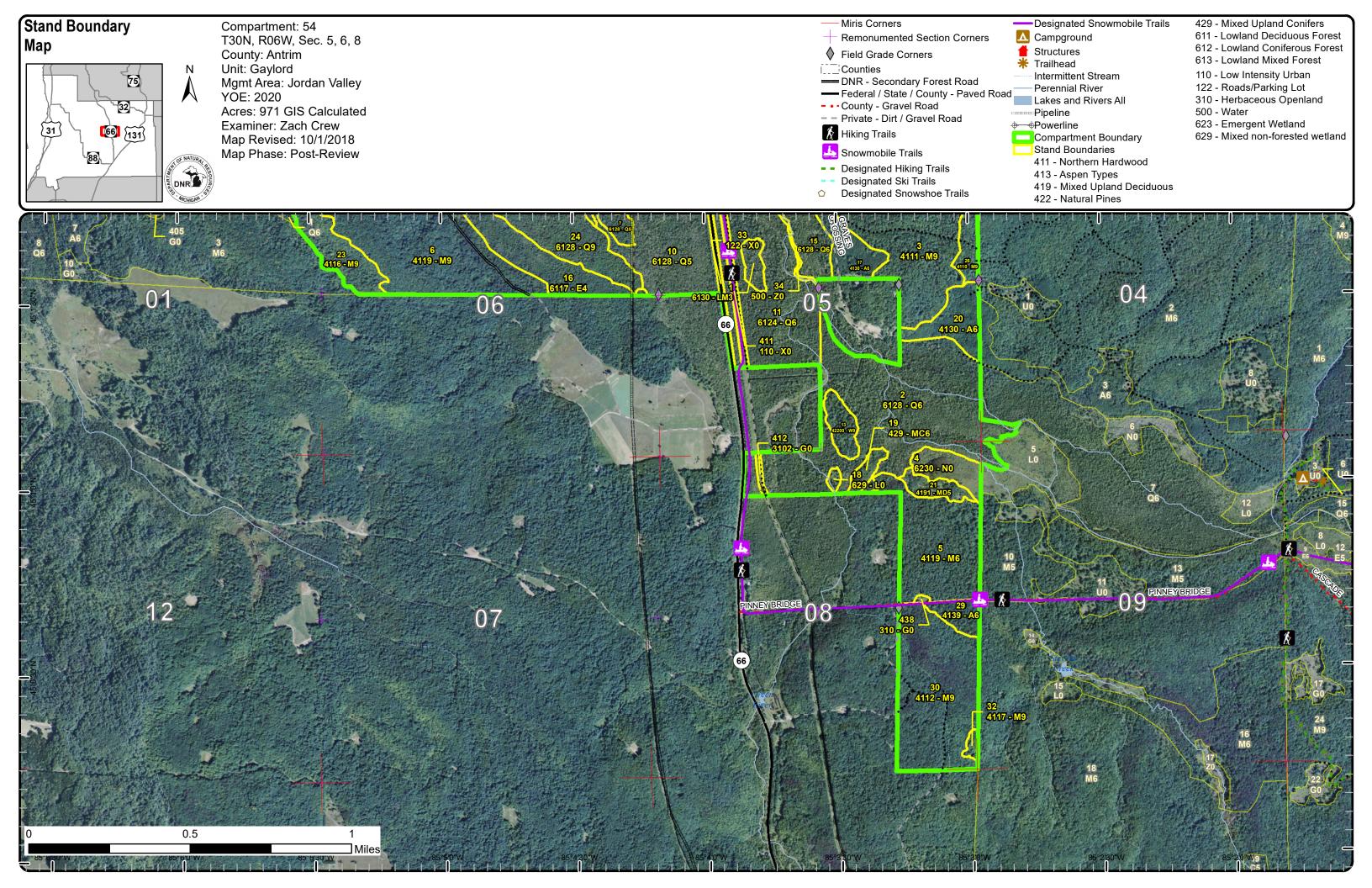
Proposed treatments
Site condition boundaries
Details on the road access system

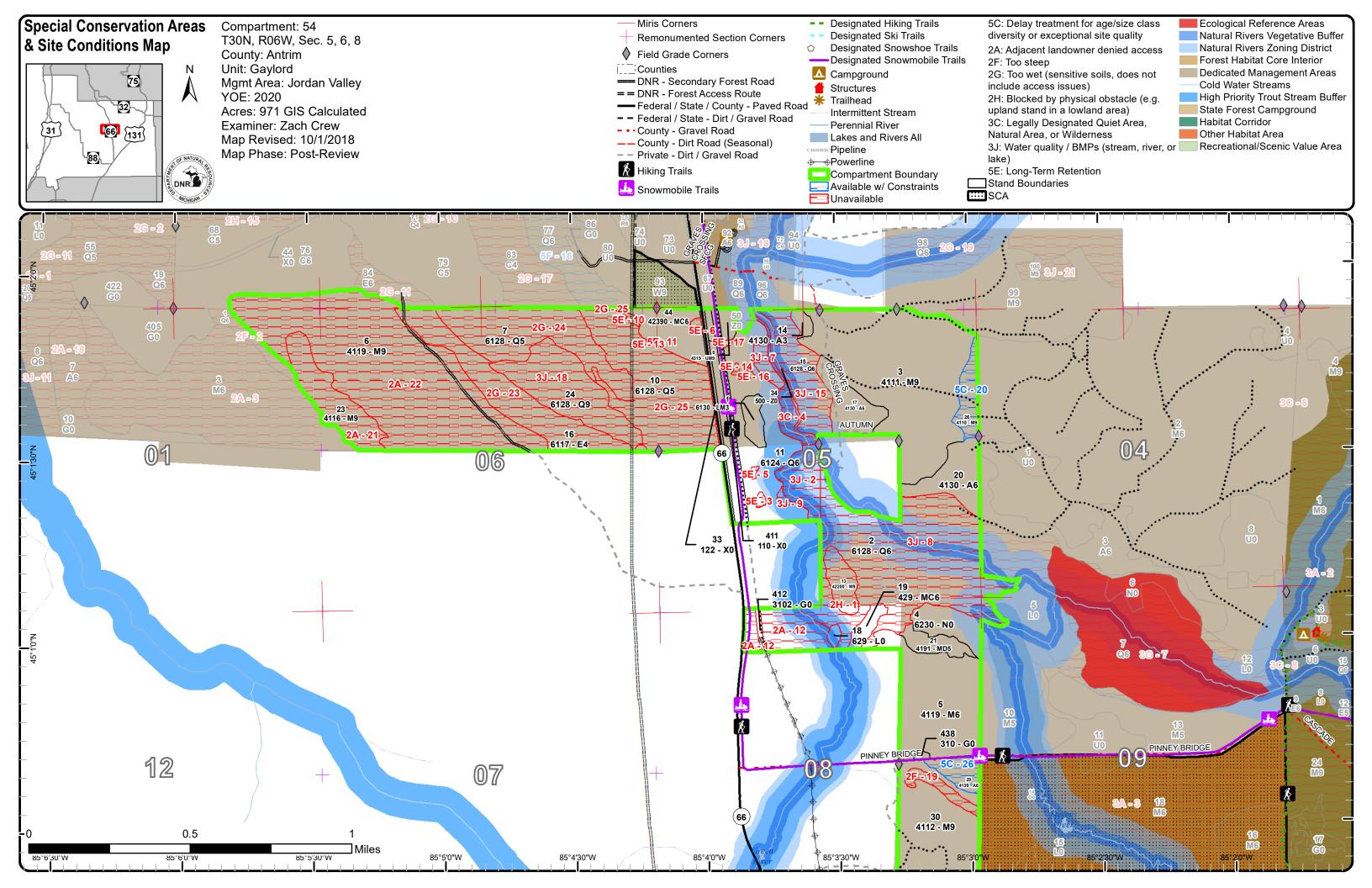


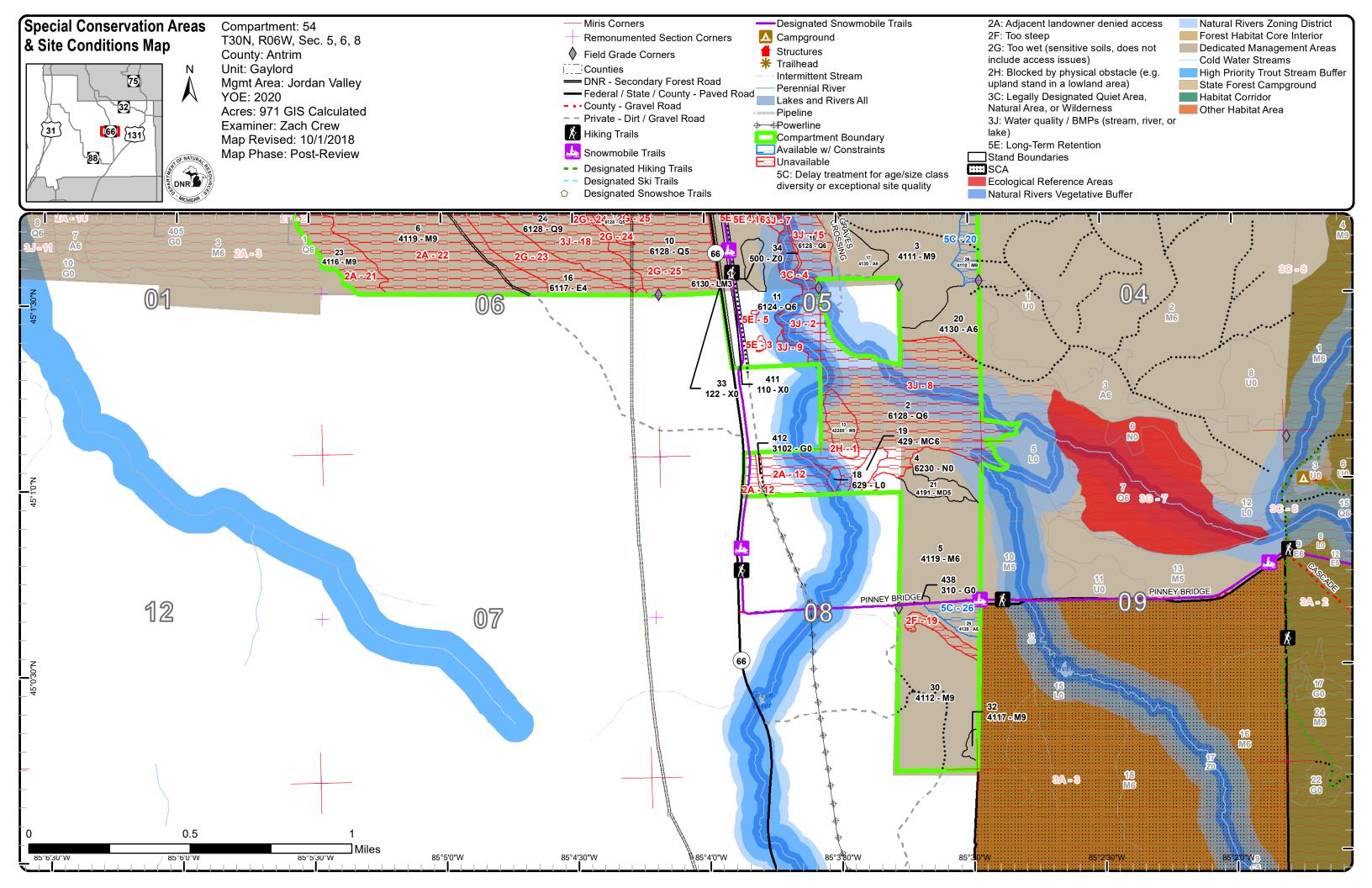












Compartment 54 Year of Entry 2020

Gaylord Mgt. Unit Zach Crew: Examiner



Age Class

	No.	LA S			\$\frac{\fin}}{\fint}}}}}}}}{\frac{\frice}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\	§ /&		, % /&	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		\$ \\ \&	70,	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	N. S.	Ox Juli	Sook Ley
Aspen	0	0	3	8	34	0	0	0	0	0	0	0	0	0	0	0	0	0	45
Herbaceous Openland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Conifers	0	0	0	0	0	0	0	65	47	276	0	0	0	0	0	0	0	0	387
Lowland Deciduous	0	0	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	42
Lowland Mixed Forest	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Marsh	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Mixed Upland Deciduous	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Northern Hardwood	0	0	0	0	0	0	0	54	243	2	115	0	0	0	0	0	0	0	414
Upland Conifers	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	22
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
Urban	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Water	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9
Total	34	0	9	8	42	0	0	161	290	301	119	0	9	0	0	0	0	0	971



Report 2 – Treatment Summary

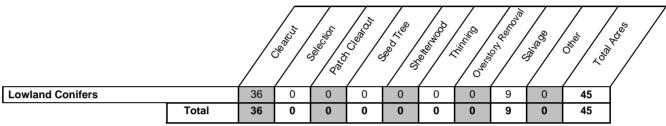
Gaylord Mgt. Unit Year of Entry: 2020

Acres of Harvest

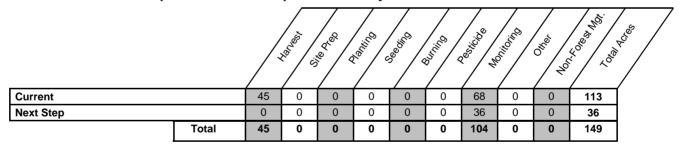
Compartment 54
Total Compartment Acres: 971

Commercial Harvest - 28 Harvests with Site Condition - 17 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Habitat Cut: No

Specs:

Next Step **Treatments:**

A mix of northern hardwood species that resembles the canopy that meets minimum stocking requirements. Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 10/1 /2021

52054039-Cut 6.8 6124 - Lowland Poletimber 88 111-Harvest Clearcut with 6124 - Lowland Even-Aged Field Boundary Spruce-Fir 140 Retention Spruce-Fir

Habitat Cut: No Site Condition:

Prescription Clearcut stand, retention to be left at a rate of 1/2 acre per every 5 acres. Retention islands must be at least 1/2 acre in size, but can also be

Specs: bigger if needed.

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable A mix of species that results in minimum acceptable stocking

Regen: Other

Comment:

Proposed Start Date: 10/1 /2015 Gaylord Mgt. Unit Report 3 -- Trea

Report 3 -- Treatments Compartment: 54
Year of Entry: 2020

t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
11	52054039- Salvage	8.5	6124 - Lowland Spruce-Fir	Poletimber Well	88	111- 140	Harvest	Salvage	6128 - Lowland Coniferous, Mixed Deciduous	Even-Aged	Field Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> In an area greater than 100 feet from the rivers edge, but less than 400 feet from the rivers edge, remove all spruce/fir species. <u>Specs:</u>

Next Step Treatments:

s

Acceptable Salvage cut, only looking to remove spruce/fir species

Regen: Other

Comment:

Proposed Start Date: 2 /3 /2016

10 52054044-Cut 17.2 6128 - Lowland Poletimber 66 51-80 Harvest Clearcut with 4319 - Mixed Even-Aged Field Boundary

Coniferous, Mixed Medium Retention Upland Forest

Deciduous

Habitat Cut: No Site Condition: Too Wet

<u>Prescription</u> Clearcut stand, focus retention around pockets of cedar or white pine, cut in winter or dry summer only

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of species that results in the minimum required stocking

Regen:

Other Comment:

Proposed Start Date: 10/1 /2015

Total Treatment
Acreage Proposed:

121.1

Compartment: 54

Gaylord Mgt. Unit

Zach Crew : Examiner Year of Entry: 2020

Availa	ability for	Managemer	nt									
Total	Acres	Acres Avail	Acres	[Domina	nt Site	e Con	dition	S			
Acres	Available	With Condition	Not Available		5C	2A	2F	2G	2H	3C	3J	5E
45	37	8	0	Aspen	8							
2	2	0	0	Herbaceous Openland								
388	52	0	336	Lowland Conifers		19		111		7	196	3
42	0	0	42	Lowland Deciduous				42				
6	6	0	0	Lowland Mixed Forest								
1	1	0	0	Lowland Shrub								
13	13	0	0	Marsh								
8	8	0	0	Mixed Upland Deciduous								
413	228	10	176	Northern Hardwood	10	169	7					
23	21	0	1	Upland Conifers								1
4	4	0	0	Upland Mixed Forest								
14	14	0	0	Urban								
3	3	0	0	Water								
9	0	0	9	White Pine					9			
971	389	18	564	Total Forested Acres	18	189	7	152	9	7	196	4
-	40%	2%	58%	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.

Unspecified
Unspecified

Report 4 – Site Conditions

Gaylord Mgt. Unit

Zach Crew : Examiner

3	Unavailable	5E: Long-Term Retention	1 Unspecified Unspecified Unspecified Unspecified							
	Comments:									
4	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	7	Unspecified	Unspecified	Unspecified	Unspecified			
	Comments: Part of the buffer for the Jordan River which is a natural river									
5	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified			
	Comments:									
6	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified			
	Comments:									
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified			
	Comments:									
8	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	114	2G: Too wet (sensitive soils, does not include access issues)	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2A: Adjacent landowner denied access	Unspecified			
	Comments: Stand influenced by	both the Green and Jordan Ri	vers, lo	ts of braided feeder strean	ns throughout the stand as	well.				
9	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified			
	Comments:									

Report 4 – Site Conditions

Gaylord Mgt. Unit

Zach Crew : Examiner

10	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
11	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:	5E: Long-Term Retention	0	Orispecified	Unspecified	Unspecified	Unspecified
	Johnnents.						
12	Unavailable	2A: Adjacent landowner denied access	19	2I: Survey needed	Unspecified	Unspecified	Unspecified
	Comments: Equipment access	denied across private property	along sı	nowmobile trail, only acce	ss would have to be off of N	1 66 if that's even feasible.	
13	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Not a good candida	ate for harvest, very low volume	in mos	t of stand			
14	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
15	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	25	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
16	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Report 4 – Site Conditions

Gaylord Mgt. Unit

Zach Crew: Examiner

Com	Unavailable mments: Unavailable	3J: Water quality / BMPs (stream, river, or lake)	38	Unspecified	Unspecified	Unspecified	Unspecified
Com	nments:	(stream, river, or lake)	38	Unspecified	Unspecified	Unspecified	Unspecified
19 (
	Unavailable						
Com		2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
	nments:						
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
	nments: at stand with ad	ljacent stand 2 next YOE.					
21 (Unavailable	2A: Adjacent landowner denied access	25	Unspecified	Unspecified	Unspecified	Unspecified
Com	nments:						
22 l	Unavailable	2A: Adjacent landowner denied access	144	Unspecified	Unspecified	Unspecified	Unspecified
Com	nments:						

Report 4 - Site Conditions

Compartment: 54
Year of Entry: 2020

Gaylord Mgt. Unit

Comments:

Zach Crew: Examiner 23 2A: Adjacent landowner Unspecified Unspecified Unspecified Unavailable 2G: Too wet (sensitive 42 soils, does not include denied access access issues) Comments: Unspecified 2A: Adjacent landowner Unspecified Unspecified 24 Unavailable 2G: Too wet (sensitive 47 soils, does not include denied access access issues) Comments: 25 64 Unspecified Unspecified Unspecified Unspecified Unavailable 2G: Too wet (sensitive soils, does not include access issues) **Comments:** 26 5C: Delay treatment for Unspecified Unspecified Unspecified Unspecified **Available** 8 age/size class diversity or exceptional site quality

Stand was partially cut in 1983, age of aspen only reflects declining aspen that was left not young aspen as a result of the cut.

Mgt. Unit

Compartment: #Type! Year of Entry:



Report 5 - 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
Comments				

Gaylord Mgt. Unit Compartment: 54
Year of Entry 2020



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservatio	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish specified year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effects as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian cts on water quality and quantity, as well
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific manarules, as governed by Part 5, Department of Natural Resources, 324.504). Section 38 of the Administrative Procedures Act (MCL the promulgation of rules. This is an active program, with one pro DNR.	of the NREPA (MCL 324.502(2) and 24.238) provides for public requests for
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spapproved distance from the river centerlines. The Natural Rivers most Natural Rivers. The Vegetative Buffer ranges from 25 to 10 and Vegetative Buffers for each Natural River see the table locat folder.	S Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts
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. Elemen (Excellent) or B (Good) and a Global (G) or State (S) element (rathreatened (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 psubmit recommendations for lands as ERAs using the DNR Con	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	Gaylord	l Mgt. Unit		Report 7	– Forested	Stands Compartment: 54 Year of Entry: 2020
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6130 - Fir, Aspen, Maple	Sapling Well	5.6	17	Immature	Black Ash dominated stand, dead in the canopy, scattered pockets of standing balsam fir and white cedar. Regenerating saplings considered the dominant part of the stand, consist mainly of red maple, balsam fir, paper birch, and quaking aspen.
2	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	133.2	88	141-170	The Jordan and Grass Rivers, as well as multiple creeks flow through the stand. Good stocking throughout the majority of the stand. Some areas of blowdown and wet areas dominated by cattails.
3	4111 - S.Maple, Hard Mast Association	Sawtimber Well	105.1	92	81-110	NORTH HALF OF STAND WAS THINNED IN 1980. Stand thinned again in 2001 as part of Green Giant Sale. BA looks to have been reduced significantly during harvest in some areas. Average BA 105 from 12 plots. Low BA of 50, high BA of 150. areas of dense ironwood and beech understory. BA surprisingly low considering average size of residual.
5	4119 - Mixed Northern Hardwoods	Poletimber Well	53.9	65	51-80	Low quality hardwood stand, portions to the south look to have been thinned in the past, no records found. Lots of elm and black cherry. Majority of stand thinned in 2005, no noticeable response to thinning, still areas that have yet to fill in that are dominated by raspberry and blackberry.
6	4119 - Mixed Northern Hardwoods	Sawtimber Well	144.3	78	111-140	Plenty of good quality crop trees throughout the stand. Quality drops off along the southern property boundary and in the southeast corner of the stand. Hemlock located in the south portion of the stand. BA ~ 128 from 10 plots.
7	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	46.5	72	51-80	Highly variable lowland stand. Black ash is dead where found. Lots of deer browse seen.
8	4319 - Mixed Upland Forest	Sawtimber Well	4.4	91	111-140	Mixed upland dominated by older white pine
10	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	65.4	66	51-80	Majority of black ash and rock elm either standing dead or on the ground, starting to fill in with some balsam fir, lots of wet spots filling in with cattails as well.
11	6124 - Lowland Spruce- Fir	Poletimber Well	79.9	88	111-140	Swamp conifer with white cedar, tamarak, balsam fir, black spruce, white pine and quaking aspen component.
13	42200 - Natural White Pine	Sawtimber Well	9.1	117	111-140	Small rise dominated by white pine and some red maple. Couldn't core some of the larger white pine, so age is from a core sample of the largest white pine the increment borer would hit center in.
14	4130 - Aspen	Sapling Well	2.6	16	Immature	OPIC - FMD: This aspen stand was cut in 2002. Scattered hemlock& balsam fir left. Good aspen regeneration.
15	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	25.0	88	111-140	East side of the Jordan river transitioning to uplands. Some areas with seeps or flowing water near the surface.

S t	Gaylord	Mgt. Unit		Report 7	– Forested	Stands Compartment: 54 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Poor	41.5	65	1-50	Lowland bottom between to ridges, no actual flowing water or streams but exhibits characteristics of a seasonally flooded bottomland hardwood type. Most of the ash and elm is standing dead at this time.
17	4130 - Aspen	Poletimber Well	15.9	35	51-80	STAND WAS CUT IN 1983. LEFT RESIDUAL PINE LOGS. Good looking aspen regen, average of 5 sticks, typically between 6 - 9 inches at dbh.
19	429 - Mixed Upland Conifers	Poletimber Well	4.7	81	81-110	Ridge dominated by white pine, hemlock, and white cedar.
20	4130 - Aspen	Poletimber Well	18.1	35	51-80	Good looking aspen, 6-10 inches at dbh.
21	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	7.6	31	51-80	Open pockets filling in with cherry, white pine, balsam fir, red maple. Some low areas where mature balsam dominates. Larger mature clones of aspen also
23	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	24.9	72	81-110	West facing slope, a decent amount of over mature aspen in the over story. Quite a few nice pockets of hemlock regen.
24	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	38.2	87	141-170	Lowland conifer stand with some intermixed ridges dominated by hemlock and white pine.
26	4110 - Sugar Maple Association	Sawtimber Well	9.5	92	141-170	
29	4139 - Aspen, Mixed Deciduous	Poletimber Well	8.2	26	51-80	Aspen range from 5"-12". Patchy hardwood on the west side of the stand. Stand begins to become seasonally wet along east boundary and proceeding into adjacent compartment. Went with age of large size class aspen for overall age of the aspen class. majority of aspen cut 26 years ago. Some aspen logs still standing.
30	4112 - Maple, Beech, Cherry Association	Sawtimber Well	73.7	78	81-110	Sale select harvest complete 2016. Pockets of decent hemlock regent, also pockets of aspen in spots, looks to have been cut at one point
32	4117 - Mixed N. Hardwood - Pine	Sawtimber Well	2.0	80	81-110	Old comments state a 29 year old aspen clone. Only one 16 dbh aspen observed, in decline. Scattered large sawlog white pine, of good form, decent size hdwd, stand was marked with adjacent stand. 29 year old aspen clone adjacent to stand, but only roughly 1 acres in size.
44	42390 - Mixed Non- Pine Upland Conifers	Poletimber Well	17.8	81	81-110	Upland mixed stand, lots of quality white pine and some quaking aspen, transitioning to a lowland mixed conifer type in the south. A good amount of balsam fir, cedar and spruce found on the upland areas. Stand under contract as C 54 SBW Salvage 1

Report 8 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
4	6230 - Cattail	12.9	No	Beaver flooding, cat tails and dead standing black ash
18	629 - Mixed non-forested wetland	1.5	No	Small opening adjacent to the Green River, a few occasional cedar and fir moving in. Hard to tell the condition of the ground cover with the snow on the ground.
33	122 - Road/Parking Lot	5.8	No	M-66 including the shoulders
34	500 - Water	3.1	No	Jordan River
411	110 - Low Intensity Urban	8.6	No	Overhead power line. Marked and well used for a snowmobile trail.
412	3102 - Grass	1.4	No	Overhead power line, snowmobile trail.
438	310 - Herbaceous Openland	0.6	No	Small opening with old apple trees. Utilized for a landing during past selection cut in stand 5