DNR MICHIGAN

Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 52053
Entry Year 2018
Acreage: 1,695
County Antrim

Management Area: Jordan Valley

Revision Date: 2016-05-16 Stand Examiner: Zach Crew

Legal Description:

T30N R7W Section 1, 2, 11, 23, 25, 26, 35, 36

T29N R7W Section 1

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:

Kalkaska Montcalm complex is dominant on the upland areas of the compartment. Some areas may also be part of the Emmet Montcalm complex. There is some good topography in this compartment with some slopes as high as 60-70%. Lowlands in this compartment are dominated by Tawas much. However, river corridors seem to be dominated by soils of the Tawas Easley complex.

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

Sections 1, 2, and 11 of T30N R7W are contiguous but surrounded by private property. The remainder of the compartment is composed of mostly isolated parcels.

Unique Natural Features:

Headwaters of the Intermediate River in sections 1 and 2 of T30N R7W. The Cedar River and some of its tributaries flow through some of the isolated parcels.

Archeological, Historical, and Cultural Features:

None known

Special Management Designations or Considerations:

None Known

Watershed and Fisheries Considerations:

Cedar River and the Intermediate River with their tributaries.

Wildlife Habitat Considerations:

This compartment is highly fragmented making hunting access limited. Opening acreage is high. Some old fields have potential for permanent meadow, but if management occurs, vehicle traffic would need to be controlled to protect the openings.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured till, glacial outwash sand and gravel, and postglacial alluvium. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift are Upper Devonian and Lower Mississippian shales. The bedrock is too deeply buried here to be of economic value. A gravel pit is located in the NW¼ NW¼ of Sec. 33, T30N R6W. Sand and gravel potential appears to be good within the compartment. Except for portions of sections 1 and 2 in the north (Jordan Valley Management Area), the compartment has been mostly developed for Antrim Shale gas, and all state minerals in the area are currently leased and held by production in unitized areas. The JVMA is offset by producing wells and is being drained of hydrocarbons. There are a number of newer permitted wells east of Bellaire.

Vehicle Access:

Access around the compartment is fair due to the large amount of country roads. However, access within the compartment is poor due to the large number of steep slopes and lowland areas.

Survey Needs:

None

Recreational Facilities and Opportunities:

There are no recreation facilities in this area. The large grassy openings in Section 2 are currently being used as informal camping areas.

Fire Protection:

This compartment falls under the protection area of the Bellaire Field Office. Access to any fire would be difficult due to the terrain and lack of interior roads. However, none of these forest types lend themselves to frequent large scale fire events.

Additional Compartment Information:

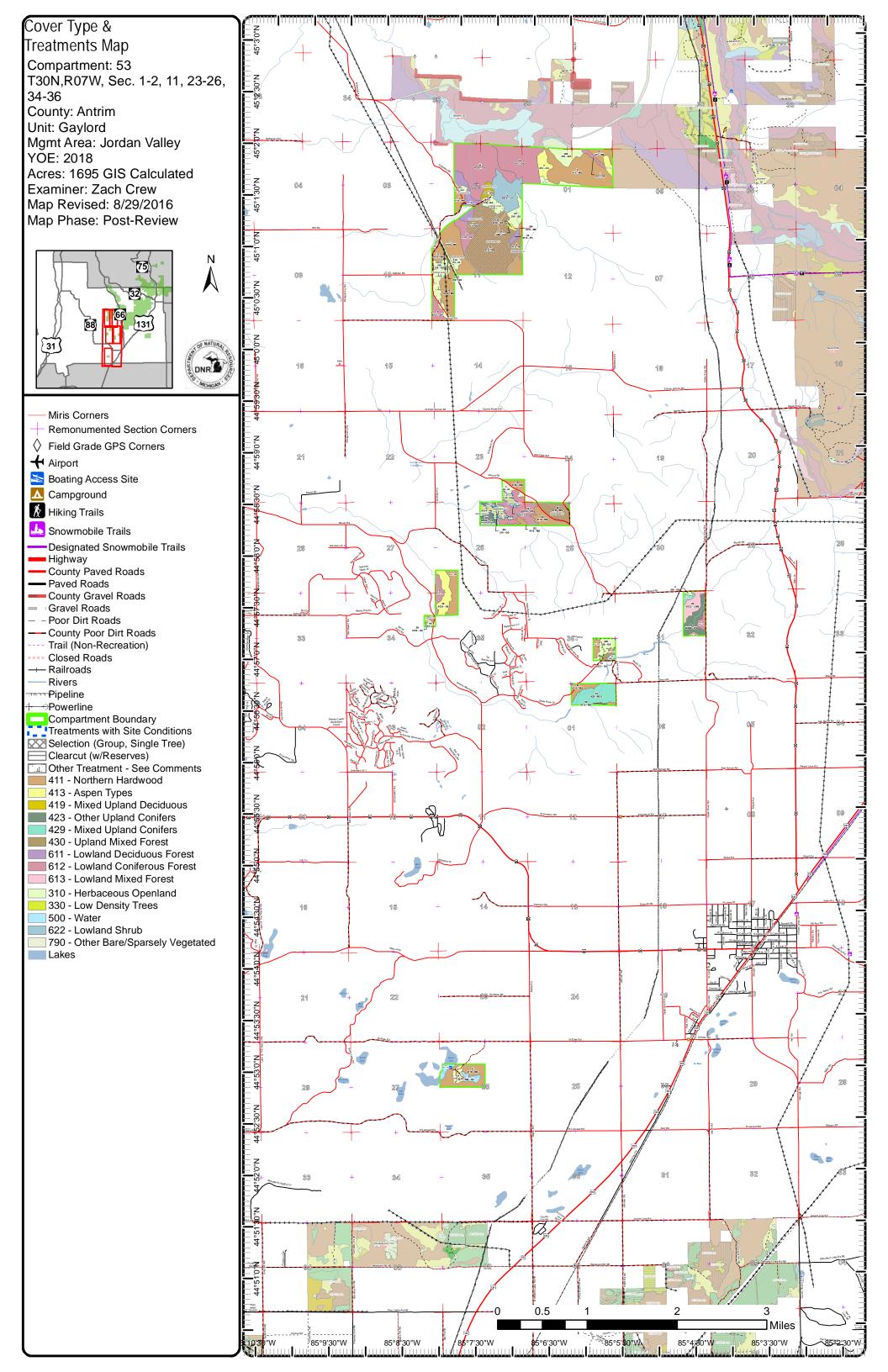
The following reports from the Inventory are attached:

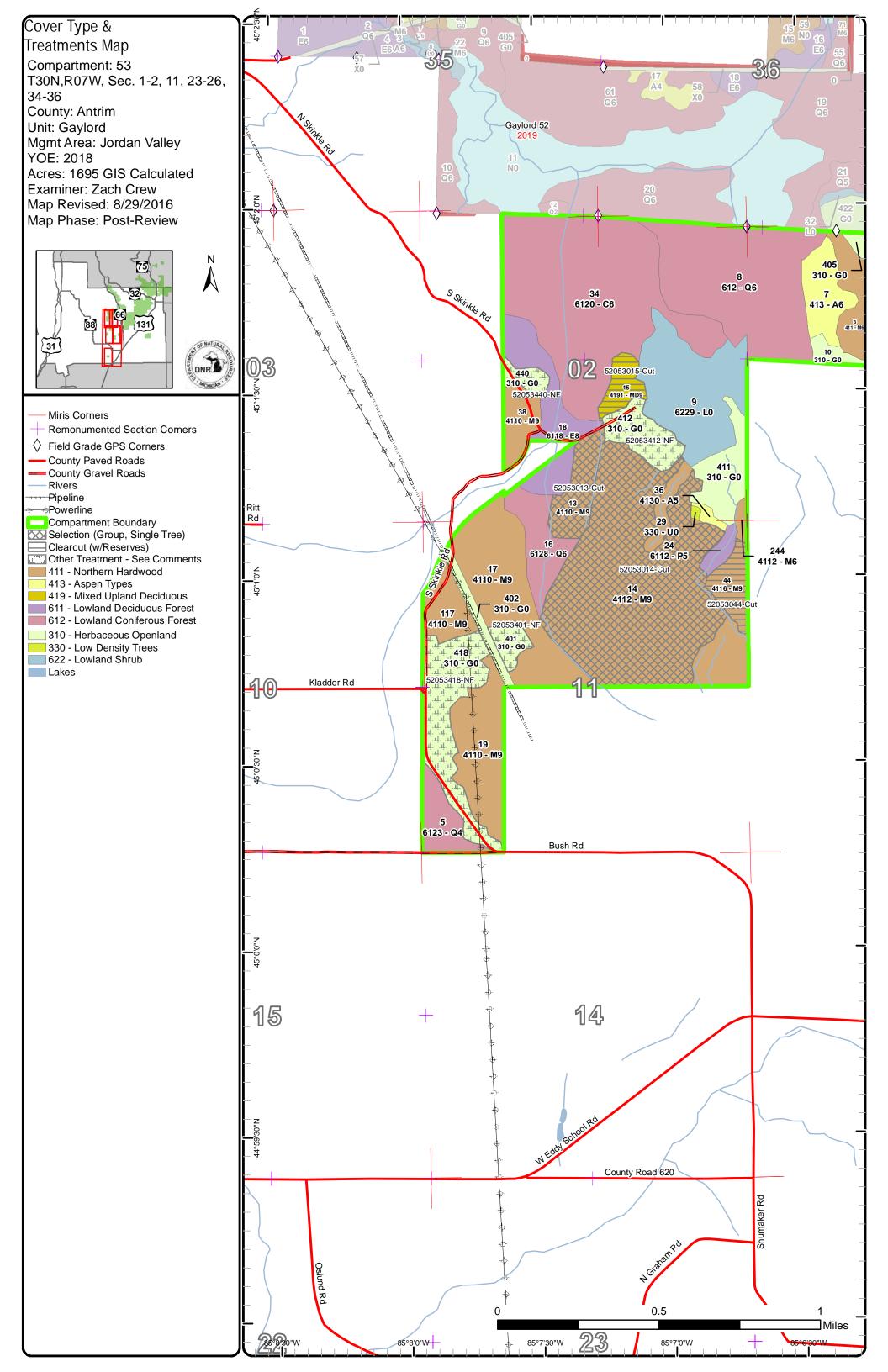
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

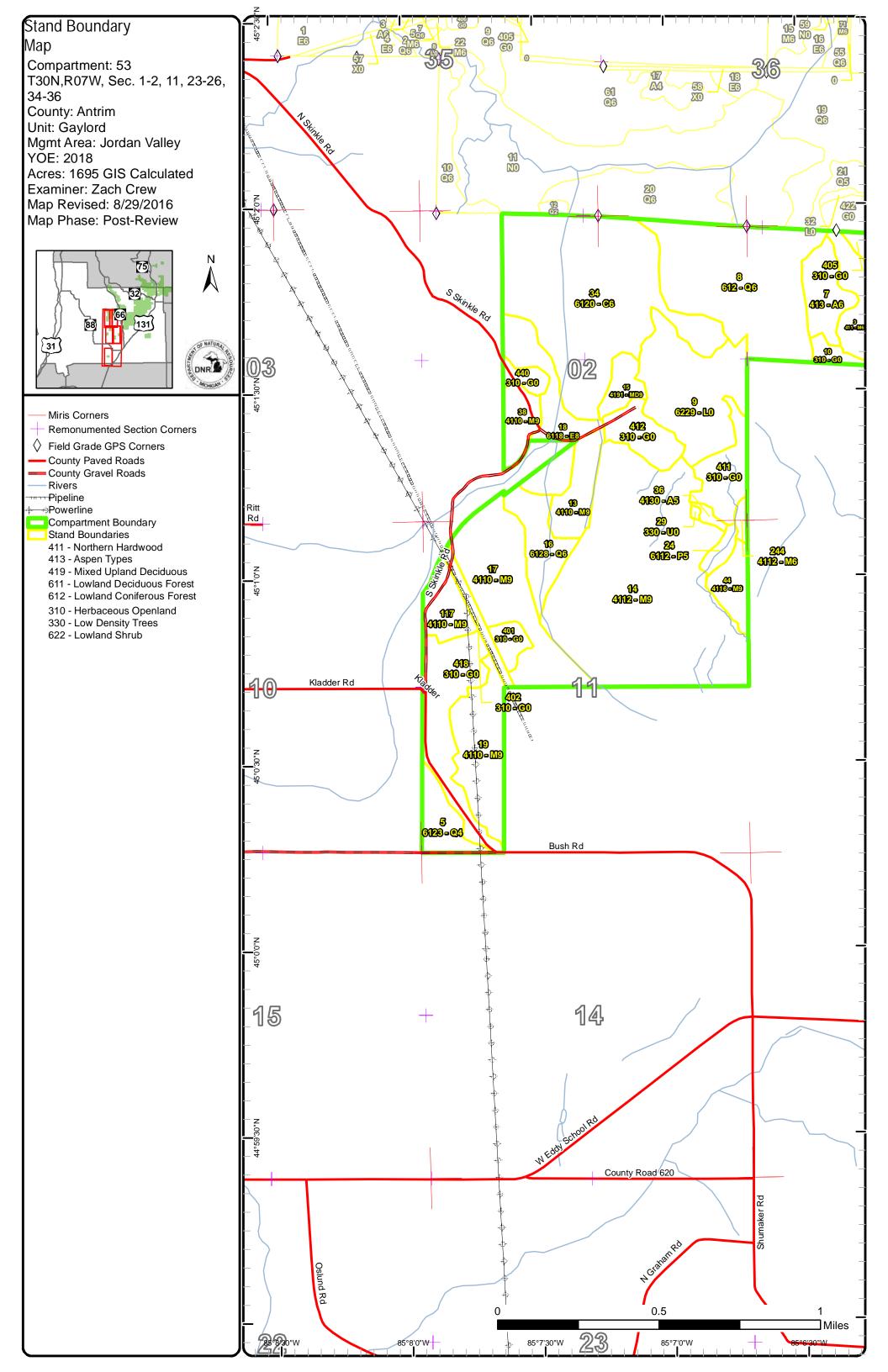
The following information is displayed, where pertinent, on the attached compartment maps:

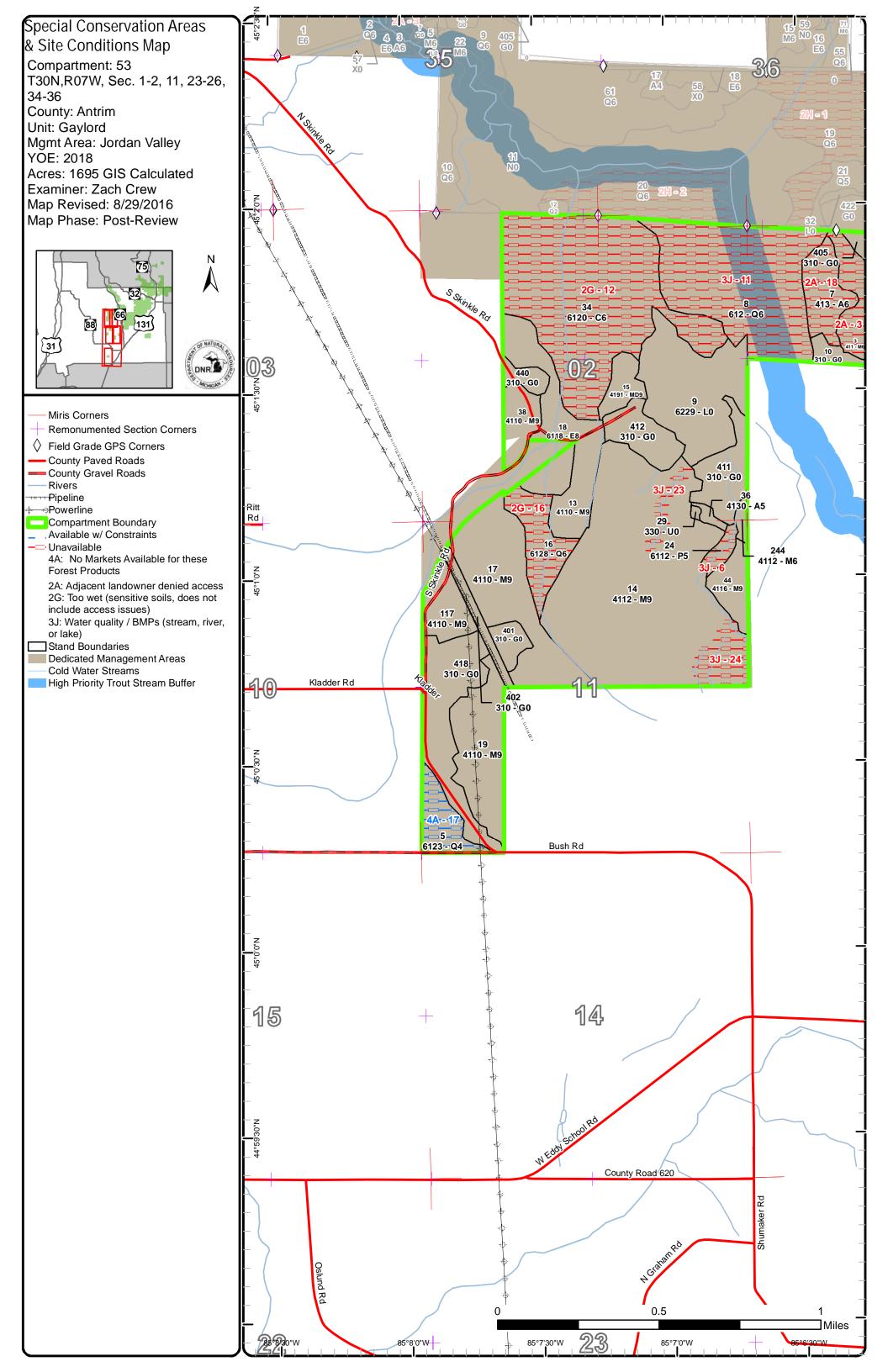
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries

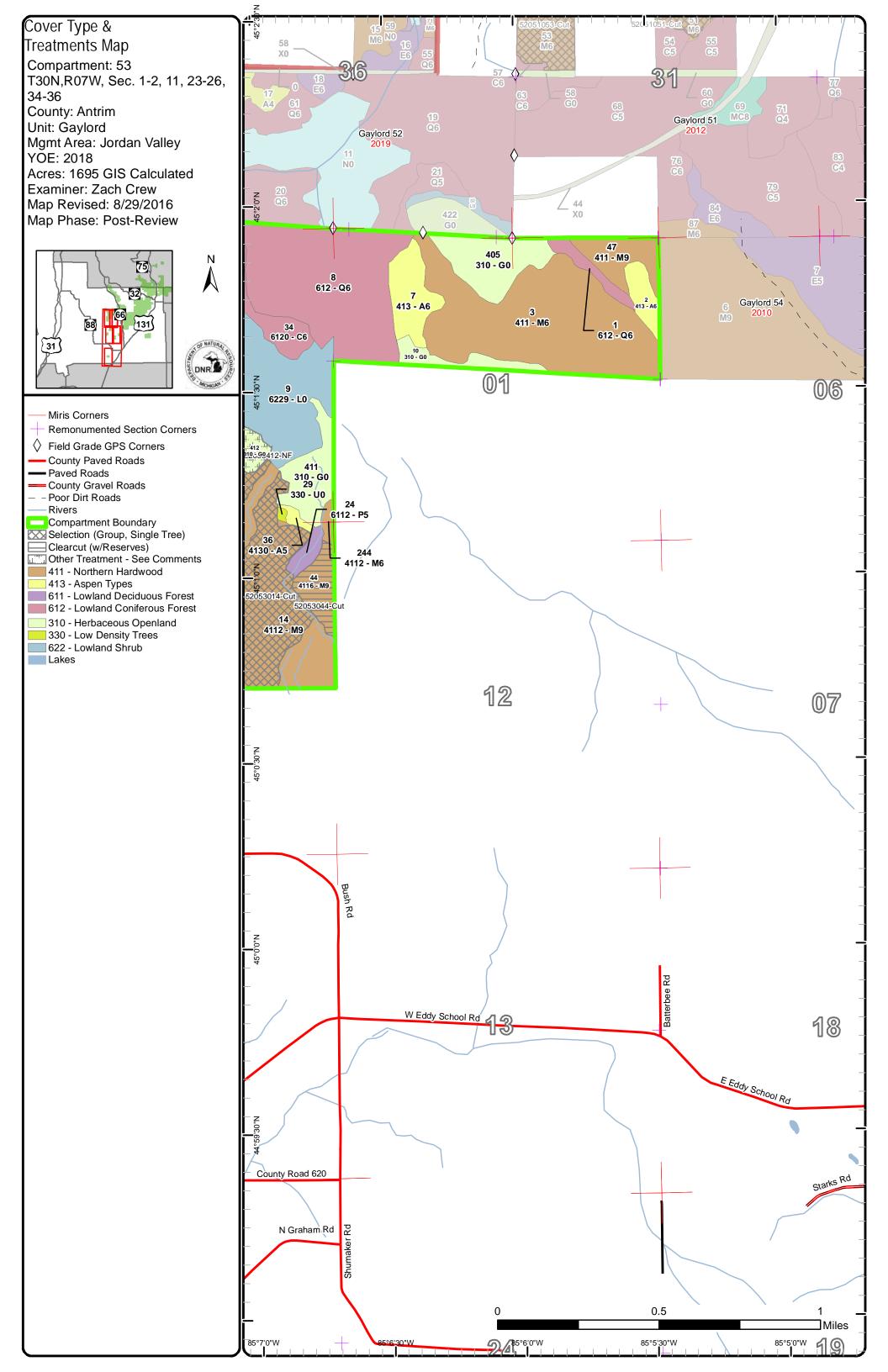
Details on the road access system

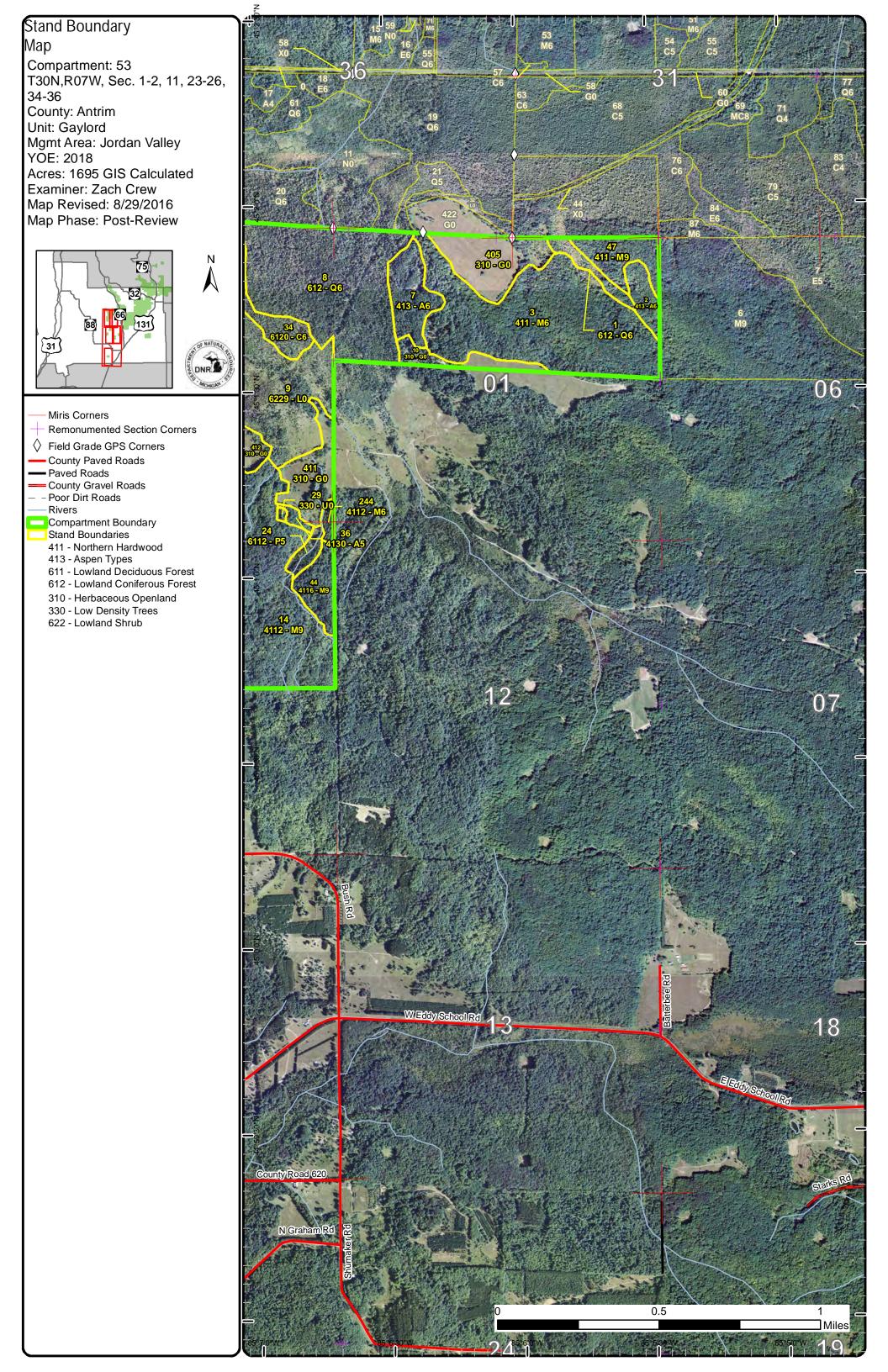


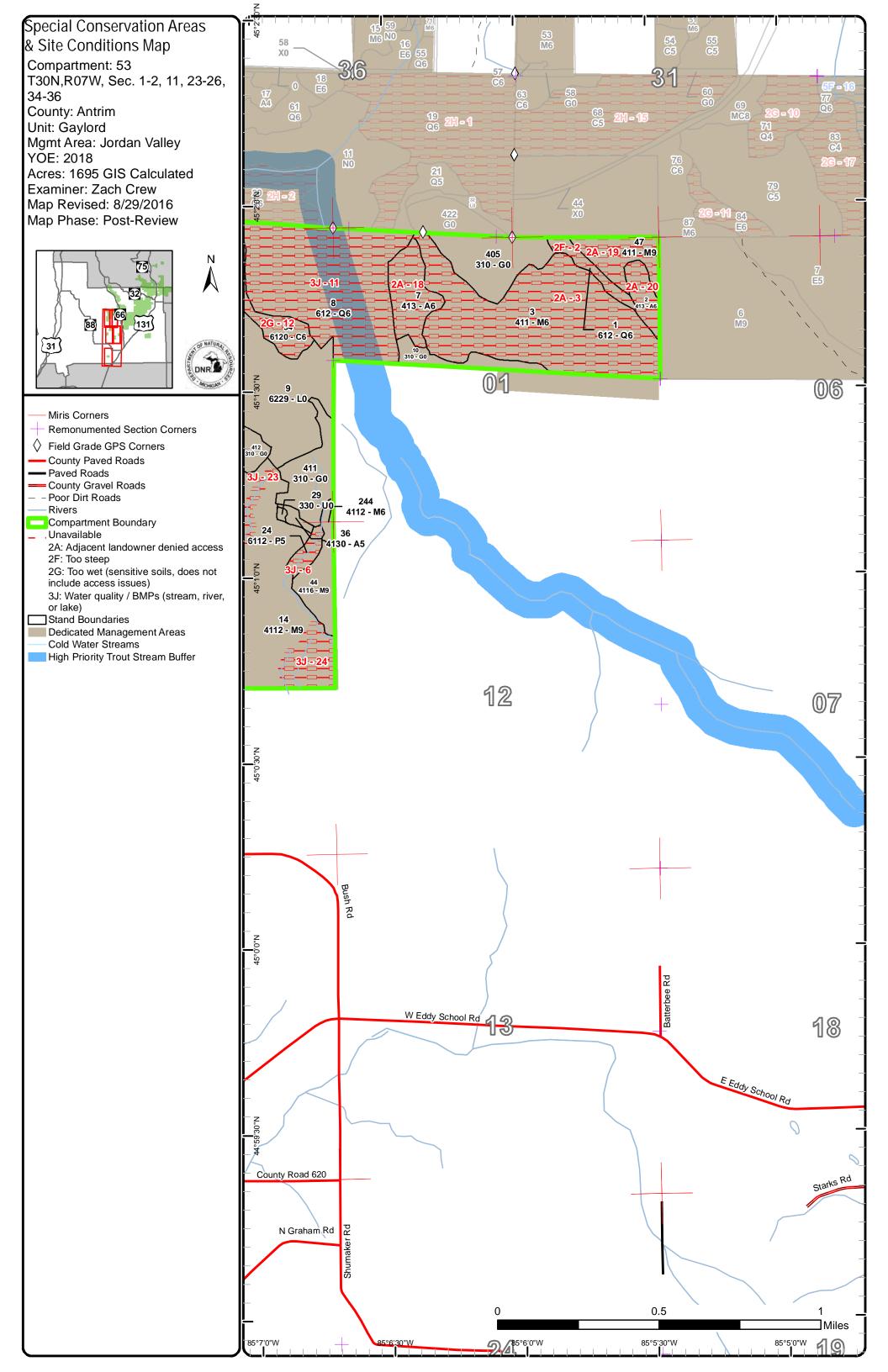


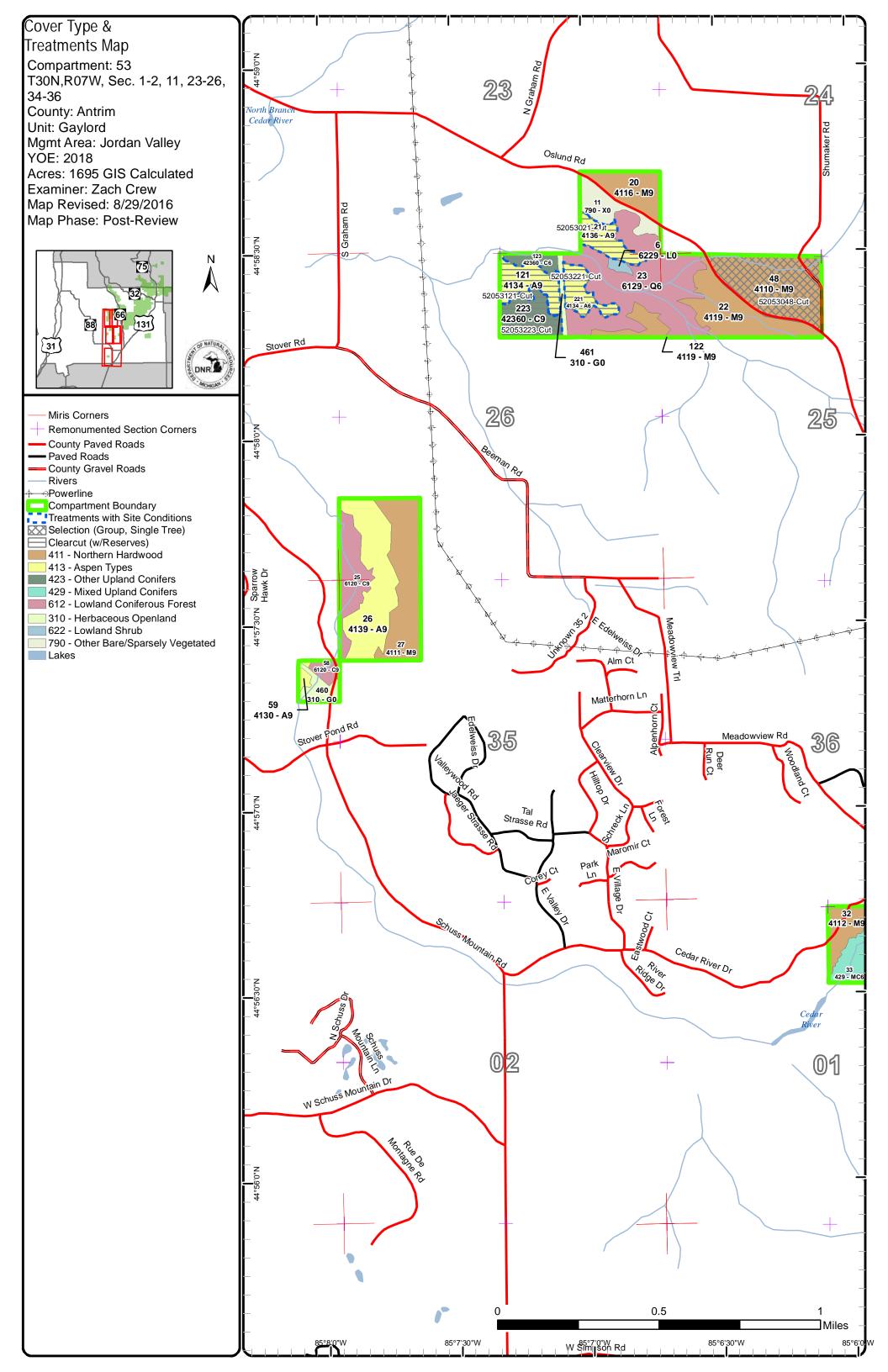


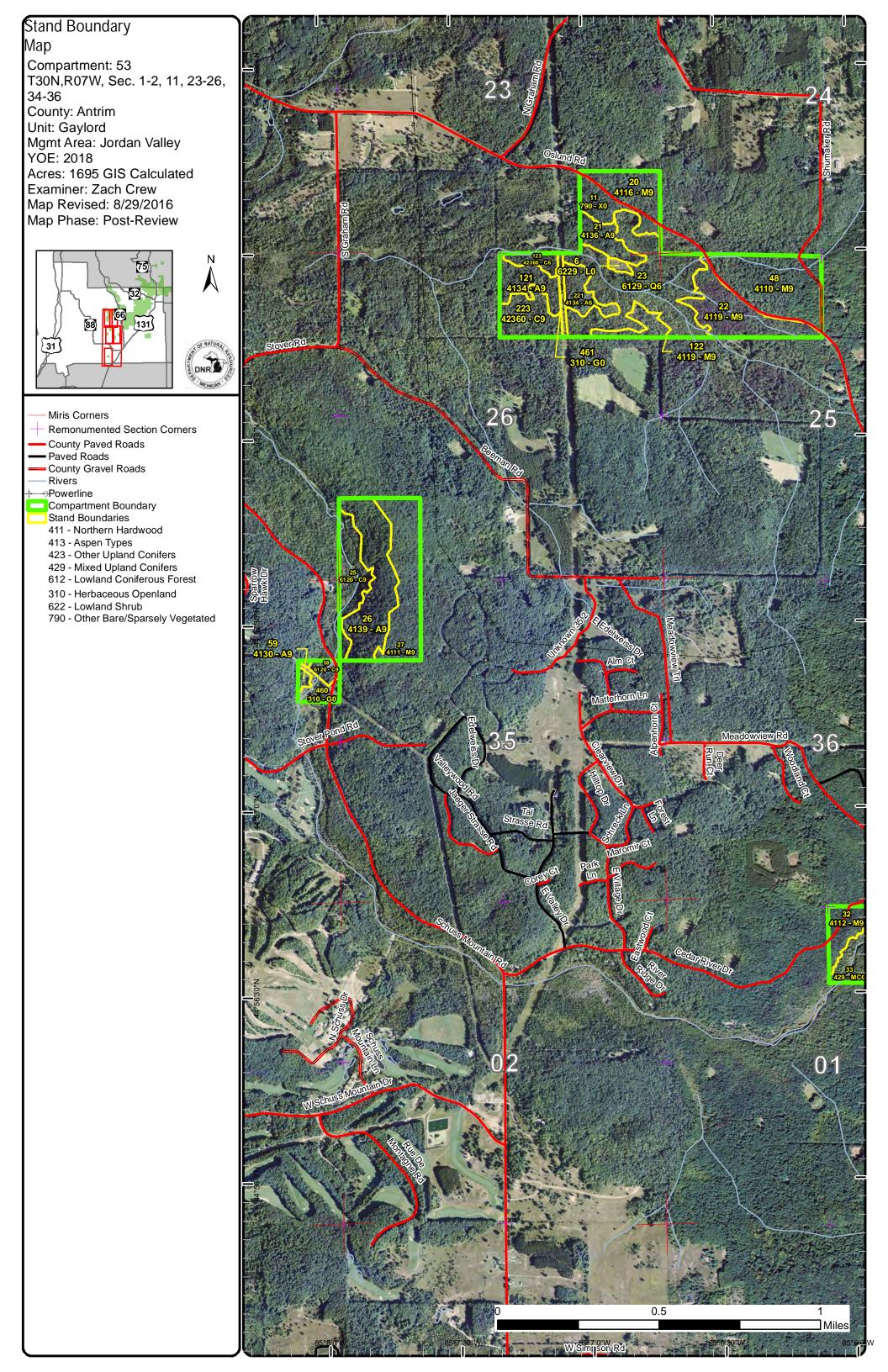


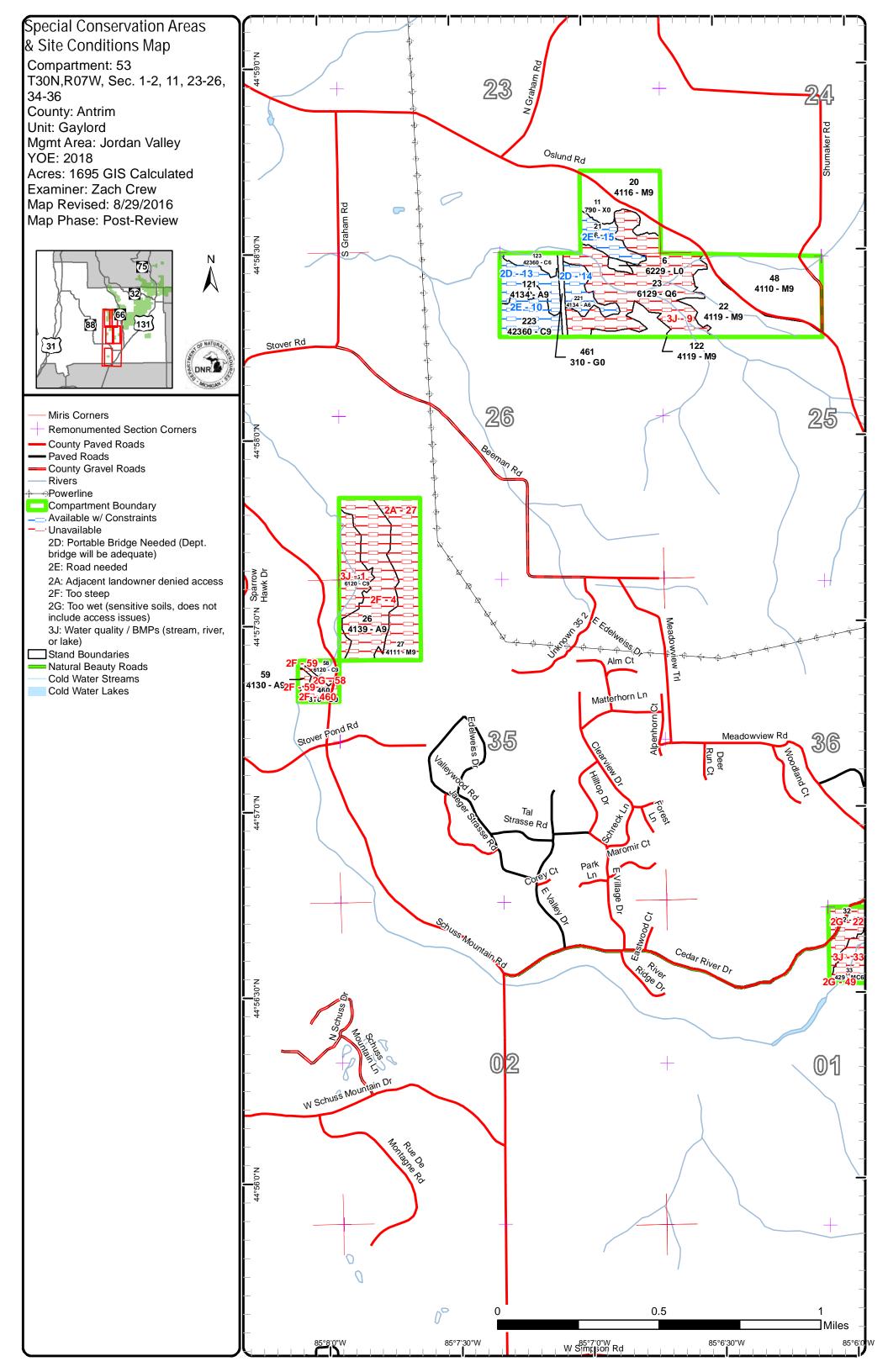


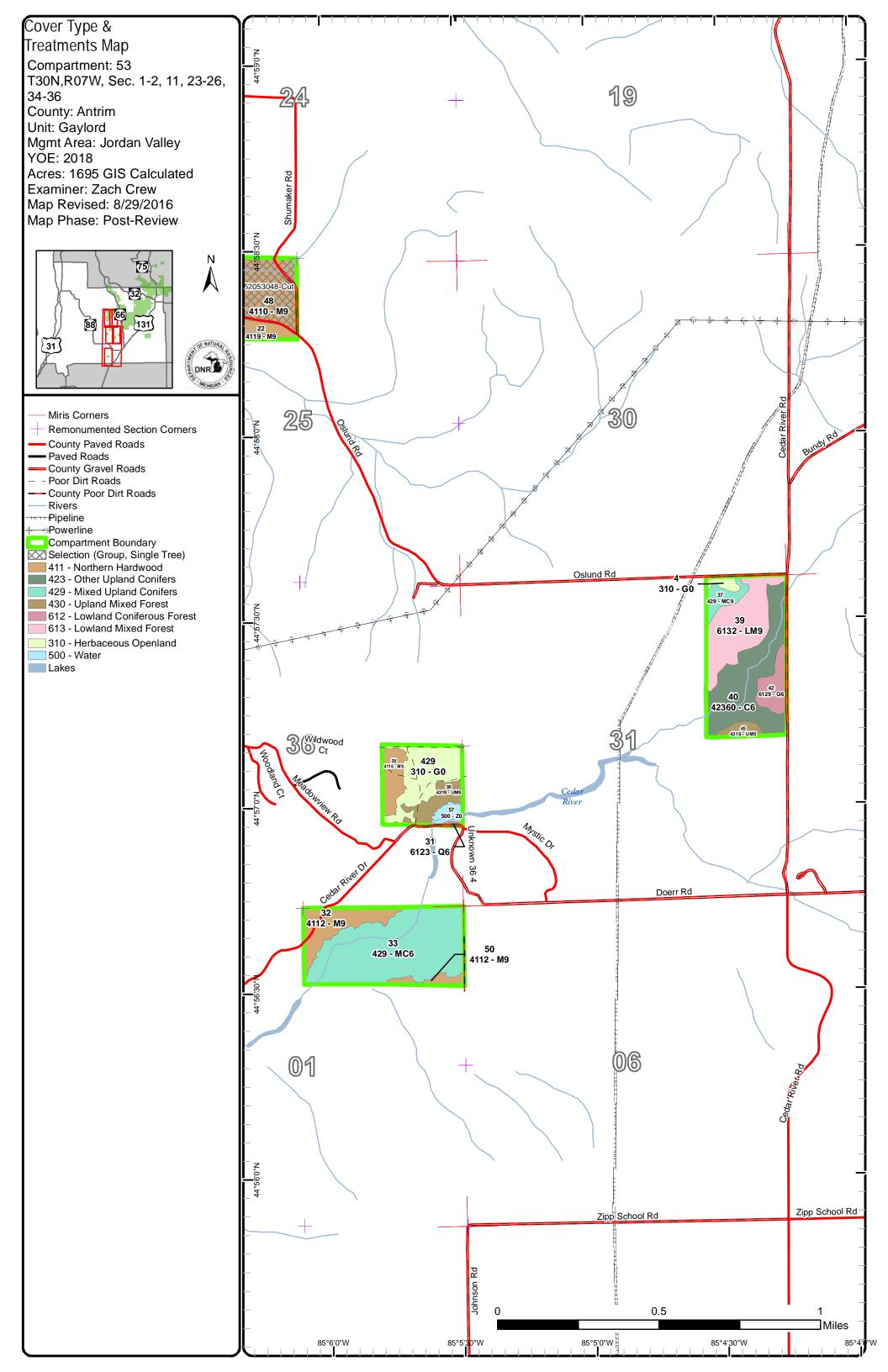


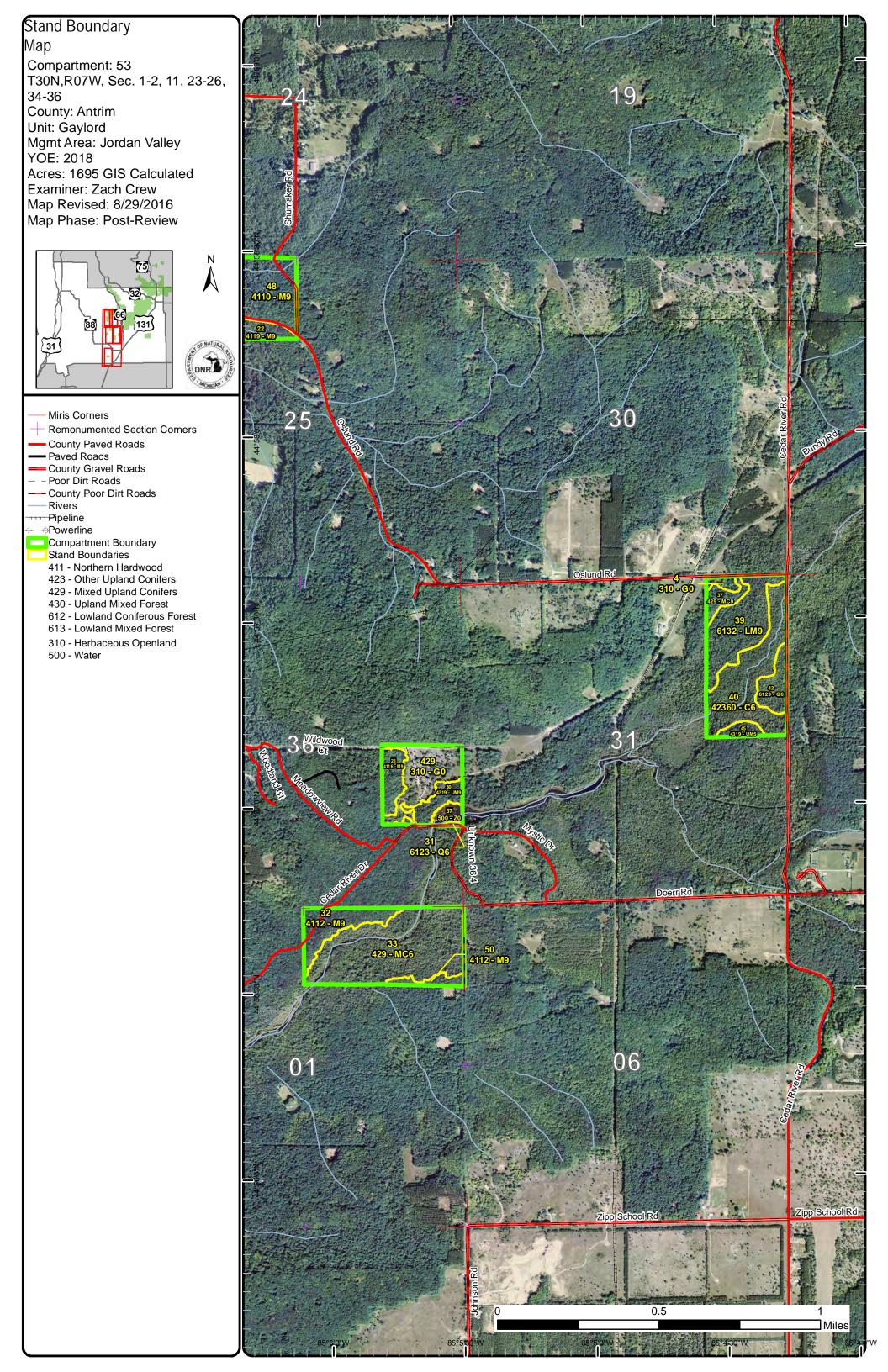


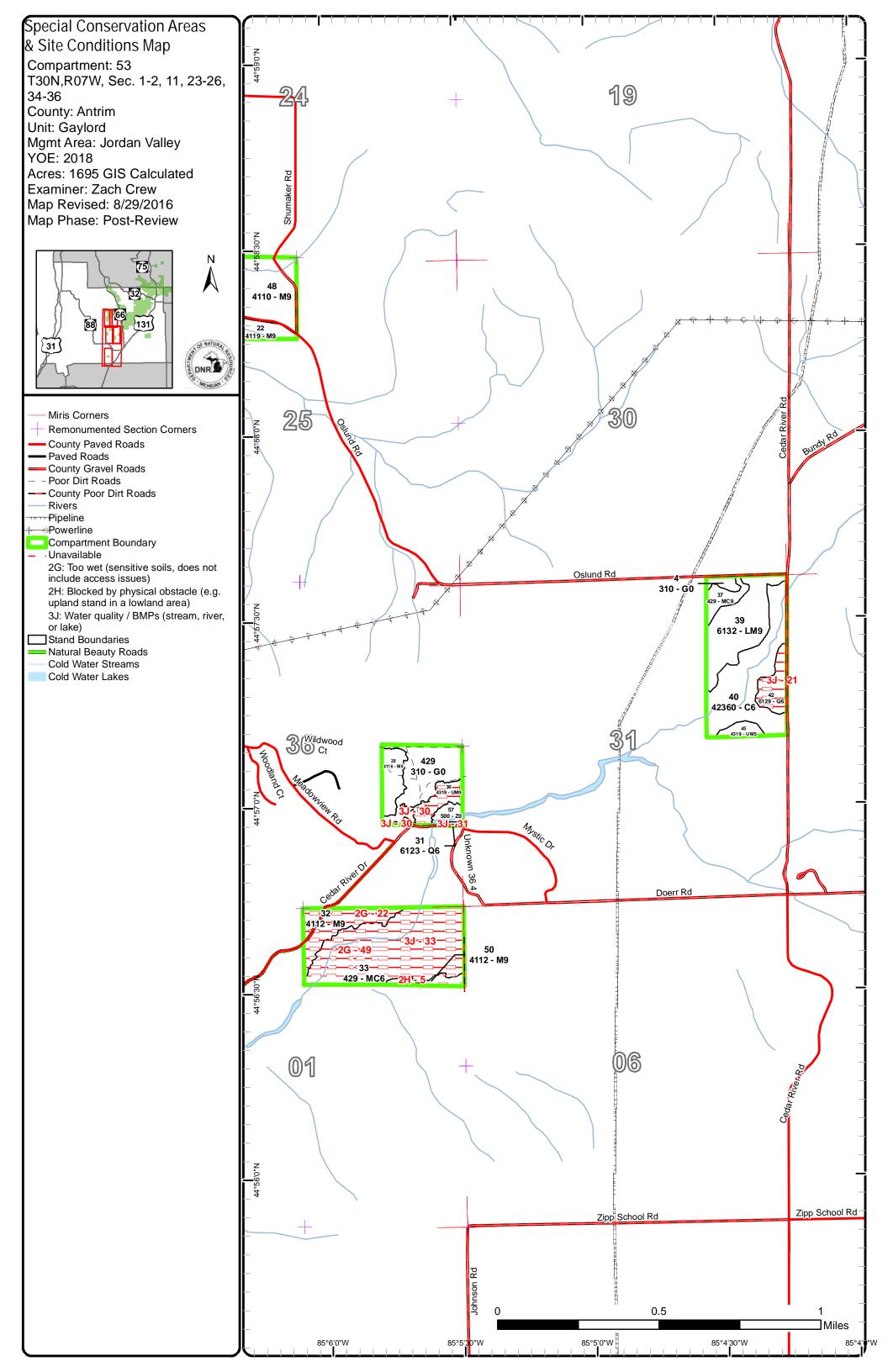


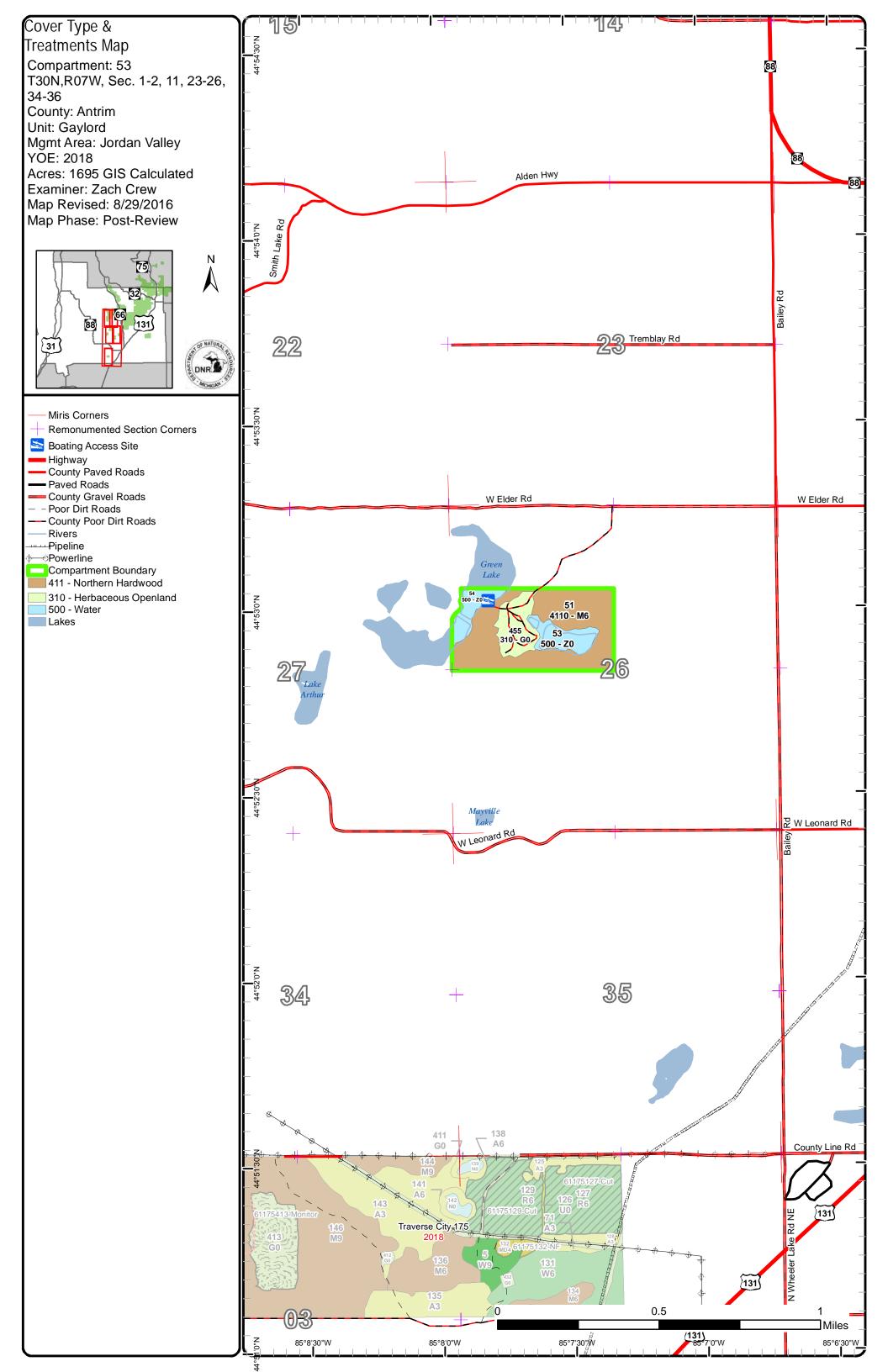


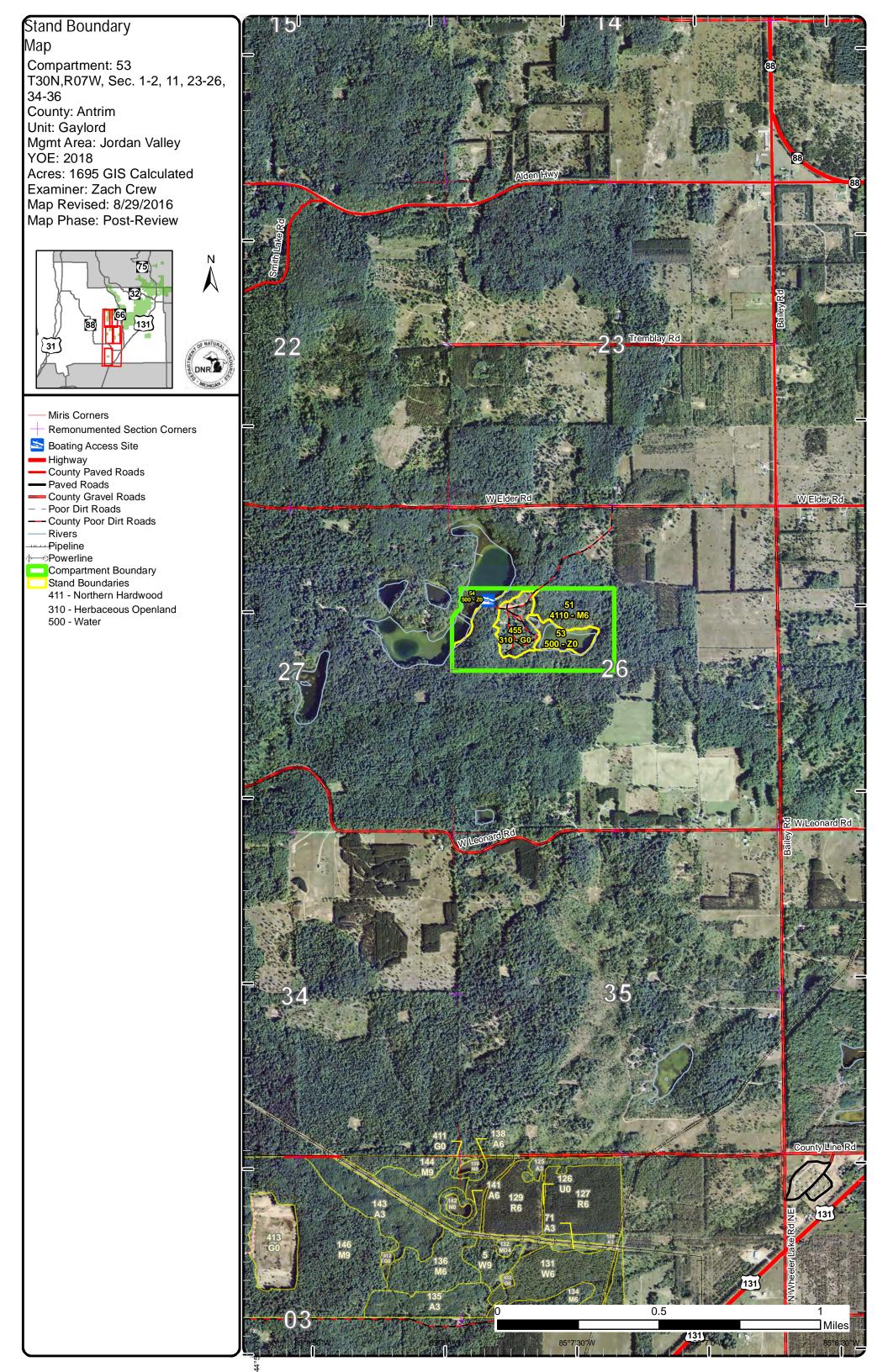


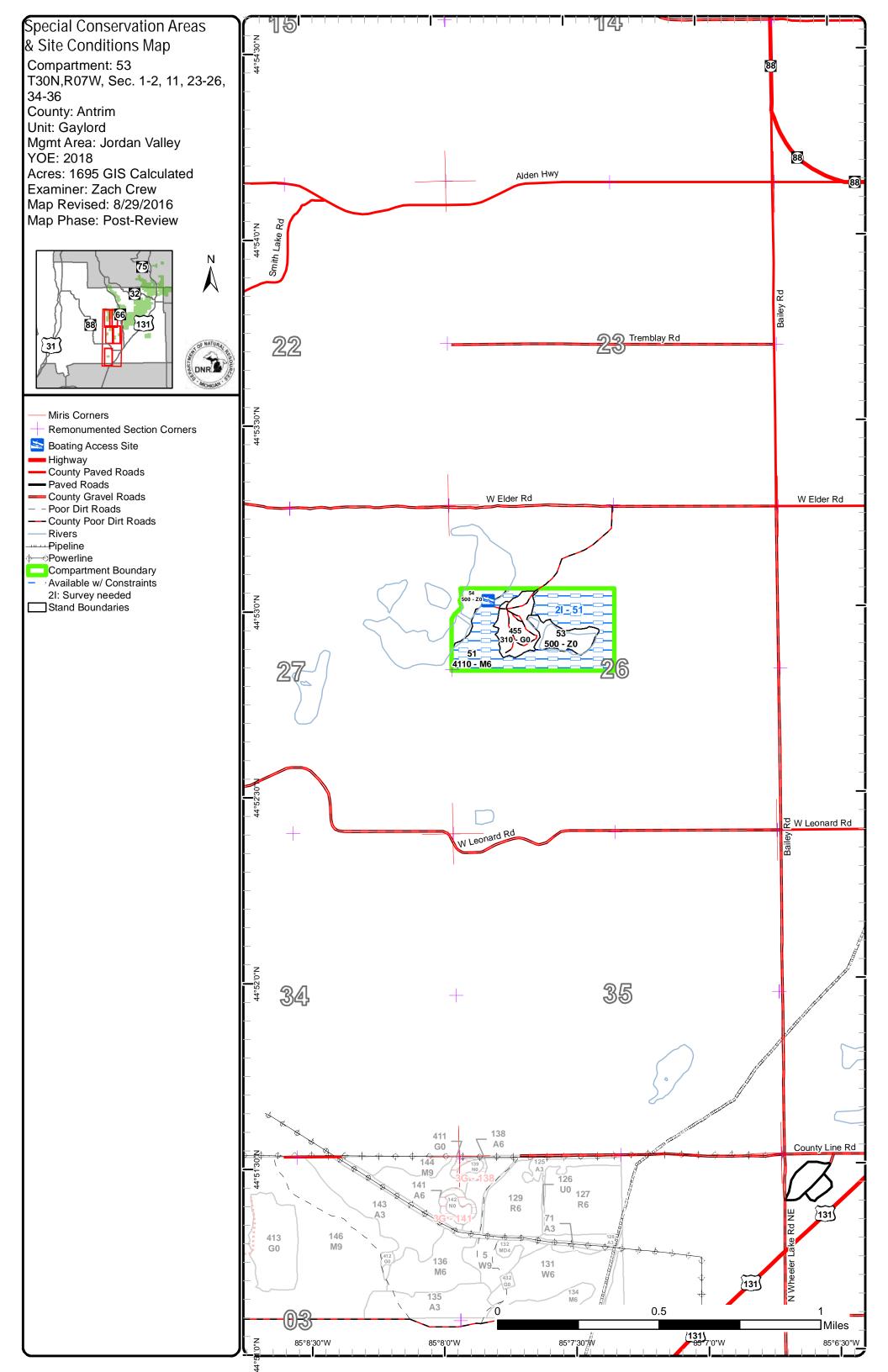












Gaylord Mgt. Unit Zach Crew: Examiner

Compartment 53 Year of Entry 2018



Age Class

	No.	y de C	3 / 2	\$ \ \	\$5.75 6.95 6.95	8 / \$	10°	, , , ,	, 8° / ×	,	80,00	\$ /6 <u>/</u>	00 Z	81 / E	N. S. S.	S. L.	Lis Li	g Jugan	No. No.
Aspen	0	0	0	0	0	23	30	0	43	2	0	0	0	0	0	0	0	0	98
Bare/Sparsely Vegetated	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Cedar	0	0	0	0	0	0	0	0	0	35	189	0	0	0	0	0	0	0	224
Herbaceous Openland	194	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	194
Low-Density Trees	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Lowland Conifers	0	0	0	0	0	0	18	0	1	16	186	0	0	0	0	0	0	0	220
Lowland Deciduous	0	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	34
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26
Lowland Shrub	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	11
Northern Hardwood	0	0	0	0	3	0	0	7	14	575	31	0	0	0	0	0	0	83	713
Upland Conifers	0	0	0	0	0	0	0	0	0	5	57	0	0	0	0	0	0	0	62
Upland Mixed Forest	0	0	0	0	0	0	3	0	8	0	0	0	0	0	0	0	0	0	11
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total	292	0	0	0	3	23	51	7	100	670	463	0	0	0	0	0	0	88	1696



Report 2 – Treatment Summary

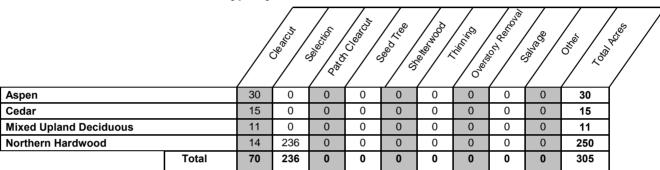
Gaylord Mgt. Unit Year of Entry: 2018

Acres of Harvest

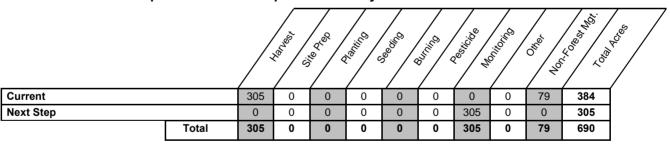
Compartment 53
Total Compartment Acres: 1,695

Commercial Harvest - 260 Harvests with Site Condition - 45 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Compartment: 53 Year of Entry: 2018

DNR DNR DREET
Annroval

d Name CoverType Density Age Range Type Method Objective Structure	Stand Size Stand BA Treatment Treatment Cover Type Ag CoverType Density Age Range Type Method Objective Struc	• • •
13 52053013-Cut 20.0 4110 - Sugar Maple Sawtimber 82 111- Harvest Single Tree 411 - Northern Uneven-Association Well 140 Selection Hardwood Aged		

Habitat Cut: No Site Condition:

Prescription Thin stand to around 80 BA. Establish regen gaps at least 75 feet in diameter at a minimum of 1 per 5 acres. Focus marking on poor

quality/form trees Specs:

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable Any mix of northern hardwood species that meet minimum stocking requirements

Regen:

Other If stand is accessed through the adjacent stand 14, a stream crossing will need to be addressed. Make sure this stand is added onto stand 14

Comment: as an optional unit similar to stand 44

Proposed Start Date: 10/01/2017

52053014-Cut 179.1 4112 - Maple. Sawtimber 80 111-Harvest Single Tree 411 - Northern Uneven-Draft Field Beech, Cherry Well 140 Selection Hardwood Aged Boundary

Association

Habitat Cut: No Site Condition:

Prescription Thin stand to around 80 BA. Establish regen gaps at least 75 feet in diameter at the rate of at least 1 per 5 acres. Focus on poor form/low

Specs: quality trees.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of species comparable to the canopy that results in a moderately stocked stand.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

15 52053015-Cut 10.7 4191 - Mixed Sawtimber 81 81-110 Harvest Clearcut with 4319 - Mixed Even-Aged Draft Field **Upland Deciduous** Well Retention **Upland Forest** Boundary

with Conifer

Habitat Cut: No Site Condition:

Prescription Final harvest stand, leave all hemlock and yellow birch uncut. Mark trees around any individual hemlock or yellow birch trees to help protect

them. Mark either aspen or red maple trees to drop and leave for nurse logs where applicable.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of species probably dominated by red maple and aspen that meets stocking requirements.

Regen:

Specs:

Other Expand treatment into the adjacent Cedar type where possible.

Comment:

Proposed Start Date: 10/01/2017

52053021-Cut 9.3 4136 - Aspen, Sawtimber 52 141-Harvest Clearcut with 413 - Aspen Draft Field Even-Aged Mixed Conifer Well 170 Retention Boundary

Habitat Cut: No Site Condition: Road Needed

<u>Prescription</u> Final harvest stand, focus retention around hemlock trees, the creek to the north, and any pockets of regenerating white pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of species that results in an aspen dominated stand that meets minimum stocking requirements.

Regen:

Other

Comment: **Proposed Start Date:**

10/01/2017

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Compartment: 53

Year of Entry: 2018

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
44	52053044-Cut	14.2	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	83	81-110	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Final harvest stand, retention will be the portion of the stand that falls in the stream buffer, and may also include nice pockets of sugar maple on

Specs: the east line.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of deciduous species that meets minimum stocking levels

Regen:

Other Make sure to make this stand part of a sale with stand 14 to the west, and to make this stand an optional payment unit.

Comment:

Proposed Start Date: 10/01/2017

Draft Field 36.5 4110 - Sugar Maple Sawtimber Single Tree 411 - Northern 52053048-Cut 89 111-Harvest Uneven-140 Selection Hardwood Aged Boundary Association Well

Habitat Cut: No Site Condition:

<u>Prescription</u> Mark to thin stand to a residual BA of 70-90. Establish regen gaps where applicable, at a minimum of one 75 foot diameter gap every 2-5 acres.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of hardwood species that meet the minimum stocking requirements

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

121 52053121-Cut 12.1 4134 - Aspen, Sawtimber 52 141-Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Well 170 Retention Boundary Spruce/Fir

Habitat Cut: No Site Condition: Portable Bridge Needed

Prescription Final harvest stand, standard retention, expand cut into lowland stand 123 to the north where feasible

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of canopy species that results in an aspen dominated stand.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

221 52053221-Cut 8.8 4134 - Aspen, Poletimber 52 51-80 Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Spruce/Fir Well Retention Boundary

<u>Habitat Cut:</u> No <u>Site Condition:</u> Portable Bridge Needed

Prescription Final harvest stand, focus retention around white cedar and yellow birch trees, mark 3-5 trees per acre to be cut and left as nurse logs.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of species similar to the parent stand that meets minimum stocking requirements

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

Comment:

Proposed Start Date:

10/01/2017

52053418-NF

46.0 310 - Herbaceous Nonstocked Openland

Unspec NonForestMgt Other - Specify

ified

Herbaceous

310 -

Openland

Draft Field Boundary

Habitat Cut: No Site Condition:

Prescription Brush, mow, plant, burn and/or herbicide to maintain opening. Planting of hard and soft mast.

Specs:

Next Step

Treatments:

Acceptable Regen:

Other Comment:

10/01/2017 **Proposed Start Date:**

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 53 s Year of Entry: 2018 t а **Cover Type Treatment** Acres Stand Size Stand BA **Treatment Treatment** Age **Approval** n Method Objective Status Density Structure d Name CoverType Age Range Type 52053440-NF 6.3 310 - Herbaceous Unspec NonForestMgt Other - Specify 310 -Draft Field 440 Nonstocked Openland ified Herbaceous Boundary Openland **Habitat Cut: No Site Condition:** Prescription Brush, mow, plant, burn and/or herbicide to maintain opening. Planting of hard and soft mast. Specs: Next Step Treatments: <u>Acceptable</u> Regen: <u>Other</u>

Total Treatment
Acreage Proposed:

Proposed Start Date:

Comment:

384.2

10/01/2017

Compartment: 53

Gaylord Mgt. Unit

Zach Crew : Examiner Year of Entry: 2018

Availa	ability for	Managemer	nt									
Total	Acres	Acres Avail	Acres	D	omina	nt Site	e Con	ditions	S			
Acres	Available	With Condition	Not Available		2D	2E	4A	2A	2F	2G	2H	3J
98	2	30	66	Aspen	21	9		31	35			
11	11	0	0	Bare/Sparsely Vegetated								
224	39	15	170	Cedar		15				154		16
193	188	0	6	Herbaceous Openland					6			
1	1	0	0	Low-Density Trees								
5	0	0	5	Lowland Aspen/Balsam Poplar								5
219	0	17	202	Lowland Conifers			17		7	24		171
34	34	0	0	Lowland Deciduous								
26	26	0	0	Lowland Mixed Forest								
66	66	0	0	Lowland Shrub								
11	11	0	0	Mixed Upland Deciduous								
713	446	0	267	Northern Hardwood				171		15	4	77
63	5	0	57	Upland Conifers						10		48
11	3	0	8	Upland Mixed Forest								8
20	20	0	0	Water								
1,695	851	62	781	Total Forested Acres	21	24	17	202	48	203	4	325
	50%	4%	46%	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
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	16	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
(Comments:						
2	Unavailable	2F: Too steep	7	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
(Comments:						

Gaylord Mgt. Unit

Zach Crew : Examiner

Unavailable	2A: Adjacent landowner denied access	122	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	2F: Too steep	33	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	3J: Water quality / BMPs (stream, river, or lake)	58	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
Comments:						
Available	2E: Road needed	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand could be treat	ated if we could find a way to ha	arvest s	tand 121 as well.			
	Comments: Unavailable Comments: Unavailable Comments: Unavailable Comments: Available Comments:	Comments: Unavailable 2F: Too steep Comments: Unavailable 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Comments: Available 2E: Road needed Comments:	Comments: Unavailable 2F: Too steep 33 Comments: Unavailable 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Comments: Available 2E: Road needed 15 Comments:	Comments: Unavailable 2F: Too steep 33 Unspecified Comments: Unavailable 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Linavailable 3J: Water quality / BMPs (stream, river, or lake) Unavailable 3J: Water quality / BMPs (stream, river, or lake) Linavailable 3J: Water quality / BMPs (stream, river, or lake) Unavailable 3J: Water quality / BMPs (stream, river, or lake) Linavailable 3J: Water quality / BMPs (stream, river, or lake) Unavailable 3J: Water quality / BMPs (stream, river, or lake)	Comments: Unavailable 2F: Too steep 33 Unspecified Unspecified Comments: Unavailable 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Comments: Unavailable 3J: Water quality / BMPs 5 Unspecified Comments: Unavailable 3J: Water quality / BMPs 58 5F: Evaluated for Forest Health Considerations Comments: Available 2E: Road needed 15 Unspecified Unspecified Comments:	Comments: Unavailable 2F: Too steep 33 Unspecified Unspecified Unspecified Comments: Unavailable 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Unavailable 3J: Water quality / BMPs (stream, river, or lake) Comments: Unavailable 3J: Water quality / BMPs (stream, river, or lake) Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified Unspe

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11	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	104	2B: Unknown if access through adjacent landowner(s) is possible	2E: Road needed	2D: Portable Bridge Needed (Dept. bridge will be adequate)	Unspecified
С	omments:						
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	151	3J: Water quality / BMPs (stream, river, or lake)	2E: Road needed	Unspecified	Unspecified
С	omments:						
13	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	12	2E: Road needed	Unspecified	Unspecified	Unspecified
С	omments:						
14	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	9	2E: Road needed	Unspecified	Unspecified	Unspecified
С	omments:						
15	Available	2E: Road needed	9	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

Gaylord Mgt. Unit

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Comments: 18 Unavailable 2A: Comments: 19 Unavailable 2A: Comments: 20 Unavailable 2A: Comments: 21 Unavailable 3J: \(st) Comments:		Unspecified
Comments: 19 Unavailable 2A: Comments: 20 Unavailable 2A: Comments: 21 Unavailable 3J: \((st))		
Comments: Comments: Unavailable 2A: Comments: Unavailable 3J: \((st) \)	ed Unspecified Unspecified	Unspecified
Comments: 20 Unavailable 2A: Comments: 21 Unavailable 3J: \((st) \) Comments:		
Comments: Unavailable 2A: Unavailable 3J: \((st) \)	ed Unspecified Unspecified	Unspecified
Comments: 21 Unavailable 3J: \((st) \) Comments:		
21 Unavailable 3J: \ (st Comments:	ed Unspecified Unspecified	Unspecified
Comments: 22 Unavailable 2G:		
22 Unavailable 2G	ed Unspecified Unspecified	Unspecified
soi	ed Unspecified Unspecified	Unspecified
Comments:		

Gaylord Mgt. Unit Zach Crew : Examiner

23	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
24	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	18	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
7	Unavailable	2A: Adjacent landowner denied access	31	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
80	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	48	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

Gaylord Mgt. Unit Zach Crew : Examiner

49	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	Unspecified	Unspecified	Unspecified
C	Comments:						
51	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	51	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
58	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
C	Comments:						
59	Unavailable	2F: Too steep	2	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
460 C	Unavailable	2F: Too steep	6	Unspecified	Unspecified	Unspecified	Unspecified

Mgt. Unit

Compartment: #Type! Year of Entry:

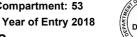


Report 5 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* 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: 53
Year of Entry 20:



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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	es to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen condistocked trout populations and those of other coldwater fish speci 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.	es (e.g., slimy sculpin) to persist from se 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 d communities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well
SCA	Visual Management Area	An area of general social appreciation that is managed to recogn Examples of these areas include scenic vistas, scenic or natural	
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

s t	Gaylord Mgt. Unit			Report 7	Forested	Stands Compartment: 53 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	612 - Lowland Coniferous Forest	Poletimber Well	7.2	87	111-140	Stream and associated wetland between two upland stands with steep hills to the stream.
2	413 - Aspen	Poletimber Well	9.6	73	81-110	Poor quality aspen.
3	411 - Northern Hardwood	Poletimber Well	122.2	81	111-140	LOGS IN SOUTH PART OF STAND. ASPEN CLONES. EAST SIDE STEEP HILL.
5	6123 - Lowland Fir	Poletimber Poor	17.5	58	1-50	Spruce and Black Ash dead in the canopy, some white pine along the edge of the stand.
7	413 - Aspen	Poletimber Well	21.2	41	1-50	
8	612 - Lowland Coniferous Forest	Poletimber Well	103.9	94	81-110	
13	4110 - Sugar Maple Association	Sawtimber Well	20.0	82	111-140	TSI'D 1976. Very steep hill and sharp crest. Stream at bottom of both slopes. Average BA = 135
14	4112 - Maple, Beech, Cherry Association	Sawtimber Well	205.3	80	111-140	Access is difficult. Stream crossing permits may be required. There are some steep hills to avoid and wetlands at base of hills. Timber is variable in quality. Red maple dominant in the SW portion of the stand. Trace amounts of Yellow Birch and White Ash. Average BA = 122
15	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	10.7	81	81-110	Dominated by over sized red maple and some hemlock on the uplands. As you go towards the edge of the stand balsam fir and white cedar become dominant.
16	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	24.0	92	171-200	Braided streams, some pockets of lowland hardwoods, nice areas of hemlock poles and regen
17	4110 - Sugar Maple Association	Sawtimber Well	64.1	82	81-110	STAND MARKED, HARVESTED AND COMPLETED 1/2004. Some pockets could be thinned but would probably be best to hold for another 10 years.
18	6118 - Lowland Deciduous with Cedar	Sawtimber Medium	34.4	76	51-80	Dead black ash in the canopy
19	4110 - Sugar Maple Association	Sawtimber Well	42.0	82	51-80	TSI'D 1976. Nice pole stand. Variable stocking. Thinned in 2011 as part of Skinkle Hardwoods. Nice Quality stand.
20	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	14.2	76	81-110	Lots of aspen in stand, typed out as a hardwood stand previous YOE but probably more of an aspen or mixed deciduous stand.
21	4136 - Aspen, Mixed Conifer	Sawtimber Well	9.3	52	141-170	Very nice quality aspen stand, good stocking and diameters

S t	Gaylord	Gaylord Mgt. Unit			Forested	Stands Compartment: 53 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4119 - Mixed Northern Hardwoods	Sawtimber Well	26.0	84	51-80	Portion of stand east of creek was thinned to a residual BA of 77 in 2015
23	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	58.0	92	141-170	Quaking aspen and red maple found on upland hummocks. Lots of braided streams running through stand.
24	6112 - Lowland Aspen	Poletimber Medium	5.3	50	51-80	Pockets of lowland cattails along creek with areas of thick tag alder brush, a few high pockets of quaking aspen, red maple, and scrubby black cherry.
25	6120 - Lowland Cedar	Sawtimber Well	16.3	94	141-170	Sparse spots. Cedar River runs through. Erosion control structures in place.
26	4139 - Aspen, Mixed Deciduous	Sawtimber Well	33.4	73	81-110	Occasional oak. Some parts of this stand could be final harvested if we were to harvest the adjacent stand 27 to the east.
27	4111 - S.Maple, Hard Mast Association	Sawtimber Well	31.3	94	111-140	Good diversity, would need access from private to the east
28	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	8.1	83	81-110	ASPEN TAKES UP A GOOD DEAL OF THE EDGE OF THIS STAND.
30	4319 - Mixed Upland Forest	Sawtimber Well	7.7	78	81-110	Aspen of mixed age. East end with a patch of hardwood and white pine. Beaver activity. Some wet low lying spots filled with cattails and tag alder.
31	6123 - Lowland Fir	Poletimber Well	0.5	79	51-80	
32	4112 - Maple, Beech, Cherry Association	Sawtimber Well	15.0	84	111-140	Along scenic road, south of road it begins to get wet in spots.
33	429 - Mixed Upland Conifers	Poletimber Well	57.4	94	141-170	Heavy deer use. Occasional hemlock, balsam poplar and BIG white pine. Some blowdown.
34	6120 - Lowland Cedar	Poletimber Well	150.6	94	51-80	Lots of tag alder, cedar is declining in pockets throughout stand, in those pockets a thick balsam fir understory is present
36	4130 - Aspen	Poletimber Medium	2.3	49	51-80	Small pocket of brush, open grown cherry, red maple, and quaking aspen, transition from grassy opening upslope to mature hardwood stand.
37	429 - Mixed Upland Conifers	Sawtimber Well	5.2	88	81-110	Upland stand transition between stands 4 and stand 39.
38	4110 - Sugar Maple Association	Sawtimber Well	14.6	77	81-110	Thinned last YOE, average BA of 90
39	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	25.5	88	111-140	Pockets of developing 5-8" Paper Birch, Quaking Aspen, and Red Maple

s t	Gaylord Mgt. Unit			Report 7	Forested	Stands Compartment: 53 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	42360 - Upland Cedar	Poletimber Well	34.8	88	171-200	Excellent quality cedar poles along. Good wintering deer range. Overall healthy stand. Balsam fir regen around the edges of the stand but not in the interior.
42	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	8.4	80	81-110	Lowland stand wet soils making logging difficult.
44	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	14.2	83	81-110	SW facing slope, most the red maple is concentrated on the slope, suger maple dominates the flat portion of the stand. Quite a few very nice aspen clones
45	4319 - Mixed Upland Forest	Poletimber Medium	3.2	53	81-110	Upland conifer transition zone
47	411 - Northern Hardwood	Sawtimber Well	17.6	81	111-140	
48	4110 - Sugar Maple Association	Sawtimber Well	36.5	89	111-140	Fair quality hardwood stand, looks to have been thinned at one point but no TCR was found.
50	4112 - Maple, Beech, Cherry Association	Sawtimber Well	3.8	81	81-110	Only way to access stand is through private, no access was able to be maintained and the Cedar River blocks access from the north. Cover type was estimated using previous OI data.
51	4110 - Sugar Maple Association	Poletimber Well	51.1	79	81-110	Average stand BA 110. Evidence of heavy deer brose. High density of young hemlock concentrated in the South and SE along the private boundary. Trace amounts of pole sized red oak and hemlock in the over story as well as well as a few scattered American Elm.
58	6120 - Lowland Cedar	Sawtimber Well	3.3	91	201+	Cedar dominated bottomland stand, with the river flowing right through it.
59	4130 - Aspen	Sawtimber Well	1.7	86	111-140	OI Stand Year Origin was 1923. Tree cores indicate stand age of 85 but cores were punky and hard to read. Aspen stand on east facing ridge. Quaking aspen falling to pieces, Big Tooth holding up a little better. No HAL or archeological hit in the area but there is some type of old brick work down around the river, not sure if part of an old dam or what.
117	4110 - Sugar Maple Association	Sawtimber Well	17.4	84	81-110	STAND MARKED, HARVESTED AND COMPLETED 1/2004. Nice quality residual, would recommend holding for 10 years, there are a few spots that have a high enough BA to warrant a treatment. Basswood and Yellow Birch located on the North side of the stand heading down towards a creek, this area was not thinned during the harvest of 2004.
121	4134 - Aspen, Spruce/Fir	Sawtimber Well	12.1	52	141-170	
122	4119 - Mixed Northern Hardwoods	Sawtimber Well	6.8	67	81-110	Transition out of swamp to upland stands

S t a n d	Gaylord	l Mgt. Unit		Report 7	- Forested S	Stands Compartment: 53 Year of Entry: 2018
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
123	42360 - Upland Cedar	Poletimber Well	4.4	92	141-170	
221	4134 - Aspen, Spruce/Fir	Poletimber Well	8.8	52	51-80	
223	42360 - Upland Cedar	Sawtimber Well	14.6	91	141-170	Noticed some dead spruce in the stand.
244	4112 - Maple, Beech, Cherry Association	Poletimber Well	2.9	32	1-50	Developing red maple stand mixed with a few clones of aspen and some scrubby black cherry. A few large clumpy over story red maple.



Stand	Cover Type	Acres	Managed Site	General Comments:
4	310 - Herbaceous Openland	2.3	No	Open grassy area with scattered white pine & cherry developing. Leave as untreated natural stand. Adjacent to private with a large gas facility.
6	6229 - Mixed lowland shrub	1.5	No	OPIC - FMD: SCATTERED ASPEN AND RED MAPLE RESIDUAL FROM PREVIOUS HARVEST. TRANSITION FROM SAPLING STAND TO POLE STAND. STAND WAS ADDED TO THE 2011 POW TO HELP MAKE UP STATEWIDE ACREAGE SHORTFALL.
9	6229 - Mixed lowland shrub	64.2	No	Lots of tag alder and some willow, standing water throughout
10	310 - Herbaceous Openland	11.2	No	
11	790 - Other Bare/Sparsely Vegetate	10.7		Stand was harvested in 2015 as part of 3 corners aspen/hardwood. Regen not big enough yet to type out as a forested stand.
29	330 - Low-Density Trees	0.7	No	Small pocket of brush, open grown cherry, red maple, and quaking aspen, transition from grassy opening upslope to mature hardwood stand.
53	500 - Water	9.1	No	HENRY L.
54	500 - Water	7.8	No	GREEN L. Access site.
57	500 - Water	3.3	No	OPIC - FMD: Road acts as a dam.
401	310 - Herbaceous Openland	7.6	Yes	OPIC - FMD: Section 11 E1/2W1/2. Opening maintenance.
402	310 - Herbaceous Openland	8.4	No	Pipeline.
405	310 - Herbaceous Openland	29.9	No	
411	310 - Herbaceous Openland	22.2	No	
412	310 - Herbaceous Openland	19.0	No	
418	310 - Herbaceous Openland	46.0	No	OPIC - FMD: Section 11 E1/2W1/2.
429	310 - Herbaceous Openland	19.9	No	Generously sprinkled with cherry, apple, white pine (all open grown). Powerline along north edge.
440	310 - Herbaceous Openland	6.3	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
455	310 - Herbaceous Openland	12.6	No	GREEN LAKE ACCESS SITE AND EASEMENT. Pipeline. Encroachment by hardwoods, sumac, aspen.
460	310 - Herbaceous Openland	5.6	No	Much of this used to be underwater. Patches of brush (honeysuckle. Aspen clones mixed with hardwood along road. Wet on west side of river. Earthworks that used to dam the river are blown out. Power line running NW to SE through stand.
461	310 - Herbaceous Openland	2.5	No	Powerline. Low spots are wet.