

Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63139
Entry Year 2017
Acreage: 3,019
County Wexford

Management Area: Upper Muskegon

Revision Date: 2015-06-12

Stand Examiner: Derek Cross

Legal Description:

T22N, R9W, Sec. 4-9, 17 T23N, R9W Sec.17, 19 T23N, R10W Sec. 13-16

Identified Planning Goals:

Provide forest products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management will focus on balancing age class distributions of oak, aspen and red pine.

Soil and topography:

Montcalm, Rubicon and Kalkaska sands. Undulating upland and well drained with a few low areas.

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

Block in state ownership in areas of the compartment where pieces are missing or private lands are interrupting contiguous state ownership. There are 2 outlying parcels that should be considered for disposal or trade. T22N R9W Sec.17 NENW is a 40 acre land locked parcel that has been inaccessible for management up to this point. T23N R09W Sec. 17 SENE there is a 5 acre land locked parcel along the Manton Creek. The proximity of this compartment to the City of Cadillac leads to increased hunting and recreational pressures. There is an ORV trail in the compartment that receives a considerable amount of use.

Unique Natural Features:

Potential for great blue heron rookery, red shouldered hawk, goshawk, and box turtle. Also potential for ebony boghaunter and secretive locust in bogs.

Archeological, Historical, and Cultural Features:

Missaukee junction railroad intersection. Logging camp and woodland mound listed.

Special Management Designations or Considerations:

Silvicultural guidelines will be followed for all forestry treatments prescribed in the compartment.

Watershed and Fisheries Considerations:

The only surface water in the compartment is Bonds Mill Pond and a couple other unnamed ponds. All of these are water table ponds, subject to the vagaries of nature. None of them have fish populations. There is one flowing stream that touches the compartment and has a native trout population.

Wildlife Habitat Considerations:

This compartment provides valuable deer and turkey habitat. A continuation of maintaining a variety of cover types and various age classes of those types will continue to favor a variety of game and non-game species. Featured species of special interest include deer, woodcock, golden-winged warbler and ruffed grouse. Timber sale specifications to benefit wildlife (where applicable) will include brush pile creation along lowland edges, protection of mast-bearing wildlife shrubs and ironwood, protection of standing dead snags, and creation of drumming logs (1-2 per acre) and woody debris (tops or whole trees) in aspen cuts. (E. Victory 6/2015)

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of an end moraine of coarse-textured till, lacustrine sand and gravel and minor glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 1,000 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations and the Mississippian Bayport Limestone and Michigan Formation. The Saginaw is quarried for clay for bricks, the Bayport for limestone and the Michigan Formation for gypsum, all in other areas of the State. Gravel pits are located in the area and potential is good. This area is located several miles south of the prolific Silurian Niagaran reef trend. Oil and gas has limited potential in the Compartment and none of the State lands are leased for oil and gas exploration.

Vehicle Access:

A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. There are numerous roads in excess of the access needs in the area, and are a threat to the resources, or are a concern environmentally. A road closure plan should be implemented to reduce resource damage in the compartment.

Survey Needs:

None at this time

Recreational Facilities and Opportunities:

The entire 18 mile Missaukee Junction ORV trail is located within this compartment. This 50 inch trail is designed for ATV's, and receives considerable use due to it's close proximity to Cadillac. Utilizing trail protection specifications & considerations such as promoting a winter harvest, and flush cutting stumps directly adjacent to the trail are suggested harvesting practices. Specifically, appropriate measures identified in DNR Policy & Procedures "32.22XX' (Best Management Practices for Forest and Wildlife Management Adjacent to Recreation Trails) should be considered when setting up timber sales within this compartment. Hunting, and some limited fishing opportunities in Manton Creek are available within this compartment. (T.M.N. 12/17/14).

Fire Protection:

Road access is limited to some of the compartment, which will limit fire response. Dispersed camping and ORV activities can be a cause for wildfires in the compartment.

Additional Compartment Information:

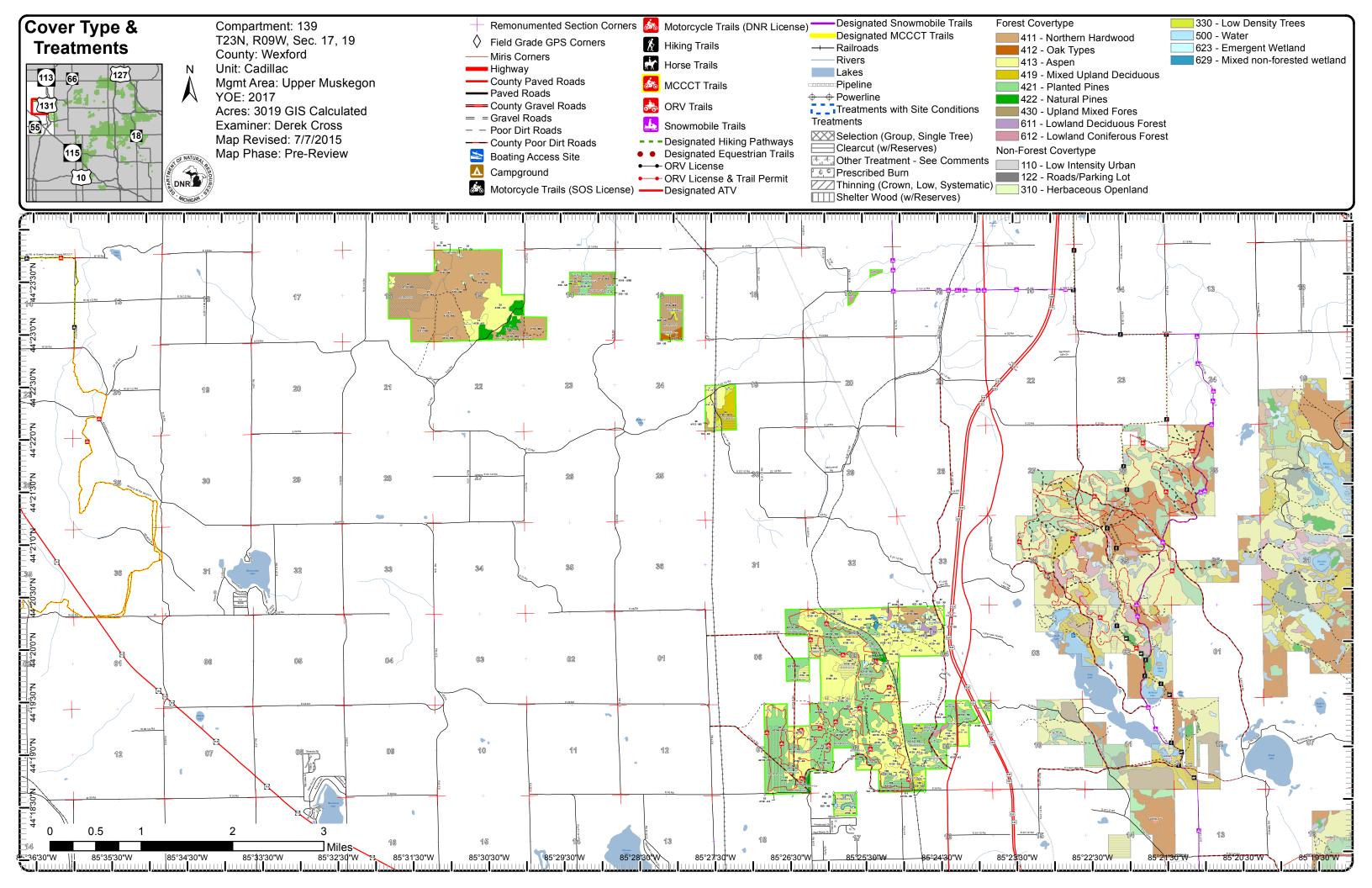
A small portion of the compartment lies on the east side of U.S.131 it is recommended to remove this from compartment 139 and merge with compartment 141. The proximity of the compartment to urban centers leads to an increased amount of illegal dumping.

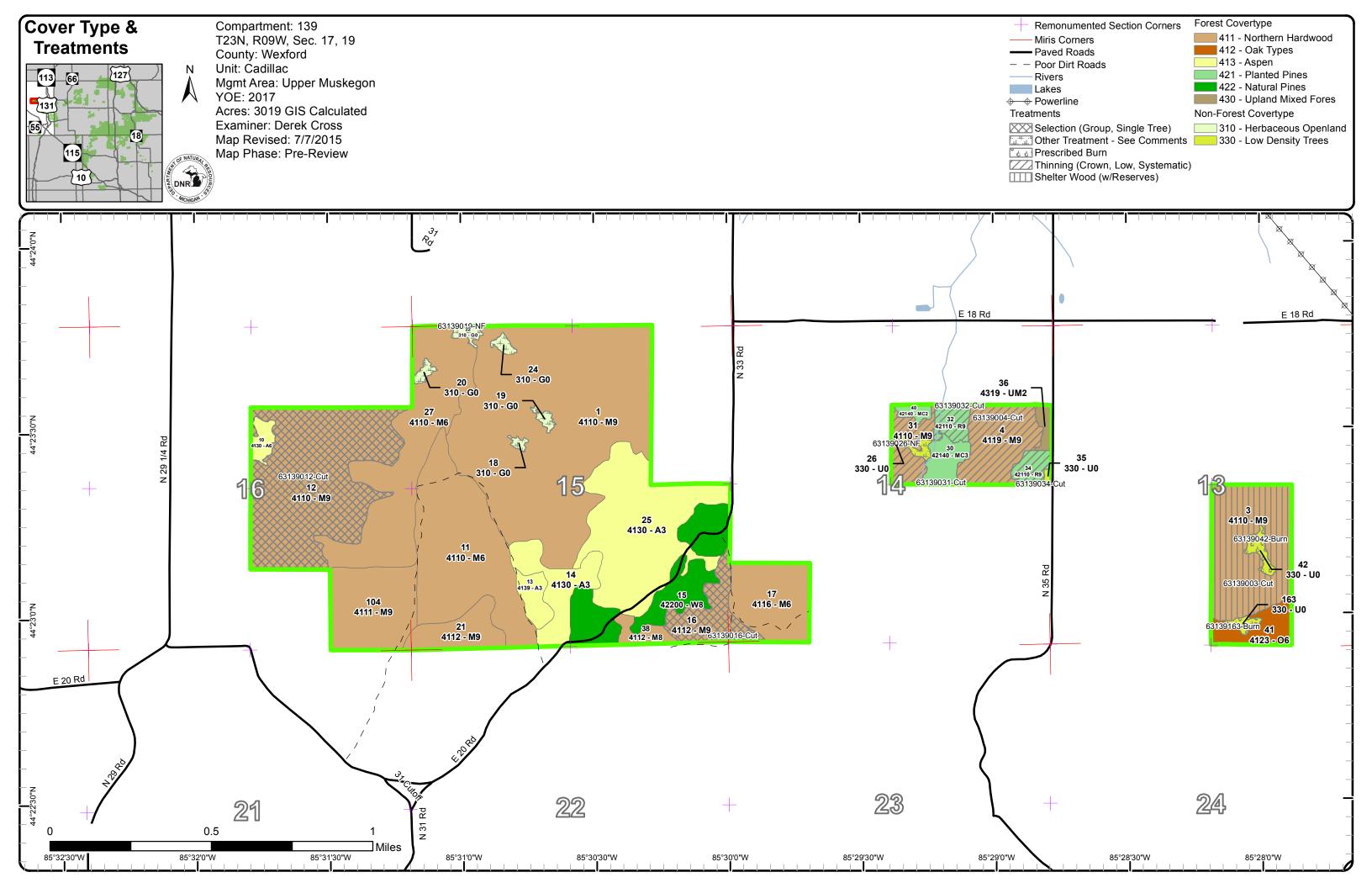
The following reports from the Inventory are attached:

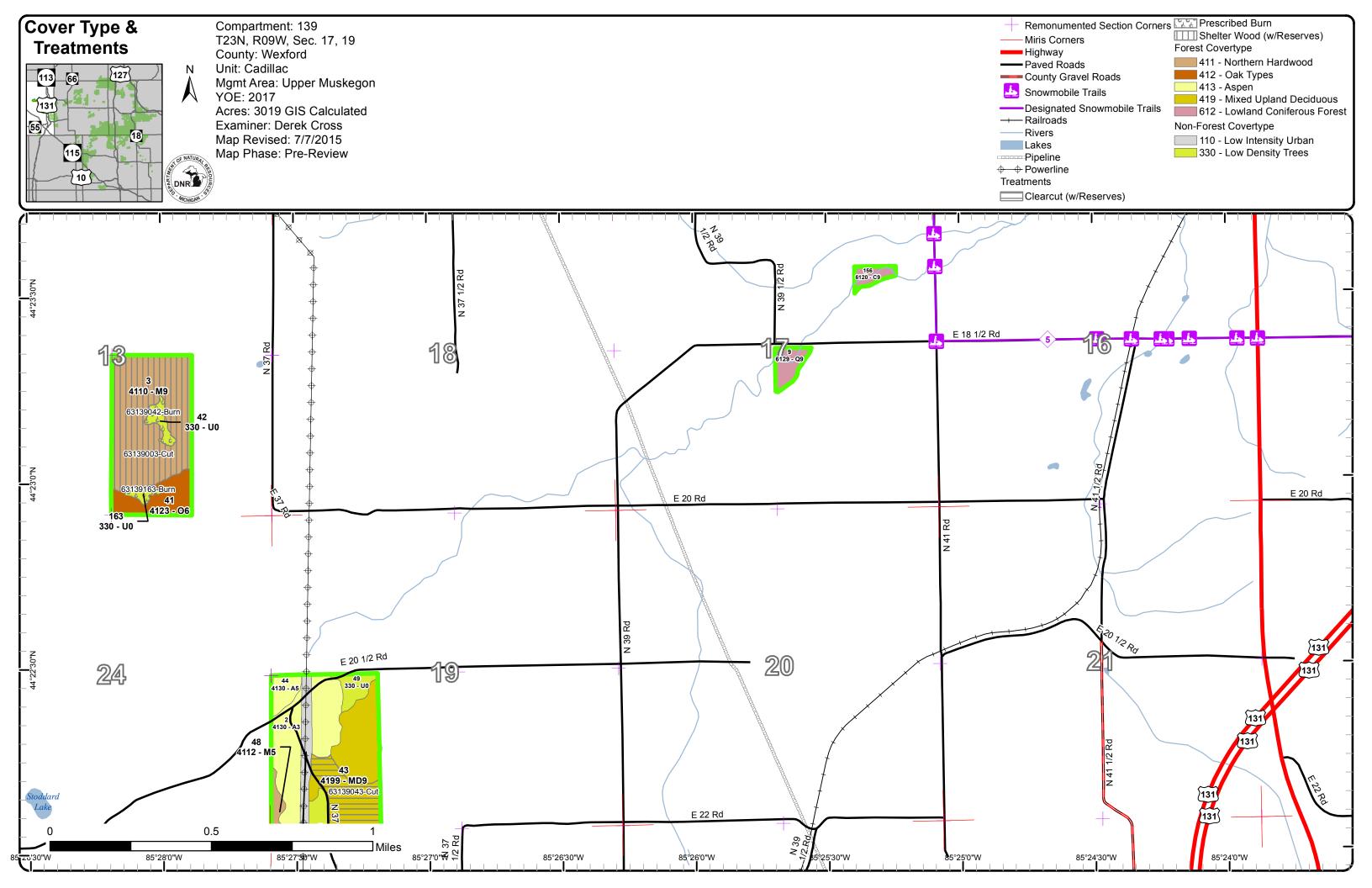
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

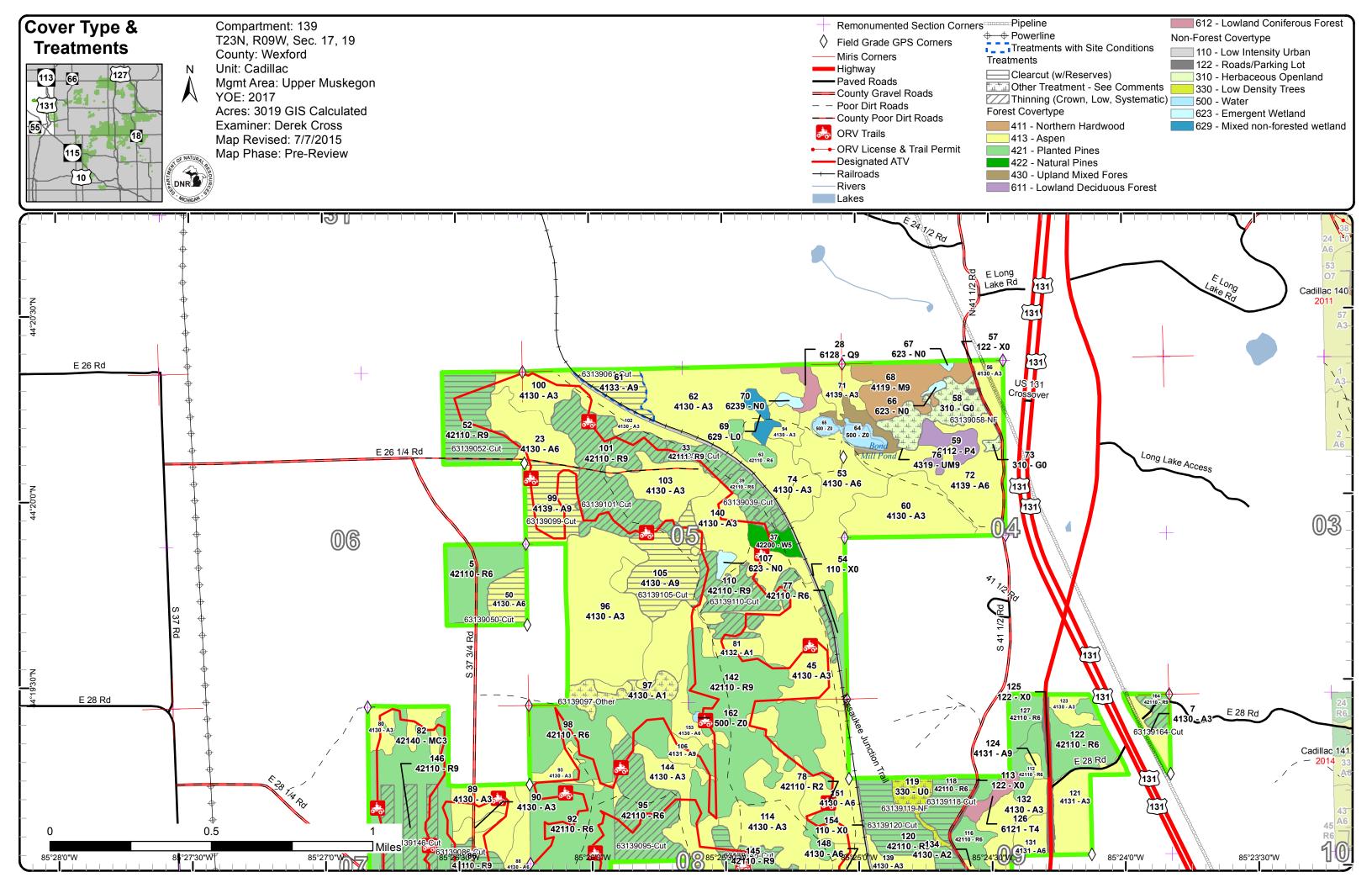
The following information is displayed, where pertinent, on the attached compartment maps:

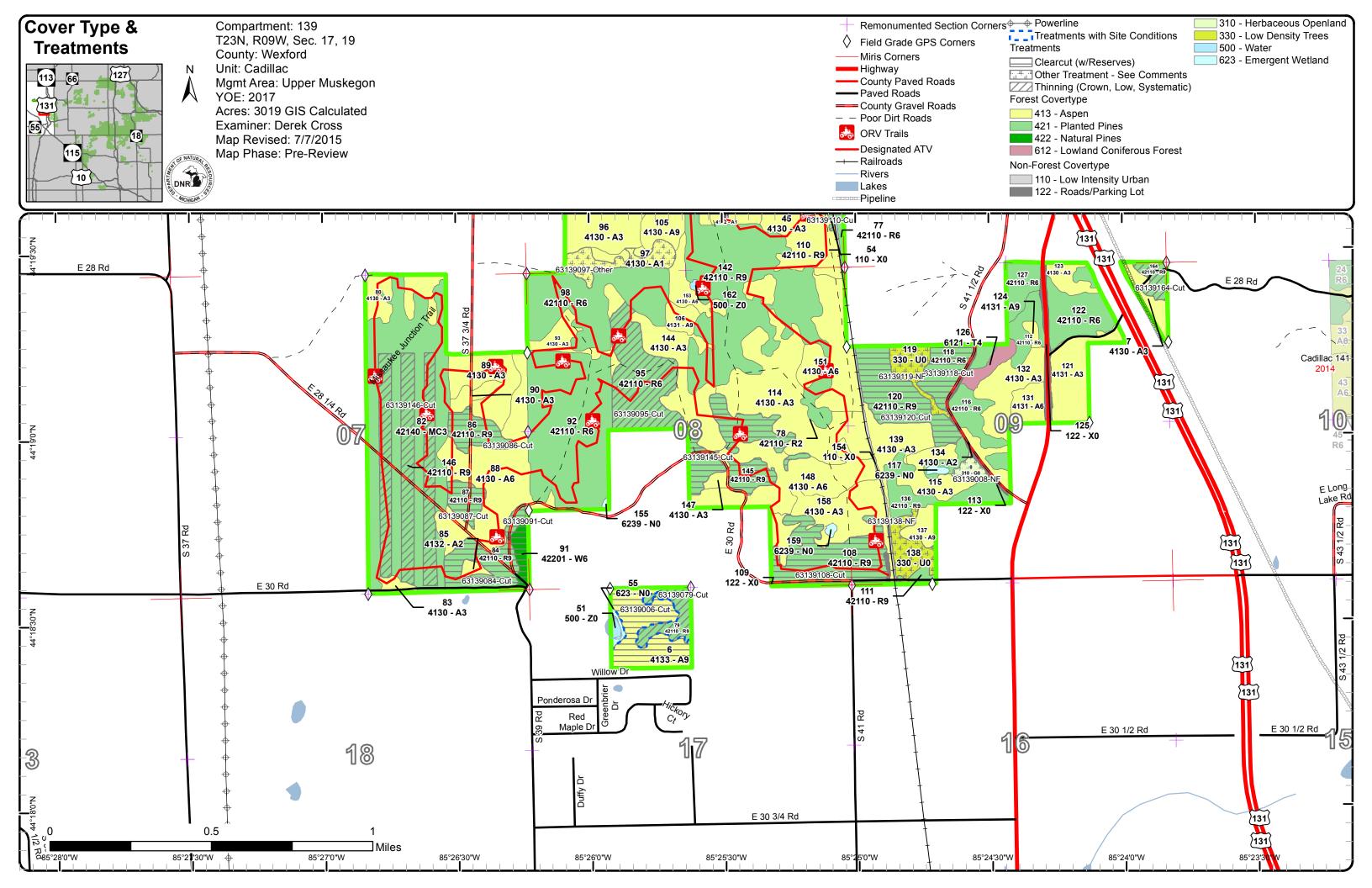
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

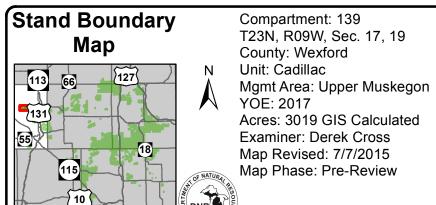












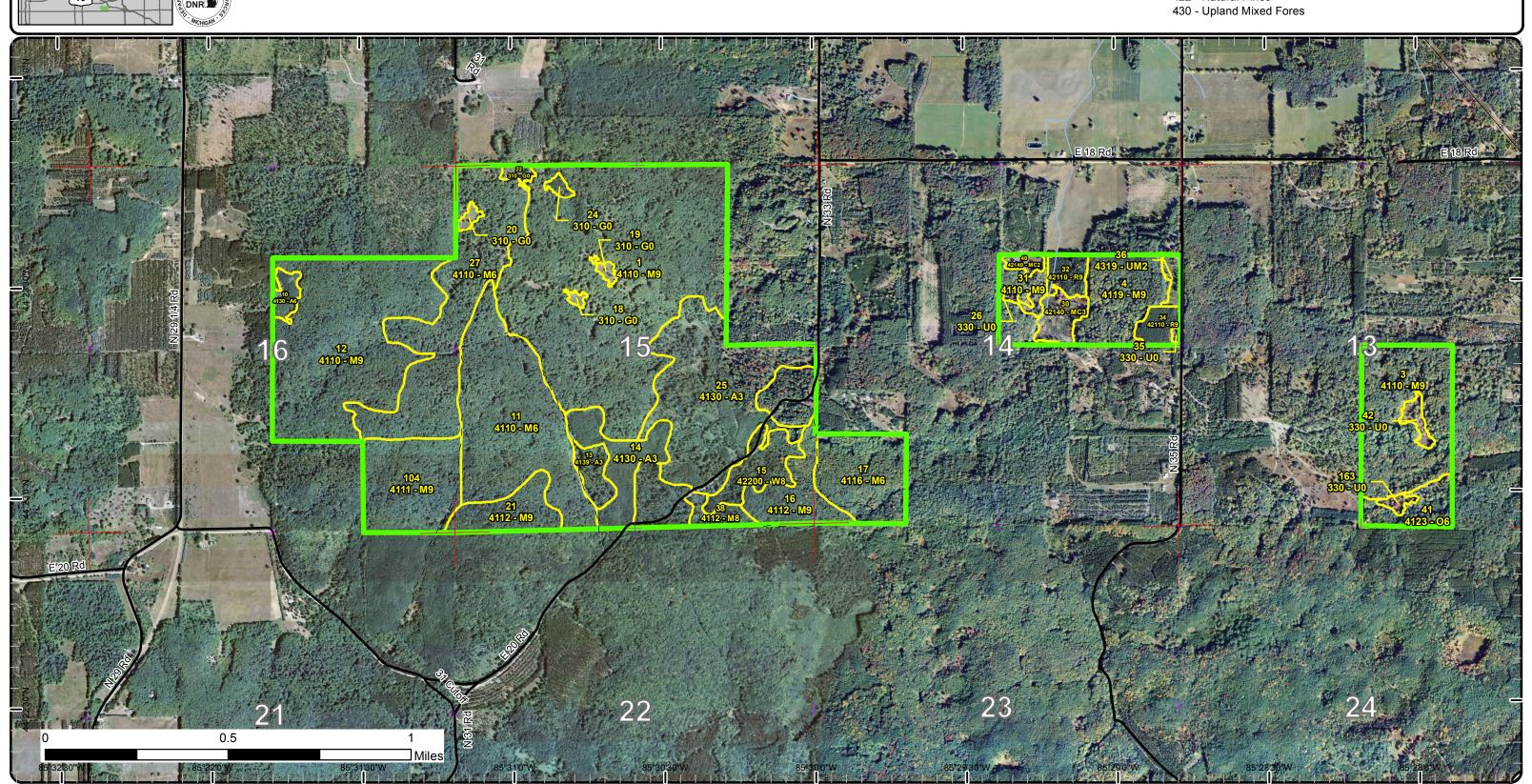
Remonumented Section Corners Non-Forest Covertype

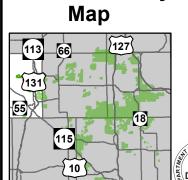
Miris Corners 310 - Herbaceous Openland
Paved Roads 330 - Low Density Trees

Poor Dirt Roads
Rivers
Powerline
Stand Boundaries
Forest Covertype

411 - Northern Hardwood
412 - Oak Types
413 - Aspen
421 - Planted Pines

422 - Natural Pines





Stand Boundary

Compartment: 139 T23N, R09W, Sec. 17, 19 County: Wexford Unit: Cadillac

Mgmt Area: Upper Muskegon YOE: 2017

Acres: 3019 GIS Calculated Examiner: Derek Cross Map Revised: 7/7/2015 Map Phase: Pre-Review



Remonumented Section Corners ---- Miris Corners

Highway

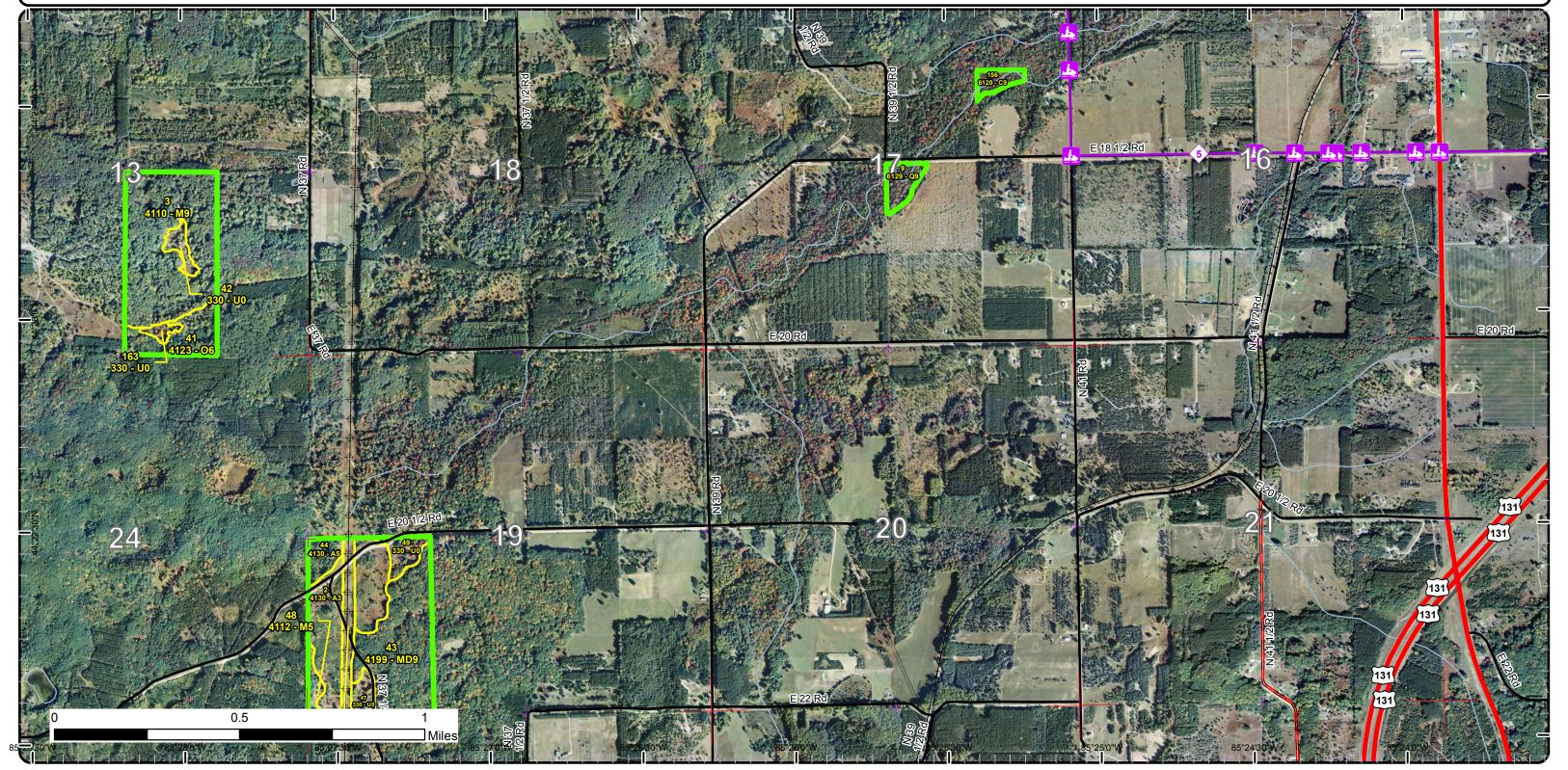
412 - Oak Types 413 - Aspen 419 - Mixed Upland Deciduous 612 - Lowland Coniferous Forest

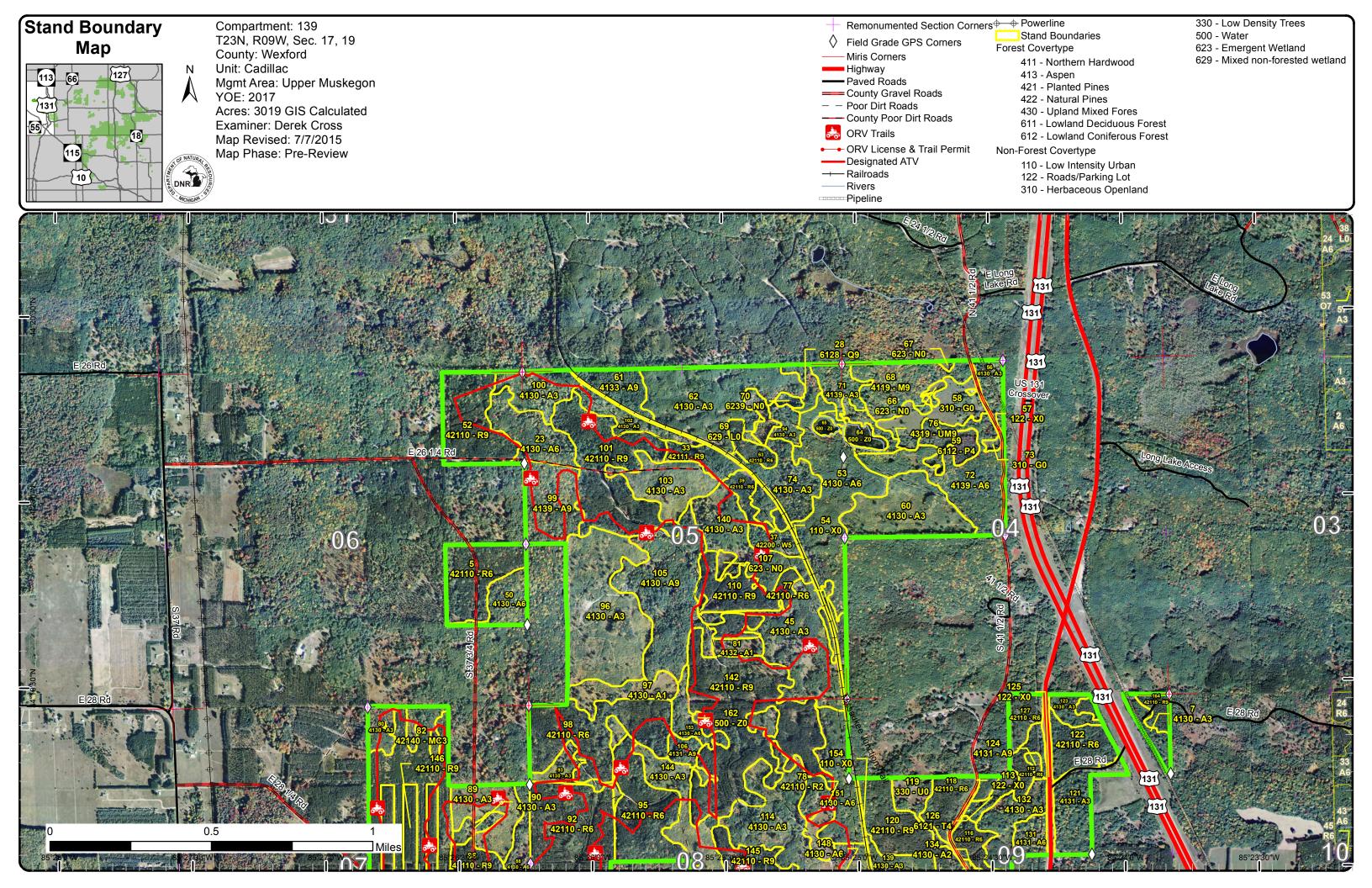
Non-Forest Covertype

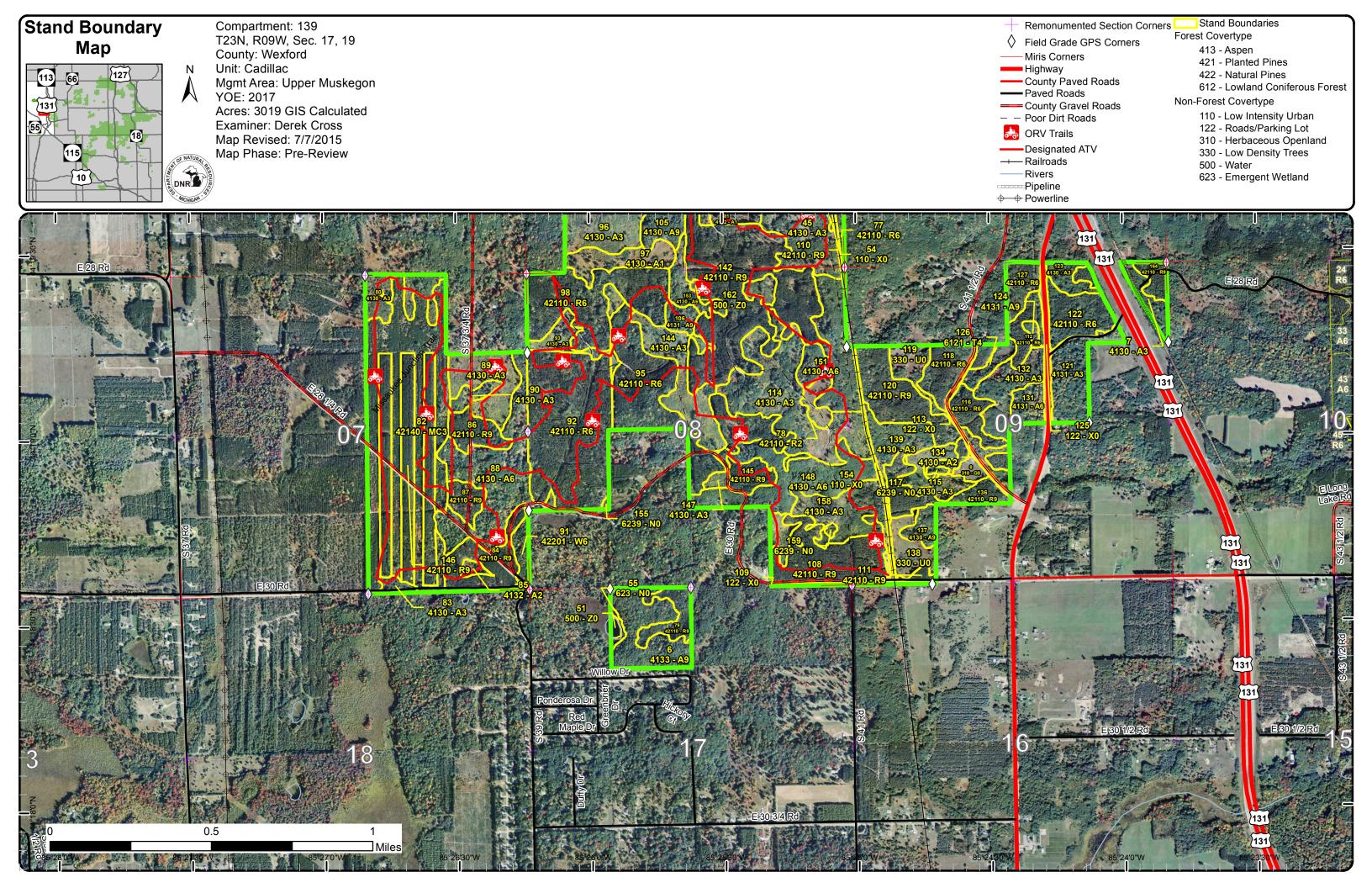
110 - Low Intensity Urban 330 - Low Density Trees

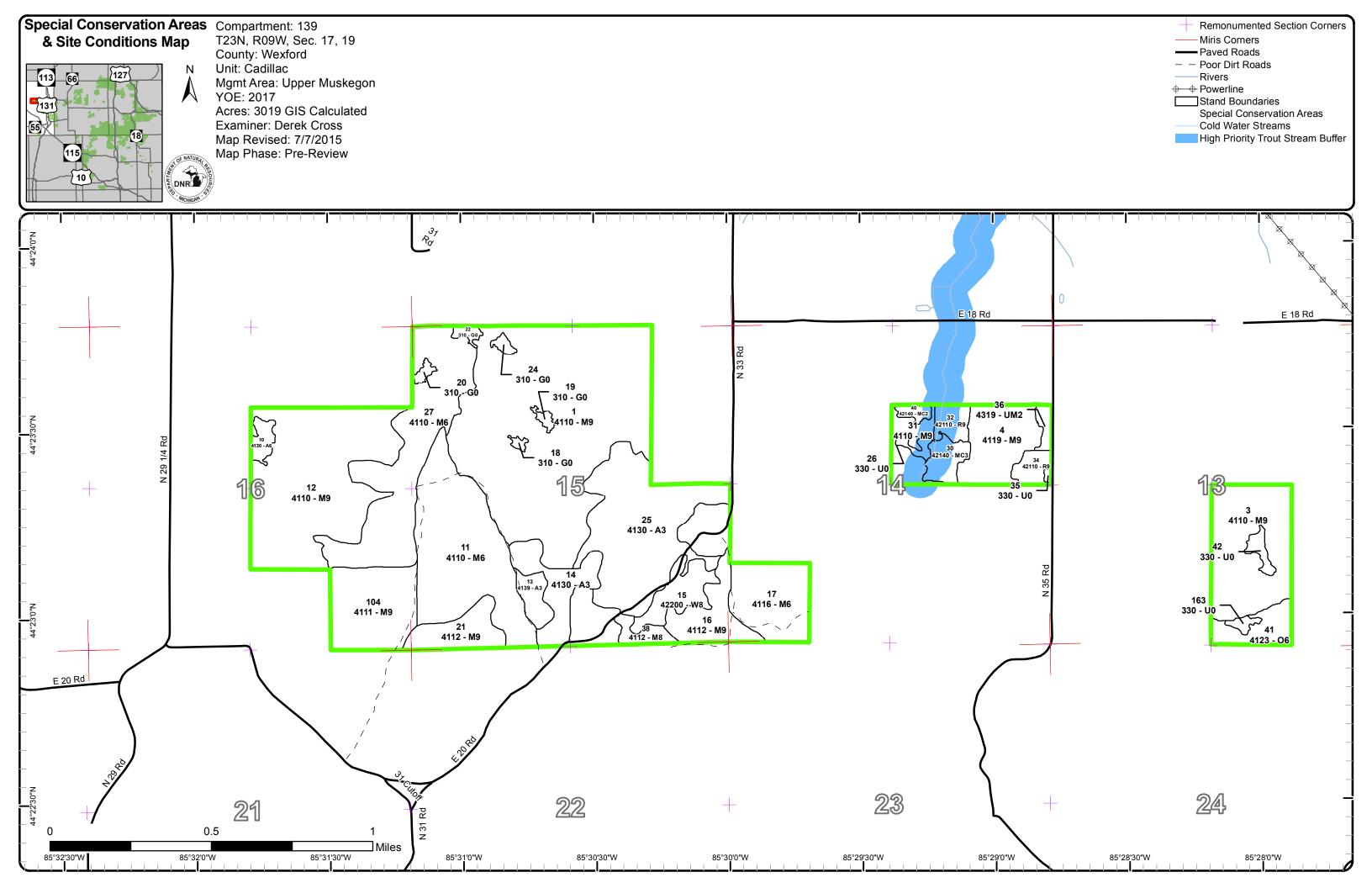
Paved Roads
County Gravel Roads
Snowmobile Trails Designated Snowmobile TrailsRailroads ----Rivers Pipeline Stand Boundaries

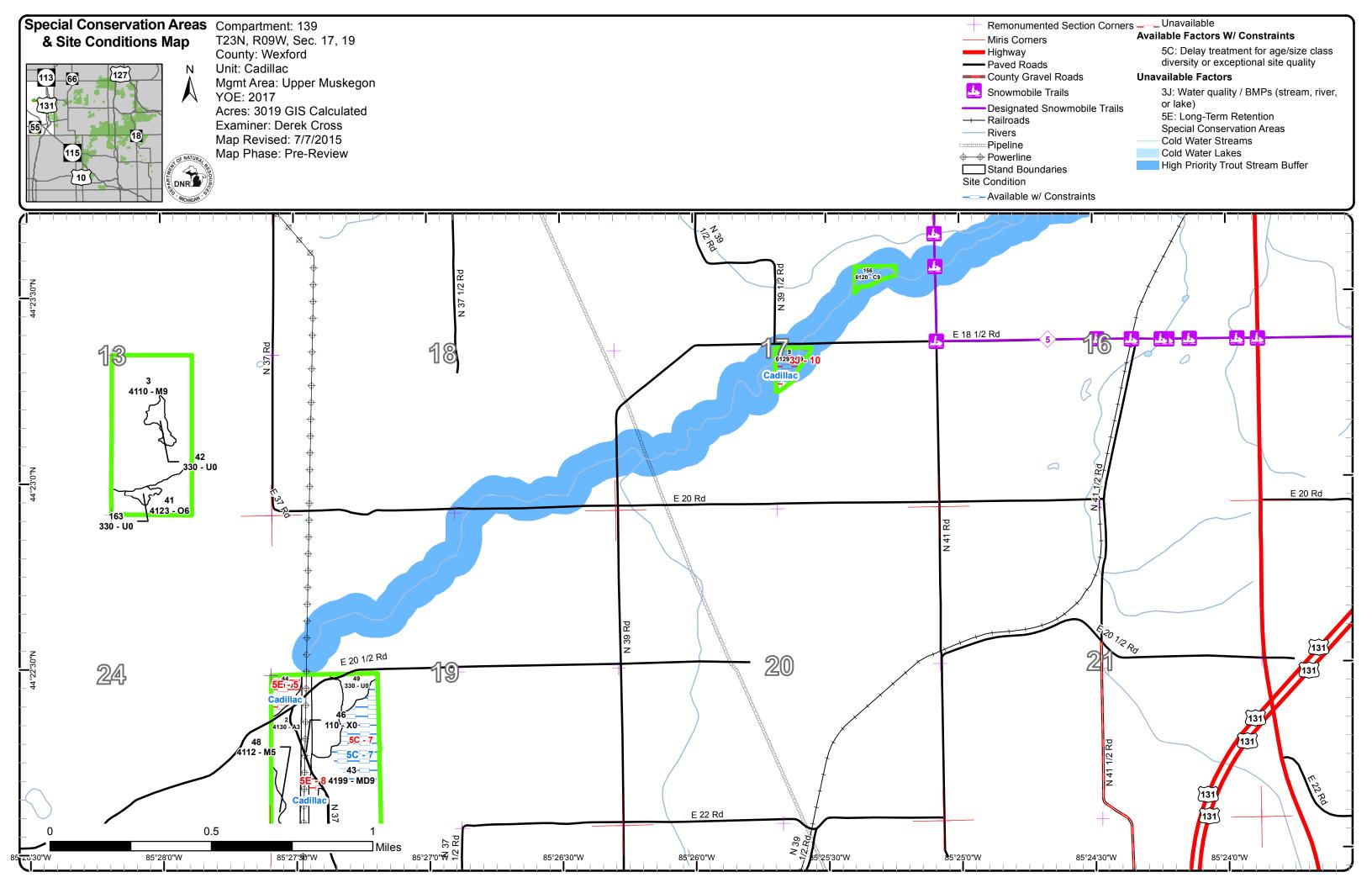
Forest Covertype 411 - Northern Hardwood

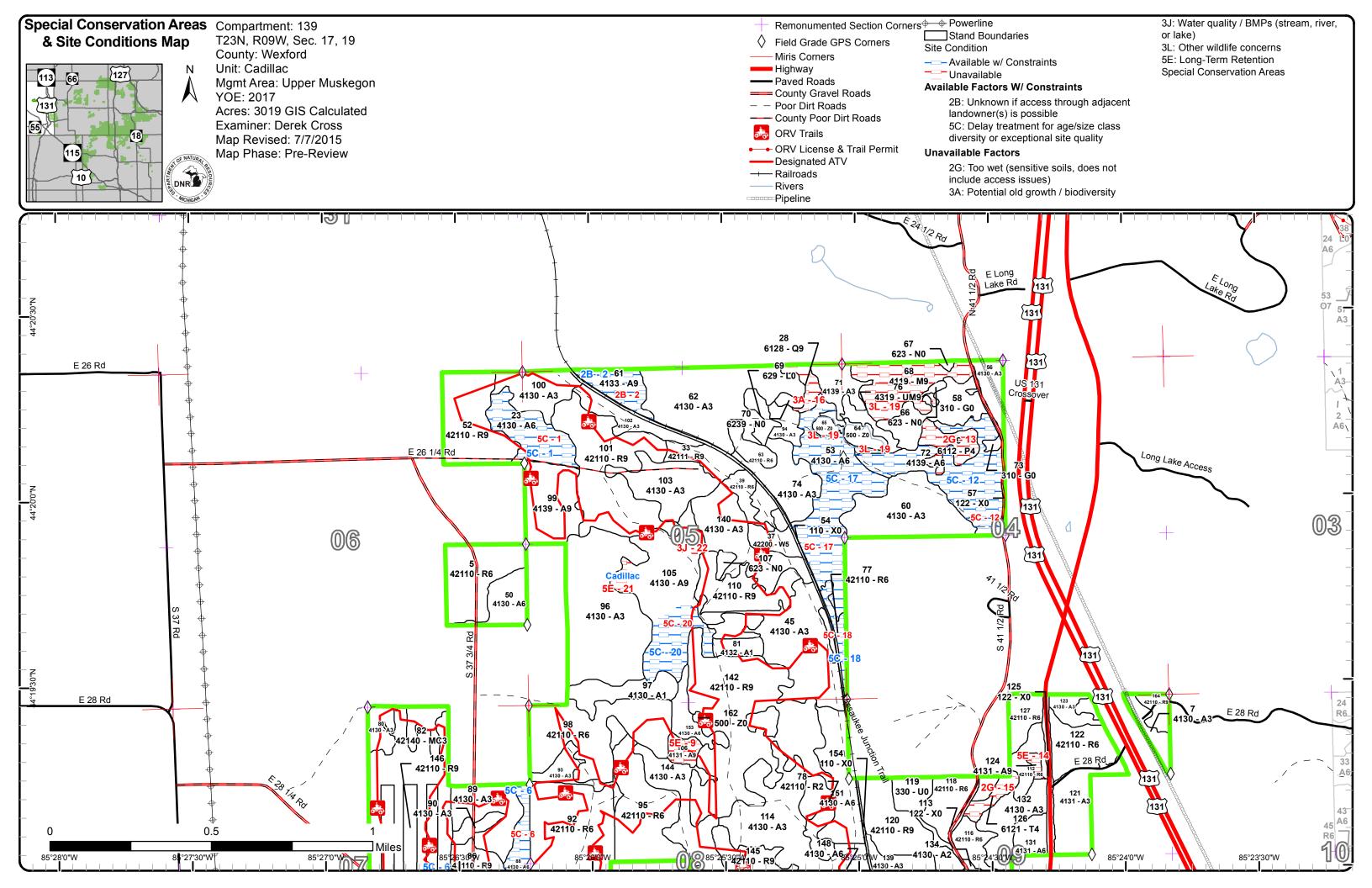


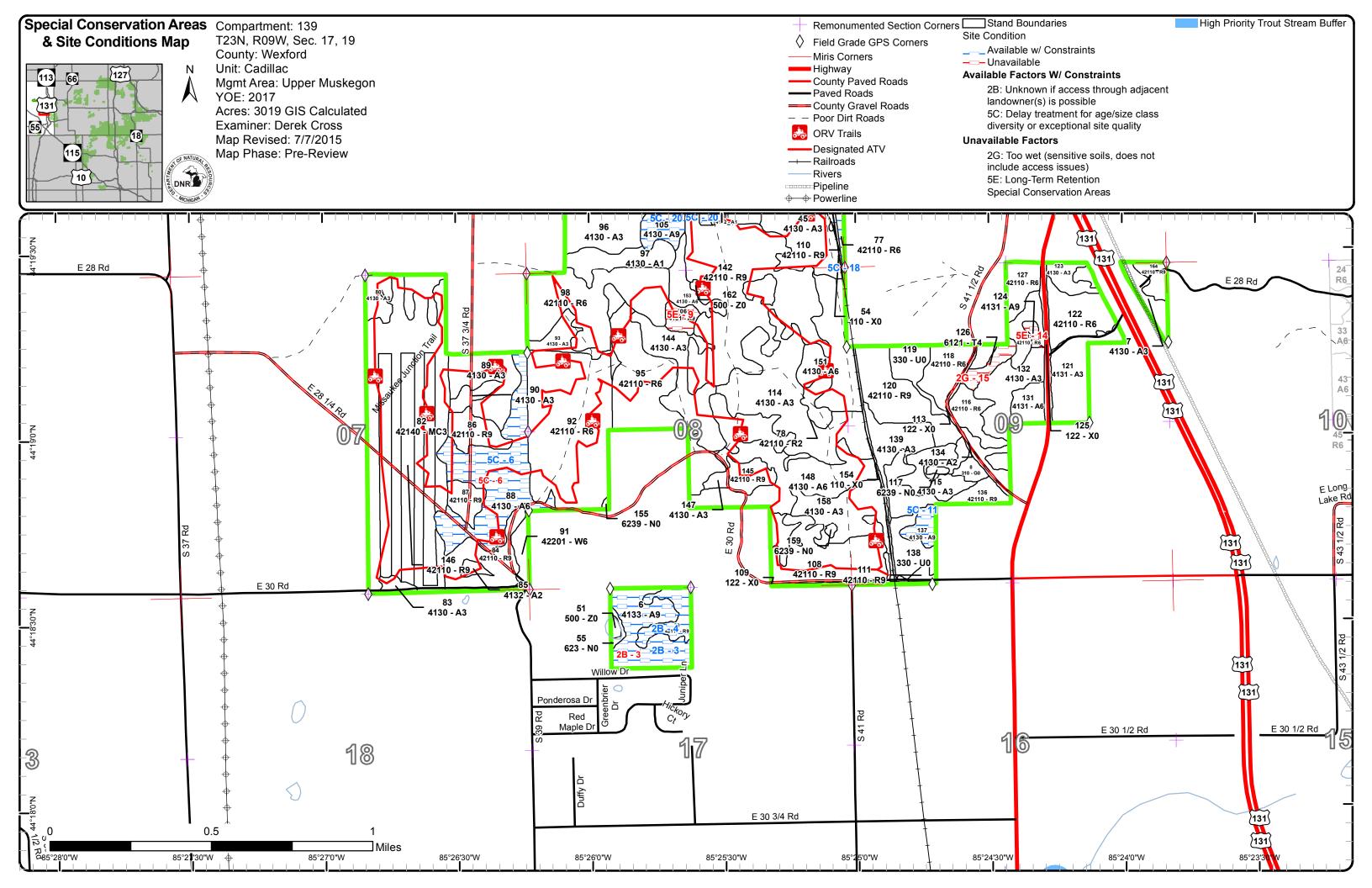












Cadillac Mgt. Unit

Derek Cross: Examiner

Compartment 139 Year of Entry 2017



Age Class

	No.	A STATE OF THE PARTY OF THE PAR	\$ \ <u>\</u>	\$ 2	So S	§ / §	No. 10	3/8	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	8 8	§ /g	70,	2 / 3º	\$\$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	S. L. L.	OF S	Bx Jue	S. A.
Aspen	0	427	200	213	0	0	205	106	6	0	0	0	0	0	0	0	0	0	1157
Cedar	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Herbaceous Openland	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Low-Density Trees	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	5	0	6	0	0	0	0	0	11
Lowland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Marsh	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	0	43
Northern Hardwood	0	0	0	0	0	0	0	117	343	285	0	0	0	0	0	0	0	5	750
Oak	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	14
Planted Mixed Pines	0	12	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
Red Pine	0	6	0	0	0	0	671	50	0	0	0	0	0	0	0	0	0	0	727
Tamarack	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6
Upland Mixed Forest	0	4	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	11
Urban	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Water	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	0	0	0	6	51	0	0	0	0	0	0	0	0	0	0	57
Total	132	449	285	213	0	0	896	324	408	285	12	4	6	0	0	0	0	5	3019



Report 2 – Treatment Summary

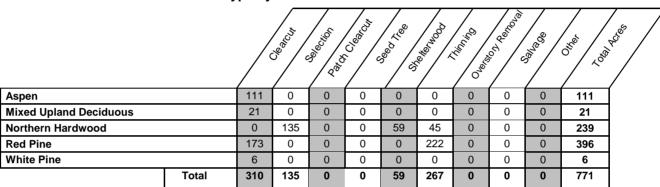
Cadillac Mgt. Unit Year of Entry: 2017

Acres of Harvest

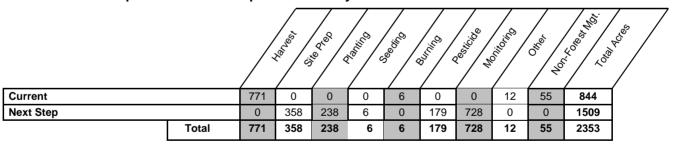
Compartment 139
Total Compartment Acres: 3,019

Commercial Harvest - 0 Harvests with Site Condition - 49 Next Step Harvest - 0 Habitat Cut - 72

Cover Type by Harvest Method



Proposed and Next Step Treatments by Harvest Method



Report 4 -- Treatments

Compartment: 139

Year of Entry: 2017

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
3	63139003-Cut	59.2	4110 - Sugar Maple Association	Sawtimber Well	83	81-110	Harvest	Shelterwood	411 - Northern Hardwood	Uneven- Aged	Proposal

Habitat Cut: No Site Condition:

<u>Prescription</u> Heavily thin hardwoods to a residual BA as low as 30-50. Focus on leaving the best sugar maple and those with large wolfy crowns in place. This <u>Specs:</u> treatment is meant to promote sugar maple regen while limiting beech regen.

Next Step Planting, Interplant; Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of northern hardwood species.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

63139004-Cut 31.0 4119 - Mixed Sawtimber 80 111-Harvest Crown Thinning 411 - Northern Uneven-Proposal Northern Hardwoods Well 140 Hardwood Aged

Habitat Cut: No Site Condition:

Prescription Reduce BA to an average of 50-80. Remove ash and beech were applicable. Create large canopy gaps near good sugar maple seed source

Specs: trees.

Next Step Treatments:

Acceptable All hardwood species will be acceptable. If heavy beech regeneration should occur seek further treatment as needed.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

63139006-Cut 27.1 4133 - Aspen, Sawtimber 67 141-4133 - Aspen, Proposal Harvest Clearcut with Two-Aged Retention Mixed Pine Well 170 Mixed Pine

Habitat Cut: No Site Condition: Unknown Access

<u>Prescription</u> Final harvest leaving oaks for mast. There are a lot of red pine poles in the understory and protecting these as much as possible should be a <u>Specs:</u> harvest objective. Include grouse drumming log specs in sale. Buffer wetland on the west side leaving some large CWD along the edge for herp

species.

Next Step
Treatments:

Acceptable Aspen and mixed deciduous as well as pine spp.

Regen:

Other Access to the stand will be difficult best access would be from the north. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

8 63139008-NF 3.3 310 - Herbaceous Nonstocked Unspec NonForestMgt Other - Specify Openland Ified Openland Openland Openland Openland Openland

Habitat Cut: Yes Site Condition:

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other

Specs: mast/cover species.

Next Step Treatments:

Acceptable Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

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Compartment: 139 Year of Entry: 2017



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	,
12	63139012-Cut	112.3 4	1110 - Sugar Maple Association	Sawtimber Well	84	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal	

Site Condition: Habitat Cut: No

Prescription Thin hardwoods to a residual BA of 50-80 creating large canopy gaps near large crowned high quality trees.

Specs:

Next Step **Treatments:**

Acceptable A mix of northern hardwoods

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

16 63139016-Cut 4112 - Maple, 22.3 Sawtimber 79 111-Harvest Single Tree 411 - Northern Uneven-Proposal

Beech, Cherry Well 140 Selection Hardwood Aged

Association

Habitat Cut: No Site Condition:

Prescription Remove Dying Ash and Beech mark other species as needed to reach BA targets of 60-80.

Specs:

Next Step Treatments:

Acceptable All northern hardwood species are acceptable. Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

63139019-NF 8.2 310 - Herbaceous Nonstocked Unspec NonForestMgt Other - Specify 310 -Proposal Openland ified Herbaceous

Habitat Cut: Yes Site Condition:

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other

mast/cover species. Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Old next step comments:

Comment:

Proposed Start Date: 1 /1 /2016

63139026-NF 2.6 330 - Low-Density Nonstocked 0 Unspec NonForestMgt Other - Specify 310 -Proposal Trees ified Herbaceous

Openland

Openland

Habitat Cut: Yes Site Condition:

Prescription maintain opening

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Old next step comments:

Other Comment:

Proposed Start Date: 10/1 /2016

Compartment: 139

Year of Entry: 2017

Red Pine

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
31	63139031-Cut	14.0	4110 - Sugar Maple Association	Sawtimber Well	80	111- 140	Harvest	Crown Thinning	411 - Northern Hardwood	Uneven- Aged	Proposal

Habitat Cut: No **Site Condition:**

Prescription Reduce BA to an average of 50-80. Remove ash and beech were applicable. Create large canopy gaps near good sugar maple seed sources. Specs:

Next Step

Treatments:

Acceptable All hardwood species will be acceptable. If heavy beech regeneration should occur consider further treatments at that time.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Sawtimber 32 63139032-Cut 7.4 42110 - Planted 56 171-Harvest Crown Thinning 4211 - Planted Even-Aged Proposal Red Pine Well 200 Red Pine

Habitat Cut: No Site Condition:

Prescription Reduce BA to a range of 100-120. Focus on crown spacing and removal of poor formed and suppressed trees.

Specs:

Next Step **Treatments:**

Acceptable

Regen:

Other Old next step comments:

Comment:

10/1 /2016 **Proposed Start Date:**

63139033-Cut 42111 - Planted 13.5 Sawtimber 58 201+ Crown Thinning 4221 - Natural Even-Aged Proposal Harvest Well Red Pine

Red Pine, Mixed

Deciduous

Habitat Cut: No Site Condition:

Prescription Mark red pine to a residual BA of 100-120. Focus on removing poor formed trees and releasing crowns. Cut all aspen also.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

34 63139034-Cut 6.7 42110 - Planted Sawtimber 171-Harvest Crown Thinning 4211 - Planted Even-Aged Proposal

> Red Pine Well 200

Habitat Cut: No Site Condition:

Prescription Reduce BA to an average of 100-120. Focus on crown spacing and removing poor formed and suppressed trees.

Specs:

Next Step

Treatments:

Acceptable Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Cadillac Mgt. Unit Report 4 -- Treatments Compartment: 139 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d Systematic 63139039-Cut 42110 - Planted 201+ 4211 - Planted 39 8.0 Poletimber 58 Harvest Even-Aged Proposal Red Pine Well Thinning Red Pine **Habitat Cut: No Site Condition:** Prescription Remove 1/3 of the volume. Specs: Next Step **Treatments:** Acceptable Regen: Other Slopes may make harvest challenging. Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 3.7 330 - Low-Density Nonstocked 42 63139042-Unspec Burn Opening 310 -Proposal ified Herbaceous Burn Trees Openland **Habitat Cut: Yes Site Condition:** <u>Prescription</u> Burn site to set back encroachment. Consider converting to warm season grasses. Specs: Maintain as opening through other means. Next Step Treatments: Acceptable Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 43 63139043-Cut 20.7 4199 - Other Mixed Sawtimber 111-Harvest Clearcut with 4199 - Other Even-Aged Proposal **Upland Deciduous** Well Retention Mixed Upland 140 Deciduous **Habitat Cut: No Site Condition:** Prescription Cut all aspen and red maple while marking oak and pine for harvest. Leave a retention pockets or mark some aspen and maple to leave. Specs: Next Step **Treatments:** Acceptable Aspen, red maple, cherry, oak and pines. Regen: Include the grouse drumming log spec in the timber sale write up. Old next step comments: Other

Comment:

10/1 /2016 **Proposed Start Date:**

12.8 63139050-Cut 4130 - Aspen Unspec Poletimber 57 Clearcut with 413 - Aspen Harvest Even-Aged Proposal Well

ified Retention

Habitat Cut: No Site Condition:

Prescription Final harvest leaving a retention pocket and scattered oak trees. Include a grouse drumming log spec in the sale write up.

Specs:

Next Step **Treatments:**

Acceptable Aspen and northern hardwood species.

Regen:

Other Old next step comments:

Comment:

10/1 /2016 **Proposed Start Date:**

Compartment: 139

Year of Entry: 2017

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
52	63139052-Cut	32.0	42110 - Planted Red Pine	Sawtimber Well	58	141- 170	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: No Site Condition:

Prescription Final harvest red pine and replant

Specs:

SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(1yr); Next Step

Treatments:

Acceptable Planted red pine

Regen: Other

Reroute recreational trail to the stand edge upon harvest. remove all stumps along new trail edge. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

63139058-NF 20.8 310 - Herbaceous Nonstocked Unspec NonForestMgt Other - Specify 310 -Proposal Openland Herbaceous Openland

Habitat Cut: Yes Site Condition:

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other

Specs: mast/cover species.

Next Step Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

63139061-Cut 12.2 4133 - Aspen, Sawtimber 111-Harvest Clearcut with 4133 - Aspen, Even-Aged Proposal Mixed Pine Well 140 Retention Mixed Pine

Habitat Cut: No Site Condition: Unknown Access

Prescription Final harvest aspen and white pine. Leave 10 BA of mature white pines as well as several scattered over mature aspens as retention. Leave any oak that are in the stand also. Create a buffer around the vernal pond. Leave some large CWD on pond edge for herp habitat. Include the grouse Specs:

drumming log spec in the sale proposal

Next Step

Treatments:

Acceptable Aspen and white pine, as well as any other deciduous species.

Regen:

Other The railroad borders this stand on the west side. Crossing the tracks would be the best option for harvest. Is this a possibility? Old next step

Comment: comments:

Proposed Start Date: 10/1 /2016

Systematic 79 63139079-Cut 10.2 42110 - Planted Sawtimber 58 201+ Harvest 4211 - Planted Even-Aged Proposal

Thinning

Red Pine

Red Pine Well

Site Condition: Unknown Access

Prescription Third row thin.

Habitat Cut: No

Specs:

Next Step

Treatments:

Acceptable Regen:

Consider increasing harvest to include trees from the remaining rows also. Access is going to be difficult and re-entry may not be granted. Old

Comment: next step comments:

Proposed Start Date: 10/1 /2016

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S t		Ca	adillac Mgt. Unit		Re	port 4	Treatmo	ents	-	ment: 139 Entry: 2017	OF NATURAL AND SOURCES
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
	63139084-Cut	20.2	42110 - Planted Red Pine	Sawtimber Well	54	141- 170	Harvest	Clearcut	42110 - Planted Red Pine	Even-Aged	Proposal
		arvest and	Site Condition: d replant red pine								
Next S Treatn	•	p, Roller	Chopping; SitePre	p, Trenching	g; Pest	icide, Oth	ner - Specify;	Monitoring, Artificia	l Regen(1yr); Mo	nitoring, Artific	ial Regen(3yr)
Accep Reger	<u>otable</u> planted <u>n:</u>	red pine									
Other Comm		recreatio	nal trail during harve	est and plan	ting ope	erations.	Old next step	comments:			
Propo	sed Start Date:	10/1	/2016								
86 6	63139086-Cut	10.6	42110 - Planted Red Pine	Sawtimber Well	58	111- 140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
		arvest red	Site Condition: I pine and replant								
Next S Treatn		p, Roller	Chopping; SitePre	p, Trenching	g; Plan	ting, Initia	al Plant; Mon	itoring, Artificial Reg	en(1yr); Monitori	ng, Artificial Re	egen(3yr)
Accep Reger		I red pine									
Other Comm		e recreation	onal trail to the stand	d edge remo	oving all	stumps a	along new trail	. Old next step com	iments:		
Propo	sed Start Date:	10/1	/2016								
87 6	63139087-Cut	7.3	42110 - Planted Red Pine	Sawtimber Well	58	141- 170	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
		arvest and	Site Condition: d replant red pine								
Next S Treatn		p, Roller	Chopping; SitePre	p, Trenching	g; Plan	ting, Initia	al Plant; Mon	itoring, Artificial Reg	en(1yr); Monitori	ng, Artificial Re	egen(3yr)
Accep Reger	<u>otable</u> Planted <u>n:</u>	I red pine									
Other Comm		e recreation	onal trail to the stand	d edge remo	ove all s	tumps ald	ong new trail.	Old next step comm	nents:		
Propo	sed Start Date:	10/1	/2016								
91 6	63139091-Cut	5.9	42201 - Natural White Pine, Mixed Deciduous	Poletimber Well	53	141- 170	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
		arvest and	Site Condition: d replant to red pine	_							

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Planted red pine Regen:

Old next step comments:

Other Comment:

Proposed Start Date: 10/1 /2016

Cadillac Mgt. Unit Report 4 -- Treatments Compartment: 139 s Year of Entry: 2017 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Name CoverType Density Age Range Type Objective Structure **Status** d Systematic 95 63139095-Cut 35.4 42110 - Planted Poletimber 54 201+ 4211 - Planted Even-Aged Harvest Proposal Red Pine Well Thinning Red Pine **Habitat Cut: No Site Condition:** Prescription Third row thin, rows may be hard to follow at times but they are present. Specs: Next Step Treatments: Acceptable Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 Immatu 63139097-11.7 4130 - Aspen Sapling 16 Other Other 330 - Low-Proposal Other Poor **Density Trees** re **Site Condition:** Prescription Placeholder treatment. Leave successfully regenerating aspen and existing oak. Treat to maintain/enhance oak opening type. Burn, scarify, mechanical treatment? Specs:

Habitat Cut: Yes

Next Step **Treatments:** <u>Acceptable</u> Regen:

Other Old next step comments:

Comment:

10/1 /2016 **Proposed Start Date:**

63139099-Cut 25.8 4139 - Aspen, Sawtimber 57 141-Harvest Clearcut with 413 - Aspen Even-Aged Proposal Mixed Deciduous Well 170 Retention

Habitat Cut: No Site Condition:

Prescription Final harvest leaving pocket retention. Leave some scattered mature oaks for mast. Include grouse drumming log specs in sale write up.

Specs:

Next Step Treatments:

Acceptable Aspen, white pine and northern hardwood species.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

42110 - Planted 101 63139101-Cut 58 4211 - Planted 54.3 Sawtimber 201+ Crown Thinning Even-Aged Proposal Harvest

> Red Pine Well

Habitat Cut: No Site Condition:

Prescription Thin to a residual BA of 100-120. Focus on releasing crowns while removing suppressed and poor form trees.

Specs:

Next Step Treatments:

<u>Acceptable</u> Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016 Red Pine

S

Compartment: 139

Year of Entry: 2017

a n d	Treatment Name	Acres	Stand CoverType	Size S Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
105	63139105-Cut	32.6	4130 - Aspen	Sawtimber Well	64	Unspec ified	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Proposal

Habitat Cut: No Site Condition:

Prescription Final harvest all aspen and red maple mark scattered oak and white pine to leave for diversity.

Specs:

Next Step Treatments:

Acceptable Aspen, red maple, white pine and oak

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

42110 - Planted 4211 - Planted 108 63139108-Cut 33.8 Sawtimber 65 111-Clearcut Even-Aged Proposal Harvest

Red Pine Well 140 Red Pine

Habitat Cut: No Site Condition:

Prescription Final harvest and replant red pine

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable planted red pine

Regen:

Other Reroute recreational trail to the stand edge and remove all stumps along new trail. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

110 63139110-Cut 29.6 42110 - Planted Sawtimber 58 141-Harvest Crown Thinning 4211 - Planted Proposal Red Pine Well 170 Red Pine

Habitat Cut: No Site Condition:

Prescription Thin to a residual BA of 100-120. Focus on removing poor formed and suppressed trees.

Specs:

Next Step

Treatments:

Acceptable

Regen: Other

Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

118 63139118-Cut 13.0 42110 - Planted Poletimber 171-Harvest Clearcut 4211 - Planted Even-Aged Proposal

> Red Pine Red Pine Well 200

Habitat Cut: No Site Condition:

Prescription Final harvest and replant red pine

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable planted red pine

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Cadillac Mgt. Unit Report 4 -- Treatments Compartment: 139 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 63139119-NF 9.3 330 - Low-Density NonForestMgt Other - Specify 310 -119 Nonstocked Unspec Proposal **Trees** ified Herbaceous Openland **Habitat Cut: Yes Site Condition:** Prescription treat as necessary Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 42110 - Planted 59 4211 - Planted 120 63139120-Cut 26.7 Sawtimber 141-Clearcut Even-Aged Proposal Harvest Red Pine Well 170 Red Pine **Habitat Cut: No Site Condition:** Prescription Final harvest red pine and replant Specs: Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments: Acceptable planted red pine Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 310 -138 63139138-NF 10.9 330 - Low-Density Nonstocked Unspec NonForestMgt Other - Specify Proposal Trees ified Herbaceous Openland **Site Condition: Habitat Cut: Yes** Prescription Get rid of scotch pine by any means necessary. Specs: Next Step **Treatments:** Acceptable

Regen:

Other

Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

145 63139145-Cut 29.6 42110 - Planted

Red Pine

Sawtimber Well 111-140

58

Harvest

Clearcut

4211 - Planted Red Pine Even-Aged F

Proposal

Habitat Cut: No Site Condition:

Prescription Final harvest red pine and replant

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable planted red pine

Regen:

Other Reroute recreational trail to follow stand edges removing all stumps along new trail. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Cadillac Mgt. Unit Report 4 -- Treatments

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Compartment: 139

Year of Entry: 2017

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
146	63139146-Cut	51.9	42110 - Planted Red Pine	Sawtimber Well	58	171- 200	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	Proposal

Site Condition: **Habitat Cut:** No

Prescription Thin pine focus on removing poor formed and low quality suppressed trees. Target BA of 100-120.

Specs:

Next Step Treatments:

Acceptable Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Proposal 163 63139163-2.0 330 - Low-Density Nonstocked Unspec Burn Opening 310 -Burn Trees ified Herbaceous Openland

Habitat Cut: Yes Site Condition:

<u>Prescription</u> Prescribed burn in opening to set back encroachment. Plant to warm season grasses.

Specs:

Next Step Treatments:

<u>Acceptable</u> Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

164 63139164-Cut 42110 - Planted 171-4211 - Planted 5.5 Sawtimber Harvest Crown Thinning Even-Aged Proposal Red Pine Red Pine Well 200

Habitat Cut: No Site Condition:

Prescription Thin to a residual BA of 100-120

Specs:

Next Step Treatments:

Acceptable

Regen:

Add to Wildcat Mix 63-025-14-01. This sale is in compartment 141 and has been sold. Contact purchaser to see if interested in picking up this Other

Comment: piece. Old next step comments:

Proposed Start Date: 10/1 /2016

Total Treatment 843.9 **Acreage Proposed:**

Cadillac Mgt. Unit

Compartment: 139 Year of Entry: 2017 **Derek Cross: Examiner**

Dominant Site Conditions

	2G	ЗА	3J	3L	5C	5E
Aspen			0		190	15
Cedar						
Herbaceous Openland						
Low-Density Trees						
Lowland Aspen/Balsam Poplar	10					
Lowland Conifers		5	6			
Lowland Shrub						
Marsh						
Mixed Upland Deciduous					21	1
Northern Hardwood				26		
Oak						
Planted Mixed Pines						
Red Pine					6	
Tamarack	6					
Upland Mixed Forest						
Urban						
Water						
White Pine						
Total Forested Acres	16	5	7	26	217	17
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.

1 Available 5C: Delay treatment for 22 Unspecified Uns
••••••
This stand has young A3 to the north of it and the stand to the south is being treated this entry period. ORV trail is also in the stand.

Report 5 – Site Conditions

Cadillac Mgt. Unit

Derek Cross: Examiner

2	Available	2B: Unknown if access through adjacent landowner(s) is possible	12	2E: Road needed	Unspecified	Unspecified	Unspecified
	Comments: This stand could be but require a lot of	e accessed through Manton Mou	untain E	states road system. There	e are also some old two tra	cks across state land that	could possibly be used
3	Available	2B: Unknown if access through adjacent landowner(s) is possible	27	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	2B: Unknown if access through adjacent landowner(s) is possible	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	52	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	21	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 5 – Site Conditions

Cadillac Mgt. Unit

Derek Cross: Examiner

8	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
9	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
10	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	41	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
14	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	comments: Retained during pr	evious harvest of stand to the so	outh.				

Report 5 – Site Conditions

Cadillac Mgt. Unit

Derek Cross: Examiner

15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: This stand is very	wet harvest operations would be	extreme	ely difficult.			
16	Unavailable	3A: Potential old growth / biodiversity	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Recommend holdi	ng for biodiversity. There is not r	nuch of	this type in the surroundin	ng area.		
17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	51	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: This stand is surro	ounded by A3 recommend holdin	g until ne	ext rotation.			
18	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Hold for ten years	and harvest with stand 53.					
19	Unavailable	3L: Other wildlife concerns	26	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Possibly active Re	d-Shouldered Hawk nest. WLD	s monito	oring.			
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Report 5 – Site Condition

Cadillac Mgt. Unit

Derek Cross : Examiner

21	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
С	Comments:						
22	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	0	Unspecified	Unspecified	Unspecified	Unspecified
С	Comments:						

Mgt. Unit

Compartment: #Type! Year of Entry:

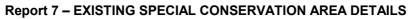


Report 6 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* 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
Comments				

Cadillac Mgt. Unit Compartment: 139
Year of Entry 2017





* 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.

Conservation Type D Area		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 of stocked trout populations and those of other coldwater fish syear to year. Coldwater streams in Michigan typically provide contributions of groundwater to their stream flows. Such stream designated as trout resources by Fisheries Order 210.	species (e.g., slimy sculpin) to persist from e these conditions due to substantial
SCA	ms in which the terrestrial ecosystem of the unique conditions adjacent to lakes, high diversity of plants and wildlife. Riparian effects on water quality and quantity, as well their contribution to overall biodiversity.		

S				Report 8	- Forested	Stands Compartment: 139 Year of Entry: 2017
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Sawtimber Well	207.7	79	81-110	This stand looks good at this time no treatments are needed.
2	4130 - Aspen	Sapling Well	32.7	7	Immature	Red oak is concentrated in a pocket.
3	4110 - Sugar Maple Association	Sawtimber Well	59.2	83	81-110	The ash resource in this stand has been heavily impacted by EAB. 90% of the ash trees in this stand are dying or starting to show woodpecker damage. The beech in this stand is infected with BBD but appears to be mostly alive at this point in time. There is sugar maple regeneration present in concentrated pockets where it became established away from the beech in large gaps and on edges. There are several small clones of aspen coming in on the edges and in small gaps also.
4	4119 - Mixed Northern Hardwoods	Sawtimber Well	31.0	80	111-140	Heavy beech and ash component along the north line. There are random beech trees marked with blue paint dots scattered throughout the northern end of the stand. There is BBD and EAB present both species are ok at this time but the ash may not last until 2017 YOE. The pine is concentrated in a small pocket located in the center of the stand. This stand is very hilly some areas are quite steep.
5	42110 - Planted Red Pine	Poletimber Well	27.2	58	141-170	Good looking red pine stand, no treatments needed at this time.
6	4133 - Aspen, Mixed Pine	Sawtimber Well	27.1	67	141-170	This is an over mature aspen stand with a good amount of red pine poles underneath.
7	4130 - Aspen	Sapling Well	7.0	20	Immature	Consider merging this stand with compartment 141. This stand was part of 164 but a good portion of the pine was cut when the freeway was put in. It came back to aspen.
9	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	6.2	112	201+	Nice hemlock and cedar stand with Manton creek flowing through it. There is good structure in the creek with lots of CWD both in and over the water course.
10	4130 - Aspen	Poletimber Well	5.1	15	Immature	Regenerating aspen stand looks good at this time.
11	4110 - Sugar Maple Association	Poletimber Well	87.0	74	81-110	This is a good looking pole stand that should develop some good quality logs in the future.
12	4110 - Sugar Maple Association	Sawtimber Well	112.3	84	111-140	Little to regeneration present there are no small poles in any quantity. This stand needs to have some canopy gaps created to promote new growth and increase vertical structure. There are some very steep hills in this stand that may affect harvest operations.
13	4139 - Aspen, Mixed Deciduous	Sapling Well	8.3	4	Immature	This stand was previously harvested leaving green ringed trees scattered throughout the cut area. the white pine in concentrated on the south end of the harvest area.
14	4130 - Aspen	Sapling Well	23.7	28	Immature	Regenerating aspen stand looks good at this time.

S t	Cadillac Mgt. Unit			Report 8	- Forested	Stands Compartment: 139 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	42200 - Natural White Pine	Sawtimber Medium	44.4	62	51-80	There are also lots of white pine seedlings between 6 inches and 1 foot tall.
16	4112 - Maple, Beech, Cherry Association	Sawtimber Well	22.3	79	111-140	Low quality hardwoods, EAB and BBD are taking a toll on this stand. some slope concerns fro harvest operations. There are a good number of trees that were marked and not cut last entry period.
17	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	35.2	68	81-110	EAB and BBD are present in this stand. Good looking hardwood poles not quite ready for a thinning at this time.
21	4112 - Maple, Beech, Cherry Association	Sawtimber Well	19.0	87	81-110	This stand is infected with EAB and BBD and the ash is dead.
23	4130 - Aspen	Poletimber Well	21.8	50	Unspecified	The overall appearance of the aspen in this stand is a little on the small side although there are pockets of 12-14 inch trees. Recommend holding this stand for age and size class diversity. The stand to the north is A3 and the stand to the south is being cut this rotation.
25	4130 - Aspen	Sapling Well	84.8	5	Immature	Regenerating aspen stand with a good number of residuals from previous harvest.
27	4110 - Sugar Maple Association	Poletimber Well	81.4	63	51-80	This stand was treated last entry period. The regeneration is mostly beech and is mostly concentrated in patches.
28	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	5.2	98	111-140	Small lowland pocket that connects with a small pond.
30	42140 - Planted Mixed Pine	Sapling Well	9.5	5	Immature	Planted red pine with jack pine volunteers. Looks good at this time.
31	4110 - Sugar Maple Association	Sawtimber Well	14.0	80	111-140	Ash is still salvageable at this time woodpecker damage is just starting to show up. BBD is present in the stand but not all trees are heavily white washed.
32	42110 - Planted Red Pine	Sawtimber Well	7.4	56	171-200	
33	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	13.5	58	201+	
34	42110 - Planted Red Pine	Sawtimber Well	6.7	56	171-200	
36	4319 - Mixed Upland Forest	Sapling Medium	3.8	4	Immature	The previous stand was harvested in 2009. The stand was planted to red pine in 2010. The jack pine present is volunteer stock.
37	42200 - Natural White Pine	Poletimber Medium	7.0	63	51-80	Open grown mix of white pine and aspen.

s t	Cadillac Mgt. Unit			Report 8	B – Forested	Stands Compartment: 139 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	6.5	83	51-80	Regeneration is starting to fill in the gaps created by the previous entry periods harvest activities.
39	42110 - Planted Red Pine	Poletimber Well	8.0	58	201+	This stand is located on a side hill.
40	42140 - Planted Mixed Pine	Sapling Medium	3.1	5	Immature	Planted regeneration looks good. Sugar maples are remnants from previous stand.
41	4123 - Red Oak	Poletimber Well	13.9	50	51-80	The ash is dying out quickly, do to low volume it is not worth investing time in for salvage. This area was mostly open grown and has been filling in over time with sugar maple and red oak. Most of the aspen is focused in the se corner of the stand.
43	4199 - Other Mixed Upland Deciduous	Sawtimber Well	42.6	79	111-140	There is a good number of old pine stumps in the south end of this stand. Very little understory in this stand what seedlings and saplings that are present have been browsed.
44	4130 - Aspen	Poletimber Medium	5.7	66	Unspecified	Small vernal pond on interior of stand. Old grade on west side of stand. Due to the small size of the stand, the vernal pocket I recommend putting in to long term retention.
45	4130 - Aspen	Sapling Well	47.8	28	Immature	Regenerating aspen stand looks good at this time but has some areas of lower stocking densities.
48	4112 - Maple, Beech, Cherry Association	Poletimber Medium	5.0	76	81-110	This stand is older open grown maples that has filled in with poles. The regenerating pines are focused on the edges of the openings.
50	4130 - Aspen	Poletimber Well	12.8	57	Unspecified	4-5 stick average with pockets of bigger heights and diameters. Could consider holding for and additional 10 years for age class diversity.
52	42110 - Planted Red Pine	Sawtimber Well	32.0	58	141-170	Red pine plantation looks good overall. There are spots with a high percentage of suppressed trees. Most of the aspen is along the northern edge and is over mature. ORV trail runs through the stand use trail protection specs in sale write up.
53	4130 - Aspen	Poletimber Well	50.7	51	Unspecified	Good looking aspen stand the hardwood variety is focused more to the southern end of the stand. Some thick pockets of white pine regen.
56	4130 - Aspen	Sapling Well	8.4	5	Immature	Aspen harvested last rotation. Regeneration looks good.
59	6112 - Lowland Aspen	Poletimber Poor	10.2	73	Unspecified	This stand has low volume and a high water table.
60	4130 - Aspen	Sapling Well	35.8	6	Immature	Regenerating aspen stand looks good at this time.

S t	Cadillac Mgt. Unit			Report 8	- Forested	Stands Compartment: 139 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
61	4133 - Aspen, Mixed Pine	Sawtimber Well	12.2	67	111-140	There is a small vernal pond in the center of this stand. This stand is shaped almost like a bowl with some steep terrain. This could make harvest difficult combined with the vernal pond.
62	4130 - Aspen	Sapling Well	52.2	25	Immature	Regenerating aspen stand with some scattered super canopy red oaks from the previous stand. White pines are scattered throughout the stand and also in pockets.
63	42110 - Planted Red Pine	Poletimber Well	6.5	58	111-140	Treated last entry period looks good at this time.
68	4119 - Mixed Northern Hardwoods	Sawtimber Well	26.4	73	81-110	There are a number of low wet pockets in this stand. The big tooth aspen is focused along the field edges. BBD and EAB are present in this stand and needs to be addressed at this time.
71	4139 - Aspen, Mixed Deciduous	Sapling Well	10.4	16	Immature	Regenerating stand with a mix of aspen, beech and maple.
72	4139 - Aspen, Mixed Deciduous	Poletimber Well	40.8	55	Unspecified	Stand composition is very diverse with a good mix of hardwoods and scattered conifers. The cedar and hemlock is concentrated toward the western portion of the stand near the low pockets.
74	4130 - Aspen	Sapling Well	20.0	6	Immature	This stand was thinned last entry period and is coming back thick to aspen whips. White pine was retained from the previous stand at about 40BA on average.
76	4319 - Mixed Upland Forest	Sawtimber Well	7.2	98	81-110	Mixed stand surrounding the old mill ponds some of this is on a steep slope going down to the water. Other areas are low and wet.
77	42110 - Planted Red Pine	Poletimber Well	5.9	58	201+	Narrow strip of pine between the railroad and private.
78	42110 - Planted Red Pine	Sapling Medium	6.1	7	Immature	Planted red pine with a good number of jack pine recruits. Trees are 3-6 ft tall with jack pine being taller than the red pine.
79	42110 - Planted Red Pine	Sawtimber Well	10.2	58	201+	
80	4130 - Aspen	Sapling Well	14.4	16	Immature	Regenerating aspen stand with remnant oaks.
81	4132 - Aspen, Jack Pine	Sapling Poor	5.4	26	Immature	Small open grown mixed stand
82	42140 - Planted Mixed Pine	Sapling Well	84.5	15	Immature	This is a planted red pine stand that has a very high number of jack pine recruits.
83	4130 - Aspen	Sapling Well	3.0	16	Immature	Regenerating aspen stand looks good at this time.
84	42110 - Planted Red Pine	Sawtimber Well	20.2	54	141-170	

S t	Cadillac Mgt. Unit			Report 8	B – Forested	Stands Compartment: 139 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
85	4132 - Aspen, Jack Pine	Sapling Medium	2.0	16	Immature	Small aspen pocket inside a red pine plantation.
86	42110 - Planted Red Pine	Sawtimber Well	10.6	58	111-140	Looks good at this time.
87	42110 - Planted Red Pine	Sawtimber Well	7.3	58	141-170	Good looking red pine hold for ten years.
88	4130 - Aspen	Poletimber Well	51.6	50	Unspecified	This stand has pockets of low volume.
89	4130 - Aspen	Sapling Well	21.0	5	Immature	Small oaks and red maple saplings have been heavily browsed. Regenerating aspen looks good. There is a good mix of mature trees mixed in from the previous harvest.
90	4130 - Aspen	Sapling Well	4.7	16	Immature	Regenerating aspen stand looks good at this time.
91	42201 - Natural White Pine, Mixed Deciduous	Poletimber Well	5.9	53	141-170	Pole sized white pine stand with a mix of deciduous trees. stand is poor quality and should be harvested.
92	42110 - Planted Red Pine	Poletimber Well	76.9	58	141-170	The size of the trees in this stand is quite variable.
93	4130 - Aspen	Sapling Well	11.1	7	Immature	Regenerating aspen stand with a component of over story oaks from the previous stand.
94	4130 - Aspen	Sapling Well	6.2	6	Immature	Regenerating stand looks good at this time.
95	42110 - Planted Red Pine	Poletimber Well	35.4	54	201+	ORV trail protection spec must be added to the timber sale specs.
96	4130 - Aspen	Sapling Well	65.2	6	Immature	Red oak is a remnant from the previous stand.
97	4130 - Aspen	Sapling Poor	14.6	16	Immature	The history of this stand says that it is regenerating poorly. The stand to the north was harvested last rotation and has provide some new growth to establish in this stand. There is a high component of sedge and bracken fern that maybe prohibiting better regeneration. Visit this stand with TMS and WLD staff.
98	42110 - Planted Red Pine	Poletimber Well	47.3	58	111-140	Planted red pine with scattered oaks. aspen is beginning to fill in gaps in the understory.
99	4139 - Aspen, Mixed Deciduous	Sawtimber Well	25.8	57	141-170	A good majority of the beech is showing signs of BBD. ORV trail runs through this stand, use trail protection specs during harvest.
100	4130 - Aspen	Sapling Well	16.9	4	Immature	Red oak is a remnant from the previous stand. Regenerating aspen looks good at this time.

s t	Cadillac Mgt. Unit		Mgt. Unit Report 8 – Forested Stands			Stands Compartment: 139 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
101	42110 - Planted Red Pine	Sawtimber Well	54.3	58	201+	
102	4130 - Aspen	Sapling Well	11.5	16	Immature	Regenerating aspen looks good.
103	4130 - Aspen	Sapling Well	23.1	4	Immature	Regenerating aspen stand looks good at this time.
104	4111 - S.Maple, Hard Mast Association	Sawtimber Well	42.7	83	81-110	This stand is growing some nice logs and should be ready for a thinning next rotation. BBD and EAB are present in the stand.
105	4130 - Aspen	Sawtimber Well	55.6	64	Unspecified	This stand is beginning to develop hypox and is ready to be treated. Consider splitting the stand and retaining half for age class diversity.
106	4131 - Aspen, Oak	Sawtimber Well	5.1	63	Unspecified	Small pocket of aspen and oak on top of a hill surrounded by A3, A6 and R9. This a small area of retained timber from the adjacent cuts and also has an ORV trail passing thru the north edge.
108	42110 - Planted Red Pine	Sawtimber Well	33.8	65	111-140	There is an ORV trail that traverses through this stand it will need to be protected during harvest operations.
110	42110 - Planted Red Pine	Sawtimber Well	29.6	58	141-170	Planted red pine stand with little to no understory.
111	42110 - Planted Red Pine	Sawtimber Well	2.1	53	141-170	There are numerous hay bales in this stand and trails coming from the horse ranch across the street.
112	42110 - Planted Red Pine	Poletimber Well	8.7	59	111-140	Stand was 3rd row thinned last rotation. Good looking red pine that should be ready to treat next entry period.
114	4130 - Aspen	Sapling Well	54.0	12	Immature	Regenerating aspen stand looks good at this time.
115	4130 - Aspen	Sapling Well	12.5	5	Immature	This is a regenerating aspen stand with scattered residual oak and pine.
116	42110 - Planted Red Pine	Poletimber Well	15.5	59	141-170	
118	42110 - Planted Red Pine	Poletimber Well	15.5	59	171-200	Planted red pine that has had a large aspen component in the north end removed last entry. There is good aspen regeneration coming back in this area.

42110 - Planted Red

Pine

120

Sawtimber

Well

26.7

59

141-170

Nice looking red pine with variable BA throughout the stand. Some areas are over 200 and other areas are at 120.

S	Cadillac Mgt. Unit			Report 8	B – Forested	Stands Compartment: 139 Year of Entry: 2017
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
121	4131 - Aspen, Oak	Sapling Well	21.6	17	Immature	There was a fair amount of mature red oak left in this stand from the previous harvest. The BA is as high as 50 in places throughout the stand. There is also a trace of paper birch in this stand.
122	42110 - Planted Red Pine	Poletimber Well	19.4	54	111-140	Pine looks good at this time. There is a fair amount of regeneration underneath. There are aspen pockets along the edges that are fairly thick.
123	4130 - Aspen	Sapling Well	6.2	17	Immature	Regenerating aspen looks good at this time.
124	4131 - Aspen, Oak	Sawtimber Well	1.7	59	Unspecified	Retention from previous harvest. Add site condition.
126	6121 - Tamarack	Poletimber Poor	5.6	73	Unspecified	Small lowland area with a fair amount of Tamarack growing along the edges. There is also a good amount of sapling size trees filling in the edge. This stand is border line non forested there is a higher concentration of tamarack in the south end. There is also a good amount of leather leaf growing throughout the stand.
127	42110 - Planted Red Pine	Poletimber Well	9.2	59	111-140	Stand was thinned and had all aspen removed last rotation. there is thick aspen regeneration coming back under the red pine.
131	4131 - Aspen, Oak	Poletimber Well	7.6	17	Immature	Regenerating aspen stand that was harvested 2 rotations ago. The are large oak, maple and beech trees that were retained during harvest operations.
132	4130 - Aspen	Sapling Well	18.3	5	Immature	Good looking aspen regen with mature over story oaks left from the previous harvest. There is a mature strip of timber between the powerline and the road that was left during the previous harvest. There is also a pocket at the north end of the stand that was left as retention.
134	4130 - Aspen	Sapling Medium	4.9	7	Immature	Spruce and white pine trees planted by the Manton tiger cubs in 1997.
136	42110 - Planted Red Pine	Sawtimber Well	16.3	65	111-140	
137	4130 - Aspen	Sawtimber Well	5.8	72	81-110	There are a couple of low wet pockets in this stand there presence is most likely seasonal. this stand is a mix of over mature aspen with hardwoods.
139	4130 - Aspen	Sapling Well	14.7	16	Immature	Regenerating aspen stand looks good at this time. There are a good number of residual oak trees left from the previous stand to provide a mast source.
140	4130 - Aspen	Sapling Well	29.6	13	Immature	Regenerating aspen stand with a nice mix of hardwoods and pine.

S t a n d	Cadillac Mgt. Unit			Report 8	- Forested	Stands Compartment: 139 Year of Entry: 2017	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	AN
142	42110 - Planted Red Pine	Sawtimber Well	88.6	58	111-140	Planted red pine, ORV trail present in stand.	
144	4130 - Aspen	Sapling Well	26.2	5	Immature	Regenerating aspen stand looks good at this time.	
145	42110 - Planted Red Pine	Sawtimber Well	29.6	58	111-140	Poor quality red pine stand that has an ORV trail running through it.	
146	42110 - Planted Red Pine	Sawtimber Well	51.9	58	171-200		
147	4130 - Aspen	Sapling Well	2.2	5	Immature	Regenerating aspen pocket looks good at this time.	
148	4130 - Aspen	Poletimber Well	38.9	28	Immature	Regenerating aspen stand looks good at this time.	
151	4130 - Aspen	Poletimber Well	29.6	28	Immature	Regenerating aspen stand looks good at this time.	
153	4130 - Aspen	Poletimber	9.2	28	Immature	This stand is regenerating aspen that looks good at this time	

4.1

29.1

5.5

Well

Sawtimber

Well

Sapling Well

Sawtimber

Well

107

5

54

Unspecified

Immature

171-200

The stand is located on a pretty good slope with an ENE aspect. There is also a trace amount of white pine, sugar maple, and red maple in this stand.

Tag alder is located along creek edge in a small pocket.

Regenerating aspen looks good. There are a couple of pockets

of residual red pine that were left when the previous harvest occurred.

Consider merging this portion of compartment 139 with

compartment 141.

156

158

164

6120 - Lowland Cedar

4130 - Aspen

42110 - Planted Red

Pine

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
8	310 - Herbaceous Openland	3.3	No	Small grass opening with trees out by the road. The trees were planted by the Manton girl scouts in 2000.
18	310 - Herbaceous Openland	1.0	No	Small opening in a hardwoods stand.
19	310 - Herbaceous Openland	1.6	No	Small opening in a hardwoods stand.
20	310 - Herbaceous Openland	1.7	No	Small opening in a hardwoods stand.
22	310 - Herbaceous Openland	2.2	No	Small opening in a hardwoods stand.
24	310 - Herbaceous Openland	1.7	No	Small opening in a hardwoods stand.
26	330 - Low-Density Trees	2.6	No	
35	330 - Low-Density Trees	0.6	No	Previous opening that is filling in with scotch pine seedlings. There is a plantation to the north on private land.
42	330 - Low-Density Trees	3.7	No	
46	110 - Low Intensity Urban	9.5	No	Powerline ROW
47	330 - Low-Density Trees	4.9	No	
49	330 - Low-Density Trees	5.7	No	There are at least 2 old foundations in this stand.
51	500 - Water	1.2	No	Imagery interpreted as water.
54	110 - Low Intensity Urban	7.1	No	Railroad corridor
55	623 - Emergent Wetland	1.3	No	photo interpreted
57	122 - Road/Parking Lot	3.3	No	
58	310 - Herbaceous Openland	19.7	No	
64	500 - Water	5.1	No	

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
65	500 - Water	2.4	No	
66	623 - Emergent Wetland	1.0	No	Water with aquatic vegetation.
67	623 - Emergent Wetland	0.7	No	water with aquatic vegetation.
69	629 - Mixed non-forested wetland	5.3	No	Flooded timber that is 98% dead several white pine and cedars remain.
70	6239 - Mixed Emergent Wetland	1.8	No	Small wetland pocket with a border of white pines.
73	310 - Herbaceous Openland	1.2	No	
107	623 - Emergent Wetland	2.0	No	Small water pocket surrounded by grass.
109	122 - Road/Parking Lot	3.1	No	Road and ORV parking lot
113	122 - Road/Parking Lot	3.5	No	41 1/2 rd
117	6239 - Mixed Emergent Wetland	1.0	No	Small wet pocket with marsh grasses and lowland brush.
119	330 - Low-Density Trees	9.3	No	Open area that appears to be an old homestead area. There is a power pole with power running to it along the north line.
125	122 - Road/Parking Lot	6.5	No	Old US-131
138	330 - Low-Density Trees	10.9	No	This was an opening that is currently being filled in with scotch pine seedlings and some small poles.
154	110 - Low Intensity Urban	3.5	No	Active Railroad
155	6239 - Mixed Emergent Wetland	0.4	No	
159	6239 - Mixed Emergent Wetland	0.7	No	Small wet pocket surrounded by aspen.
162	500 - Water	0.6	No	This pocket was covered with snow but appeared to have water seeping up in the middle. There are a few shrubs on the edges.
163	330 - Low-Density Trees	2.0	No	