

Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63082 Entry Year 2023 Acreage: 1,857

County Missaukee

Management Area: Upper Muskegon

Revision Date: 2021-06-16

Stand Examiner: Matt Edison

Legal Description:

T24N, R5W Sections 29,30,31,32

Identified Planning Goals:

The goals of this Compartment are to manage for a diverse timber and age class to provide for recreational opportunities for the public. Much of this compartment contains wetland complexes. This entry harvest focuses on some mature aspen and pine stands, while maintaining age-class diversity.

Soil and topography:

Loamy and mucky sands, organic soils, peat and mucky peat. Level with flat lowlands.

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

Mostly blocks of state land surrounded by state swampland to north and east. Private agriculture and recreation land to south and west. Parcels listed for desirable acquisition, Section 32 SENW, north of river and SENE. All are recommended to block in state forest lands.

Unique Natural Features:

Northern wet meadow to NW, oak-pine barrens to N. Loon and dusted skipper to the north. Great blue heron rookery to E. Massasauga to N. Spotted turtle and Blanding's turtle to SE. Bald eagle and osprey to SE. Marsh birds to SE: Least bittern, common moorhen, and black tern. Fish and mussels in rivers to south: river redhouse, bigmouth shiner, rainbow. Hill's pondweed just SW of section 31. Hill's thistle and rough fescue to N. Potential for secretive locust and ebony boghaunter in bogs. Potential for massasauaga, Blanding's turtle, box turtle, and spotted turtle. Potential for eagle, osprey, and great blue heron rookery. Potential for red-shouldered hawk. Potential for marsh birds: American bittern, least bittern, yellow rail, black tern, common moorhen, and marsh wren. Potential for Hill's pondweed in marshes. Potential for Hill's thistle, Alleghany plum, and rough fescue in grassy openings. Potential for calpyso and ram's head lady slipper in cedar swamps.

Archeological, Historical, and Cultural Features:

None listed.

Special Management Designations or Considerations:

Abuts Deadstream Swamp boundary but not within designated area. Large conifer swamp complex north of Rhoby Rd.

Watershed and Fisheries Considerations:

No Fisheries comments at this time

Wildlife Habitat Considerations:

Featured wildlife species include deer, bear, ruffed grouse, woodcock, and beaver. Management objectives are to retain a variety of cover types and age class diversity as well as maintain and/or enhance habitat including work on openings and edges to preserve wildlife viewing and hunting opportunities.

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial metallic mineral production in this part of the state. No active sand/gravel pits occur in the area. Potential for sand & gravel development within the compartment appears relatively low. East Norwich Field is located one mile northeast of this compartment and another active field to the southeast, but both fields are in secondary recovery. Potential for oil & gas from known producing formations beneath the compartment is considered low at this time. There is no current leasing activity in the compartment. There is some mineral leasing activity farther to the west and southwest.

Vehicle Access:

The compartment is accessed via forest road off of Nelson Road and Rhoby Road. Access is good to most manageable areas within the compartment. Pipeline R.O.W. provides road access from north to south.

Survey Needs:

Survey work will be needed for private boundary placement on proposed treatments in Sec. 32

Recreational Facilities and Opportunities:

No formal recreation facilities within the compartment. Numerous hunting opportunities exist throughout the compartment.

Fire Protection:

Timber type would not support a large crown fire in most of the compartment. There is private land ownership around the outside of the compartment near the conifer stands. This mixture would be a urban interface concern. There is a gas transmission line of a concern, also. Wildfire protection is provided by the Houghton Lake Field Office. Local county roads border the compartment, allow equipment to respond but access to the interior of area would be hampered due to lack of interior roads. 9-01-2011 BET

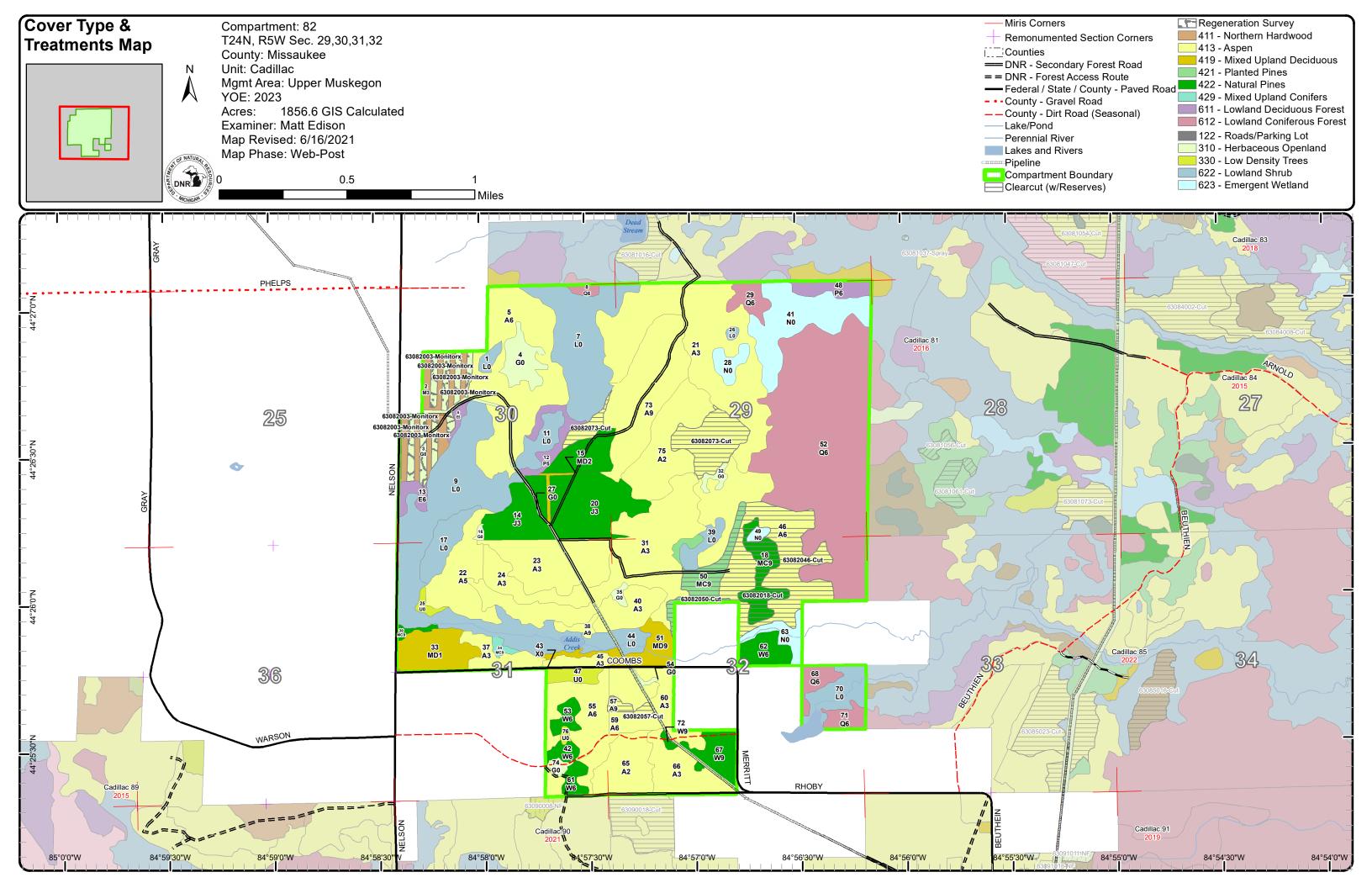
Additional Compartment Information:

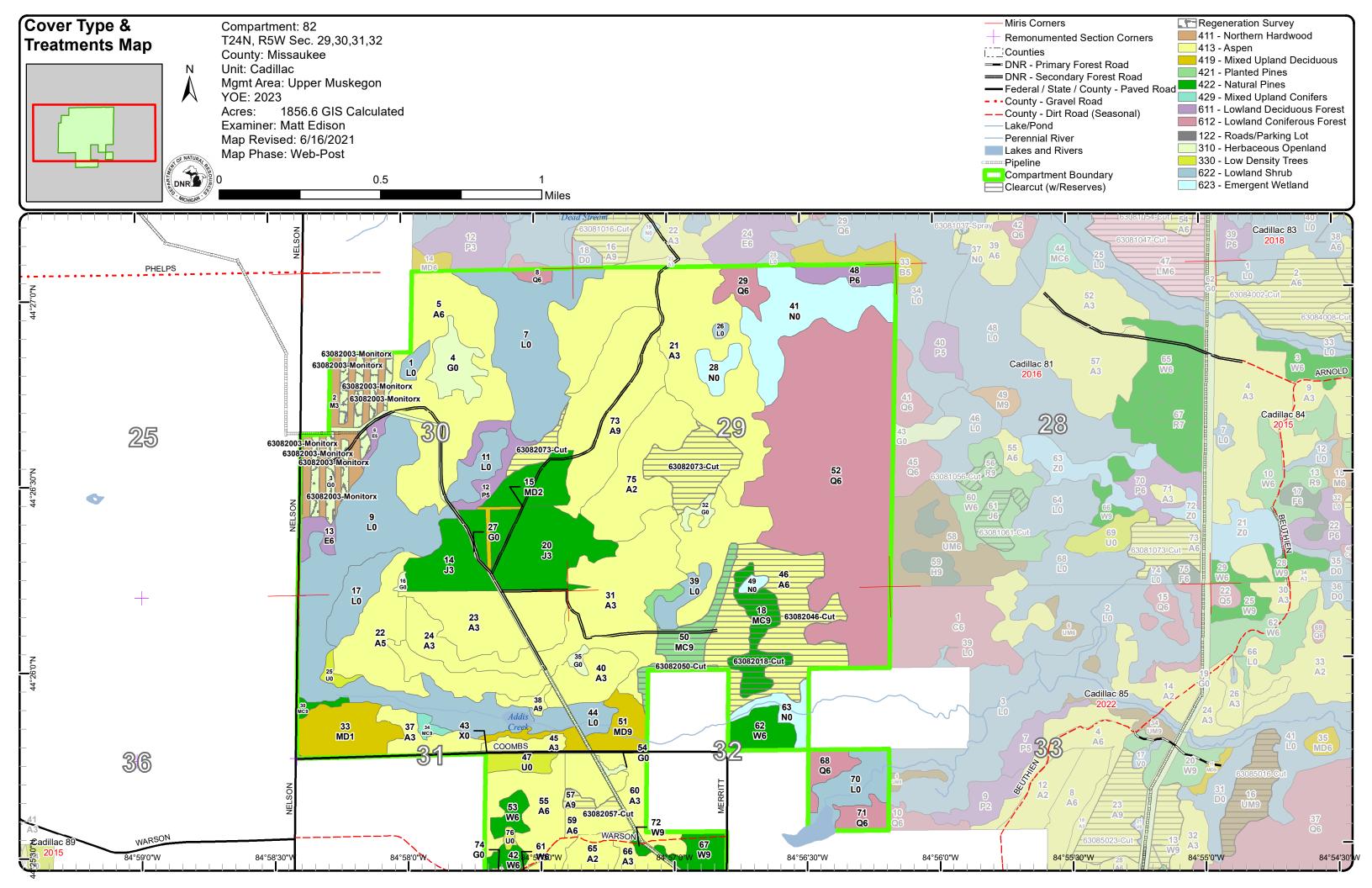
The following reports from the Inventory are attached:

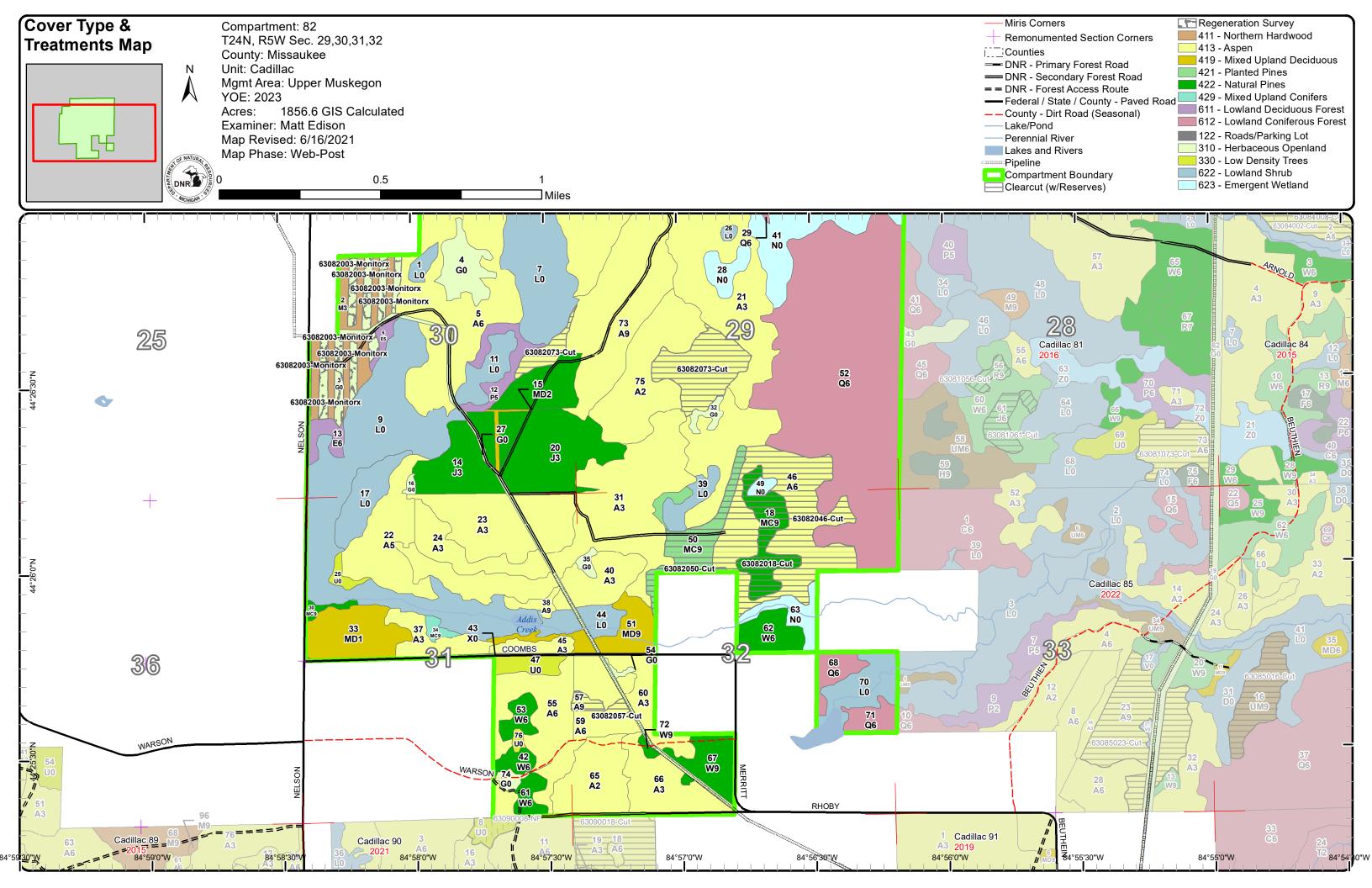
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

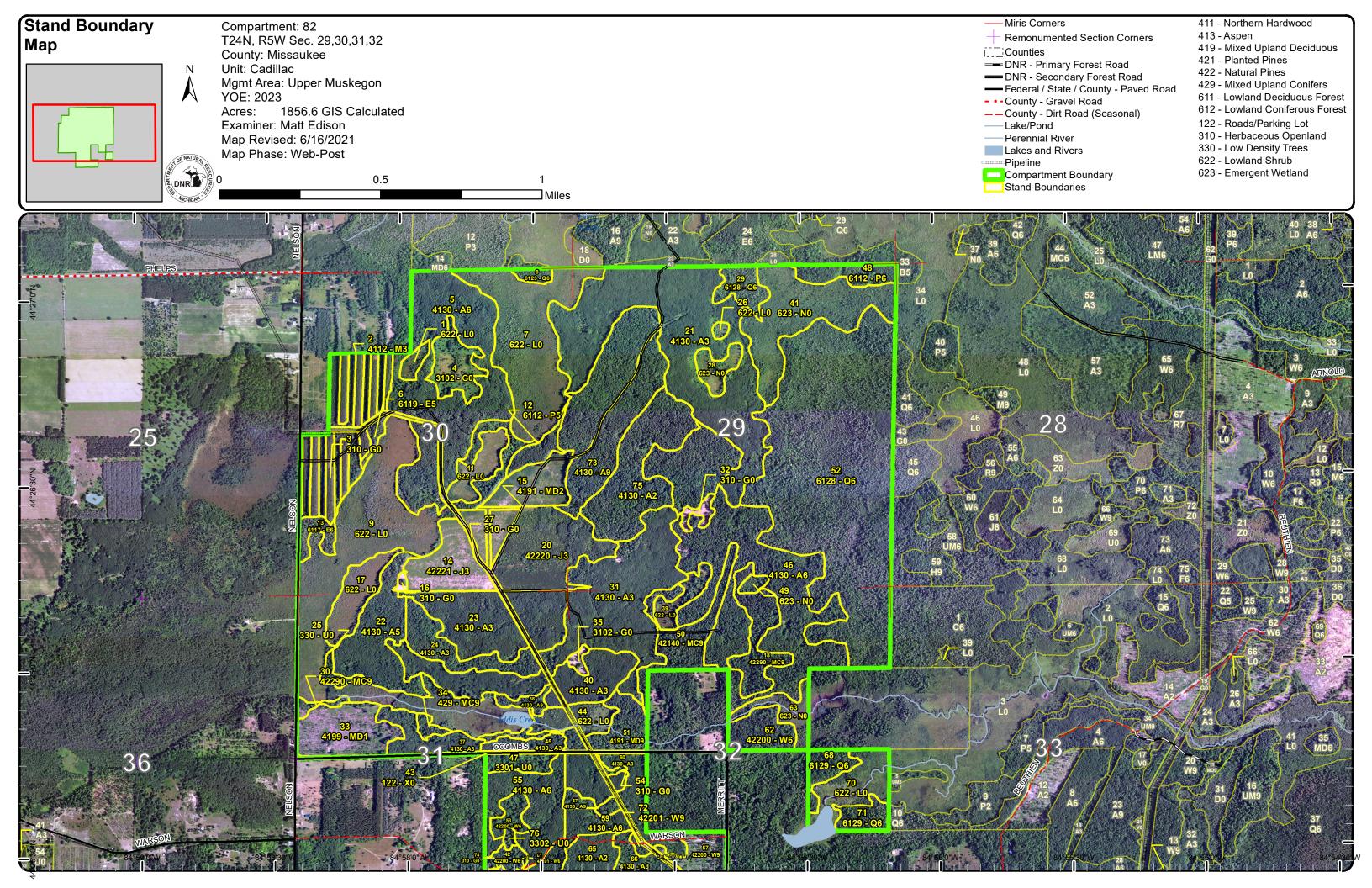
The following information is displayed, where pertinent, on the attached compartment maps:

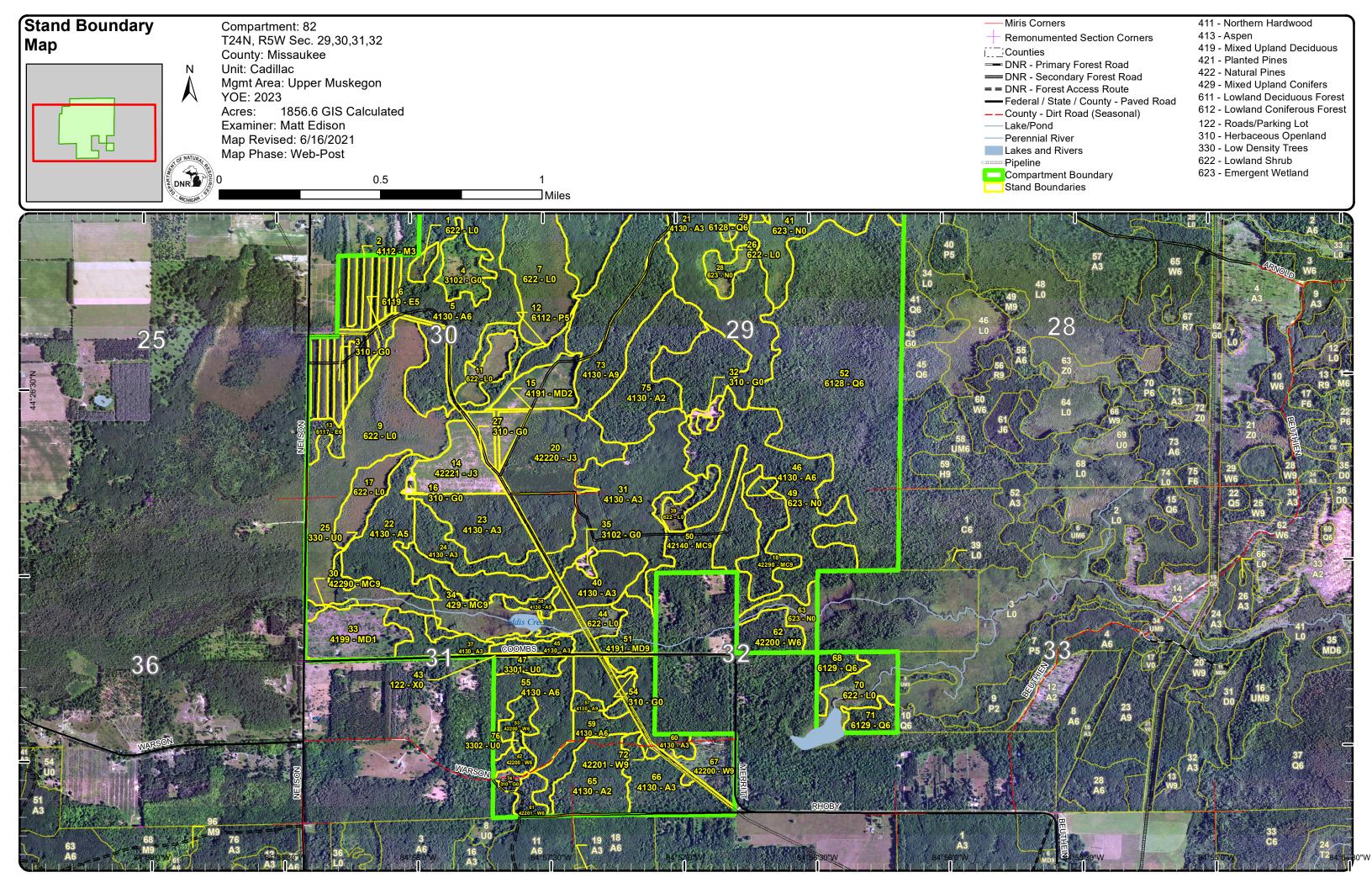
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

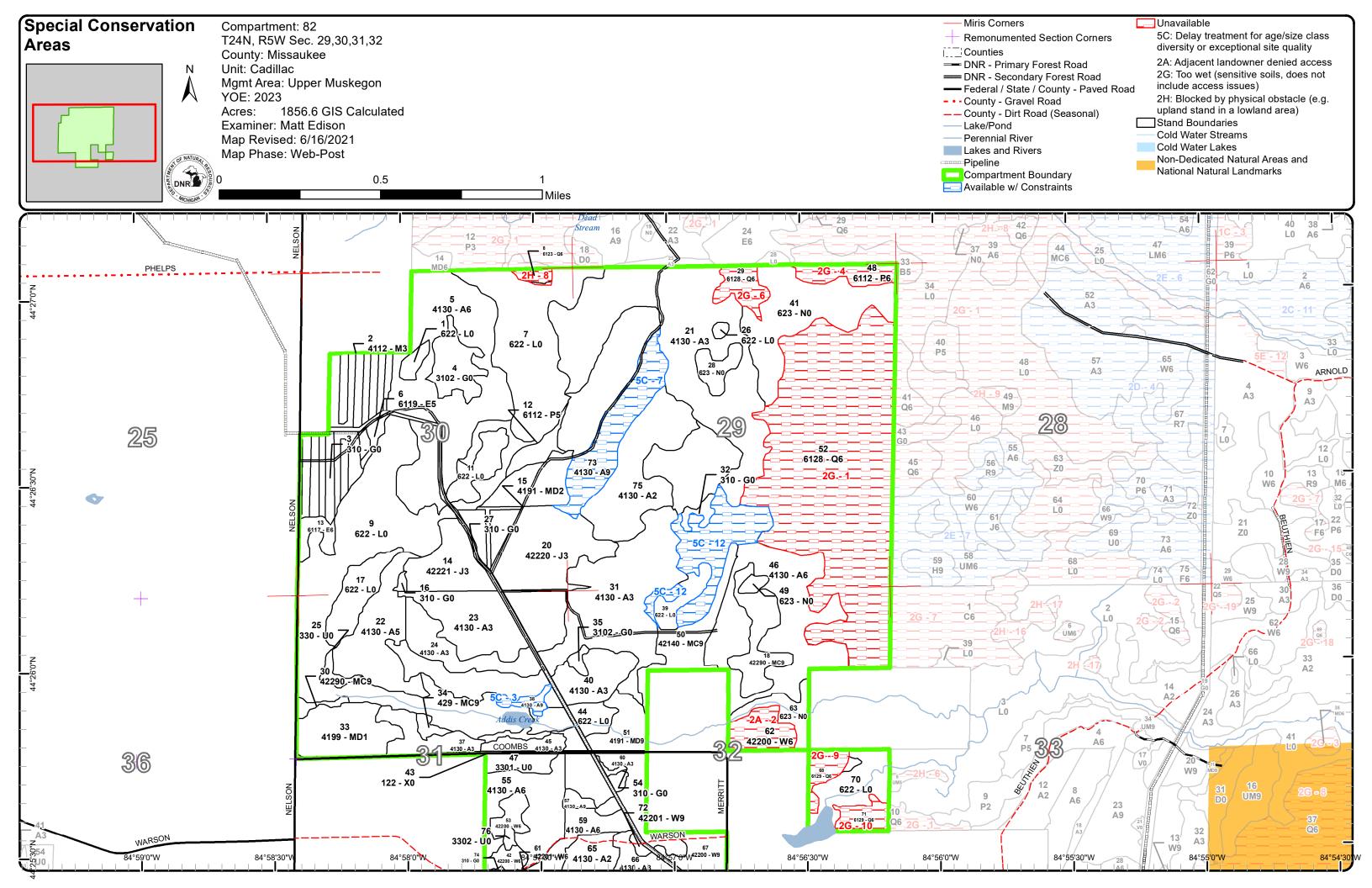


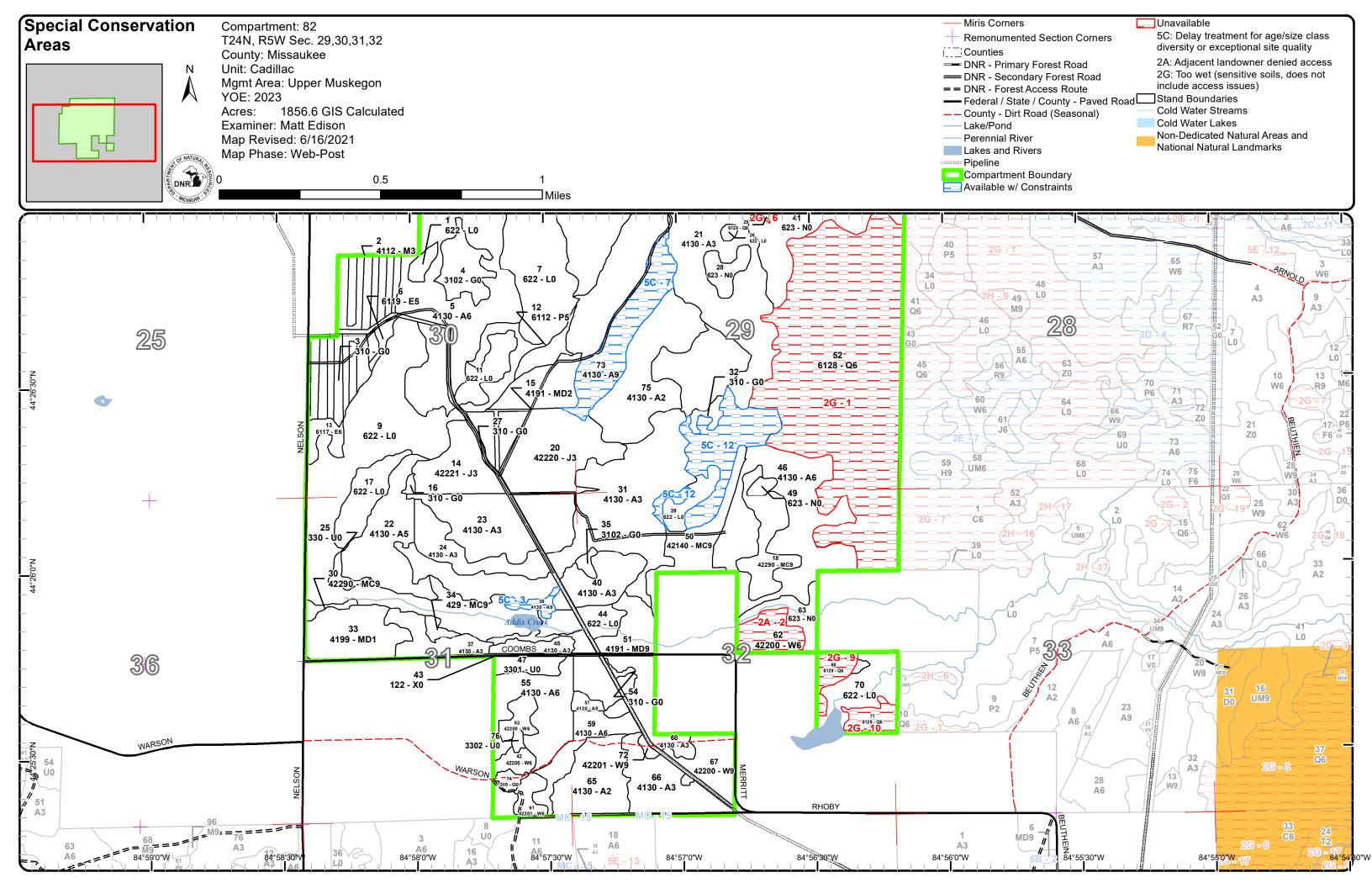












Cadillac Mgt. Unit Matt Edison : Examiner



Age Class

	₽gr.	Kor C	30 / 12	S. A.	S. S.	3/8	S S	3/8	3/8	S. &	a a	B La	a Za		,	23 &	No. No.	y Jres	N. S.
Aspen	0	136	279	146	125	0	0	173	9	0	0	0	0	0	0	0	0	0	867
Herbaceous Openland	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70
Jack Pine	0	53	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96
Low-Density Trees	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Lowland Aspen/Balsam Poplar	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	0	24
Lowland Conifers	0	0	0	0	0	0	3	0	11	0	0	18	221	0	0	0	0	0	252
Lowland Deciduous	0	0	0	0	0	0	0	3	7	0	0	0	0	0	0	0	0	0	10
Lowland Shrub	267	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	267
Marsh	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
Mixed Upland Deciduous	0	0	0	2	28	0	0	0	19	0	0	0	0	0	0	0	0	0	49
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	24
Northern Hardwood	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Planted Mixed Pines	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	24
Upland Conifers	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
White Pine	0	0	0	0	12	0	0	0	18	21	0	0	0	0	0	0	0	0	51
Total	428	189	350	148	177	0	3	176	67	81	0	18	221	0	0	0	0	0	1856



Report 2 – Treatment Summary

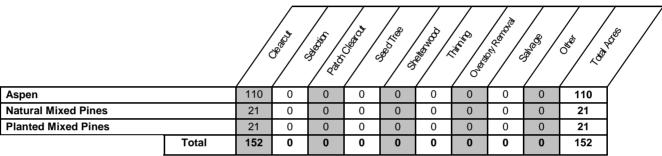
Cadillac Mgt. Unit Year of Entry: 2023

Acres of Harvest

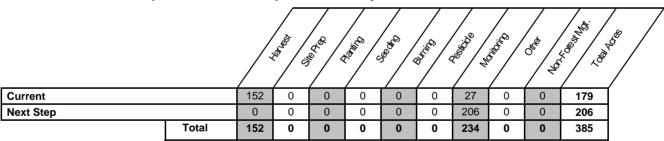
Compartment 82
Total Compartment Acres: 1,857

Commercial Harvest - 152 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Cadillac Mgt. Unit Report 3 -- Treatments Compartment: 82 S Year of Entry: 2023 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age n

Age

Density

|--|

Name

3 63082003- 27.3 310 - Herbaceous Nonstocked 0 Unspec Monitoring Artificial 4211 - Planted Even-Aged No Monitorx Openland ified Regen(1yr) Red Pine

Type

Range

Method

Objective

Prescription 1 Year regen check

Specs:

d

Next Step Monitoring, Herbicide Use; Monitoring, Artificial Regen(3yr)

CoverType

Treatments:

Acceptable Red Pine

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2021

63082018-Cut 42290 - Natural Sawtimber 82 171-Harvest Clearcut with 4319 - Mixed 21.1 Two-Aged No Mixed Pine Well Retention **Upland Forest** 200

<u>Prescription</u> Clear Cut to convert to a natural mixed upland/deciduous stand. Leave some large red and white pine scattered in the stand. Treatment area <u>Specs:</u> will reflect on the ground conditions and may vary in acreage from proposed treatment

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of aspen, maple, red pine, white pine, black cherry, birch, beech, balsam fir, oak, or spruce.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

4139 - Aspen, 63082046-Cut 69.3 4130 - Aspen Poletimber 61 111-Harvest Clearcut with Even-Aged No Well 140 Retention Mixed Deciduous

Prescription Specs: Clear-cut with retention. Place some retention pockets scattered throughout 3-10% area. Treatment area will reflect on the ground conditions and may vary in acreage from proposed treatment

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of Aspen, maple, oak, birch, cherry, white pine, red pine, balsam fir, spruce. hemlock

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Habitat

Cut

Structure

Cadillac Mgt. Unit Report 3 -- Treatments

S Year of Entry: 2023 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Range Method Objective Name CoverType Density Age Type Structure Cut d 50 63082050-Cut 20.8 42140 - Planted Sawtimber 111-Harvest Clearcut with 4319 - Mixed Two-Aged No Mixed Pine Well 140 Retention **Upland Forest** Clear Cut to convert to a natural mixed upland/deciduous stand. Leave some large red and white pine scattered in the stand. Treatment area Prescription will reflect on the ground conditions and may vary in acreage from proposed treatment Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Any mix of aspen, maple, red pine, white pine, black cherry, birch, beech, balsam fir, oak, or spruce. Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2022 63082057-Cut 4.6 4130 - Aspen Sawtimber 72 111-Harvest Clearcut with 4139 - Aspen, Even-Aged No Well 140 Retention Mixed Deciduous Prescription Clear-cut with retention. Place some retention pockets scattered throughout 3-10% area. Treatment area will reflect on the ground conditions and may vary in acreage from proposed treatment Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Any mix of Aspen, maple, cherry, birch, beech, oak, pine, spruce, balsam fir, or hemlock. Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2022 73 63082073-Cut 35.9 4130 - Aspen Sawtimber 65 111-Harvest Clearcut with 4139 - Aspen, Even-Aged No Well 140 Retention Mixed Deciduous Prescription Clear-cut with retention. Place some retention pockets scattered throughout 3-10% area. Treatment area will reflect on the ground conditions Specs: and may vary in acreage from proposed treatment. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Any mix of aspen, maple, red pine, white pine, black cherry, birch, beech, balsam fir, oak, or spruce. Regen: **Other** Comment:

Compartment: 82

Total Treatment Acreage Proposed: 179

Proposed Start Date: 10/1 /2022

Site Condition

Cadillac Mgt. Unit

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Availa	ability for	Managemer	nt						
Total	Acres	Acres Avail	Acres	De	omina	nt Site	e Con	ditions	s
Acres	Available	With Condition	Not Available		5C	MC	2A	2G	2H
868	796	71	0	Aspen	71	0		0	
70	70	0	0	Herbaceous Openland					
96	96	0	0	Jack Pine					
12	12	0	0	Low-Density Trees					
23	12	0	12	Lowland Aspen/Balsam Poplar				12	
253	1	0	252	Lowland Conifers				249	3
10	10	0	0	Lowland Deciduous					
267	267	0	0	Lowland Shrub	0				
74	74	0	0	Marsh			0		
50	50	0	0	Mixed Upland Deciduous					
24	24	0	0	Natural Mixed Pines					
28	28	0	0	Northern Hardwood					
24	21	3	0	Planted Mixed Pines	3				
3	3	0	0	Upland Conifers					
5	5	0	0	Urban					
51	37	0	14	White Pine			14		
1,857	1,504	74	278	Total Forested Acres	74	0	14	261	3
	81%	4%	15%	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	2G: Too wet (sensitive soils, does not include access issues)	221	2E: Road needed	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified
	Comments: Stand is located in the	he Dead Stream Swamp and	is inacce	ssible due to various hab	oitat and water issues.		
2	Unavailable	2A: Adjacent landowner denied access	15	Unspecified	Unspecified	Unspecified	Unspecified

Report 4 – Site Conditions

Cadillac Mgt. Unit
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3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	2E: Road needed	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified
	Comments: Stand is located in	the Dead Stream Swamp and is	inacc	essible due to various habit	tat and water issues.		
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	34	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 4 – Site Conditions

Matt Edison : Examiner

Cadillac Mgt. Unit

9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
С	omments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
С	omments:						
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	36	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

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				

Cadillac Mgt. Unit Compartment: 82
Year of Entry 2023





* 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	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 stocked trout populations and those of other coldwater fis conditions for coldwater fishes may occur in Michigan lak groundwater inflows, or are located in colder (northern) a Director's action and designated as trout resources by Fig.	sh species to persist from year to year. Suitable kes if they are relatively deep, have substantial kreas of the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxyge stocked trout populations and those of other coldwater fis year to year. Coldwater streams in Michigan typically procontributions of groundwater to their stream flows. Such stream as trout resources by Fisheries Order 210.	sh species (e.g., slimy sculpin) to persist from vide these conditions due to substantial



Stand	Level 4 Co	ver Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
1	622 - Lowl	and Shrub)	Nonst	ocked	3.7			No		
2	4112 - Maple, Beech Canopy Species Red Maple Red Pine Jack Pine		Association Size Class Sapling Sapling Sapling	Sapling DBH 4 3 3	g Well 1 Age 18	28.0	18	Immature	N/A		Strips that were apparently abandoned in past. Decide in a few entries what to do with these after harvested.
3	310 - Herbace	ous Open	land	Nonsto	ocked	27.3	0	Unspecified	42110 - Planted	I Red Pine	Good quality red pine strips that were final harvested and chipped in 2017. Site was trenched in 2018. Planted to RP on 5/3/2021.
4	3102 -	Grass		Nonst	ocked	16.3		Unspecified	No		open grass stand with scattered cherry.
						Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
							ack Pine	Low		Pole	
						Che	erry (spp.)	Low		Pole	
5	4130 - Canopy Species Red Maple Bigtooth Aspen White Pine	Aspen **Cover 7 90 3	Size Class Pole/Sapling Pole Pole/Sapling	5 6	er Well Age 37	92.2	37	111-140	N/A		Good looking small pole stand. Still needs to put on more growth, continue to monitor in future.
6	6119 - Mixed Lowlan	d Deciduo	ous Forest Po	oletimbe	r Medium	n 3.0	68	51-80	N/A		Small wet stand bordering lowland complex
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Red Maple	40	Pole/Log	7	68	Re	ed Maple	Low	10 - 20 feet	Sapling	
	White Oak	15	Log	15		Ta	ag Alder	Low	10 - 20 feet	Tall Shrub	
	Paper Birch	15	Pole	7							•
	Quaking Aspen	15	Pole/Log	9							
	Black Spruce	5	Pole	5							
	Tamarack	10	Log/Pole	11							
7	622 - Lowl	and Shrub)	Nonst	ocked	67.9			No		
8	6123 - Lo			Poletimb		3.0	57	51-80	N/A		Small stand of balsam and white pine with a few scattered red maples. Virtually no access except for frozen winter across wetland.
	• • • •		Size Class		l Age		nopy Specie		Avg. Height	Size	Threath, the decode one option treath without derode welland.
	Red Maple	15	Pole	7			alsam Fir	Low	5 - 10 feet	Sapling	
	Balsam Fir	60	Pole	6	57	T	ag Alder	Low	10 - 20 feet	Tall Shrub	
	White Pine	25	Log/Pole	10							

Cadillac Mgt. Unit



Stand	Level 4 C	el 4 Cover Type Size Density			Acres	Stand Age E	BA Range	Managed \$	Site	General Comments			
9	622 - Lov	wland Shrul	b	Nonstocked				No					
11	622 - Lov	622 - Lowland Shrub		Nonstocked				No		Lowland shrub overall, but with standing water in large areas and open water in some small areas.			
12	6112 - Lowland Aspen P		en Pole	etimber Medium	11.8	31		N/A		Wet ground fringe around lowland with standing water. More sparse to			
	Canopy Species % Cover Size Class		Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	adjacent A6 stand. Treat as much as possible when adjacent is treate			
	Red Maple	15	Sapling	4		ag Alder	Low	10 - 20 feet	Tall Shrub				
	1 0		Sapling	4			LOW	10 - 20 leet					
	Quaking Aspen	60	Pole/Sapling	5 31									
	White Pine	20	Pole/Sapling	6									
13	6117 - Lowland Con	Deciduous iferous	, Mixed Po	oletimber Well	6.7	74	111-140	N/A		Small stand on relatively higher ground than wetland on two sides. Check in 10 years.			
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size				
	Red Maple	33	Pole/Sap/Log	6 74	Re	ed Maple	Low	10 - 20 feet	Sapling				
	Paper Birch	7	Pole	5 11	Ва	alsam Fir	Low	5 - 10 feet	Sapling				
	Quaking Aspen	20	Pole/Sapling	5	T	ag Alder	Medium	10 - 20 feet	Tall Shrub				
	Balsam Fir	15	Pole/Sapling	5									
	Tamarack	15	Pole	6									
	Black Ash	10	Sapling/Pole	3									
14	42221 - Natural Dec	Jack Pine, iduous	Mixed	Sapling Well	53.4	6	Immature	N/A		Sale closed in 2016. 63-052-13 "82 Jack". Jack Pine regeneration is coming with fair amount of cherry, maple, and aspen as well.			
	Canopy Species	% Cover	Size Class	DBH Age									
	White Oak	5	Pole/Sapling	5									
	Jack Pine	60	Sapling	1 6									
	Red Maple	10	Sapling	1 6									
	Black Cherry	25	Sapling	1 6									
15	4191 - Mixed Upla Co	and Decidu onifer	ious with Sa	apling Medium	2.3	25	Immature	N/A		Fire break between Jack pine plantations			
	Canopy Species	% Cover	Size Class	DBH Age									
	Red Maple	50	Sapling	2 25									
	Quaking Aspen	20	Sapling	2									
	White Pine	5	Pole/Sapling	5									
	Jack Pine	25	Sapling	1									
16	310 - Herbac	eous Oper	nland	Nonstocked	1.1			No					



Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
17	622 - Lov	vland Shrub)	Nonsto	cked	17.2			No		
18	42290 - Natu	ıral Mixed F	Pine	Sawtimb	er Well	21.1	82	171-200	N/A		Large diameter red pine and white pine mix. Heavy understory of aspen and red maple. Some white pine. Consider cutting and leaving some
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	larger red and white pine and letting this stand convert to natural mixed
	White Pine	45	Log/Pole	12	82	Re	d Maple	Medium	10 - 20 feet	Sapling	deciduous.
	Red Pine	55	Log	13	82	Asp	en (spp.)	Medium	10 - 20 feet	Sapling	
20	42220 - Nat	ural Jack P	ine	Sapling	y Well	42.7	17	Immature	N/A		Good looking Jack pine regeneration.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Jack Pine	100	Sapling	2	17						
21	4130	- Aspen		Sapling		122.7	17	Immature	N/A		Cut in 2004 (63-031-03) "Many Bug Aspen". Large stand of solid looking
	Canopy Species	% Cover	Size Class		Age						Aspen regen. A few scattered low areas.
	Red Maple	4	Sapling	3	7.90						
	Bigtooth Aspen	94	Sapling	3	17						
Bla	ck/Red (Hybrid) Oak	2	Sapling	2							
22	4130	- Aspen	P	oletimbei	Mediun	n 37.0	25	Immature	N/A		Stand of young aspen mixed with scattered pine and maple. Needs
	Canopy Species	% Cover	Size Class	DBH	Age						plenty of growth for next couple entries. Not the best Aspen around.
	Red Maple	8	Sapling	4							
	Bigtooth Aspen	85	Sapling	4	25						
	White Pine	7	Pole	5							
23	4130	- Aspen		Sapling	Well	49.4	26	Immature	N/A		Cut in 1995 63-021-93 (Spruce Hen Sale). Good looking Aspen
	Canopy Species	% Cover	Size Class	DBH	Age						regeneration approaching all pole sized.
	Red Maple	20	Sapling	4							
	White Oak	5	Sapling	1							
	Bigtooth Aspen	70	Sapling	4	26						
	White Pine	5	Sapling	4							
24	4130	- Aspen		Sapling	y Well	21.3	2	Immature	N/A		Stand was final harvested in 2020. Oaks as well as young conifer was
	Canopy Species	% Cover	Size Class	DBH	Age						left. Aspen is regenerating.
	Red Maple	8	Sapling	1							
	Red Oak	6	Log/Pole	10							
	Bigtooth Aspen	75	Sapling	1	2						
	White Pine	11	Pole	6							
25	330 - Low-I	Density Tre	es	Nonsto	cked	3.0			No		



Stand	Level 4 C	evel 4 Cover Type Size Density Acres Stand Age BA Range Managed Site 22 - Lowland Shrub Nonstocked 1.3 No		ite	General Comments						
26	622 - Lov										
27			land	Nonst	ocked	15.7	U	Inspecified	Managed Op	pening	Pipeline R.O.W.
28			623 - Emergent Wetland Nonst		Nonstocked				No		
29	6128 - Lowland Dec	Coniferous iduous	, Mixed P	oletiml	oer Well	10.5	70	51-80	N/A		Stand is fringe area of large wetland. It is low ground and has fairly sparse tree cover overall. Site condition added last entry.
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Paper Birch	15	Pole	7			llsam Fir	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	15	Pole/Sapling	6		Maj	ple (spp.)	Low	10 - 20 feet	Sapling	
	Balsam Fir	45	Pole/Sapling	6	70						
	White Pine	25	Log/Pole	11							
30	42290 - Natı	ural Mixed F	Pine S	awtimb	per Well	2.6	83	51-80	N/A		Stand is a narrow buffer between plantation to south and lowland
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	complex to the north.
	Quaking Aspen	20	Pole	4		Re	ed Maple	Low	10 - 20 feet	Sapling	
	Black Spruce	20	Pole	5		I	Beech	Low	5 - 10 feet	Sapling	
	White Pine	40	Log	13	83	WI	nite Pine	Low	10 - 20 feet	Sapling	
	Jack Pine	20	Pole/Log	7		Ta	ag Alder	Low	10 - 20 feet	Tall Shrub	
31	4130	- Aspen		Saplin	g Well	96.9	17	Immature	N/A		Stand was cut in 2004 (63-051-03) "Knotabug Aspen". Good
	Canopy Species	% Cover	Size Class	DBI	H Age						Regeneration.
	Red Maple	5	Sapling	3							
	Bigtooth Aspen	90	Sapling	4	17						
	White Pine	5	Sapling	4							
32	310 - Herbac	eous Open	land	Nonst	ocked	3.4			Managed Op	pening	
33	4199 - Other Mixe	d Upland D	eciduous	Saplin	g Poor				Stand was harvested in summer 2015. 63-018-13 (RN Pine). All Oak and		
	Canopy Species	% Cover	Size Class	DBI	H Age						Maple <4" was left as residual. Mix at this point.
	Red Maple	45	Sapling	3	30						
	Bigtooth Aspen	35	Sapling	1	6						
	Jack Pine	15	Sapling	1	6						



Stand	Level 4 Cover Type			Size De	ensity	Acres	Stand Age E	BA Range	Managed S	ite	General Comments	
34	429 - Mixed Upland Conifers			Sawtimber Well		2.8	75	81-110	N/A		Small stand of white pine between edge of lowland complex and you	
	Canopy Species		Size Class		H Age		opy Species	Density	Avg. Height	Size	aspen cut. Could thin out all but Pine and add to a nearby sale.	
	Red Maple	15	Pole/Log	6		Map	le (spp.)	Low	10 - 20 feet	Sapling		
	Balsam Fir	25	Pole/Sapling									
	Black Spruce	15	Pole/Sap/Log									
	White Pine	35	Log/Pole/XLog		75							
	Red Pine	10	Log/Pole	11								
35	3102	- Grass		Nonst	ocked	2.2			Managed Op	ening	Wildlife managed opening.	
37	4130	- Aspen		Sapling	g Well	14.5	16	Immature	N/A		Cut in 2005 63-022-03 (Coombs Aspen). Good looking aspen	
	Canopy Species	% Cover	Size Class	DBH	H Age						regeneration.	
	Red Maple	8	Sapling	3								
	White Oak	2	Pole	9								
	Bigtooth Aspen	85	Sapling	3	16							
	White Pine	2	Sapling	3								
	Jack Pine	3	Sapling	2								
38	4130	- Aspen	S	awtimb	er Well	4.1	74	81-110	N/A		Small stand of aspen left as a buffer between adjacent sales and Addis	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	Creek. Previous inventory suggested to leave the buffer.	
	Red Maple	12	Pole	8		В	eech	Low	5 - 10 feet	Sapling		
	Paper Birch	5	Pole	6		Whi	te Pine	Low	< 5 feet	Sapling		
	Bigtooth Aspen	65	Pole/Log	9	74	Map	le (spp.)	Low	10 - 20 feet	Sapling		
	White Pine	15	Log/Pole	14								
	Black Cherry	3	Sapling/Pole	3								
39	622 - Low	land Shrub)	Nonst	ocked	8.8			No			
40	4130	- Aspen		Sapling	g Well	20.3	26	Immature	N/A		Stand was cut in 1995. 63-021-93 (Spruce Hen Sale). Good looking regeneration.	
	Canopy Species	% Cover		DBH	H Age						regeneration.	
	Red Maple	5	Sapling	4								
	Beech	3	Sapling	2								
	Bigtooth Aspen	92	Sapling	4	26							
				-	•							

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Compartment: 82 Year of Entry: 2023

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Stand	d Level 4 Co	Size Density		Acres	Stand Age	BA Range	Managed Site		General Comments		
42	42200 - Natu Canopy Species White Pine Red Maple		Size Class Pole Pole	Poletimb B DBH 6 6	er Well Age 30	5.1	30	81-110	N/A		Stand of short, limby, bushy white pine. Little merchantability potential now. Save for now as age class diversity with young stands surrounding. See what happens over next couple of entries.
43	122 - Road	I/Parking Lo	ot	Nonsto	cked	4.9			No		
44	622 - Low	rland Shrub)	Nonsto	cked	12.2			No		
45	Canopy Species Red Oak Bigtooth Aspen White Pine	- Aspen **Cover 5 90 5	Size Class Pole/Log Sapling Sapling		Well Age	6.7	26	Immature	N/A		Stand was cut in 1995 63-021-93 (Spruce Hen Sale). Good looking stand.
46		- Aspen		Poletimb		102.6	61	111-140	N/A		Aspen stand with white pine scattered maple and oak. Borders lowland types to the east. Part of stand was included in adjacent Q6 stand and
	Red Maple Red Oak Bigtooth Aspen White Pine	% Cover 15 5 65 15	Pole Log Pole Log/Pole	9 12 9	61	WI	nopy Specie nite Pine ple (spp.)	Low Low	Avg. Height 10 - 20 feet 10 - 20 feet	Size Sapling Sapling	had site condition for too wet. Redefined the "too wet" as accurately as possible. Previous inventory suggested harvesting western part of stand and leaving east for another entry. Best idea may be to harvest east half first to leave west half as age class diversity between older west cut and this east cut.
47	3301 - Low Densi	ty Deciduo	us Trees	Nonsto	ocked		nopy Specie	es Density Medium	No Avg. Height	Size Pole	Mixed opening with some hardwood and aspen, oak.
48	3 6112 - Lowland Aspen Poletimber Well						88	1	N/A		Small stand appears to be aspen mix. to wet to access for inventory. Notes from previous inventory and proven true.
49	623 - Emerç	gent Wetla	nd	Nonsto	cked	2.4			No		
50	42140 - Plant Canopy Species White Pine Red Pine		Pine Size Class Log/Pole Log		er Well Age 82 82	23.9	82	111-140	N/A		Mixed pine plantation, mostly red pine east and south. Row thinned in past. Heavy red maple and aspen understory. Clear cut wit surrounding stand and let convert to mixed deciduous. Would be fighting regeneration forever. Leave some red and white pine.



Stand	Level 4 Cover Type			Size Density	Acres	Stand Age E	BA Range	Managed S	ite	General Comments		
51	4191 - Mixed Upland Deciduous with Conifer			awtimber Well	19.4	73	81-110	N/A		Somewhat sparse stand in some spots. Check in 10 years.		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size			
	Red Maple	25	Pole/Log	10	WI	nite Pine	Low	10 - 20 feet	Sapling			
	Red Oak	15	Log	13	Asp	en (spp.)	Low	5 - 10 feet	Sapling			
	Paper Birch	5	Pole/Log	7			,					
	Bigtooth Aspen	35	Log/Pole	10 73								
	White Pine	20	Pole/Log	9								
52	6128 - Lowland Dec	Coniferous, iduous	Mixed P	oletimber Well	221.4	116	51-80	N/A		Surveyed stand from west as far as could penetrate, turned very wet, very fast. Lowland mix that varies from tag alder to cedar/spruce and		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	some scattered balm and red maple in relative "high" pockets. Not much size to trees, either height or diameter, There are pockets of blow down.		
	Red Maple	15	Pole/Sap/Log	6	Ва	lsam Fir	Low	5 - 10 feet	Sapling	Not much to do here. Site Conditioned.		
	Balsam Poplar	20	Log/Pole	9	WI	nite Pine	Low	5 - 10 feet	Sapling			
	Balsam Fir	25	Pole/Sapling	7	Maj	ole (spp.)	Low	10 - 20 feet	Sapling			
	Black Spruce	10	Log/Pole	11								
53	42200 - Natu	ural White F	Pine P	oletimber Well	6.8	33	51-80	N/A		Stand is a mix of large open grown white pine and white pine poles. Note		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	from previous inventory and is spot on. Harvest in future with white pine to south.		
	Red Maple	10	Pole/Log	8	WI	nite Pine	Low	< 5 feet	Sapling	to south.		
	White Pine	90	Pole/Log/Sap	8 33								
54	310 - Herbac	eous Open	land	Nonstocked	0.9	L	Inspecified	No		old landing from adjacent aspen sale.		
	4130 - Aspen											
55	4130	- Aspen	P	oletimber Well	32.5	36	81-110	N/A		Aspen mixed with scattered red maple and white pine. Small for age.		
55	4130 Canopy Species	- Aspen	Pi Size Class	oletimber Well	32.5	36	81-110	N/A		Aspen mixed with scattered red maple and white pine. Small for age.		
55		'			32.5	36	81-110	N/A		Aspen mixed with scattered red maple and white pine. Small for age.		
55	Canopy Species	% Cover	Size Class	DBH Age	32.5	36	81-110	N/A		Aspen mixed with scattered red maple and white pine. Small for age.		
55	Canopy Species Bigtooth Aspen	% Cover 90	Size Class Pole/Sapling	DBH Age	32.5	36	81-110	N/A		Aspen mixed with scattered red maple and white pine. Small for age.		
55	Canopy Species Bigtooth Aspen White Pine Red Maple	% Cover 90 5	Size Class Pole/Sapling Pole/Log Pole/Sapling	DBH Age 6 36 8	32.5	36 72	81-110	N/A		Stand was kept previously for age class. Final Harvest this entry. Use		
	Canopy Species Bigtooth Aspen White Pine Red Maple	% Cover 90 5 5 5	Size Class Pole/Sapling Pole/Log Pole/Sapling	DBH Age 6 36 8 5	4.6		111-140		Size			
	Canopy Species Bigtooth Aspen White Pine Red Maple 4130	% Cover 90 5 5 5 - Aspen	Size Class Pole/Sapling Pole/Log Pole/Sapling	DBH Age 6 36 8 5	4.6 Sub-Ca	72	111-140	N/A	Size Sapling	Stand was kept previously for age class. Final Harvest this entry. Use		
	Canopy Species Bigtooth Aspen White Pine Red Maple 4130 Canopy Species	% Cover 90 5 5 5 - Aspen % Cover	Size Class Pole/Sapling Pole/Log Pole/Sapling	DBH Age 6 36 8 5 awtimber Well DBH Age	4.6 Sub-Ca	72 nopy Species	111-140 Density	N/A Avg. Height		Stand was kept previously for age class. Final Harvest this entry. Use		
	Canopy Species Bigtooth Aspen White Pine Red Maple 4130 Canopy Species Red Maple	% Cover 90 5 5 5 - Aspen % Cover 15	Size Class Pole/Sapling Pole/Log Pole/Sapling S Size Class Log/Pole	DBH Age 6 36 8 5 awtimber Well DBH Age	4.6 Sub-Ca	72 nopy Species ole (spp.)	111-140 Density Low	N/A Avg. Height 5 - 10 feet	Sapling	Stand was kept previously for age class. Final Harvest this entry. Use		
	Canopy Species Bigtooth Aspen White Pine Red Maple 4130 Canopy Species Red Maple White Ash	% Cover 90 5 5 5 - Aspen 15 3	Size Class Pole/Sapling Pole/Log Pole/Sapling S Size Class Log/Pole Pole/Log	DBH Age 6 36 8 5 awtimber Well DBH Age 11 8	4.6 Sub-Ca	72 nopy Species ole (spp.)	111-140 Density Low	N/A Avg. Height 5 - 10 feet	Sapling	Stand was kept previously for age class. Final Harvest this entry. Use		
	Canopy Species Bigtooth Aspen White Pine Red Maple 4130 Canopy Species Red Maple White Ash Beech	% Cover 90 5 5 - Aspen % Cover 15 3 4	Size Class Pole/Sapling Pole/Sapling Pole/Sapling Size Class Log/Pole Pole/Log Pole/Sap/Log	DBH Age	4.6 Sub-Ca	72 nopy Species ole (spp.)	111-140 Density Low	N/A Avg. Height 5 - 10 feet	Sapling	Stand was kept previously for age class. Final Harvest this entry. Use		



Stand	Level 4 Co	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
59	4130	- Aspen	1	Poletimb	er Well	32.8	26	81-110	N/A		Early pole stand. Not best looking aspen.
	Canopy Species	% Cover	Size Class	DBH	I Age						
	Bigtooth Aspen	96	Pole/Sapling	9 6	26						
	White Pine	4	Sapling	2							
60	4130	- Aspen		Saplin	g Well	16.7	16	Immature	N/A		Stand starting to transition into pole stand. Good looking regen.
	Canopy Species	% Cover	Size Class	DBH	I Age						
	Red Maple	3	Sapling	1							
	Red Oak	2	Pole/Log	8							
	Bigtooth Aspen	95	Sapling	3	16						
61	42201 - Natural V	White Pine	, Mixed	Poletimb	er Well	6.5	80	111-140	N/A		Stand of large White Pine with mixed understory. Hold for now and consider harvest next entry.
	Canopy Species	% Cover	Size Class	DBH	I Age						
	White Pine	70	Log/Pole	12	80						
	Red Maple	15	Pole	9							
	Bigtooth Aspen	15	Log/Pole	10							
62	42200 - Natu	ural White F	Pine I	Poletimb	er Well	14.5	83	81-110	N/A		Natural pine stand with scattered aspen clones. Thin pine and remove
	Canopy Species % Cover Si		Size Class	ss DBH Age		Sub-Ca	nopy Specie	es Density	Avg. Height	Size	aspen and maple. Poor Access and seasonally wet. Notes and site
			Pole/Log	9	3-		lsam Fir	Low	5 - 10 feet	Sapling	condition from previous inventory. Accessibility a huge issue.
	Bigtooth Aspen	15	Log/Pole	11		Ma	ple (spp.)	Low	10 - 20 feet	Sapling	
	Balsam Fir	20	Pole/Log	7			1 - (- - -/			- 1 3	
	White Pine	60	Log/Pole	14	83						
63	623 - Emer	gent Wetla	nd	Nonsto	ocked	11.1			No		
65	4130	- Aspen	;	Sapling Medi		30.0	2	81-110	N/A		Stand was cut in 2020. All oak was left variable diameter in oak left.
	Canopy Species	% Cover	Size Class	DBH	I Age						
	Red Maple	10	Sapling	1							
	Red Oak	10	Log	14							
	Bigtooth Aspen	70	Sapling	1	2						
	White Pine	10	Sapling	1							
66	4130	- Aspen		Saplin	g Well	28.4	16	1-50	N/A		Stand was cut previous entriesy. Aspen and maple removed. Scattered
	Canopy Species	% Cover	Size Class	DBH	I Age						pine oaks overstory.
	Red Maple	10	Sapling	1							
	D 10 1	7	Log	11							
	Red Oak	1	Log								
	Bigtooth Aspen	75	Sapling	2	16						



Stand	Level 4 Cover Type			Size Density		Acres	Stand Age E	A Range	Managed Site		General Comments		
67	42200 - Natural White Pine			Sawtimber Well		16.2	78	51-80	N/A		Stand was cut in 2014 63-044-14 (Cujo Pine) Marked pine and removed		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	all other. Residual pine looks good, with mix of regen. coming underneath, including some white pine powerline runs along west edge		
	White Pine	75	Log/Pole	12	78	Re	ed Maple	Low	>20 feet	Sapling	of stand.		
	Red Pine	25	Log/Pole	12		W	hite Pine	Low	10 - 20 feet	Sapling			
						Bigto	ooth Aspen	High	< 5 feet	Sapling			
68	6129 - Mixed Conif	ferous Lowl	and Forest	Poletimb	er Well	9.4	104	51-80	N/A		Could not access, data from previous inventory. Site Conditioned.		
70	622 - Lov	wland Shrub)	Nonsto	ocked	22.3			No				
71	6129 - Mixed Conif	ferous Lowl	and Forest	Poletimb	er Well	8.6	106	81-110	N/A		No access, data from previous inventory. Site Conditioned. Small stand of cedar, balsam, and spruce. Bordering private on two sides.		
72		42201 - Natural White Pine, Mixed Deciduous			er Well	2.0	78	111-140	N/A		Stand is a mix of white pine and aspen. Leave for diversity and age- clas considerations.		
	Canopy Species % Cover Size		Size Class	Class DBH Age		Sub-Canopy Species		Density	Avg. Height	Size			
	White Pine	70	Log	10	78	W	hite Pine	Low	5 - 10 feet	Sapling			
	Bigtooth Aspen	20	Pole	9		Re	ed Maple	Low	5 - 10 feet	Sapling			
	Red Maple	10	Pole	8			·				ı		
73	4130	- Aspen		Sawtimb	er Well	69.9	65	111-140	N/A		Mature Aspen. Mix of some oak, red maple, and scattered cherry and		
	Canopy Species	% Cover	Size Class	DBH	l Age						birch. Adjacent to large clear cut from 2020. Center part is best suited to hold for age class considerations, Harvest west and east pieces of this		
	Red Maple	10	Pole	8							stand.		
	Red Oak	10	Log/Pole	10									
	Bigtooth Aspen	80	Log	11	65								
74	310 - Herbad	310 - Herbaceous Openland			Nonstocked				No		scattered white pine poles.		
						Sub-Ca	nopy Species	Density	Avg. Height	Size			
						W	hite Pine	Low		Pole			
75	4130	- Aspen		Sapling N	Medium	85.2	2	Immature	N/A		Stand was final harvested over 2019 and 2020. Unit to north was done in		
	Canopy Species	% Cover	Size Class	DBH	l Age						2019. Whole tree skid operation. Scattered green marked trees left.		
	Red Maple	5	Sapling	1									
	White Oak	2	Log	13									
	Bigtooth Aspen	88	Sapling	1	2								
	White Pine	3	Sapling	1									

Cadillac Mgt. Unit

Report 7 - Stands



Stand	Level 4 Cover Type	Size Density	Acres Stand Age BA	A Range	Managed S	ite	General Comments	MICHIGAN .
76	3302 - Low Density Conifer Trees	Nonstocked	1.4	No				
			Sub-Canopy Species	Density	Avg. Height	Size		
			White Pine	Low		Pole		