

# **Compartment Review Presentation**

**Cadillac Forest Management Unit** 

Compartment 63027 Entry Year 2021 Acreage: 1,214

County Osceola

Management Area: Evart Block

Revision Date: 2019-06-11

Stand Examiner: James Park

**Legal Description:** 

T19N R08W, sections 18, 29-32

#### **Identified Planning Goals:**

Vegetation management in the Evart Block management area will provide timber 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 for this 10-year planning period years will focus on balancing the age-class distributions for aspen and regenerating oak. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation opportunity. Expected trends within this 10-year planning period are the need to regenerate oak, the need to continue to balance aspen age classes, the need to diversify forest cover types and an increase in recreation pressure.

#### Soil and topography:

Mostly rolling topography with some steep spots. Soils are mostly Montcalm Sand and loams, Graycalm Sands, and some McBride Sands and Loams.

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

Private ownership to the north and east of the compartment. State ownership to the south and west of the compartment with some private mixed in. Some farming nearby with a mixture of cabins and year-round homes. Many lakes used for various recreational opportunities in the area.

#### **Unique Natural Features:**

Forty acres of this compartment contains water frontage on Big Long Lake.

The Michigan Natural Features Inventory lists the Common Loon, Blanding's Turtle, as having occurred in this compartment. Historical records exist for Wood Turtle and Slippershell Mussel as having occurred in this compartment. This compartment has the potential for the Spotted Turtle, Blanding's Turtle, and Secretive Locust.

#### Archeological, Historical, and Cultural Features:

None known.

#### **Special Management Designations or Considerations:**

None known.

#### Watershed and Fisheries Considerations:

There are a few lakes and no streams in this compartment.

There are no fisheries concerns with the proposals for this Compartment.

#### Wildlife Habitat Considerations:

Featured wildlife species are deer, ruffed grouse and pileated woodpecker. Woodcock as well as a variety of species utilizing early-successional communities and young forests will also benefit from management in this area. Management objectives are to maintain and regenerate oak stands, and to maintain the aspen type with age class diversity to provide continually available early-successional habitat for hunting and viewing opportunities.

#### Mineral Resource and Development Concerns and/or Restrictions

Sections 18 & 29-32, T19N-R8W, Osceola County The nearest active sand/gravel pit is located two miles northwest of the parcels in Section 18. There appears to some good sand & gravel potential within the compartment. There has been past oil & gas production in every direction within six miles of the compartment. Most of the traditionally productive formations within the central Michigan Basin have been tested in the area around the compartment without success. However, there are active mineral leases in the area including one active lease within the compartment. The majority of these leases are due to expire in August 2019. There is no known metallic mineral potential in this part of the state.

#### **Vehicle Access:**

Most of the compartment is easily accessible. Access to stands 36 and 40 will need to be carefully planned in order to reach them for a potential timber sale.

#### **Survey Needs:**

None known.

### **Recreational Facilities and Opportunities:**

This area is used heavily for hunting, camping, fishing (on accessible lakes), and ORV trail riding and scramble area are located in the compartment. Snowmobiling, horseback riding, berry and mushroom picking are known to occur in this compartment. There is a designated State campground near this compartment.

#### **Fire Protection:**

This area is mostly aspen & hardwoods. Much of the state owned land within the compartment would allow for good access for suppression equipment. However, there are numerous small private parcels within the compartment, which adds to the human causes, and elevates the urban interface concerns.

#### **Additional Compartment Information:**

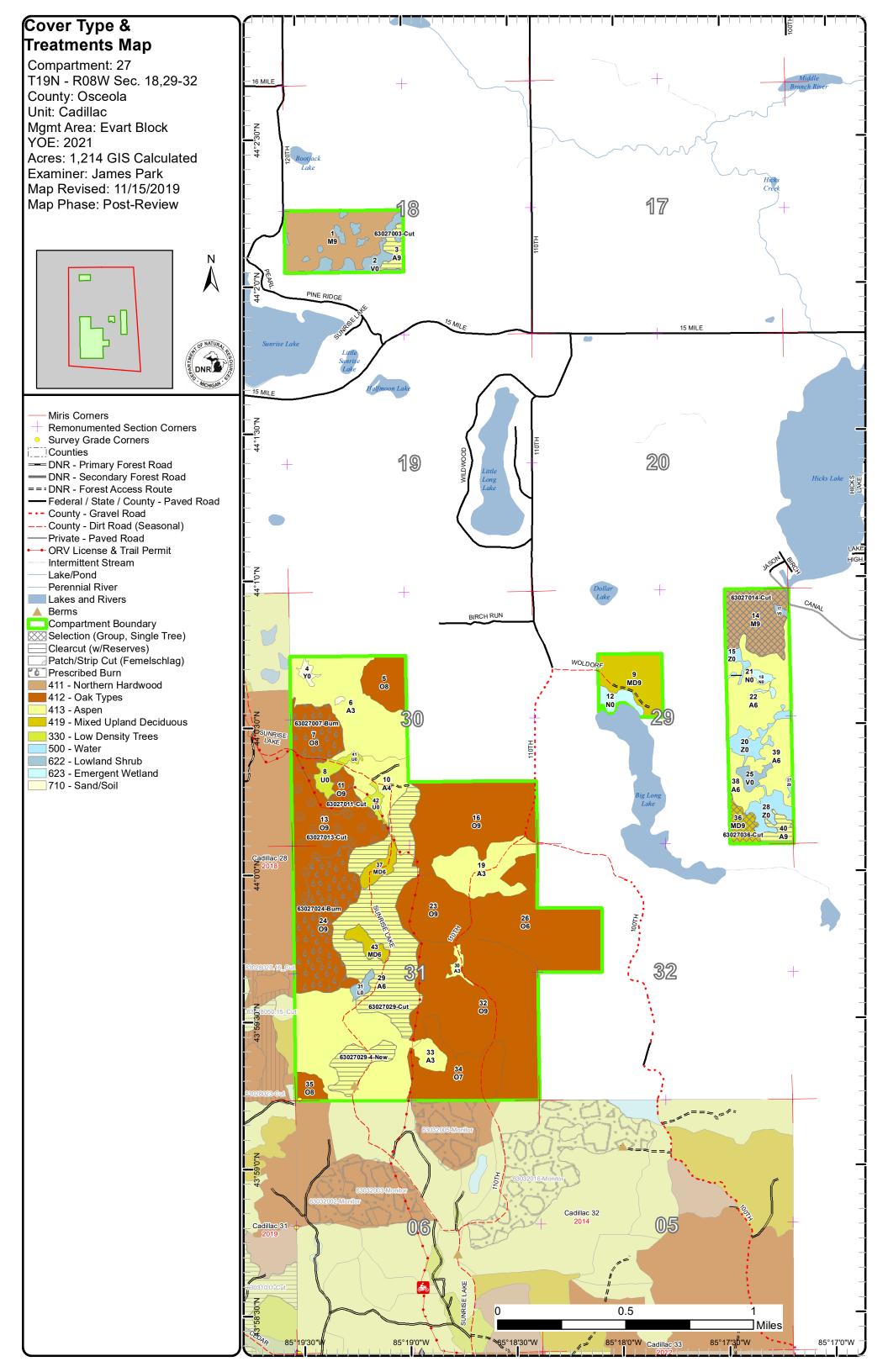
There are numerous spots in this compartment where illegal ORV access is taking place and resource damage will need to be addressed.

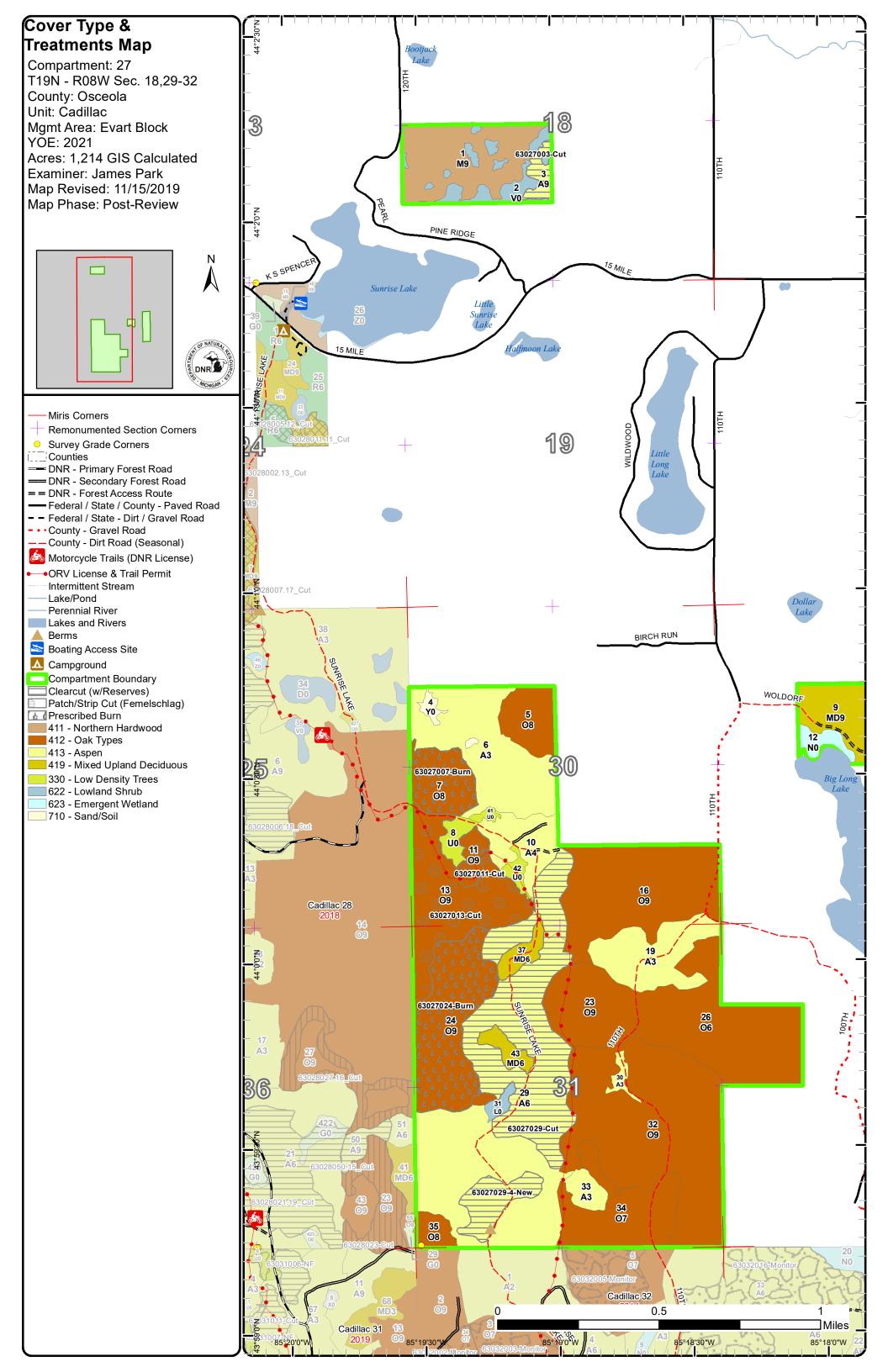
#### The following reports from the Inventory are attached:

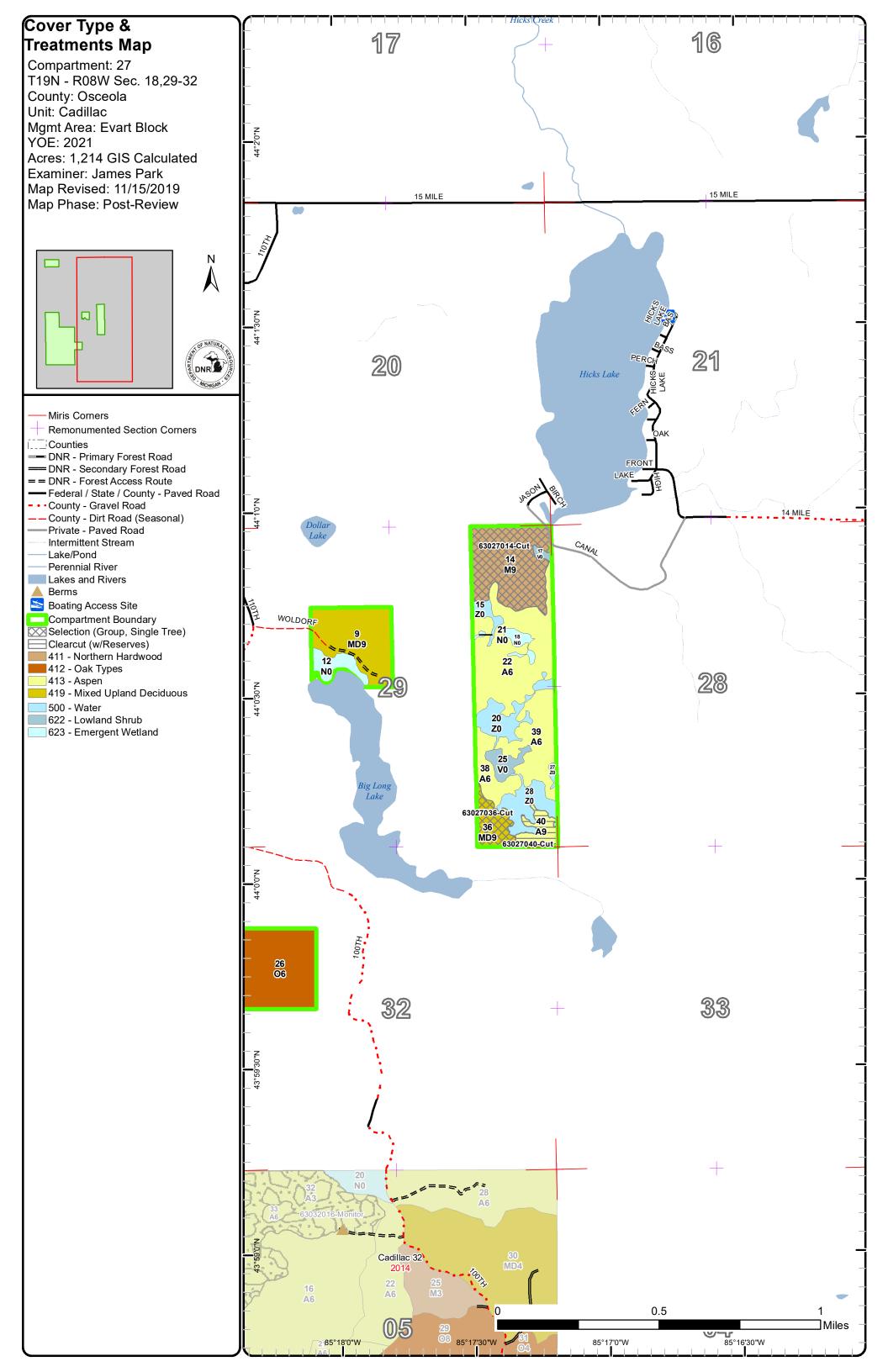
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

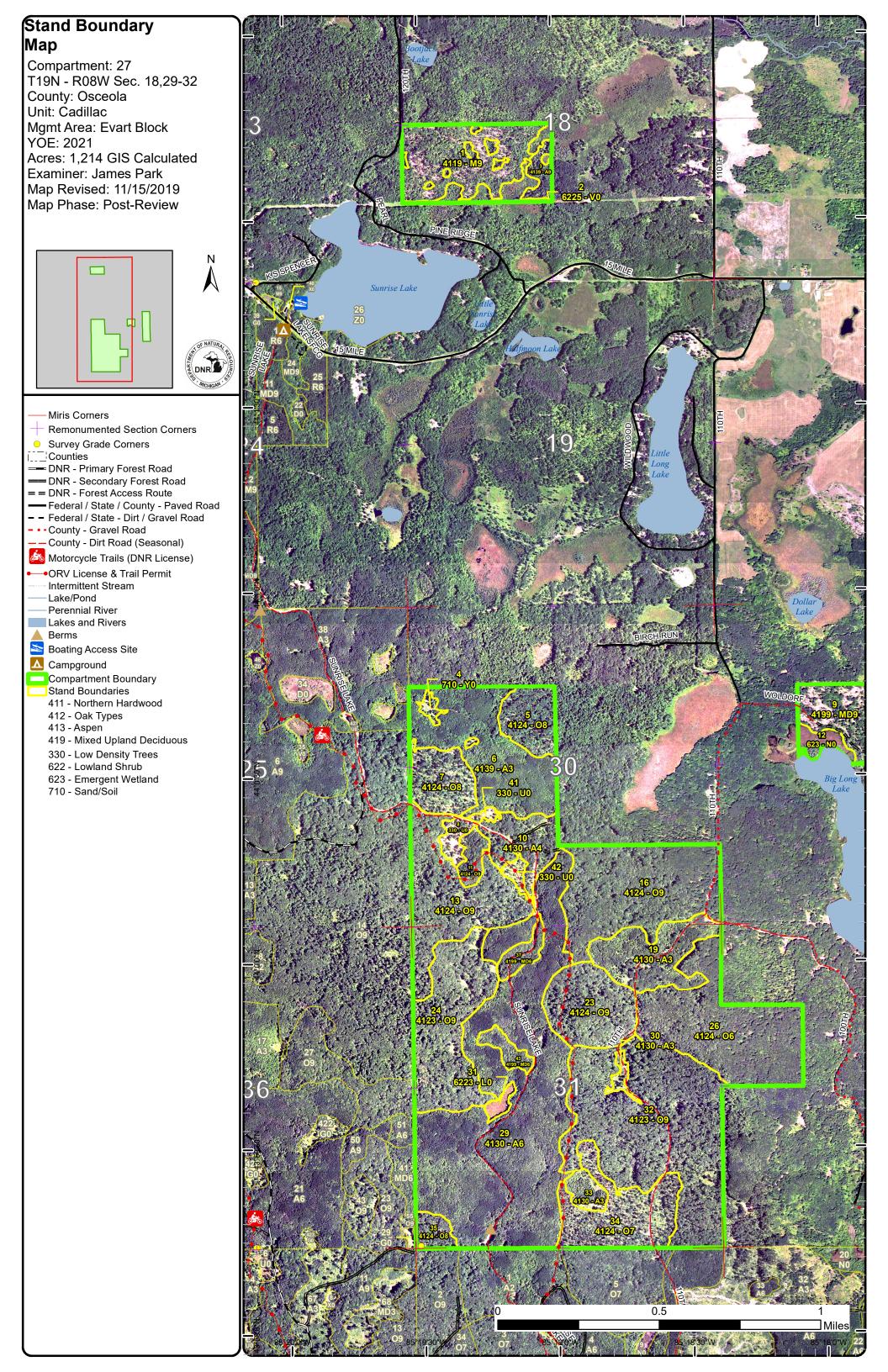
The following information is displayed, where pertinent, on the attached compartment maps:

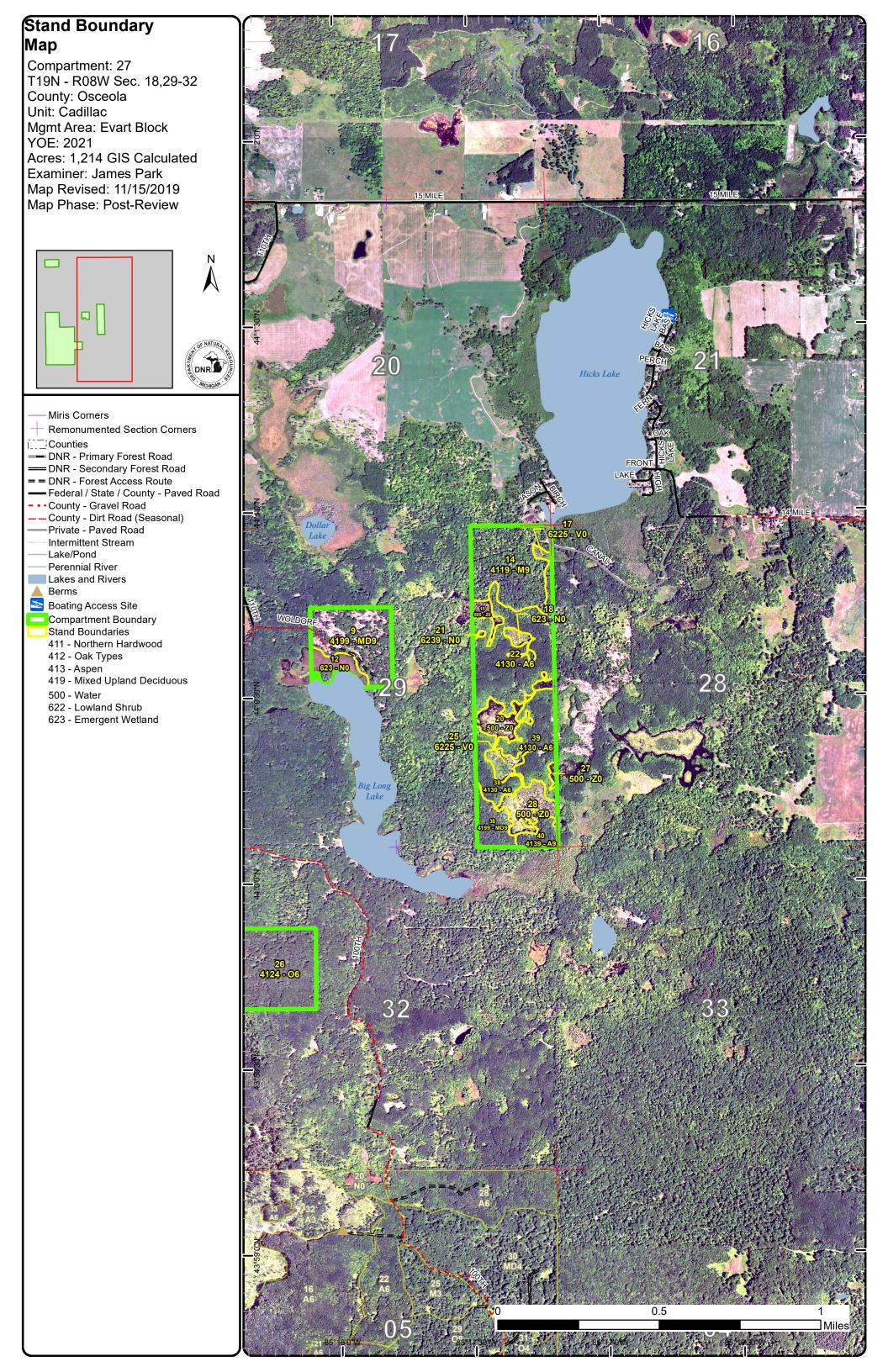
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

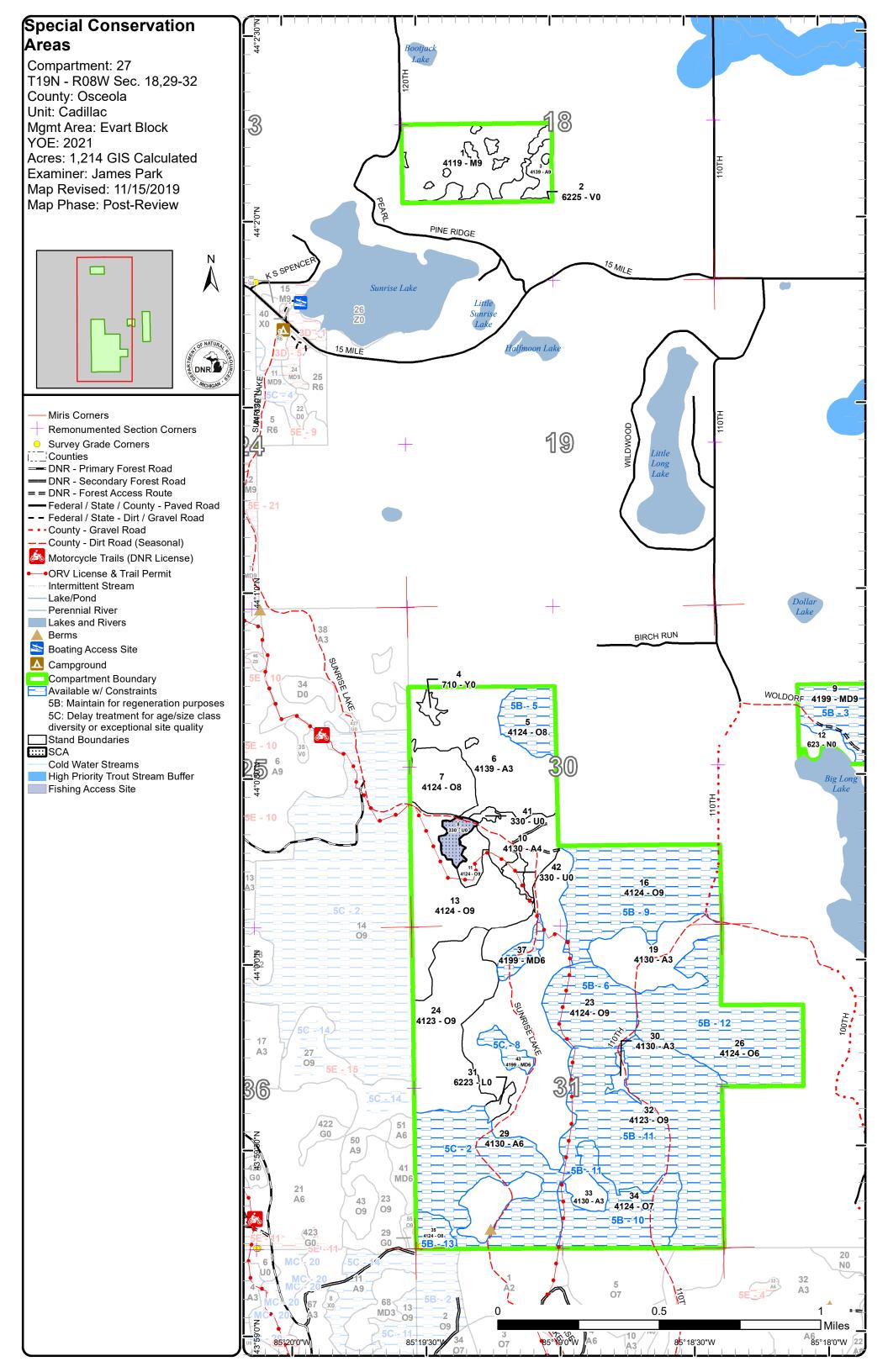


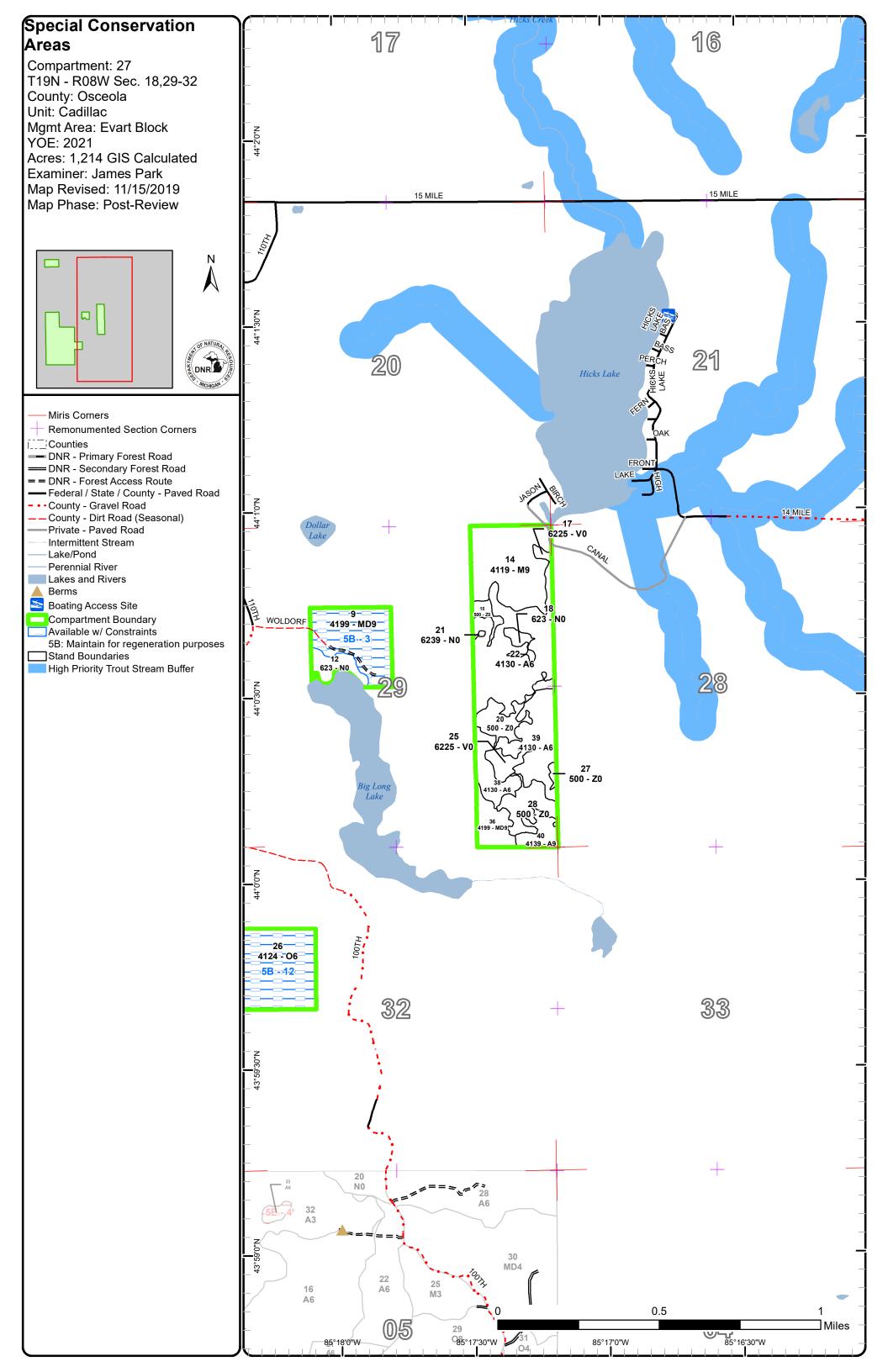












Cadillac Mgt. Unit James Park: Examiner



#### Age Class

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			§ / c			B / E		3 /		8 /8			S Z	<b>₹</b> /				* / 6	Exe You
	\ <del>*</del> 86	·/ `	, / «	s / &	, \	1 16	/ 8	/ &	s / «	s / &	· / &	/\$	1/2	\ \Q	\$ / &	, \ '\'	s / &	5 / Jr. 6	YOU YOU
Aspen	0	0	47	67	74	228	0	0	0	7	7	0	0	0	0	0	0	0	430
Bog	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Low-Density Trees	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Lowland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Marsh	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Mixed Upland Deciduous	0	0	0	0	0	14	0	0	0	0	29	10	0	0	0	0	0	0	53
Northern Hardwood	0	0	0	0	0	0	0	0	0	50	0	36	0	0	0	0	0	0	86
Oak	0	0	0	0	0	0	0	0	0	0	347	78	148	0	0	0	0	0	572
Sand, Soil	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Water	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Total	75	0	47	67	74	242	0	0	0	57	383	124	148	0	0	0	0	0	1215



## **Report 2 – Treatment Summary**

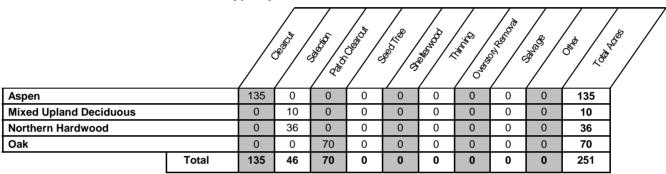
# Cadillac Mgt. Unit

Year of Entry: 2021 Acres of Harvest

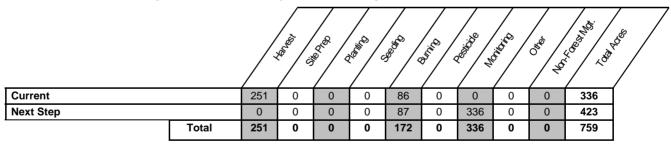
Compartment 27
Total Compartment Acres: 1,214

Commercial Harvest - 251 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

#### **Cover Type by Harvest Method**



### **Proposed and Next Step Treatments by Method**



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n

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**Treatment** Name

Acres

Stand CoverType

Stand **Density** Age

Size

BA Range **Treatment** Type

**Treatment** Method

**Cover Type** Objective

Compartment: 27

Year of Entry: 2021

Age Structure Habitat Cut

#### **Approved Treatments:**

63027003-Cut 6.6 4139 - Aspen, Sawtimber 80 111-Harvest Clearcut with 413 - Aspen Even-Aged No Mixed Deciduous Well 140 Retention

Prescription Cut all species. Retention will be within buffers surrounding wet areas. Use grouse spec.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable Aspen and a mix of lowland deciduous and coniferous species.

Regen:

Use timber sale to establish boundary and clear up any issues with adjacent landowner. Access is through stand 1 and between two low **Other** Comment: spots. This sale should be cut during the winter and mats should be used to cross into the stand.

Site Condition

Proposed Start Date: 10/1 /2020

63027007-4124 - Red with 23.7 Sawtimber 95 1-50 Burn Understory 412 - Oak Types Two-Aged No

Burn White Oak Medium

Prescription Burn to treat red maple competition and provide and help with Oak regeneration.

Specs:

Monitoring, Natural Regen (Intermediate); Burn, Understory Next Step

Treatments:

Acceptable Oak would be preferred but Red maple is very aggressive.

Regen:

Other

Comment: Site Condition

Proposed Start Date: 10/1 /2020

63027011-Cut 7 4 4124 - Red with 100 81-110 Strip/Patch/Gap 412 - Oak Types Even-Aged Sawtimber Harvest No Well

White Oak

Cut

(Femelschlag)

Prescription Strip or patch cut to facilitate oak regeneration

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable Oak, Maple, Aspen and a mix of other deciduous species

Regen:

Add spec to protect motorcycle trail. Use timber sale to block off illegal ORV access within the stand. <u>Other</u>

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

Compartment: 27

Year of Entry: 2021

t										rear of Entry	7: 2021	DNR
a n d	Treatmen Name	t	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
13	63027013-	Cut	62.8	4124 - Red with White Oak	Sawtimbe Well	r 101	51-80	Harvest	Strip/Patch/Gap Cut (Femelschlag)	412 - Oak Types	Two-Aged	No.
Pres Spe		ip or	patch cut	t to facilitate oak reç	generation.	Add sp	ec to prot	tect motorcycle	trail. Add chipping r	equirement to ass	ist Rx burn.	
	t Step Mo atments:	nitor	ing, Natui	ral Regen (Intermed	diate); Burr	n, Unde	rstory					
Acce Reg		k, Ma	aple, Asp	en and other mixed	deciduous	trees.						
Othe Com	<u>er</u> Ch nment:	eck v	vith 50 (T	ower) to determine	appropriate	e levels	of slash t	for Rx burn.				
Site	Condition											
Prop	osed Start I	Date:	10/1 /20	)20								
14	63027014-	Cut	36.0 N	4119 - Mixed Northern Hardwoods	Sawtimbe s Well	r 100	51-80	Harvest	Group Selection	411 - Northern Hardwood	Even-Ageo	d No
Pres Spe	<u>cs:</u> ne	ed to	be addre	ssed when marking	g so that fell	ling ope	erations d	o not damage ı	access. There is son residual trees. The re n some areas where	esidual BA in this	stand will be	variable do
	t Step Mo atments:	nitor	ing, Natui	ral Regen (Re-Inver	ntory)							
Acce Reg		rther	n hardwo	ods and aspen								
Othe Con		e use curec		and coordinated lay	y out will be	neces	sary to fa	cilitate access t	to this stand. Access	on PVT road will	also need to	be be
Site	Condition											
Prop	oosed Start I	Date:	10/1 /20	)20								
24	6302702 Burn	4-	61.9	4123 - Red Oak	Sawtimbe Well	r 110	51-80	Burn	Understory	4123 - Red Oak	Two-Aged	No No
Pres Spe		rn to	set red m	naple regen back.								
	t Step Mo atments:	nitor	ing, Othe	r - Specify								
Reg												
Othe Com	<u>er</u> nment:											
	Condition	)oto:	10/1 /20	112								
	osed Start I											
29	63027029 New		17.1	4130 - Aspen	Poletimbe Well	er 44	81-110	Harvest	Clearcut	413 - Aspen	Even-Ageo	d No
<u>Spe</u>			-									
	t Step Mo atments:	nitor	ing, Natui	ral Regen (Re-Inver	ntory)							
Reg		en										
Othe Com	<u>er</u> nment:											
	Condition											
Prop	oosed Start I	Date:	10/1 /20	)17								

Cadillac Mgt. Unit Report 3 -- Treatments Compartment: 27 S Year of Entry: 2021 t а **Treatment** Stand BA **Treatment Treatment Cover Type** Acres Stand Size Age Habitat n Method Objective Name CoverType Density Age Range Type Structure Cut d 29 63027029-Cut 104 6 4130 - Aspen Poletimber 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Nο Well Retention Prescription Clearcut with retention. Cut all species. Focus retention around water hole and wetland. Protect ORV route during timber sale. Use grouse Specs: spec in timber sale. Use oak wilt spec. Next Step Monitoring, Natural Regen (Intermediate) Treatments: Acceptable Aspen with a mix of upland deciduous species. Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2020 63027036-Cut 9.6 4199 - Other Mixed Sawtimber 105 111-Harvest **Group Selection** 411 - Northern Even-Aged No **Upland Deciduous** Well 140 Hardwood Prescription Cut all ash and aspen and mark trees for crop tree release and access. The residual BA will be variable and will be low in spots due to the Specs: concentration of ash and aspen pockets. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Northern hardwoods and aspen Regen: Access to this stand is going to be difficult and require mats and ingenuity to make it happen. Access should be well laid out during sale set Other up and crossings marked and measured. Work with Site Condition forester to make access happen. There is also an option of access Comment: through PVT. Site Condition Proposed Start Date: 10/1 /2020 63027040-Cut 6.7 4139 - Aspen, Sawtimber 90 111-Harvest Clearcut with 413 - Aspen Even-Aged No Mixed Deciduous Well 140 Retention Prescription Final harvest all aspen, ash and beech. Leave scattered hardwoods for seed source and mast. Mark leave trees to be included in retention along with wetland buffers. Specs:

This should be a winter cut or late summer as access will be difficult due to drainages and water table in the soils.

Monitoring, Natural Regen (Re-Inventory) Next Step

**Treatments:** 

Acceptable Aspen, Sugar Maple, Beech, and Other upland deciduous species.

Regen: Other Comment:

Access to this stand is going to be difficult and require mats and ingenuity to make it happen. Access should be well laid out during sale set up and crossings marked and measured. Work with Site Condition forester to make access happen. There is also an option of access

through PVT.

Site Condition

Proposed Start Date: 10/1 /2020

**Total Treatment** 336.4 Acreage Proposed:

Cadillac Mgt. Unit

James Park: Examiner

Availa	ability for	Managemer	nt				
Total	Acres	Acres Avail	Acres		Domina	nt Site	<b>Conditions</b>
Acres	Available	With Condition	Not Available		5B	5C	
429	346	83	0	Aspen		83	
22	22	0	0	Bog			
12	12	0	0	Low-Density Trees			
3	3	0	0	Lowland Shrub			
10	10	0	0	Marsh			
53	10	43	0	Mixed Upland Deciduous	29	14	
86	86	0	0	Northern Hardwood			
572	157	415	0	Oak	415	0	
3	3	0	0	Sand, Soil			
24	24	0	0	Water			
1,214	673	541		Total Forested Acres	444	97	
	55%	45%	0%	Relative Percent			-

<sup>\*</sup>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
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	83	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
3	Available	5B: Maintain for regeneration purposes	29	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
4	Unspecified	Unspecified	0				
(	Comments:						
14/45/2	010 12:42:50 PM - Pag	o 1 of 2					POLE

# Report 4 – Site Conditions

Cadillac Mgt. Unit

James Park: Examiner

5	Available	5B: Maintain for regeneration purposes	20	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Available	5B: Maintain for regeneration purposes	39	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
9	Available	5B: Maintain for regeneration purposes	83	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
10	Available	5B: Maintain for regeneration purposes	45	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

# Report 4 – Site Conditions

Cadillac Mgt. Unit

James Park: Examiner

11	Available	5B: Maintain for regeneration purposes	137	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
12	Available	5B: Maintain for regeneration purposes	84	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
13	Available	5B: Maintain for regeneration purposes	8	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

Cadillac Mgt. Unit Com

Compartment: 027 Year of Entry: 2021



### 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
Sugar Bowl	Concentrated Recreation Area	Fishing Access Site	Error	6
Comments				
This is the historic sugar b	owl area in the Evart Block			

Cadillac Mgt. Unit Compartment: 27





# Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

Conservation Area	туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosy influences the aquatic ecosystem and vice-versa. Becar streams and open water wetlands, riparian areas harbo communities are ecologically and socially significant in as aesthetics, habitat, bank stability, timber production,	use of the unique conditions adjacent to lakes, r a high diversity of plants and wildlife. Riparian their effects on water quality and quantity, as well

Report 7 - Stands



Compartment: 27

Year of Entry: 2021

Stand	d Level 4 C	over Type		Size De	nsity	Acres Stand Age	BA Range	Managed S	Site	General Comments	
1	4119 - Mixed No	orthern Har	dwoods	Sawtimb	er Well	49.7 88	81-110	N/A		Stand treated timber sale #63-021-11-01, "Evart Hardwoods".  Significant deer browse. Low pockets may make operability difficult in	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	ies Density	Avg. Height	Size	non-winter months. Some areas of steep terrain. Signs of Beech Bark	
	Sugar Maple	25	Log/Pole	10	88	Sugar Maple	Low	< 5 feet	Sapling	disease & snap with some larger trees present showing signs of	
	Red Maple	40	Log/Pole	12	88	Red Maple	Medium	< 5 feet	Sapling	resistance. Ash trees in the stand are all dead. Good aspen regen 5-8	
	Beech	7	Log/Pole	12		Witch Hazel	Medium	5 - 10 feet	Tall Shrub	feet. Trace Black Cherry (saw two) and Basswood (saw four).	
	Red Oak	20	Log/Pole	10		Bigtooth Aspen	Medium	< 5 feet	Sapling		
2	622	5 - Bog		Nonsto	cked	16.0	Unspecified	No			
3	4139 - Aspen,	Mixed Deci	duous	Sawtimb	er Well	6.6 80	111-140	N/A		Large aspen, with some verging on overmature. Access to the stand is	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	ies Density	Avg. Height	Size	between two connected lowlands. Access will require mats or some type of structure. Best to access in winter months.	
	Red Maple	40	Log/Pole	12		Beech	Medium	5 - 10 feet	Sapling	of structure. Dest to access in writer months.	
	Paper Birch	7	Pole	7		Witch Hazel	Medium	< 5 feet	Tall Shrub		
	Bigtooth Aspen	45	Log/Pole	12	80						
4	710 - 8	Sand, Soil		Nonsto	cked	3.1	Unspecified	No			
5	4124 - Red v	with White	Oak S	awtimber	Medium	n 20.3 95	1-50	N/A		Stand treated timber sale #63-061-11-01, "Billy Goat Oak". Previous Comment: Aspen and red maple cut out in 1992.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	ies Density	Avg. Height	Size	Confinent. Aspen and red maple cut out in 1992.	
	Red Oak	75	Log	15	95	Red Maple	Low	10 - 20 feet	Sapling	Stump-sprout origin oak overstory. Log to X-log in this stand. Overstory	
	White Oak	23	Log	14		Beech	High	5 - 10 feet	Sapling	dominated mostly by red oak with some white oak. Some scattered red	
						Bigtooth Aspen	Medium	10 - 20 feet	Sapling	maple poles have recruited into canopy gaps. Dense understory consist of mostly aspen and maple which is typical of the oak stands in this	
						Witch Hazel	High	5 - 10 feet	Tall Shrub	compartment.	
6	4139 - Aspen,	Mixed Deci	duous	Sapling	ı Well	67.1 27	Immature	N/A		Immature aspen stand with scattered red maple, red oak, and black	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	ies Density	Avg. Height	Size	cherry.	
	Red Maple	25	Pole/Sapling	g 5		Witch Hazel	Medium	5 - 10 feet	Tall Shrub		
	Red Oak	10	Sapling	4							
	Bigtooth Aspen	50	Pole/Sapling	g 5	27						
	Black Cherry	15	Sapling	4							
7	4124 - Red v	with White	Dak S	awtimber	Medium	n 23.7 95	1-50	N/A		Stand treated timber sale #63-061-11-01, "Billy Goat Oak". Previous	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	ies Density	Avg. Height	Size	Comment: One red oak cored = 42 rings at 5.5" DBH. Stand tre with a timber sale in 1992.	
	Red Oak	70	Log/Pole	14	95	Red Maple	High	5 - 10 feet	Sapling		
	White Oak	30	Log/Pole	14		Red Oak	Low	5 - 10 feet	Sapling	Oak stand with low BA. Red maple is the dominant species under the	
				,		Bigtooth Aspen	Low	5 - 10 feet	Sapling	residual oak.	
						Witch Hazel	High	5 - 10 feet	Tall Shrub		
8	330 - Low-l	Density Tre	es	Nonsto	cked	6.3	Unspecified	No		Designated ORV "Special Use Area" named "Sugar Bowl".	

Cadillac Mgt. Unit



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed \$	Site	General Comments
9	4199 - Other Mixe	d Upland [	Deciduous	Sawtimb	er Well	29.3	95	81-110	N/A		Stand was treated in Jan-Feb 2016 with timber sale "63-021-11-01", "Evart Hardwoods".
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Nice pockets of aspen regen. Maple and oak regen show signs of heavy
	Sugar Maple	20	Log/Pole	12	93	E	Beech	Low	5 - 10 feet	Sapling	deer browse.
	Red Maple	30	Log/Pole	10	93	Wit	ch Hazel	Medium	5 - 10 feet	Tall Shrub	
	Red Oak	40	Log/Pole/XL	og 14	95						
10	4130	- Aspen		Poletimb	er Poor	23.1	40	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age						
	Black Cherry	25	Pole/Log	8							
	Red Oak	10	Log/Pole	10							
	Bigtooth Aspen	60	Pole/Saplin	g 6	40						
11	4124 - Red v	vith White	Oak	Sawtimb	er Well	7.4	100	81-110	N/A		Previous comment: Buffer for designated Sugar Bowl. Steep hills
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	prevent access. Leaving area un-cut deters motorcycle activity in surrounding stands.
	Red Maple	10	Pole	7		Re	d Maple	Low	5 - 10 feet	Sapling	currounting currous.
	Red Oak	45	Log/Pole	12	100	Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	
	White Oak	25	Pole/Log	10							
	Bigtooth Aspen	15	Pole/Log	9							
12	623 - Emer	gent Wetla	and	Nonsto	cked	7.1	U	nspecified	No		
13	4124 - Red v	vith White	Oak	Sawtimb	er Well	62.8	101	51-80	N/A		Stand treated timber sale #630420101, "Sugarbowl Hardwoods", cut
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	winter of 2003-2004. Good quality stems in this stand. Red maple regen is significant.
	Red Maple	12	Pole/Log	9		Re	d Maple	High	10 - 20 feet	Sapling	- o o.goa.
	Red Oak	66	Log/Pole	13	101	Bigto	oth Aspen	Low	10 - 20 feet	Sapling	
	White Oak	20	Log/Pole	11		Wit	ch Hazel	High	5 - 10 feet	Tall Shrub	
						Blackbe	rry/Raspberry	High	< 5 feet	Tall Shrub	
14	4119 - Mixed No			Sawtimb		36.0	100	51-80	N/A		Stand treated timber sale #630820101, "Willy-Nilly Hardwoods", TCR dated 2005. E.A.B. present and causing white ash to fall into the stand.
	Canopy Species		Size Class		Age		nopy Species	Density	Avg. Height	Size	Beech bark present. Lots of quality stems. BA is closer to 80. In pockets
	Sugar Maple	10	Log/Pole	11			hite Ash	Medium	5 - 10 feet	Sapling	where mortality has occurred, white ash and aspen are recruiting.
	Red Maple	18	Log/Pole	10			Beech	Medium	5 - 10 feet	Sapling	
	White Ash	20	Pole/Log	9			oth Aspen	Low	5 - 10 feet	Sapling	
	Beech	15	Log/Pole	10		Iro	onwood	Medium	5 - 10 feet	Sapling	
	Red Oak	30	Log/Pole	15	100						
15	500 -	Water		Nonsto	cked	3.0	U	nspecified	No		



Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age I	BA Range	Managed S	Site	General Comments
16	4124 - Red v	vith White (	Dak S	Sawtimb	er Well	83.0	95	81-110	N/A		Stand treated timber sale #630740101, "Long Lake Hardwoods", 2001. Removed all aspen, red maple. Thinned oak to 80sqft BA.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Removed all aspen, red maple. Thirmed tak to obsqrt BA.
	Red Oak	73	Log/Pole	14	95	Re	d Maple	High	10 - 20 feet	Sapling	
	White Oak	23	Pole/Log	12			Beech	Low	5 - 10 feet	Sapling	
						Bigto	oth Aspen	Medium	10 - 20 feet	Sapling	
						Wit	ch Hazel	High	5 - 10 feet	Tall Shrub	
17	6225	i - Bog		Nonsto	cked	1.2	l	Jnspecified	No		
18	623 - Emer	gent Wetla	nd	Nonsto	cked	2.8	ι	Jnspecified	No		
19		- Aspen		Sapling		36.4	16	Immature	N/A		Stand treated in 2001 with timber sale "Long Lake Hardwoods"
	Canopy Species		Size Class		Age						
	Bigtooth Aspen	60	Sapling	3	16						
	Red Maple	30	Sapling	3							
	Red Oak	10	Log/XLog	14							
20	500 -	Water		Nonsto	cked	9.7	l	Jnspecified	No		
21	6239 - Mixed E	mergent W	etland	Nonsto	cked	0.3	0 ι	Jnspecified	No		Stand treated #630258101, 1985.
22	4130	- Aspen	F	Poletimb	er Well	42.6	33 l	Jnspecified	N/A		Aspen stand with scattered red maple, red oak, and black cherry. Stand
	Canopy Species	% Cover	Size Class	DBH	Age						treated #630258101, 1985. Lots of beaver activity.
	Red Maple	20	Pole/Sapling	6							
	Bigtooth Aspen	75	Pole/Sapling	6	33						
23	4124 - Red v	vith White (	Dak S	Sawtimb	er Well	38.7	98	81-110	N/A		Stand treated timber sale #630740101, "Long Lake Hardwoods", cut July 2002.
	Canopy Species	% Cover	Size Class		Age		nopy Species	Density	Avg. Height	Size	2002.
	Red Maple	10	Sapling/Pole				ch Hazel	Medium	5 - 10 feet	Tall Shrub	
	Red Oak	70	Log	15	98		aved Viburnun	n Low	< 5 feet	Tall Shrub	
	White Oak	20	Log/Pole	12		Sa	ssafras	Low	5 - 10 feet	Sapling	
						Re	d Maple	High	5 - 10 feet	Sapling	
24	4123 -	Red Oak	Ş	Sawtimb	er Well	63.4	110	51-80	N/A		Stand treated timber sale #630960101, "Gladwin Hardwoods", 2004.
	Canopy Species	% Cover	Size Class		Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	10	Pole/Log	8			d Maple	High	Variable	Sapling	
	Red Oak	75	Pole/Log	12	110		ch Hazel	High	5 - 10 feet	Tall Shrub	
	White Oak	15	Pole/Log	10		Blackbe	rry/Raspberry	High	< 5 feet	Tall Shrub	



Stand	d Level 4 C	over Type		Size Density	Acres	Stand Age	BA Range	Managed \$	Site	General Comments
25	6229	5 - Bog		Nonstocked	4.7		Unspecified	No		
26	4124 - Red	with White	Oak F	Poletimber Well	84.1	110	81-110	N/A		Stand treated timber sale #630790101, "Redfeather Selection", 2002.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Red Oak	70	Log/Pole	10 110		tch Hazel	Medium	5 - 10 feet	Tall Shrub	
	White Oak	30	Log/Pole	10	Maple Le	aved Viburnui	m Low	< 5 feet	Tall Shrub	
					S	assafras	Low	5 - 10 feet	Sapling	
					Re	ed Maple	Medium	10 - 20 feet	Sapling	
					Bigto	ooth Aspen	Medium	10 - 20 feet	Sapling	
27	500	- Water		Nonstocked	0.9		Unspecified	No		
28	500	- Water		Nonstocked	10.9		Unspecified	No		
29	4130	- Aspen	F	Poletimber Well	204.6	44	81-110	N/A		Aspen stand with scattered red maple, red oak, and black cherry. A
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	treatment should be created to break this stand up into different age classes. There are significant blow down salvage operations both to the
	Red Maple	20	Pole	6	Wi	tch Hazel	Medium	5 - 10 feet	Tall Shrub	south and west of this stand. Retaining the southern half of this stand w
	Red Oak	10	Pole/Sap/Log	g 6	Hawt	thorn (spp.)	Low	5 - 10 feet	Tall Shrub	ensure mature aspen is retained at the landscape level.
	Bigtooth Aspen	55	Pole/Log	9 44						
	Black Cherry	10	Pole	6						
30	4130	- Aspen		Sapling Well	3.1	17	Immature	N/A		Regenerating stand. Cut in 2000.
	Canopy Species	% Cover	Size Class	DBH Age						
	Bigtooth Aspen	60	Sapling	3 17						
	Red Maple	40	Sapling	3						
31	6223 - Inundat	ed Shrub S	wamp	Nonstocked	3.2		Unspecified	No		
32	4123 -	Red Oak		Sawtimber Well	136.7	95	81-110	N/A		Stand treated timber sale #630420101, "Sugar bowl hardwoods", 2004.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Red Oak	70	Log/Pole	14 95		Beech	Medium	10 - 20 feet	Sapling	
	Black Cherry	10	Pole/Log	9	R	Red Oak	Low	< 5 feet	Sapling	
	Red Maple	15	Log/Pole	10	W	hite Oak	Low	< 5 feet	Sapling	
					Wi	tch Hazel	Medium	5 - 10 feet	Tall Shrub	
					S	assafras	Medium	5 - 10 feet	Sapling	
					Re	ed Maple	High	10 - 20 feet	Sapling	
					Biata	ooth Aspen	Medium	10 - 20 feet	Sapling	

Cadillac Mgt. Unit

Compartment: 27 Year of Entry: 2021

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Stand	d Level 4 Co	Size Density			Acres	Stand Age	BA Range	Managed Site		General Comments		
33	4130 - Aspen			Sapling Well		7.5	16	Immature	N/A		Regenerating stand. Cut in 2001.	
	Canopy Species	% Cover	Size Class	DBH	Age							
	Bigtooth Aspen	60	Sapling	3	16							
	Red Maple	40	Sapling	3								
34				Sawtimber Poor		44.5 90		1-50	1-50 N/A		Stand treated timber sale #63-061-11-01, "Billy Goat Oak". Previous Comment: Pockets of heavy white oak regen. Some scattered red oak	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	regen.	
	Beech	10	Pole/Log	8			nite Oak	Medium	< 5 feet	Sapling		
	Red Oak	60	Log/Pole	12	90	Wit	ch Hazel	High	< 5 feet	Tall Shrub		
	White Oak	30	Pole/Log	10		R	ed Oak	Low	< 5 feet	Sapling		
35	4124 - Red with White Oak S			awtimber Medium		7.6	108	51-80	N/A		Stand treated timber sale #631070101, "Woodcutters Trail", 2004.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size		
	Red Maple	15	Log/Pole	12		Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub		
	Red Oak	50	Log/Pole	13	108	Bigto	oth Aspen	Medium	5 - 10 feet	Sapling		
	White Oak	35	Log/Pole	11		Re	d Maple	Medium	5 - 10 feet	Sapling		
36	4199 - Other Mixed	Sawtimb	er Well	9.6	105	111-140	N/A		E.A.B. and Beech Bark are present in the stand. White ash is dying and falling into the stand, but some remains unaffected. Stand shows no			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	signs of management. The aspen is mostly over-mature and located in	
	Bigtooth Aspen	15	Log	15		Bigto	oth Aspen	Low	5 - 10 feet	Sapling	the eastern portion of the stand. Some of the aspen is beginning to fall	
	Red Oak	30	Log/XLog	16	105	Re	d Maple	Low	5 - 10 feet	Sapling	into the stand. Some steep hills. Significant beaver activity in the area.	
	Beech	10	Log/Pole	14		Sug	jar Maple	Low	5 - 10 feet	Sapling		
	White Ash	15	Log/Pole	13								
	Basswood	12	Log/Pole	15								
37	4199 - Other Mixed Upland Deciduous			Poletimber Well		7.4 44 111-		111-140	-140 N/A		This stand was harvested at the same time as the surrounding aspen	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Speci		es Density	Avg. Height	Size	stand, and regenerated to mostly mixed deciduous. Took core sam from multiple tree species and found all to have similar ages. Stump	
	Red Maple	40	Pole/Sapling		44	Wit	ch Hazel	Medium	5 - 10 feet	Tall Shrub	sprout origin oak and maple are prevalent within the stand. Manage for	
	Red Oak	40	Pole/Sapling	5		Hawt	horn (spp.)	Low	5 - 10 feet	Tall Shrub	oak or mixed deciduous in the future, with a focus on oak retention.	
	Bigtooth Aspen	12	Pole/Sapling									
	bigiootii Aspen	12	Fule/Sapility	6	44							
38		- Aspen		6 Poletimb		9.8	33	Unspecified	N/A			
38				Poletimb		9.8	33	Unspecified	N/A		Aspen stand with scattered red maple, red oak, and black cherry. Stand treated #630258101, 1985. Lots of beaver activity.	
38	4130	- Aspen	F	Poletimb	er Well	9.8	33	Unspecified	N/A			
38	4130 Canopy Species	- Aspen	Size Class	Poletimb  DBH	er Well	9.8	33	Unspecified	N/A			
38	4130 Canopy Species Red Maple Bigtooth Aspen	- Aspen  **Cover** 20	F Size Class Pole/Sapling Pole/Sapling	Poletimb  DBH	er Well Age	9.8	33	Unspecified	N/A		treated #630258101, 1985. Lots of beaver activity.  Aspen stand with scattered red maple, red oak, and black cherry. Stand	
	4130 Canopy Species Red Maple Bigtooth Aspen	- Aspen  **Cover 20 72	F Size Class Pole/Sapling Pole/Sapling	Poletimb  DBH  6  6  Poletimb	er Well Age						Aspen stand with scattered red maple, red oak, and black cherry. Stand treated #630258101, 1985. Lots of beaver activity.  Aspen stand with scattered red maple, red oak, and black cherry. Stand treated #630258101, 1985. Lots of beaver activity.	
	4130 Canopy Species Red Maple Bigtooth Aspen 4130	- Aspen  **Cover 20 72  - Aspen	F Size Class Pole/Sapling Pole/Sapling	Poletimb  DBH  6  6  Poletimb  DBH	er Well 33 er Well						treated #630258101, 1985. Lots of beaver activity.  Aspen stand with scattered red maple, red oak, and black cherry. Stand	



Stand	Level 4 Cover Type			Size Density		Acres	Stand Age	BA Range	Managed S	Site	General Comments
40	4139 - Aspen, I	duous S	Sawtimber Well		6.7 90		111-140	N/A		E.A.B. and Beech Bark are present in the stand. White ash is dying and	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	falling into the stand, but some remains unaffected. Stand shows no signs of management. The aspen is mostly over-mature and located in
	Bigtooth Aspen	53	Log/Pole	15	90	Bigto	ooth Aspen	Low	5 - 10 feet	Sapling	the eastern portion of the stand. Some of the aspen is beginning to fall
	Red Oak	15	Log/XLog	16	105	Re	ed Maple	Low	5 - 10 feet	Sapling	into the stand. Some steep hills. Significant beaver activity in the area.
	Beech	10	Log/Pole	14							
	Sugar Maple	10	Log/Pole	10							
41	330 - Low-Density Trees			Nonsto	cked	1.7	0	Unspecified	No		Disbursed camping area adjoins sugar bowl.
42	330 - Low-[	Density Tree	es	Nonsto	cked	3.7	0	Unspecified	No		
43	4199 - Other Mixed	d Upland Deciduous		Poletimber Well		6.5	44	111-140	N/A		This stand was harvested at the same time as the surrounding aspen stand, and regenerated to mostly mixed deciduous. Took core samples
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	from multiple tree species and found all to have similar ages. Stump-
	Red Maple	40	Pole/Sapling	ling 5 44		Witch Hazel		Medium	5 - 10 feet	Tall Shrub	sprout origin oak and maple are prevalent within the stand. Manage for
	Red Oak	40	Pole/Sapling	5 4	44	Hawt	thorn (spp.)	Low	5 - 10 feet	Tall Shrub	oak or mixed deciduous in the future, with a focus on oak retention.
	Bigtooth Aspen	12	Pole/Sapling	6	44						