

Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63090 Entry Year 2021 Acreage: 1,857

County Missaukee

Management Area: Houghton Lake Wetlands

Revision Date: 2019-06-07

Stand Examiner: Joe Ventimiglia

Legal Description:

T23N, R5W, Sections 5,6,7,8,16,17.

Identified Planning Goals:

Vegetation management in the Houghton Lake Wetlands management area will 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 for this 10-year planning period will focus on balancing the aspen age-class distribution. 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 the next decade are the need to continue to balance aspen age-class distributions, an expected increase in recreation pressure and invasive species encroachment.

Soil and topography:

Lupton muck under the marsh areas. A variety of sands through the rest of compartment including, Otisco, Brevort, Graycalm and Moncalm. Mostly flat and marshy.

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

Private land in every section. Full time and seasonal residences. Compartment is surrounded by farms and hunting clubs.

Unique Natural Features:

Haymarsh Swamp and Haymarsh Creek.

Archeological, Historical, and Cultural Features:

None Listed.

Special Management Designations or Considerations:

No reasonable commercial access to a few islands in middle of Haymarsh swamp. Stand have been accessed in past by wildlife with habitat cuts.

Watershed and Fisheries Considerations:

Hay marsh Creek.

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. A portion of this compartment is a part of the Deadstream Swamp complex.

Mineral Resource and Development Concerns and/or Restrictions

Sections 5, 6, 7, 8, 16, & 17, T23N-R5W, Missaukee Co.

Surface sediments consist of ice-contact and glacial outwash sand & gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum in other parts of the State. A gravel pit is in Section 4 and there is potential on the uplands. Enterprise Field is located two miles to the east. This field has produced nearly 5 million BO from the Devonian Richfield Formation and is in secondary recovery operations. Most of the state minerals are currently leased for oil and gas development and sections 5 -8 have been nominated for nonmetallic potash exploration.

Vehicle Access:

Road access detailed on compartment map.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

Heavy deer and upland bird hunting area, as well as hiking and wildlife viewing.

Fire Protection:

This compartment has areas that would not allow good access for fire equipment. Much of the fuels are aspen. IA is from Houghton Lake. Initial attack times could be a concern. If a fire would occur in one of the poor access areas, it possibly could be labor intensive to control.

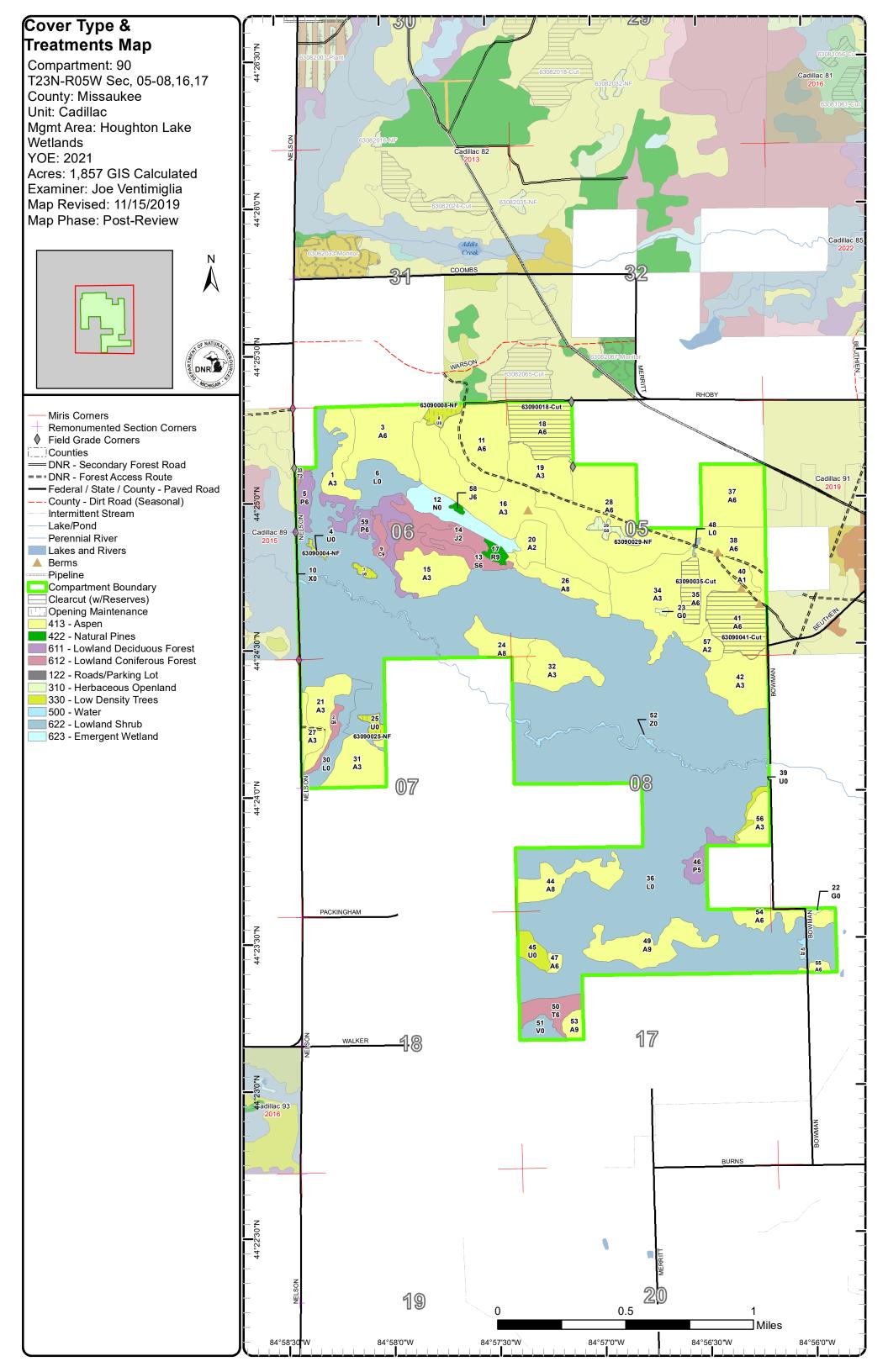
Additional Compartment Information:

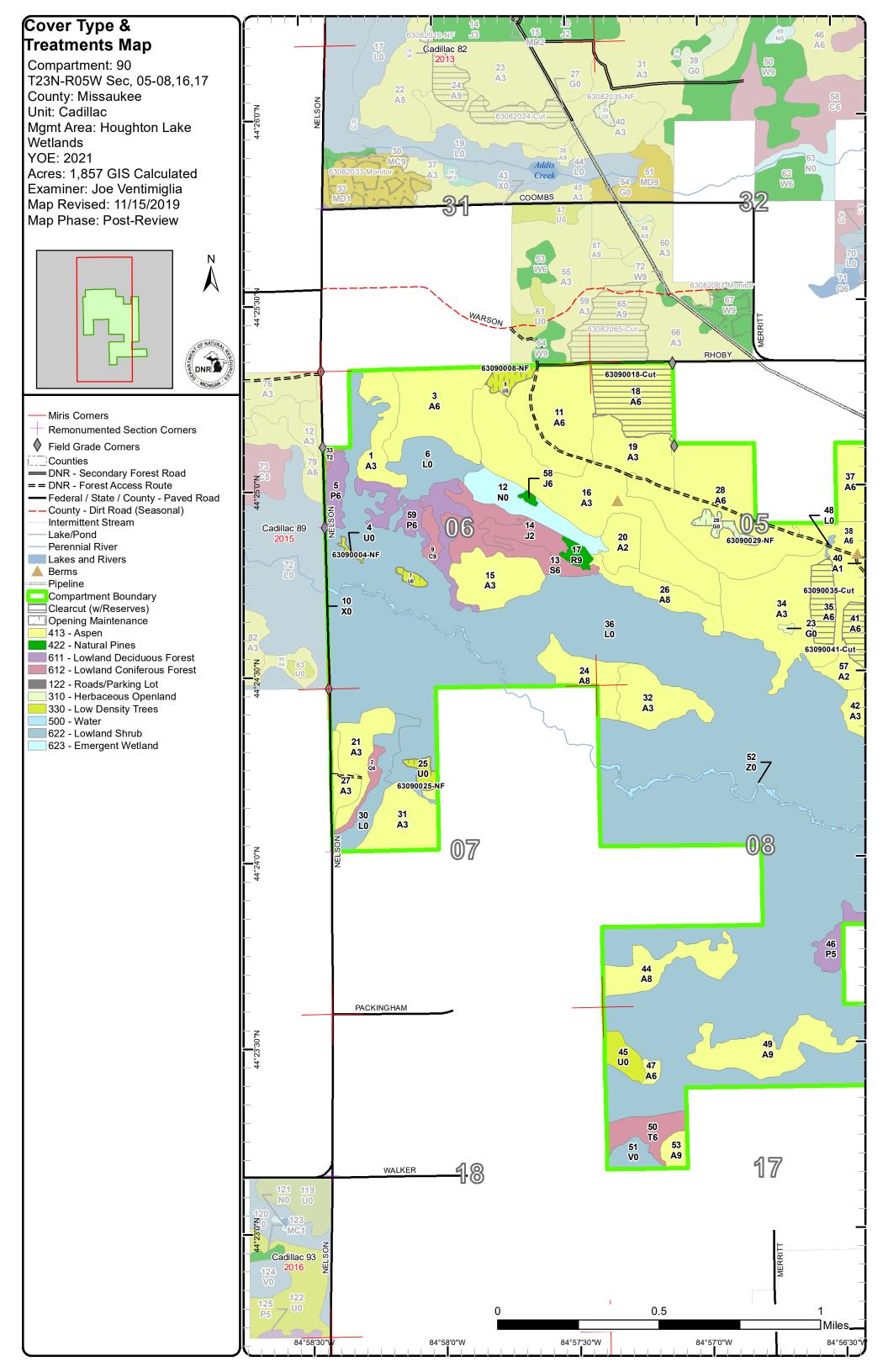
The following reports from the Inventory are attached:

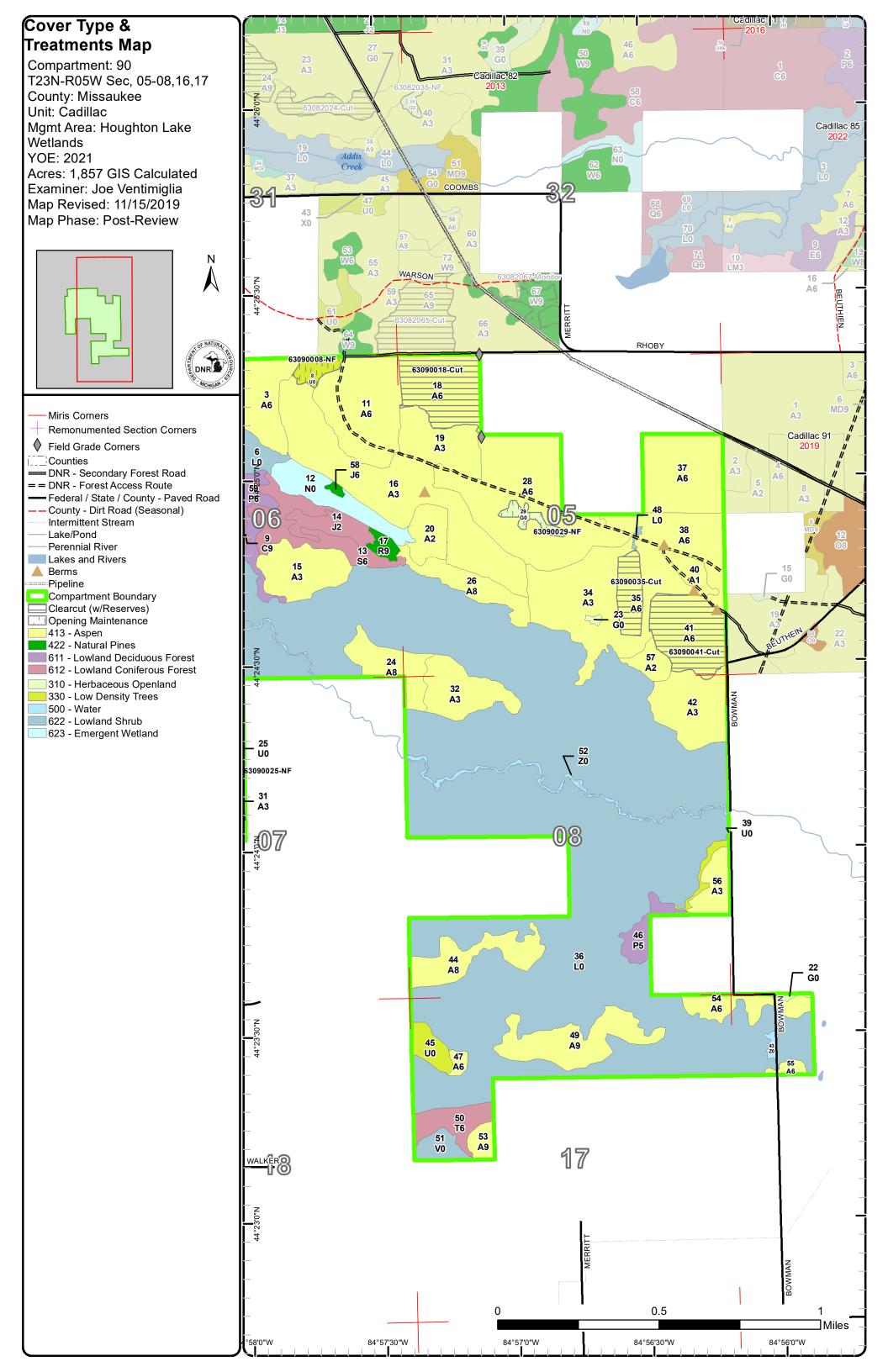
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

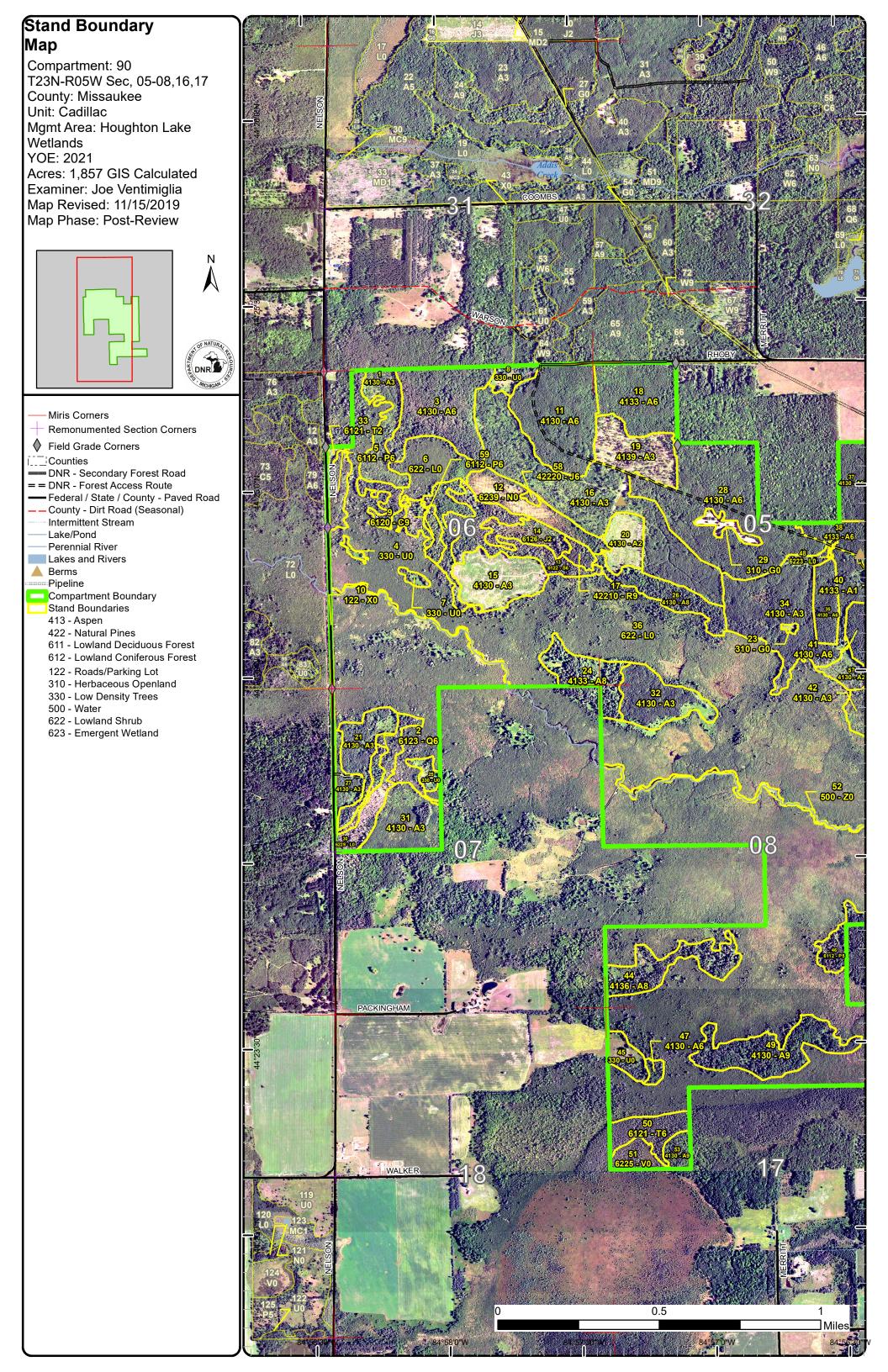
The following information is displayed, where pertinent, on the attached compartment maps:

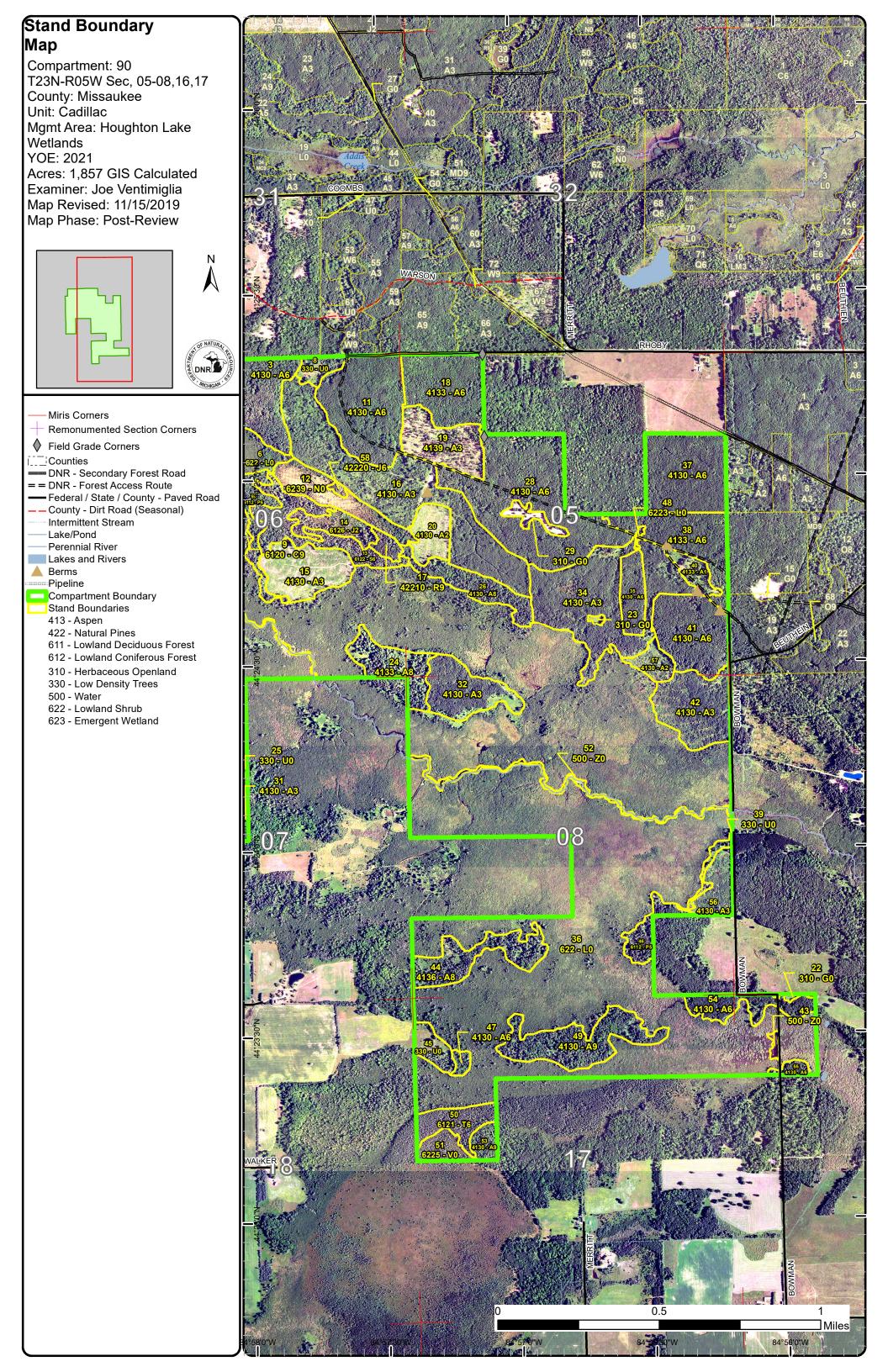
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

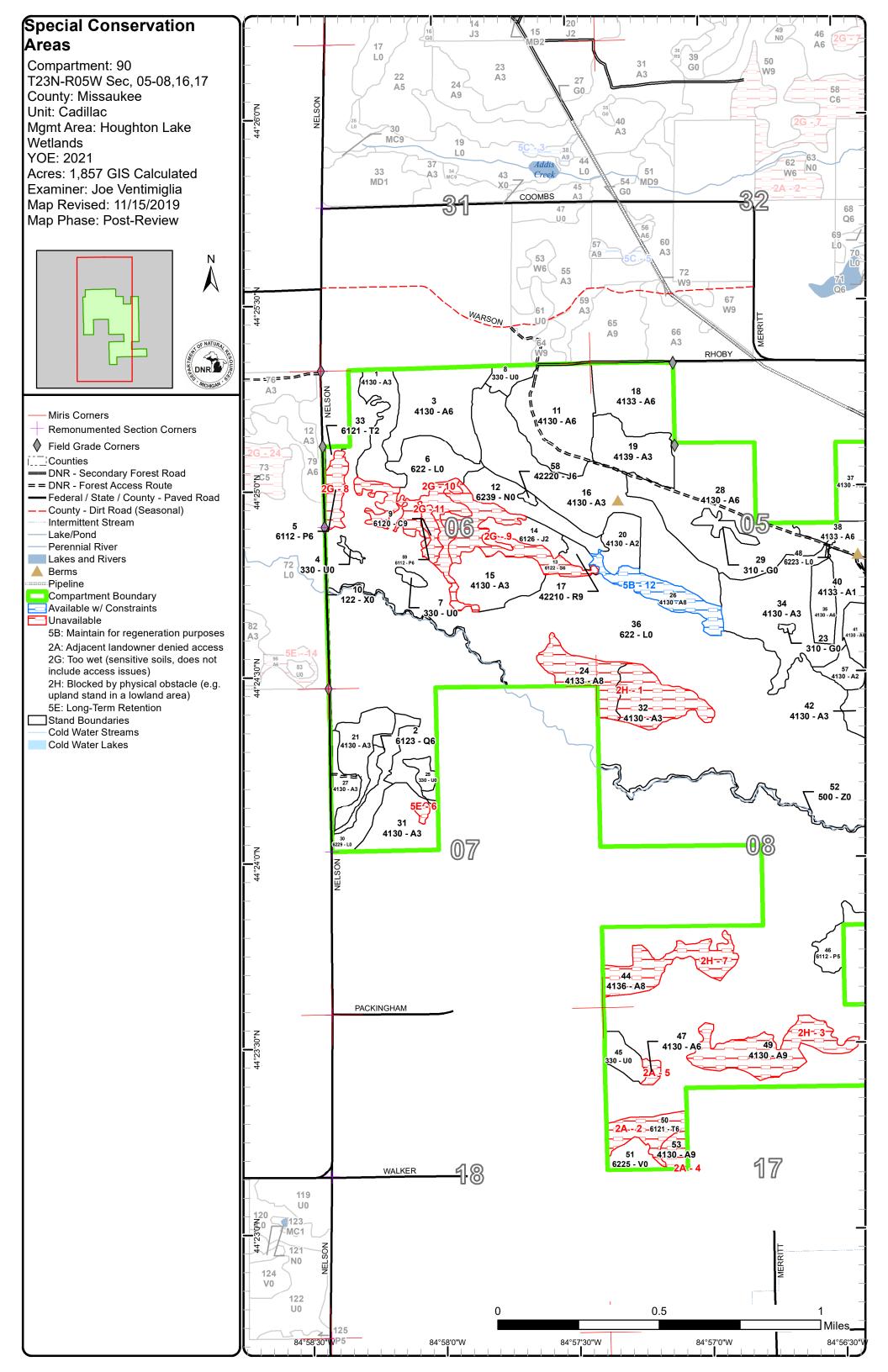


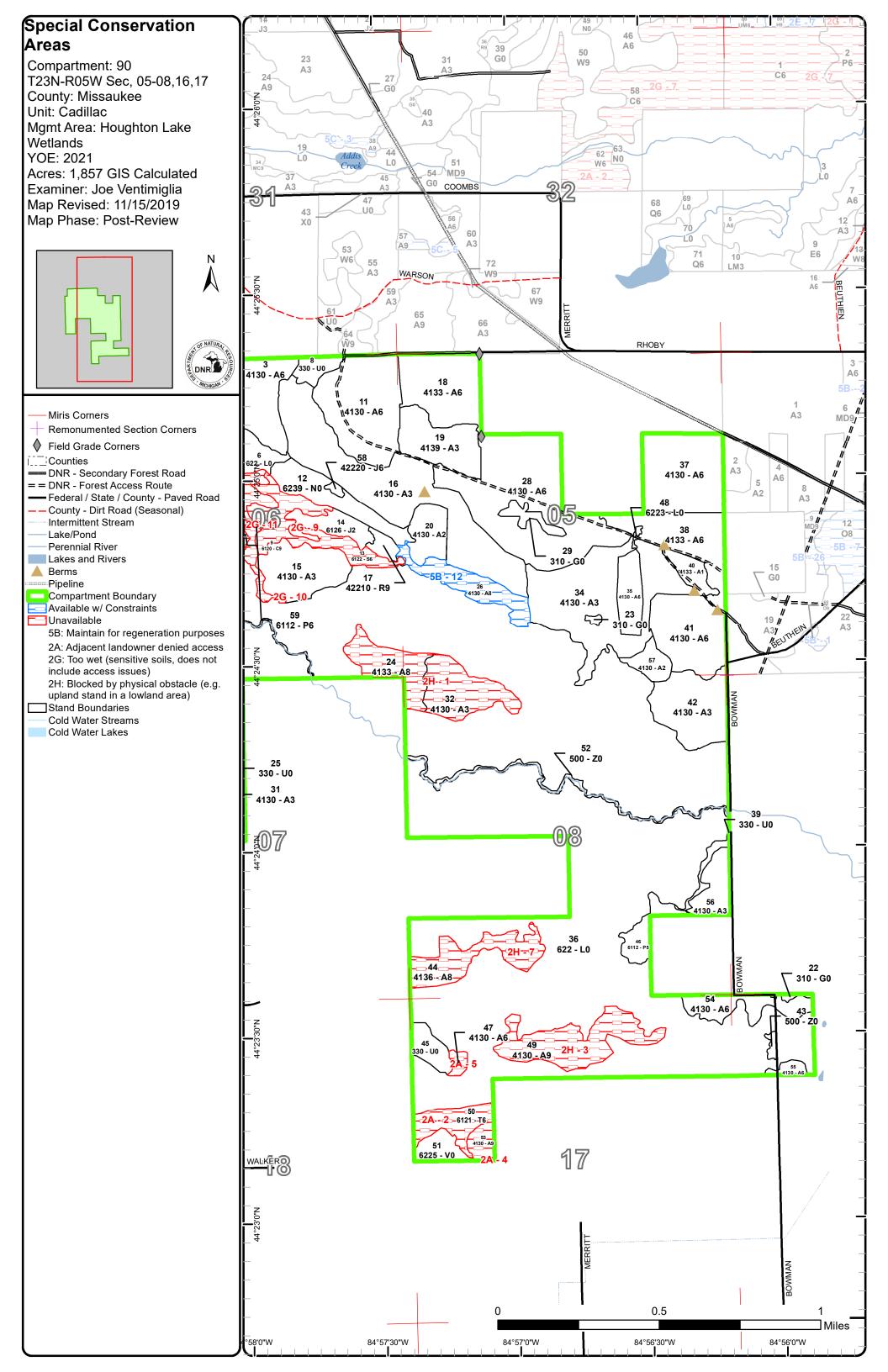












Cadillac Mgt. Unit Joe Ventimiglia: Examiner

Age Class

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	Age .		3 / 2			3 / 6		/ } /&					" 'Z Z Z					* See	TO TO
Aspen	0	104	143	105	222	105	17	25	50	0	5	0	0	0	0	0	0	0	774
Bog	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	4
Herbaceous Openland	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Jack Pine	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Low-Density Trees	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Lowland Aspen/Balsam Poplar	0	0	0	0	9	32	0	0	0	0	0	0	0	0	0	0	0	0	41
Lowland Conifers	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Shrub	905	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	905
Lowland Spruce/Fir	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	25
Marsh	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Red Pine	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Tamarack	0	0	1	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	14
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Water	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	976	104	155	105	232	166	17	38	54	0	5	0	5	0	0	0	0	0	1854



Report 2 – Treatment Summary

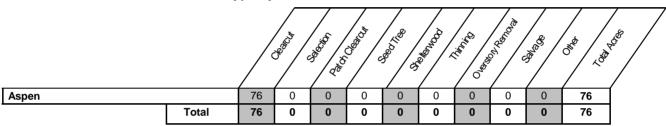
Cadillac Mgt. Unit Year of Entry: 2021

Acres of Harvest

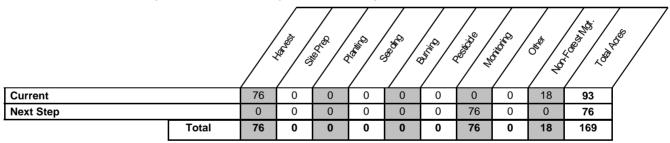
Compartment 90
Total Compartment Acres: 1,857

Commercial Harvest - 76
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Report 3 -- Treatments

BA

Compartment: 90 Year of Entry: 2021

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Treatment Name

Acres

Stand CoverType

Size Density Stand Age Range **Treatment** Type

Treatment Method

Cover Type Objective

Age Structure Habitat Cut

Approved Treatments:

63090004-NF 1.2 330 - Low-Density Nonstocked Unspec NonForestMgt **Brush Cutting** 310 -No Herbaceous Trees ified Openland

Prescription Keep open. Cut brush and trees as needed. May plant shrubs, mast producing trees as well as grasses and forbs. Specs:

Next Step Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

2.0 330 - Low-Density Nonstocked 63090007-NF 310 -7 Unspec NonForestMgt **Brush Cutting** Nο Trees ified Herbaceous Openland

Prescription Keep open. Cut brush and trees as needed. May plant shrubs, mast producing trees as well as grasses and forbs.

Specs:

Next Step Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

63090008-NF 5.9 330 - Low-Density Nonstocked Unspec NonForestMat **Brush Cutting** 310 -No Herbaceous Trees ified Openland

Prescription Keep open. Cut brush and trees as needed. May plant shrubs, mast producing trees as well as grasses and forbs. Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020

35 63090035-Cut 11.6 4130 - Aspen Poletimber 41 51-80 Harvest Clearcut 413 - Aspen Even-Aged No Well

Prescription Final Harvest. No retention as a result of small size.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen primary

Regen: Other

Winter or dry summer only include with stand 41 in sale.

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

Cadillac Mgt. Unit Report 3 -- Treatments Compartment: 90 S Year of Entry: 2021 t а **Cover Type** Habitat **Treatment** Acres Stand Size Stand BA **Treatment Treatment** Age n Density Method Objective Structure Name CoverType Age Range Type Cut d 41 63090041-Cut 31.7 4130 - Aspen Poletimber 51-80 Harvest Clearcut with 413 - Aspen Even-Aged Well Retention <u>Prescription</u> Final Harvest leave Retention island 3 to 5 percent of total acreage. Include some pine within retention area. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable aspen primary with some pine and maple accepted as well. Regen: <u>Other</u> Map retention area in MIFI.

Total Treatment 93
Acreage Proposed:

Proposed Start Date: 10/1 /2020

Comment:
Site Condition

Joe Ventimiglia : Examiner

Availa	ability for	Managemer	nt						
Total	Acres	Acres Avail	Acres	De	omina	nt Site	e Con	dition	s
Acres	Available	With Condition	Not Available		5B	2A	2G	2H	5E
775	654	17	104	Aspen	17	8	0	96	1
7	7	0	0	Bog		0			
5	0	0	5	Cedar			5		
6	6	0	0	Herbaceous Openland					
12	12	0	0	Jack Pine			0		
24	24	0	0	Low-Density Trees					
41	9	0	32	Lowland Aspen/Balsam Poplar			32		
4	4	0	0	Lowland Conifers					
905	905	0	0	Lowland Shrub		0	0	0	
25	0	0	25	Lowland Spruce/Fir			25		
19	19	0	0	Marsh	0		0		
4	4	0	0	Red Pine	0		0		
15	1	0	13	Tamarack		13	0		
4	4	0	0	Urban					
11	11	0	0	Water					
1,857	1,661	17	179	Total Forested Acres	17	21	61	96	1
· · · · · · · · · · · · · · · · · · ·	89%	1%	10%	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.

ll	•		Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	42	Unspecified	Unspecified	Unspecified	Unspecified
mments: reasonable comn	nercial access. Too much LC	type to c	cross to get to. Area on rea	ached by habitat but in pas	s. Last was 1993.	
Unavailable	2A: Adjacent landowner denied access	13	Unspecified	Unspecified	Unspecified	Unspecified
nments:						
re	easonable comn	stand in a lowland area) nments: easonable commercial access. Too much LC Unavailable 2A: Adjacent landowner denied access	stand in a lowland area) nments: easonable commercial access. Too much LO type to c Unavailable 2A: Adjacent landowner 13 denied access	stand in a lowland area) nments: easonable commercial access. Too much LO type to cross to get to. Area on rea Unavailable 2A: Adjacent landowner 13 Unspecified denied access	stand in a lowland area) nments: easonable commercial access. Too much LO type to cross to get to. Area on reached by habitat but in pas Unavailable 2A: Adjacent landowner 13 Unspecified Unspecified denied access	stand in a lowland area) ments: easonable commercial access. Too much LO type to cross to get to. Area on reached by habitat but in pass. Last was 1993. Unavailable 2A: Adjacent landowner 13 Unspecified Unspecified Unspecified denied access

Report 4 – Site Conditions

Cadillac Mgt. Unit

Joe Ventimiglia: Examiner

3	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	31	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: upland island in mid	ddle of swamp, no commercial	access.				
4	Unavailable	2A: Adjacent landowner denied access	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2A: Adjacent landowner denied access	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Too much access f	or 2 acres of timber.					
6	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: LTR for stand 31 th	at was cut in 2013.					
7	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	23	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Upland island of time	nber in middle of large LO. No o	commerc	ial access.			
8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Attempted to be cur	t in 2006, appears it became to	o wet to	operate.			

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia: Examiner

Compartment: 90 Year of Entry: 2021

9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	Unspecified	Unspecified	Unspecified	Unspecified
F	Comments: Portion of stand was site condition.	s attempted to be cut in 2002 เ	unsuccessf	fully. With perfect frozen	condition might be possib	le with tracked machines. F	For now throwing too wet
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Too wet.						
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
12	Available	5B: Maintain for regeneration purposes	17	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Allow stand to cover	rt to more suited better quality	red maple				

11/14/2019 3:17:26 PM - Page 3 of 3

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				

Mgt. Unit Compartment:
Year of Entry

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 Type Description
Area

ERA = Ecological Reference Area

HCVA = High Conservation Value Area

SCA = Special Conservation Area



Stan	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age I	BA Range	Managed S	Site	General Comments
1	4130	- Aspen		Sapling	Well	18.8	13 l	Jnspecified	N/A		Strand final harvested in 2006.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Quaking Aspen	60	Sapling	1	13	Bals	sam Fir	Low	< 5 feet	Sapling	
	Bigtooth Aspen	40	Sapling	1	13	Tag	g Alder	Low	< 5 feet	Tall Shrub	
2	6123 - L	owland Fir	F	Poletimbe	er Well	4.2	46	51-80	N/A		Sliver of mostly fir, maple and cedar that has been missed from recent aspen cuts. Maintain as buffer, seasonally wet as is.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	aspen cuts. Maintain as buner, seasonally wet as is.
Ν	lorthern White Cedar	10	Log/Pole	10		Tag	g Alder	High	5 - 10 feet	Tall Shrub	
	Quaking Aspen	20	Pole/Log/XLo	g 9							
	Balsam Fir	55	Pole/Log	8	46						
	Red Maple	10	Log/Pole	13							
3	4130	- Aspen	F	Poletimbe	er Well	41.0	35	51-80	N/A		Stand was final harvested in 1983. Hummocky ground that seasonally
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	wet.
	Red Maple	10	Pole	6		Red	l Maple	Medium	Variable	Sapling	
	Quaking Aspen	75	Pole	7	35	Whi	te Pine	Low	< 5 feet	Sapling	
	Paper Birch	8	Pole	5							
4	330 - Low-	Density Tre	es	Nonsto	cked	1.2	l	Jnspecified	No		Small upland island with some trees on edge, mostly open.
5	6112 - Lo	wland Aspe	n F	Poletimbe	er Well	7.9	43	1-50	N/A		Lowland aspen, stand appears from records to have been attempted to
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	be cut but was too wet to operate. Area that was cut in 2006(stand 33) flooded out and is barely a forested stand today in 2018. Sliver near road
	Quaking Aspen	70	Pole/Log	8	43	Red	l Maple	Low	5 - 10 feet	Sapling	looks operable but majority of stand too wet, standing water in fall.
	Balsam Fir	20	Pole	7		Bals	sam Fir	Low	< 5 feet	Sapling	
						Тад	g Alder	Medium	5 - 10 feet	Tall Shrub	
6	622 - Lov	vland Shrub	1	Nonsto	cked	20.2	ι	Jnspecified	No		
7	330 - Low-	Density Tre	es	Nonsto	cked	2.0	ι	Jnspecified	No		Island of upland in huge alder swamp complex.
8	330 - Low-	Density Tre	es	Nonsto	cked	5.9	l	Jnspecified	No		Old opening filling in with white pine in east end. Can see the couple parent white pine that seeded the old opening in in east.
9	6120 - Lo	wland Ceda	r S	Sawtimbe	er Well	4.5	118	111-140	N/A		Nice little finger of mature cedar, limited to no understory. Good thermal
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	cover for deer and other wildlife.
Ν	lorthern White Cedar	93	Log/Pole		118		sam Fir	Trace	5 - 10 feet	Sapling	
						Тад	g Alder	Trace	Variable	Tall Shrub	
10	122 - Road	d/Parking Lo	ot	Nonsto	cked	4.4	ι	Jnspecified	No		Nelson RD and shoulder of RD.



Stand	d Level 4 Co	over Type		Size Density	Acres	Stand Age B	A Range	Managed S	Site	General Comments
11	4130 -	- Aspen		Poletimber Well	46.0	36	51-80	N/A		Stand was final harvested in 1983. Came back well to aspen with some
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	pine, oak and maple.
	Red Maple	7	Pole	5	W	hite Pine	Medium	5 - 10 feet	Sapling	
	Bigtooth Aspen	75	Pole	6 36	Re	ed Maple	Medium	5 - 10 feet	Sapling	
Bla	ck/Red (Hybrid) Oak	8	Pole	7		Beech	Low	< 5 feet	Sapling	
12	6239 - Mixed Eı	mergent W	etland	Nonstocked	19.3	U	nspecified	No		Appears from imagery to have been managed for some reason Blueberry's? Now just a lowland shrub with a few scattered conifer.
13	6122 - Bla	ack Spruce	e	Poletimber Well	24.7	44	51-80	N/A		Old records looks like area was final harvested in mid 70's. Area has full
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	leatherleaf bog understory. Mostly spruce but pockets of log red pine in north. Appears from records stand was attempted to be cut in 2002, but
	Black Spruce	55	Pole/Sap/Lo			ed Maple	Low	< 5 feet	Sapling	became too wet.
	Red Pine	18	Log/Pole	13	Bla	ck Spruce	Low	< 5 feet	Sapling	
	Jack Pine	10	Pole	6	Já	ack Pine	Low	5 - 10 feet	Sapling	
	Quaking Aspen	10	Pole	6	Le	atherleaf	Full	5 - 10 feet	Tall Shrub	
14	6126 - Lowla	and Jack P	rine	Sapling Medium	11.1	17	81-110	N/A		Blueberry leatherleaf ground cover. Final harvested in 2002. Came bact to semi open conifer/aspen stand a few mature red pine were left.
	Canopy Species	% Cover	Size Class	DBH Age						to seriii open coniici/aspen stand a few mature rea pine were lett.
	Quaking Aspen	15	Sapling	3 17						
	Black Spruce	10	Sapling	2						
	Jack Pine	50	Sapling	2 17						
	Red Pine	10	Sapling	2						
15	4130 -	- Aspen		Sapling Well	25.1	4 I	mmature	N/A		Aspen stand which was final harvested in Fall 2015, all oak was left. Hummocky ground. Two track was blocked to foot access only. Short
	Canopy Species	% Cover	Size Class	DBH Age						wood operation.
	Red Maple	20	Sapling	1						·
	Quaking Aspen	75	Sapling	1 4						
16	4130 -	- Aspen		Sapling Well	79.8	14 I	mmature	N/A		Stand was cut in 2003/2004. All oak was left. Stand has its wet pockets. Oak concentrated up by road not much oak was in stand.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Oak concentrated up by road not much oak was in stand.
	Red Maple	10	Sapling	2 14	Ta	ag Alder	Low	5 - 10 feet	Tall Shrub	
	Quaking Aspen	75	Sapling	2 14	Wi	tch Hazel	Low	5 - 10 feet	Tall Shrub	
17	42210 - Nat			Sawtimber Well	3.7	75	111-140	N/A		Stand was last thinned in 2002. No planting records appears natural. Variability in size class and spacing leads me to believe it may be
	Canopy Species		Size Class	DBH Age		nopy Species	Density	Avg. Height	Size	natural.
	Red Maple	10	Pole	8		Beech	Low	< 5 feet	Sapling	
	Red Pine	85	Log/Pole	11 75	W	hite Pine	Low	< 5 feet	Sapling	
					R	ed Pine	Low	>20 feet	Sapling	
					Ir	onwood	Low	< 5 feet	Sapling	



Stand	I Level 4 C	over Type		Size Den	sity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
18	4133 - Aspe	en, Mixed P	ine F	Poletimbe	r Well	32.3	44	51-80	N/A		Appears that was final harvested in 1975, pine understory was worked
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	around judging from records. Pine mostly in one large pocket in middle of stand but also scattered in slight rolling terrain.
	Red Oak	10	Log/Pole	10		Re	ed Maple	Medium	5 - 10 feet	Sapling	3
	Bigtooth Aspen	53	Pole	8	44	WI	nite Pine	Medium	5 - 10 feet	Sapling	
	White Pine	20	Log/Pole	12		Ire	onwood	Low	>20 feet	Pole	
19	4139 - Aspen,	Mixed Deci	duous	Sapling	Well	23.3	4	Immature	N/A		Stand was final harvested in 2015, all oak, beech and red pine were left.
	Canopy Species	% Cover	Size Class	DBH	Age						Should sprout back well to aspen. Unneeded two track was closed.
	Red Maple	19	Sapling	1							
	Red Oak	10	Pole/Sap/Log	9							
	Bigtooth Aspen	54	Sapling	1	4						
	Red Pine	10	Log	12							
20	4130	- Aspen	5	Sapling M	edium	12.2	4	Immature	N/A		Moderate to heavy red maple and tag alder understory. Wet hummucky
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	ground at times.
	Quaking Aspen	90	Sapling	1	4	Re	ed Maple	Medium	5 - 10 feet	Sapling	Stand was final harvested in fall 2015. No retention. West strip of stand
						Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub	did not regenerate well as all, mostly open, hard to tell on imagery at this time but in the future may need to split out open spot.
21	4130	- Aspen		Sapling	Well	17.8	25	Immature	N/A		Stand was final harvested in 1993. On verge of pole stand.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Quaking Aspen	93	Sapling/Pole	4	25	Ва	lsam Fir	Low	5 - 10 feet	Sapling	
22	310 - Herbac	eous Open	land	Nonstoo	cked	0.9	0	Unspecified	No		
23	310 - Herbac	eous Open	land	Nonstoo	cked	0.7	0	Unspecified	No		Old landing for final harvest in stand 34?
24	4133 - Aspe	en, Mixed P	ine Sa	awtimber I	Medium	18.6	76	1-50	N/A		No access. Island in middle of tag alder swamp. Mixed stand with
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	evidence of beaver activity creating open spots. Stand covering to longer lived pines as aspen falls out.
	Red Maple	15	Pole	8		Та	ag Alder	Low	5 - 10 feet	Tall Shrub	
	Bigtooth Aspen	50	Log/Pole	10	76						-
	White Pine	25	Log/Pole	12							
	Red Pine	10	Log/Pole	12							
25	330 - Low-I	Density Tre	es	Nonstoo	cked	3.8	I	Unspecified	No		Upland opening.



Stan	d Level 4 Co	over Type		Size Der	nsity	Acres	Stand Age B	BA Range	Managed S	ite	General Comments
26	4130 -	- Aspen	Sa	awtimber	Medium	17.3	56 U	Inspecified	N/A		Falling apart sparse rough looking aspen stand with red maple regeneration thick in understory. Allow stand to convert to red maple, this
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	is already occurring. Site more suited to red maple.
	Red Maple	15	Log/Pole	11		Re	ed Maple	High	5 - 10 feet	Sapling	3
	Quaking Aspen	78	Log	12	56	R	ed Oak	Low	5 - 10 feet	Sapling	
						Quak	king Aspen	Medium	>20 feet	Sapling	
						WI	nite Pine	Low	10 - 20 feet	Sapling	
						Ta	ag Alder	Low	5 - 10 feet	Tall Shrub	
27	4130 -	- Aspen		Sapling	Well	7.2	13	Immature	N/A		Stand was final harvested in 2006. Came back well to aspen.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Quaking Aspen	85	Sapling	2	13						
	Balsam Fir	8	Sapling	2							
28	4130	- Aspen	I	Poletimbe	er Well	78.2	35	51-80	N/A		Stand final harvested in 1983. Some wet areas located in the south portion of the stand.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	portion of the stand.
	Red Maple	10	Pole	6		Re	ed Maple	Medium	5 - 10 feet	Sapling	
	Quaking Aspen	72	Pole	7	35	WI	nite Pine	Medium	10 - 20 feet	Sapling	
	White Pine	10	Pole/Log	8		Ta	ag Alder	Low	5 - 10 feet	Tall Shrub	
29	310 - Herbace	eous Openl	and	Nonsto	cked	4.6	U	Inspecified	Managed Op	pening	Managed wildlife opening.
30	6229 - Mixed	lowland sh	rub	Nonstoo	cked	15.3	0 U	Inspecified	No		Low and wet. Former E type dominated by ash. With all the ash dead and flooded stand is more of lowland shrub with scattered aspen and few ash still alive.
31	4130 -	- Aspen									asir suii aiive.
	Canopy Species	% Cover		Sapling	Well	25.0	6	Immature	N/A		Stand was final harvested in Winter 2013. Access was across State.
		70 COVE	Size Class			25.0	6	Immature	N/A		Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like
	Red Maple	10	Size Class Sapling	Sapling DBH		25.0	6	Immature	N/A		Stand was final harvested in Winter 2013. Access was across State.
	Red Maple Quaking Aspen			DBH	Age	25.0	6	Immature	N/A		Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like
	<u>'</u>	10	Sapling	DBH	Age 6	25.0	6	Immature	N/A		Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like
32	Quaking Aspen Balsam Fir	10 79	Sapling Sapling	DBH 1 1	Age 6 6	25.0		Immature Immature	N/A		Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed. Habitat cut in 1993. Island in middle of lowland LO complex. Commercia
32	Quaking Aspen Balsam Fir	10 79 10	Sapling Sapling	DBH 1 1 1	Age 6 6 6 Well	23.2		Immature		Size	Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed.
32	Quaking Aspen Balsam Fir 4130	10 79 10 - Aspen	Sapling Sapling Sapling	DBH 1 1 1 Sapling	Age 6 6 6 Well	23.2 Sub-Ca	26	Immature	N/A	Size Sapling	Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed. Habitat cut in 1993. Island in middle of lowland LO complex. Commercia
32	Quaking Aspen Balsam Fir 4130 Canopy Species	10 79 10 - Aspen	Sapling Sapling Sapling Sapling	DBH 1 1 1 Sapling DBH	Age 6 6 6 Well	23.2 Sub-Ca	26 nopy Species	Immature Density	N/A Avg. Height		Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed. Habitat cut in 1993. Island in middle of lowland LO complex. Commercia
32	Quaking Aspen Balsam Fir 4130 - Canopy Species Red Maple	10 79 10 - Aspen % Cover	Sapling Sapling Sapling Size Class Sapling	DBH	Age 6 6 6 Well Age	23.2 Sub-Ca	26 nopy Species ed Maple	Immature Density Medium	N/A Avg. Height Variable	Sapling	Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed. Habitat cut in 1993. Island in middle of lowland LO complex. Commercia
	Quaking Aspen Balsam Fir 4130 Canopy Species Red Maple Bigtooth Aspen Balsam Fir	10	Sapling Sapling Sapling Size Class Sapling Sapling Sapling Sapling	DBH 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Age 6 6 6 Well Age 26	23.2 Sub-Ca	26 nopy Species ed Maple nite Pine	Immature Density Medium	N/A Avg. Height Variable	Sapling	Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed. Habitat cut in 1993. Island in middle of lowland LO complex. Commercia management not viable option. Stand was cut in 2006. appears from records stand became too wet to
	Quaking Aspen Balsam Fir 4130 Canopy Species Red Maple Bigtooth Aspen Balsam Fir	10	Sapling Sapling Sapling Size Class Sapling Sapling Sapling Sapling	DBH	Age 6 6 6 6 6 Well Age 26	23.2 Sub-Ca Re WI	26 nopy Species ed Maple nite Pine	Immature Density Medium Low Immature	N/A Avg. Height Variable < 5 feet	Sapling	Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed. Habitat cut in 1993. Island in middle of lowland LO complex. Commercia management not viable option. Stand was cut in 2006. appears from records stand became too wet to cut and producer pulled out. Stand is close to be considered a non
	Quaking Aspen Balsam Fir 4130 - Canopy Species Red Maple Bigtooth Aspen Balsam Fir 6121 - 1	10	Sapling Sapling Sapling Size Class Sapling Sapling Sapling	DBH 1 1 1 Sapling DBH 3 3 2 Sapling M	Age 6 6 6 6 6 Well Age 26	23.2 Sub-Ca Re WI 1.3 Sub-Ca	26 nopy Species ad Maple nite Pine	Immature Density Medium Low Immature	N/A Avg. Height Variable < 5 feet N/A	Sapling Sapling	Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed. Habitat cut in 1993. Island in middle of lowland LO complex. Commercia management not viable option. Stand was cut in 2006. appears from records stand became too wet to
32	Quaking Aspen Balsam Fir 4130 - Canopy Species Red Maple Bigtooth Aspen Balsam Fir 6121 - T	10	Sapling Sapling Sapling Size Class Sapling Sapling Sapling Sapling	DBH 1 1 1 Sapling DBH 3 3 2 Sapling M DBH	Age 6 6 6 Well Age 26	23.2 Sub-Ca Re WI 1.3 Sub-Ca	26 nopy Species d Maple nite Pine 13 nopy Species	Immature Density Medium Low Immature Density	N/A Avg. Height Variable < 5 feet N/A Avg. Height	Sapling Sapling	Stand was final harvested in Winter 2013. Access was across State. Retention island was left in stand(represents what stand looked like before cut). Access was wood corduroyed. Habitat cut in 1993. Island in middle of lowland LO complex. Commercia management not viable option. Stand was cut in 2006. appears from records stand became too wet to cut and producer pulled out. Stand is close to be considered a non



Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
34	4130	- Aspen		Sapling	Well	63.5	24	Immature	N/A		Final harvested in 1994. Left a few scattered oak. Seasonally wet in
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	spots.
	Red Maple	10	Sapling/Pole	e 4		Black/Red	d (Hybrid) Oak	Low	5 - 10 feet	Sapling	
	Quaking Aspen	80	Sapling/Pole	e 4	24	Wh	nite Pine	Low	5 - 10 feet	Sapling	
Bla	ck/Red (Hybrid) Oak	8	Log/XLog	14		Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	
35	4130	- Aspen		Poletimb	er Well	11.6	41	51-80	N/A		Rectangular shaped seasonally wet aspen stand. Hard to say but stand
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	likely dry's out nicely in summer.
	Red Maple	10	Pole	7		Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	
	Quaking Aspen	90	Pole/Log	8	41	Re	d Maple	Medium	Variable	Sapling	
36	622 - Lov	vland Shrub	0	Nonsto	cked	868.6	L	Inspecified	No		Huge complex of alder, willow and various other lowlands shrub species. Haymarsh creek runs through stand. A few pockets/small islands of upland too small to map.
37	4130	- Aspen		Poletimb	er Well	39.2	36	1-50	N/A		Stand was final harvested in 1983. Came back well to aspen.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	
	Red Maple	8	Pole	5		Е	Beech	Low	< 5 feet	Sapling	
	Quaking Aspen	88	Pole	6	36	Wh	nite Pine	Medium	5 - 10 feet	Sapling	
•						Re	d Maple	High	Variable	Sapling	
38	4133 - Aspe	en, Mixed P	ine	Poletimb	er Well	29.2	43	51-80	N/A		Mixed aspen, pine, oak and beech stand. Low seep in stand the flows north and south near stand 48. Creates historic mud hole in road, could
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	be fixed with culvert. Pine concentrated in pockets as well and scattered
	Red Maple	10	Pole	7		E	Beech	Low	Variable	Sapling	in stand.
	Bigtooth Aspen	40	Pole	8	43	Wh	nite Pine	Medium	5 - 10 feet	Sapling	
	White Pine	25	Log/Pole	11		Re	d Maple	Medium	5 - 10 feet	Sapling	
	Red Pine	8	Log/Pole	11							
	Red Oak	10	Pole/Log	9							
39	330 - Low-I	Density Tre	ees	Nonsto	cked	3.1	0 L	Inspecified	No		Edge left from cut.
40	4133 - Aspe	en, Mixed P	rine	Sapling	Poor	7.0	13 L	Inspecified	N/A		Harvested with the Haymarsh aspen sale in 2006. Came back patchy with white pine, aspen and maple. Very open in spots.
	Canopy Species		Size Class	DBH	Age						with write pine, aspen and maple. Very open in spots.
	Red Maple	15	Sapling	1							
	Red Oak	10	Log/Pole	12							
	Bigtooth Aspen	50	Sapling	2	13						
	White Pine	25	Sapling	2							



Stand	d Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
41	4130 -	- Aspen		Poletimb	er Well	31.7	45	51-80	N/A		Stand final harvested in 1974. Decent looking aspen a few pine mixed in northeast end. Seasonally wet in south.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	s Density	Avg. Height	Size	Horneast end. Geasonally wet in south.
	Red Maple	6	Pole/Log	8		В	seech	Low	5 - 10 feet	Sapling	
	Quaking Aspen	85	Pole/Log	8	45	Re	ed Oak	Low	5 - 10 feet	Sapling	
						Wh	ite Pine	Low	Variable	Sapling	
						Re	d Pine	Low	10 - 20 feet	Sapling	
42	4130 -	- Aspen		Sapling	Well	29.9	13	Immature	N/A		Stand was final harvested in 2006, short wood operation cut in dry summer. Stand floods out seasonally on west side.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	Summer. Stand hoods out seasonally on west side.
	Red Maple	10	Sapling	2	13	Ta	g Alder	Medium	5 - 10 feet	Tall Shrub	
	Quaking Aspen	88	Sapling	2	13						
43	500 -	Water		Nonsto	cked	1.3	l	Unspecified	No		Huge complex of alder, willow and various other lowlands shrub species. Haymarsh creek runs through stand. A few pockets/small islands of upland too small to map.
44	4136 - Aspen	, Mixed Co	nifer S	awtimber	Mediun	n 22.5	66	51-80	N/A		No access. Island in middle of tag alder, no reasonable access on foot
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	or with equipment.
	Red Maple	10	Pole	8		Red	d Maple	Medium	Variable	Sapling	
	Quaking Aspen	65	Log/Pole	10	66	Ta	g Alder	Low	5 - 10 feet	Tall Shrub	
	White Pine	10	Log/Pole	10				'			•
	Balsam Fir	10	Pole/Sap/Lo	g 8							
45	330 - Low-E	Density Tre	es	Nonsto	cked	7.7	l	Unspecified	No		No access, unless walking through miles of thick tag alder swamp.
46	6112 - Lov	vland Aspe	n P	oletimber	Mediun	n 9.3	33	Immature	N/A		Stand appears to have been cut in 1986. Along with 54 and 55. Low
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	pockets throughout stand.
	Red Maple	10	Pole	8		Red	d Maple	Medium	Variable	Sapling	
	Paper Birch	10	Pole	8		Ta	g Alder	Low	5 - 10 feet	Tall Shrub	
	Quaking Aspen	30	Pole	8							
	Bigtooth Aspen	40	Pole	8	33						
Bla	ck/Red (Hybrid) Oak	10	Log	12							
47	4130 -	- Aspen		Poletimb	er Well	2.3	60	51-80	N/A		No access. Isolated by wetlands and private land.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	
	Red Maple	15	Pole	8			d Maple	Medium	Variable	Sapling	
	Quaking Aspen	82	Pole/Log	9	60	Ta	g Alder	Low	5 - 10 feet	Tall Shrub	
48	6223 - Inundate	ed Shrub S	wamp	Nonsto	cked	0.6	0 (Unspecified	No		Low seep that creates historic mud hole in road, spot for culvert.



Stand	d Level 4 C	Size Density			Acres Stand Age BA Range			Managed Site		General Comments	
49	4130		Sawtimber Well		31.3 70		Unspecified	N/A		Portions of stand are low and wet. No access. Stand is an island in	
	Canopy Species	% Cover	Size Class	DBH Ag	je	Sub-Can	opy Species	s Density	Avg. Height	Size	middle of tag alder swamp.
	Red Maple	15	Log	12		Rec	Maple	Medium	Variable	Sapling	
	Quaking Aspen	75	Log/Pole	10 70	0	Taç	g Alder	Medium	5 - 10 feet	Tall Shrub	
50	6121 -	Tamarack		Poletimber V	Vell	13.3	60	51-80	N/A		Tamarack stand with heavy spruce understory. Wet hummocky ground.
	Canopy Species	% Cover	Size Class	DBH Ag	je	Sub-Can	opy Species	s Density	Avg. Height	Size	No access.
<u> </u>	Tamarack	100	Pole/Log	9 60	0	Black	k Spruce	High	5 - 10 feet	Sapling	
51	622	5 - Bog		Nonstocke	d	7.4	I	Unspecified	No		Wet treed bog no access.
52	500	- Water		Nonstocke	d	10.1	1	Unspecified	No		Haymarsh creek. Traveled by canoes, too small for most boats.
53	4130 - Aspen			Sawtimber Well		5.2 90 51-80		51-80	N/A		Mix of saw log aspen, red pine and red maple. No access. Portions of stand are wet hummucky ground.
	Canopy Species	% Cover	Size Class	DBH Ag	je	Sub-Can	opy Species	s Density	Avg. Height	Size	stand are wet numinidoky ground.
	Red Maple	25	Log	12		Red Maple		Medium	Variable	Sapling	
	Bigtooth Aspen	65	Log/Pole	12 90	О	Tag Alder		Low	Variable	Tall Shrub	
	Red Pine	10	Log/Pole	12						,	
54	4130 - Aspen			Poletimber Well		14.9 33 In		Immature	N/A		Stand was final harvested in 1986. A few edge trees appear to have been left along north line.
	Canopy Species	% Cover	Size Class	DBH Ag	je	Sub-Can	opy Species	s Density	Avg. Height	Size	been left along north line.
	Quaking Aspen	84	Pole	6 3	3	Red Maple		Medium	5 - 10 feet	Sapling	
						Tag Alder		Low	5 - 10 feet	Tall Shrub	
						Bals	sam Fir	Low	< 5 feet	Sapling	
55	4130	- Aspen		Poletimber V	Vell	2.7	33	Immature	N/A		Stand final harvested in 1986. West side of road was left.
	Canopy Species	% Cover	Size Class	DBH Ag	je						
	Bigtooth Aspen	83	Pole/Sapling	g 5 3	3						
56	4130 - Aspen			Sapling Well		11.6	6 I	Immature	N/A		Stand was final harvested in Winter 2013. Access across county road
	Canopy Species	% Cover	Size Class	DBH Ag	je						easement. Short wood operation, hummocky ground.
	Red Maple	10	Sapling	1 6	5						
	Quaking Aspen	86	Sapling	1 6	;						
57	4130 - Aspen		;	Sapling Medium		7.0 5 I		Immature	N/A		Stand was final harvested in fall 2015. Low hummocky ground. tag alde understory. Short wood operation.
	Canopy Species	% Cover		DBH Ag	je	Sub-Can	opy Species	s Density	Avg. Height	Size	
	Red Maple	20	Sapling	1		Tag	g Alder	Medium	5 - 10 feet	Tall Shrub	
	Quaking Aspen	70	Sapling	1 5							

Report 7 – Stands

Compartment: 90
Year of Entry: 2021



Stand	Level 4 Cover Type 42220 - Natural Jack Pine			Size Density Poletimber Well		Acres Sta	nd Age B	A Range	Managed Site		General Comments Small island of jack pine and spruce almost too small to map.	
58						1.0	39	81-110				
	Canopy Species	% Cover	Size Class	DBH Age								
	Black Spruce	20	Pole	6								
	Jack Pine	78	Pole	6	39							
59	6112 - Lowland Aspen Canopy Species % Cover Size Clas			Poletimber Well s DBH Age		24.0 46 Sub-Canopy Species		1-50 N/A Density Avg. Height	Size	Mostly lowland stand, small upland portion in east edge. West portion of stand under water at times.		
	Quaking Aspen	55	Pole/Log	9	46	Black Ash Tag Alder		Low	5 - 10 feet	Sapling		
	Black Ash	10	Pole	6				High	5 - 10 feet	Tall Shrub	o o	
	Ded Marile											
	Red Maple	15	Pole/Log	9		Red Ma	aple	Medium	Variable	Sapling		
	Red Maple	15	Pole/Log	9		Red Ma Balsam	<u>'</u>	Medium Low	Variable < 5 feet	Sapling Sapling		