

# **Compartment Review Presentation**

**Roscommon Forest Management Unit** 

Compartment 71068
Entry Year 2023
Acreage: 2,542
County Ogemaw

Management Area: Kirtland's Warbler

Stand Examiner: Doug Bates

**Legal Description:** 

COMPARTMENT 68 - Sections 29-33, T23N-R1E, Ogemaw County and sections 24-26, T23N-R1W, Roscommon County

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

Continue to provide habitat for the Kirtland Warbler in the portions of the Compartment that meets the optimal requirements for the habitat per the Kirtland Warbler Management Plan. The remaining areas are to be managed to promote healthy forest cover types and restart those where needed. Provide for the public to freely recreate from hunting to ORVing yet ensure sensitive areas are protected from intrusive activities.

#### Soil and topography:

Flat to rolling terrain within Roscommon County. Ogemaw County is mostly flat also, with rolling terrain and some steep ridges in the southern portions. There are a couple of lower swampy ground areas in the Compartment as well. They are just in Ogemaw County within the central portion of the Compartment. Soils are Grayling and Graycalm Sands in the uplands and Roscommon mucky sand in the swamp.

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

The west side of the Compartment bounds the Village of St. Helen. This portion of the Compartment was treated in 2014. Most of the Compartment adjoins other state land holdings. Most of the other private lands adjoining are undeveloped.

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

Hills Thistle found in the 1950's, Fragile Prickly Pear in 1967, and Rough Fescue.

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

The former Village of Beaver Lake is within the Compartment as well as the Beaver Lake Cemetery.

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

Kirtland Warbler Management Area.

#### **Watershed and Fisheries Considerations:**

Beaver Lake lies within the Compartment. There are no permanent flowing water courses within the Compartment, this lake is fed by a lowland bog during periods of high water levels thus fluctuates with the seasons/weather patterns. Beaver Lake is currently mostly dried up leaving an exposed sand bottom. The other wet areas are in low depressions with some small spring activity but no flowing water courses.

#### Wildlife Habitat Considerations:

Compartment located east of St. Helen along the St. Helen trail. Management in this compartment is directed by the Kirtland's Warbler Management Plan. No managed wildlife openings are located in this compartment.

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

No known potential exists for commercial metallic mineral production in this part of the state. The nearest active sand/gravel pit is more than five miles away, but there appears to be some good potential for sand & gravel within the compartment. The nearest oil & gas production, past or present, is approximately two miles southeast. There are active oil & gas leases within the compartment and potential for exploration and development in the next five years.

#### **Vehicle Access:**

Access to this Compartment is open by via several County Roads. Numerous trails traverse the compartment off of these roads. Other than St. Helen Trail, all roads, County and forest, are in very rough shape and sandy which may restrict some activities to frozen months.

#### **Survey Needs:**

None

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

Motorized recreation dominate the compartment on the snowmobile, ORV routes & trails and St. Helen ORV Scramble Area year round. The St. Helen Motorsport Area occurs in section 25 in Roscommon County where ORV scramble use is permitted. The Midland to Mackinaw Boy Scout Hiking trail occurs along Meridian Road and Section 31. There is a local community operated campground in Section 23 off Airport Rd. The east half of the compartment in Ogemaw county has limited road access compared to the more accessible and closer to multiple property owners in Roscommon County. Two trailhead exist one for snowmobile the other ORV.

#### **Fire Protection:**

There are large areas of this compartment which are higher hazard pine fuel types and much of this compartment has a wildland-urban interface factor.

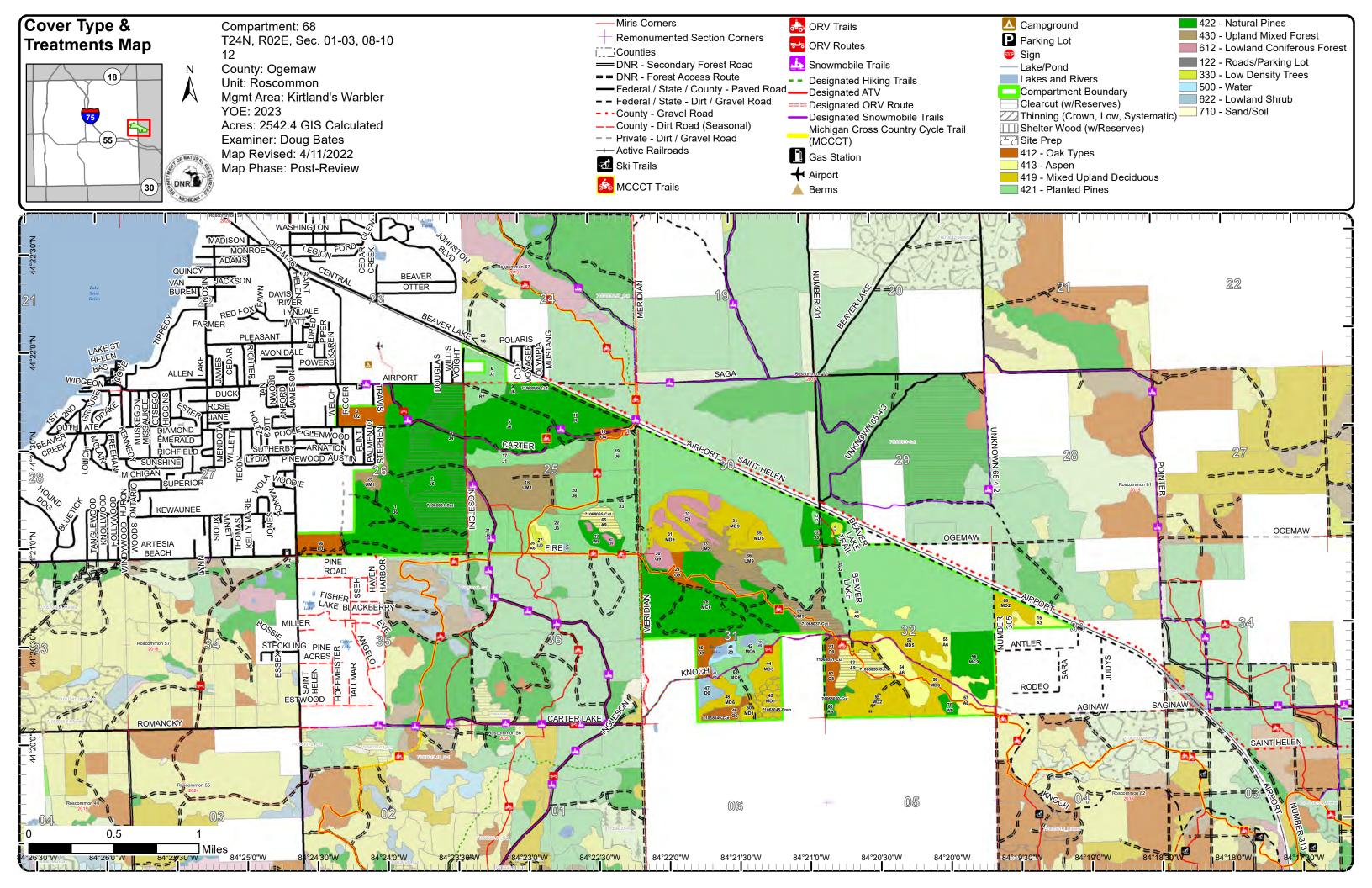
#### **Additional Compartment Information:**

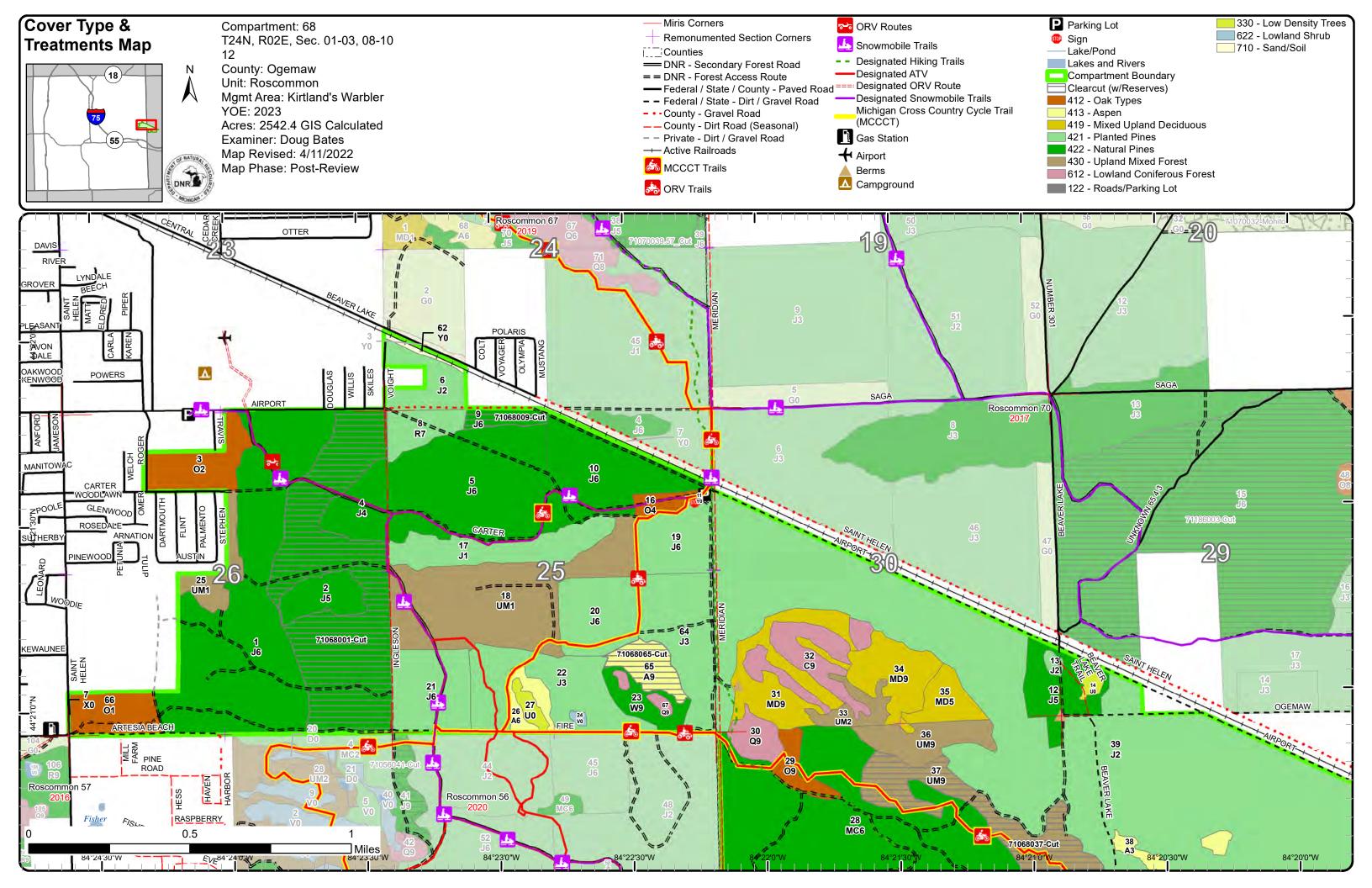
The following reports from the Inventory are attached:

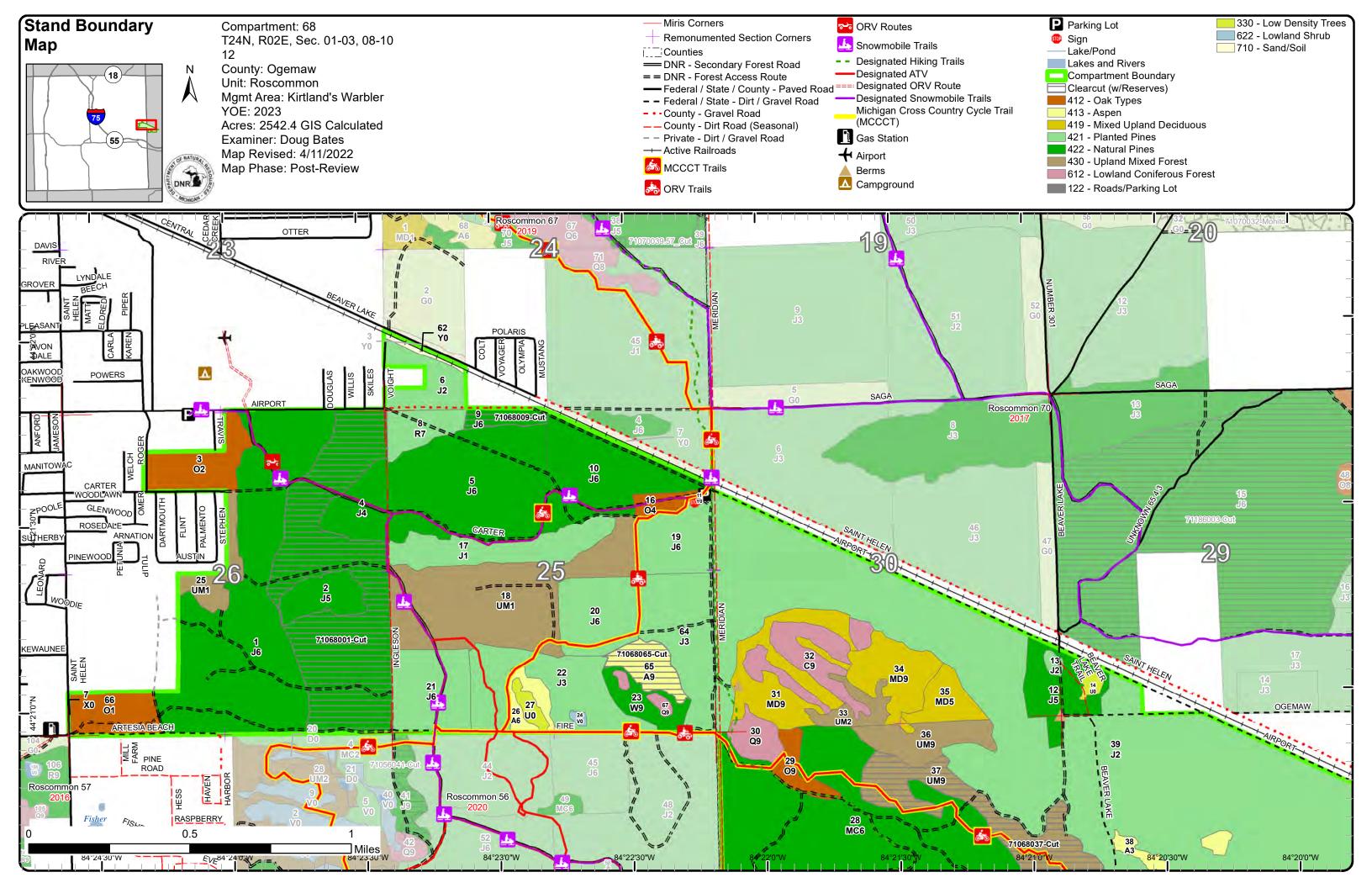
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

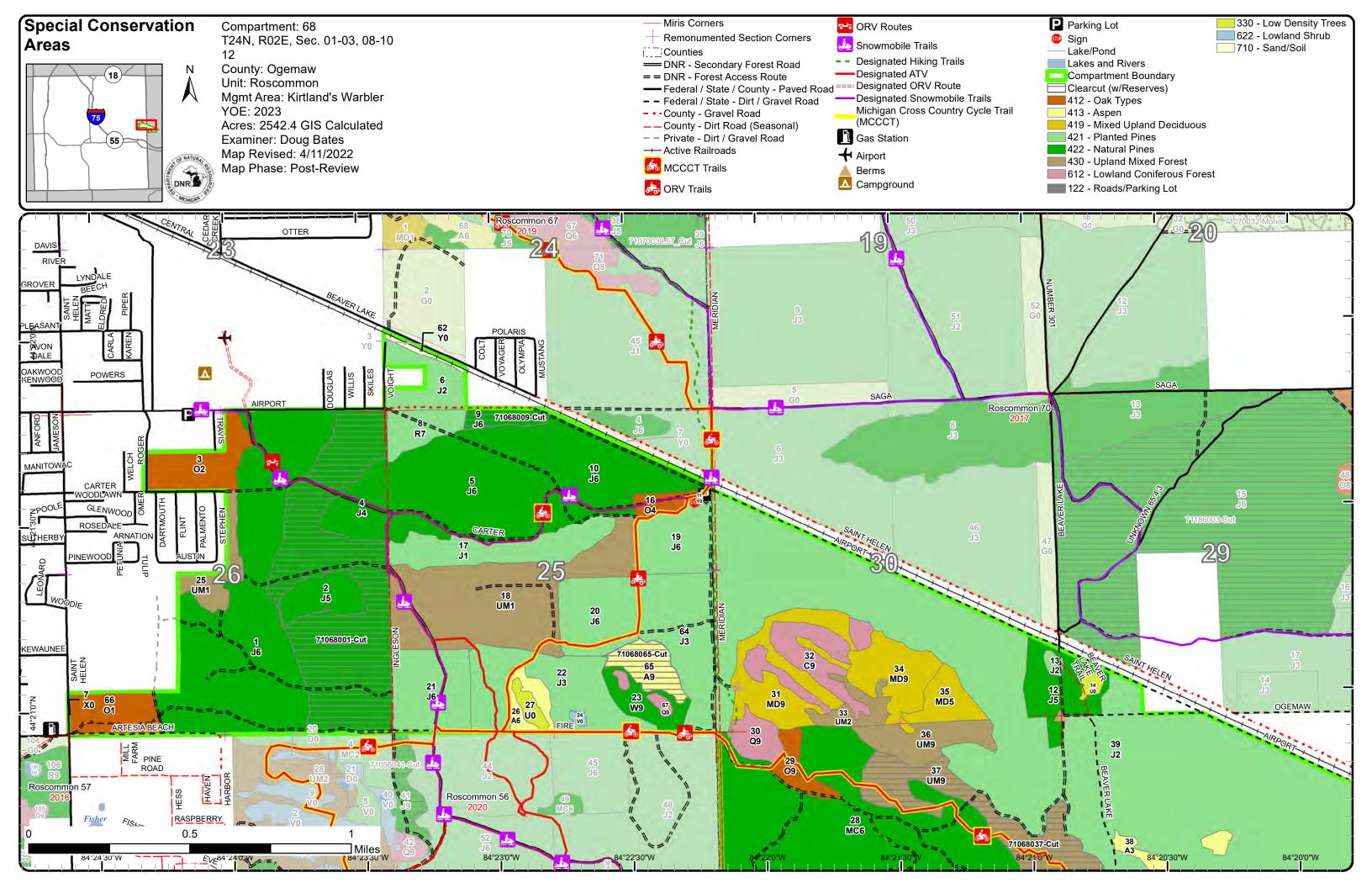
The following information is displayed, where pertinent, on the attached compartment maps:

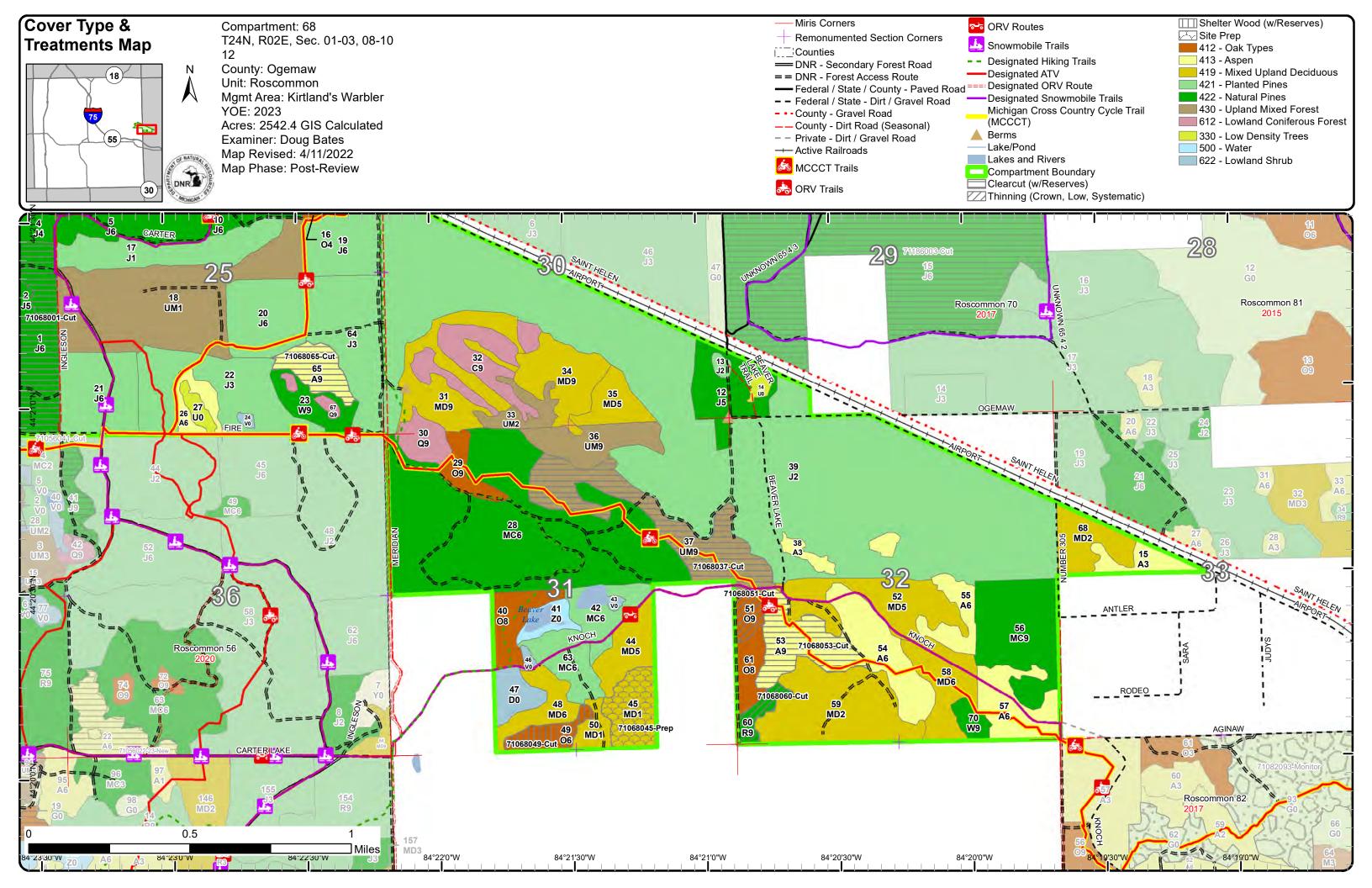
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

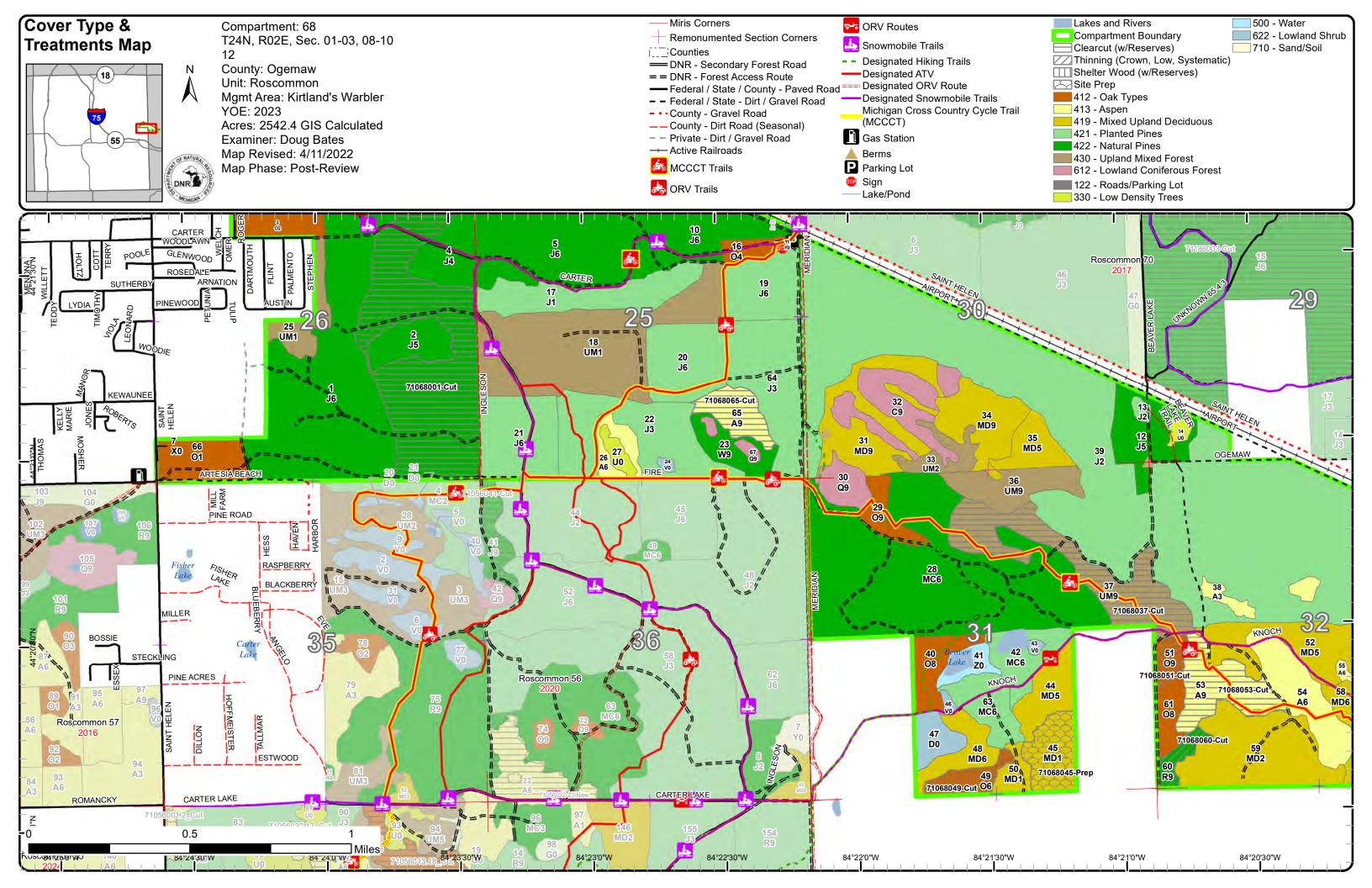


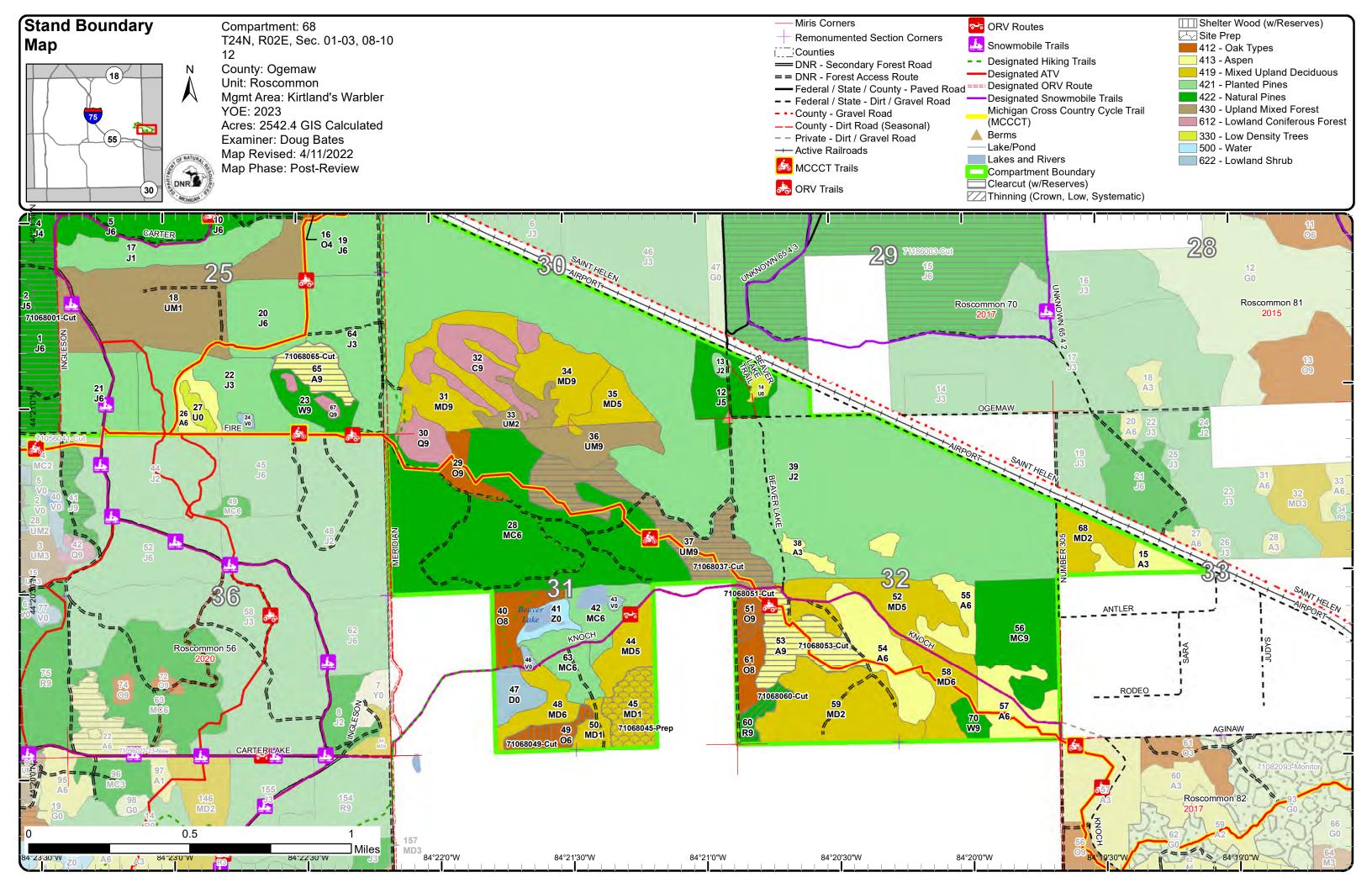


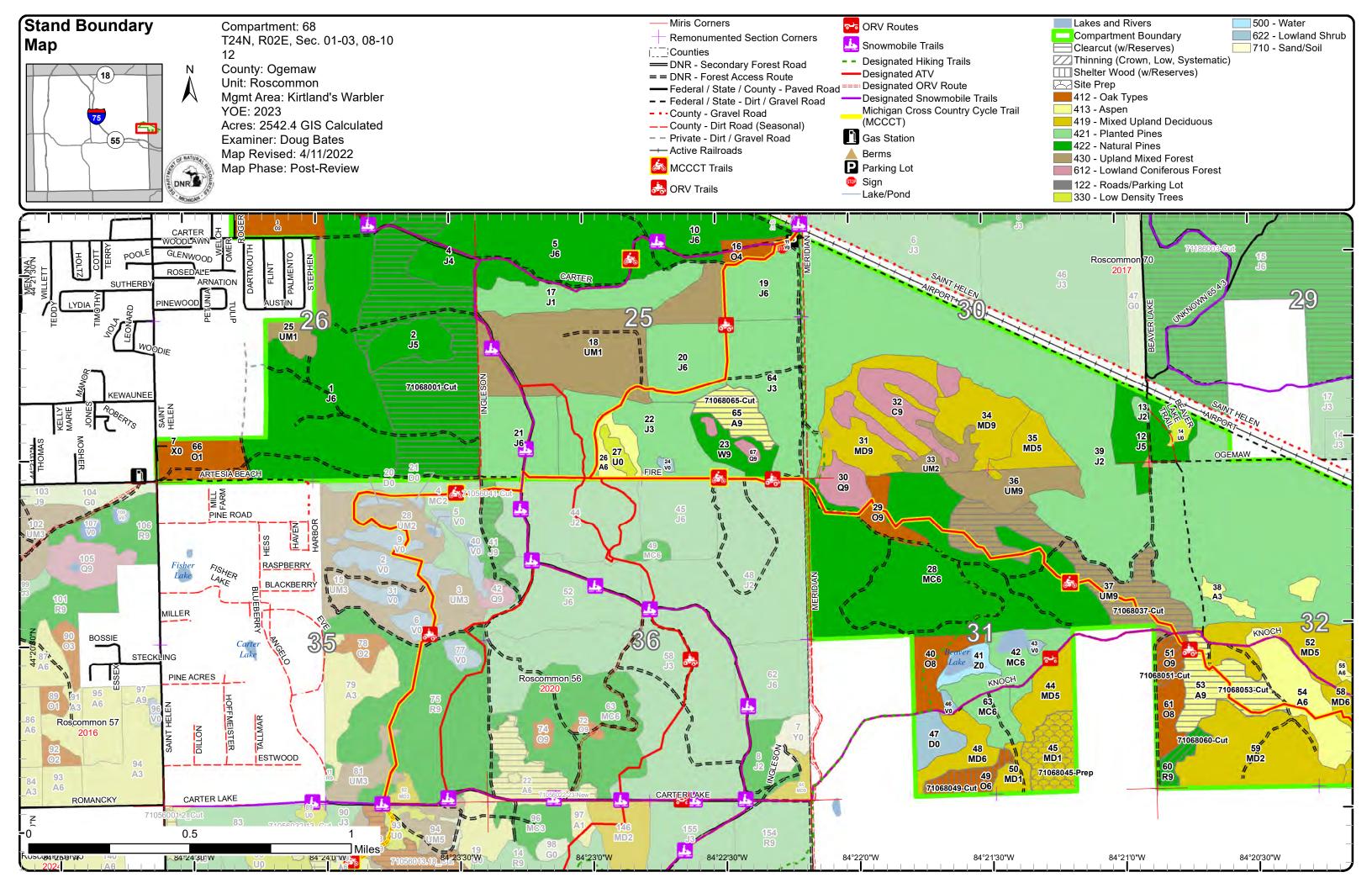


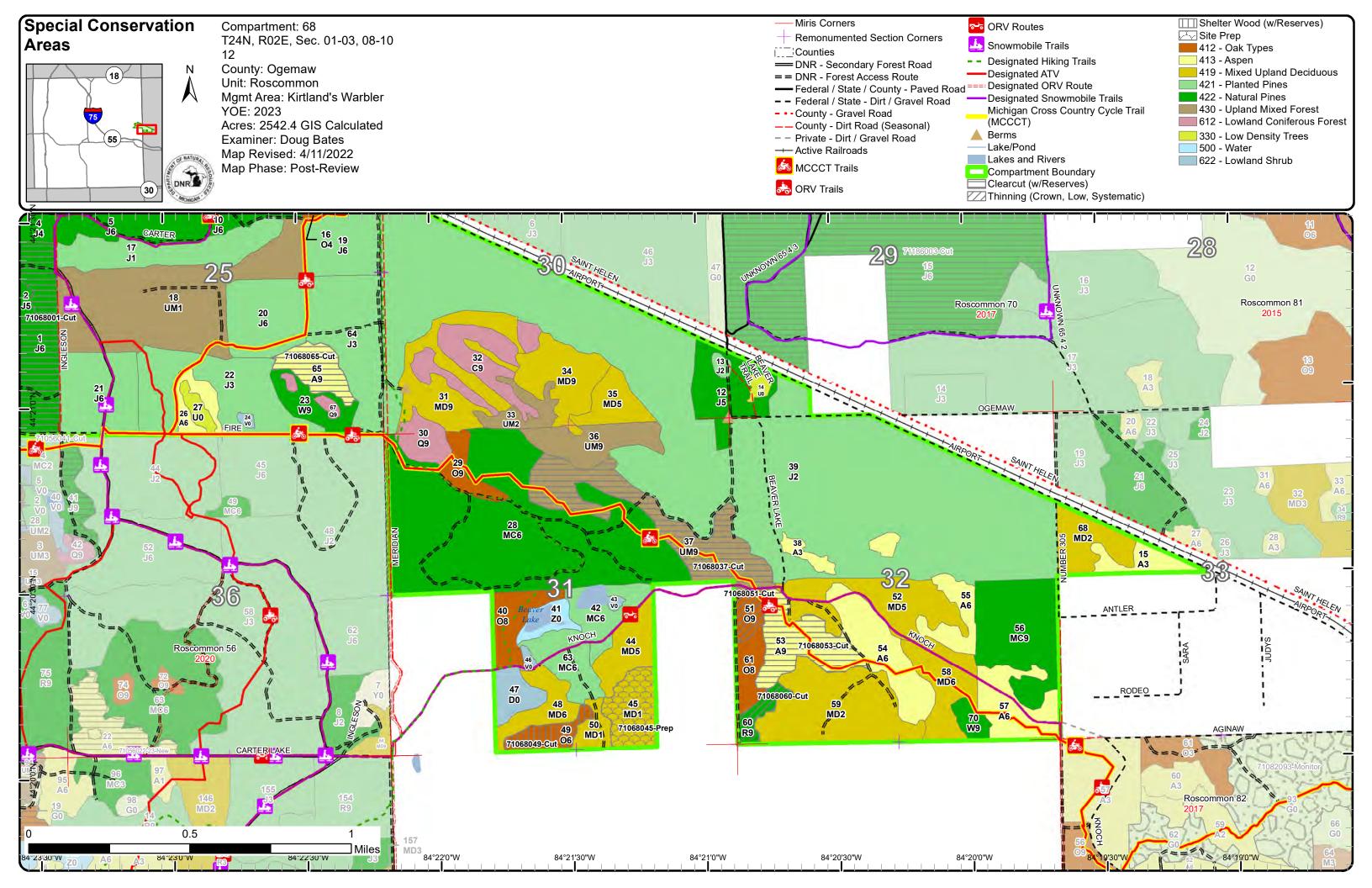


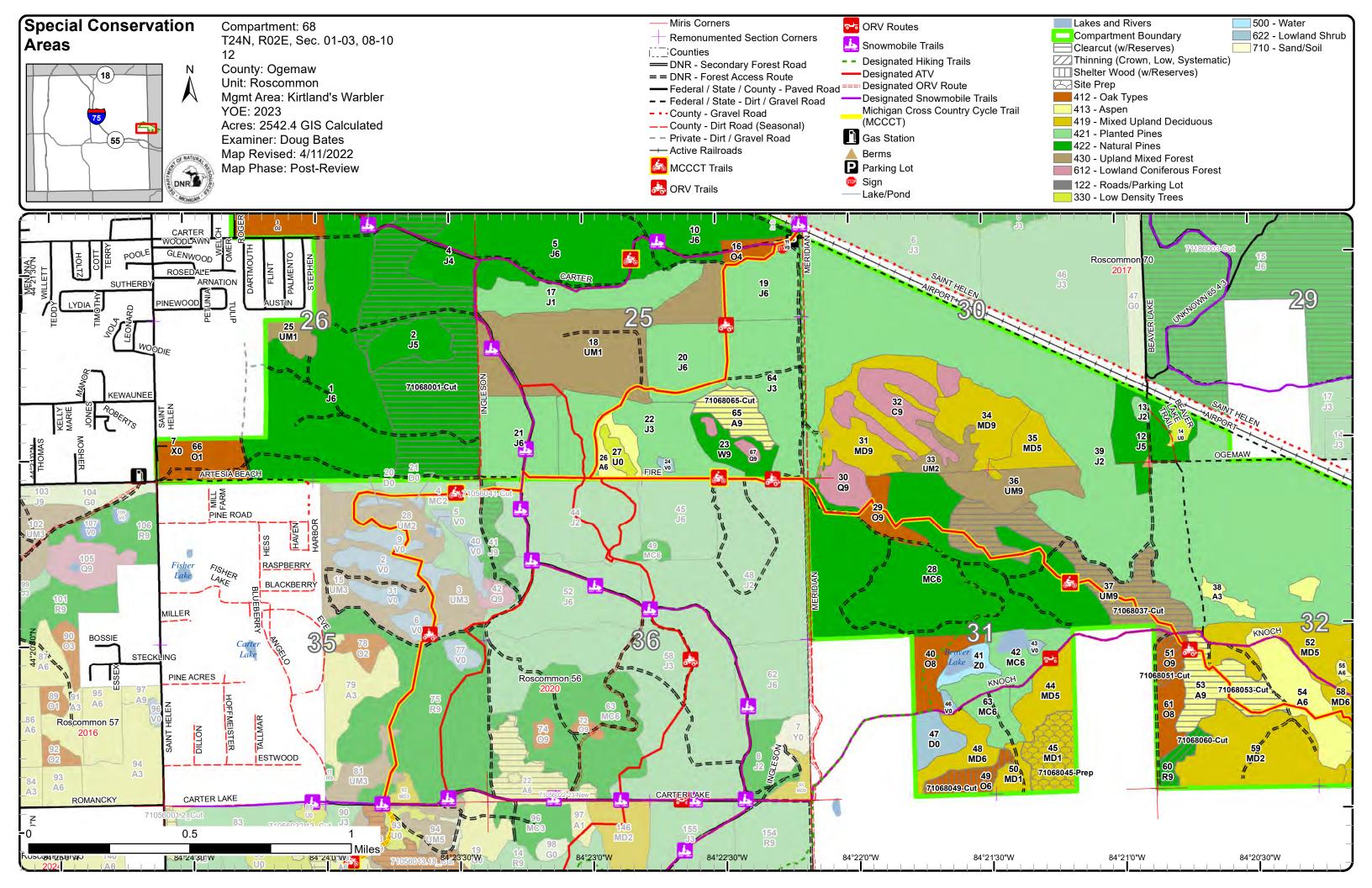












Compartment 68

Year of Entry 2023

# DNR

Roscommon Mgt. Unit

Doug Bates: Examiner

Age Class

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Aspen	0	0	20	15	27	43	31	16	0	0	0	0	0	0	0	0	0	0	151
Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	34
Jack Pine	0	60	501	109	221	70	369	0	0	0	0	0	0	0	0	0	0	0	1330
Low-Density Trees	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	3	12	0	0	0	0	0	15
Mixed Upland Deciduous	0	0	82	98	20	32	0	0	0	0	0	0	42	0	0	0	0	31	304
Natural Mixed Pines	0	0	0	0	0	192	0	0	0	0	0	0	0	0	0	0	0	52	244
Oak	0	52	0	0	7	0	0	0	0	12	0	36	0	0	0	0	0	12	118
Planted Mixed Pines	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Red Pine	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	8	24
Sand, Soil	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Treed Bog	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Upland Mixed Forest	0	16	106	12	0	0	60	0	0	24	0	0	0	0	0	0	0	0	218
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Water	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	0	0	0	0	0	15	6	0	0	0	0	0	0	0	0	21
Total	39	128	709	276	275	337	460	16	15	59	0	39	54	34	0	0	0	103	2540



### **Report 2 – Treatment Summary**

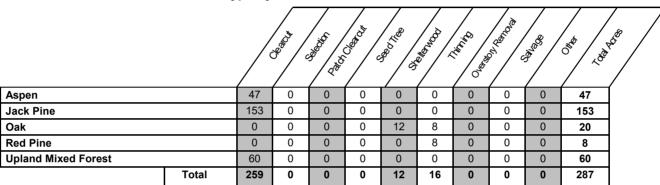
# Roscommon Mgt. Unit Year of Entry: 2023

#### **Acres of Harvest**

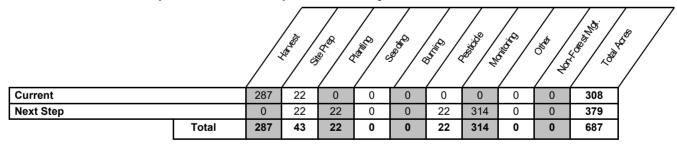
Compartment 68
Total Compartment Acres: 2,542

Commercial Harvest - 287 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

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



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



Roscommon Mgt. Unit Report 3 -- Treatments

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Compartment: 68 Year of Entry: 2023



**Treatment** Stand Size Stand BA **Treatment Treatment** Cover Type Acres Age Habitat Method Name CoverType Density Age Range Type Objective Structure Cut

**Approved Treatments:** 

71068001-Cut 144.0 42220 - Natural Poletimber 59 51-80 Harvest Clearcut with 4222 - Natural Even-Aged No Jack Pine Well Retention Jack Pine

Prescription Final harvest eastern half of Stand 1. With Stands 2 and 4 being left along with the other portion of the parent stand, place retention at 3%.

If site is not chipped, make sure producer runs the tree all the way through the processor head to enable limbs to be scattered more Specs:

uniformly across the sale area for natural regeneration.

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable jack pine, mixed deciduous

Regen:

Protect the ORV/Snowmobile trail(s) where they are designated to be. **Other** 

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

71068009-Cut 42220 - Natural Poletimber 59 81-110 42220 - Natural 8.8 Harvest Clearcut Nο Even-Aged Well Jack Pine

Jack Pine

Prescription Final harvest all species to two inches except red pine. Harvest all red pine that are 14 inches or less in diameter. Leave for visual. No

Specs: retention due to size and narrow shape.

Monitoring, Natural Regen (Re-Inventory)

Next Step **Treatments:** 

Acceptable jack pine, mixed deciduous.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

71068037-Cut 59.5 4310 - Pine. Oak Sawtimber 58 51-80 Harvest Clearcut with 42250 - Pine. Even-Aged No Mix Well Retention Oak

<u>Prescription</u> Final harvest all species to a two inch d.b.h.. Leave all white oak for mast and white pine over 20 d.b.h.. Do not chip the site and spread the slash evenly over the sale area to prevent the orv's from going off the designated ORV trail and creating illegal trails. Slash in all illegal trails Specs:

that are not open in the PA 288. This stand is out of the scramble area.

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable Mixed oak with jack pine.

Regen:

Protect the ORV trail where it is designated to be. **Other** 

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Roscommon Mgt. Unit

Report 3 -- Treatments

Compartment: 68 Year of Entry: 2023

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а **Treatment** Stand Size Stand BA **Treatment Treatment** Cover Type Acres Age Habitat n Method Objective Name CoverType Density Age Range Type Structure Cut d Sapling 45 71068045 21.5 4199 - Other Mixed 23 Immatu SitePrep Roller Chopping 4211 - Planted Even-Aged No **Upland Deciduous** Red Pine Prep Poor Prescription roller chop site and plant back to red pine. Go around the couple small aspen clones within stand. Specs: SitePrep, Trenching; Pesticide, Skidder - Site Prep; Monitoring, Artificial Regen(1yr); Planting, Initial Plant; Monitoring, Artificial Next Step Treatments: Regen(3yr) Acceptable Planted red pine 80 free to grow from other vegetative competition Regen: **Other** Majority of stand is small non-merchantable pin cherry resulting from a wildfire. Comment: Site Condition Proposed Start Date: 10/1 /2022 71068049-Cut 11.7 4122 - Oak, Pine Poletimber 84 81-110 Harvest Shelterwood 42201 - Natural Even-Aged No Well White Pine, Mixed Deciduous Prescription Final harvest all red oak species. Remove low quality white oak and white pine to allow for equipment operability. Want to keep the Specs: incoming white pine cover type by keeping some shading from the larger white pines and white oaks. Looking at a 50-70 basal area residual. Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable White pine mixed with oak to moderate stocking Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2022 71068051-Cut 8.2 4126 - White, Sawtimber 106 111-Harvest Crown Thinning 4122 - Oak, Pine Uneven-No Black, N. Pin Oak Well 140 Aged Prescription Thin the overstory down to an average 70-90 basal area. Start by removing a majority of the declining pin/black oaks. Leave any large wolfy pin oak for mast. Remove the lower quality, small crowned white oaks and try to leave those that will provide good acorn production. Favor Specs: on the side of removing the larger saw classed white pines to reach a basal area that will help the smaller white pines in producing diameter growth. Cut down any of the white pines whether merchantable or not that are still alive that have been knocked out of vertical by the snowstorm. Place in ORV Trail protection specs. Next Step Treatments: Acceptable White pine with mixed oak to moderate stocking. Regen: **Other** Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Roscommon Mgt. Unit Report 3 -- Treatments Compartment: 68 s Year of Entry: 2023 t а **Treatment** Stand Size Stand BA **Treatment Treatment** Cover Type Acres Age Habitat n Name CoverType Density Age Range Type Method Objective Structure Cut d 53 71068053-Cut 30.8 4133 - Aspen. Sawtimber 111-Harvest Clearcut with 4133 - Aspen. Even-Aged No Mixed Pine Mixed Pine Well 140 Retention Prescription Final harvest all species to two inches in diameter. Protect wet areas that are found in the south central portion of the stand where the Specs: adjacent harvest protrudes into this stand. Use this as retention. Can go up to the ten percent range. To protect the margins of the wet area, harvest only during frozen conditions. Monitoring, Natural Regen (Re-Inventory) Next Step Treatments: Acceptable aspen and mixed pine to moderate stocking Regen: Protect the ORV trail where it is designated to be. Other The wet ground is holding water and can still see the old skidder ruts from prior harvest. Has mostly red maple as cover type with some pine Comment: Site Condition Proposed Start Date: 10/1 /2022 71068060-Cut 7.6 42210 - Natural Sawtimber 90 81-110 Harvest Crown Thinning 42211 - Natural Uneven-No Red Pine. Red Pine Well Aged Mixed Deciduous Prescription Thin the stand by removing the high risk of mortality pin oaks that are left. Leave those that are wolfy and providing good mast. Then focus on the larger diameter red pine and white pine to open up the canopy to the smaller diameter pines to increase their diameter growth. Want Specs: residual basal area to be averaging 70-90. Next Step **Treatments:** Acceptable Red pine with mixed deciduous Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2022

65 71068065-Cut 16.2 4133 - Aspen, Sawtimber 66 81-110 Harvest Clearcut with 4133 - Aspen, Even-Aged No Mixed Pine Well Retention Mixed Pine

Prescription Final harvest all species to two inches. Do not chip tops/slash but evenly scatter over sale area to protect incoming regeneration form ORV Specs:

traffic. Place retention around any small wet depression present to account for 3%. Access will be from the forest road to the north. Roads

are sandy to the stand and with the potential to cause rutting on the soils in wetter months, harvest during frozen conditions.

<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, maple, white pine to moderate stocking.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Total Treatment 308.3 Acreage Proposed:

Roscommon Mgt. Unit

Compartment: 68 Year of Entry: 2023 Doug Bates : Examiner

Availa	ability for	Managemer	ıt								
Total	Acres	Acres Avail	Acres	Ι	Domina	nt Site	Con	dition	s		
Acres	Available	With Condition	Not Available		5B	5C	2F	2G	ЗА	3D	5E
152	152	0	0	Aspen							
4	4	0	0	Bog			0				
34	0	0	34	Cedar				34			
1331	1134	168	29	Jack Pine		168			29		0
8	8	0	0	Low-Density Trees							
16	3	0	12	Lowland Conifers				12			
303	262	0	42	Mixed Upland Deciduous	0					42	
244	244	0	0	Natural Mixed Pines	0		0				
119	91	11	17	Oak	11		17				
41	41	0	0	Planted Mixed Pines			0				
24	8	16	0	Red Pine	16						
5	5	0	0	Sand, Soil							
12	12	0	0	Treed Bog							
218	214	0	4	Upland Mixed Forest							4
1	1	0	0	Urban							
9	9	0	0	Water							
21	21	0	0	White Pine							
2,542	2,208	196	139	Total Forested Acres	28	168	17	46	29	42	4
	87%	8%	5%	Relative Percent							

\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

1 Unavailable 2G: Too wet (sensitive soils, does not include access issues)  Comments:  Unspecified Un	soils, does not include access issues)	Site No.		<b>Dominant Site Condition</b>	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
Comments:	Comments:	1	Unavailable	soils, does not include	12	Unspecified	Unspecified	Unspecified	Unspecified
		C	Comments:						

# Report 4 – Site Conditions

Roscommon Mgt. Unit
Doug Bates : Examiner

2	Available	5B: Maintain for regeneration purposes	11	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	3A: Conservation Values incompatible with harvest at this time	29	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	34	3A: Conservation Values incompatible with harvest at this time	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
	Comments:						
5	Unavailable	3D: Recreational / Scenic values	42	2G: Too wet (sensitive soils, does not include access issues)	2F: Too steep	Unspecified	Unspecified
	Comments:						
6	Unavailable	2F: Too steep	18	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
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# Report 4 - Site Conditions

Compartment: 68 Year of Entry: 2023

Roscommon Mgt. Unit

Doug Bates : Examiner

8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	168	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
9	Available	5B: Maintain for regeneration purposes	17	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

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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				

Roscommon Mgt. Unit Compartment: 68
Year of Entry 2023



# 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	HCVA = High Conservation Value Area SCA = Special Conservation Area
HCVA (	Designated Critical Habitat	U.S. Fish and Wildlife service for the recovery of th 365, Endangered Species Protection, of the Natura PA 451, and the Federal Endangered Species Act	ative and cooperative process between the DNR and the hreatened and endangered species, as governed by Part al Resources and Environmental Protection Act, 1994 of 1973. This is an active program, with proposed ow only two exist, Kirtland Warbler Habitat and Piping



Stand	Level 4 Co	over Type		Size De	ensity	Acres	Stand Age E	BA Range	Managed \$	Site	General Comments
1	42220 - Nati	ural Jack P	Pine	Poletimb	er Well	312.3	59	51-80	N/A		Mature Jake pine stand with trees in all size classes from saplings up to
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	small log. The sapling size jack pine are in the overstory though. very little regeneration per day in the understory, some Jack pine and oak.
	Jack Pine	87	Pole	7	59	Ja	ck Pine	Low	< 5 feet	Tall Shrub	The basal area is more towards the higher end of the range.
	Red Pine	3	Pole/Log	8		Sw	eet Fern	Low	Variable	Tall Shrub	Recommend harvesting a portion of this stand. With the urban interface and size of the stand, should treat in blocks. Condition of the stand
٨	Northern Pin Oak	10	Pole	5	59						currently shows evidence it'll hold another rotation for the portions left this YOE. Entire stand crisscrossed with illegal orv trails.
2	42220 - Nati	ural Jack P	ine P	oletimbe	r Mediur	n 18.9	56	51-80	N/A		Stand that had a wildfire in it in 2001. Evidence that it killed some of the
	Canopy Species	% Cover	Size Class	DBF	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	original trees and brought the canopy closure down from the surrounding parent stand. Stand has a good component of red pine in it as well.
	Jack Pine	70	Pole/Sapling		56	Ja	ck Pine	Low	Variable	Sapling	Some jack pine and oak regeneration. Leave this stand at least another
	Red Pine	30	Log/Pole/Sa	p 10		Black/Re	d (Hybrid) Oak	Low	10 - 20 feet	Sapling	rotation. Will be treating stand that surrounds it this rotation. Act for visual buffer.
3	4125 - Blac			Sapling I		28.5		Immature	N/A		Stand was final harvested in the winter 2014 and planted in the spring 2015 with red pine. Been re-planted twice. The parent stand was oak
	Canopy Species		Size Class		I Age		nopy Species		Avg. Height	Size	which resulted in the heavy natural regeneration of oak. The site was not
	Jack Pine	28	Sapling	1	8	Re	ed Pine	Low	< 5 feet	Sapling	treated with herbicide so the red pine was not able to compete with the natural oak and jack pine. The oak has come in well with a fair amount
	Pin Cherry	10	Sapling	1							of jack pine also. Some small pockets of red pine. They are there in
	Red Pine	1	Sapling	1							places but suppressed. Lower end of the canopy closure with the north
Blac	ck/Red (Hybrid) Oak	49	Sapling	2	8						end being sparser with more pin cherry. Stand with be a good mixed
	White Oak	12	Sapling	1							oak/pine.
4	42220 - Nati	ural Jack P	ine	Poletimb	er Poor	23.0	35	1-50	N/A		Sparsely stocked jack pine stand from St Helen fire of 1987, not as
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	dense as that on east side of section line. The merchantable diameter pine is very bushy/limby. Typical of open grown sparse pine. There are
	Jack Pine	95	Pole/Sapling	g 6	35	Sw	eet Fern	Low	Variable	Tall Shrub	
Blac	k/Red (Hybrid) Oak	5	Pole/Sapling	g 5							area range.
5	42220 - Nati	ural Jack P	Pine	Poletimb	er Well	100.8	35	1-50	N/A		Jack pine stand which regenerated from St Helen Fire of 1987. Just
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	coming into pole sized pine but have a heavy amount of saplings. Dense stocking of jack pine with several open pockets scattered equally about
	Red Pine	1	Log	12	86	Ja	ck Pine	Low	< 5 feet	Seeding	the stand resulting in the canopy closure being on the lower end.
	Jack Pine	95	Pole/Sapling	g 5	35				1		
Blac	k/Red (Hybrid) Oak	4	Sapling	3							
6	42121 - Planted Deci	Jack Pine, duous	Mixed	Sapling I	Medium	22.0	7	Immature	N/A		Stand was final harvested in Winter 2014 and trenched in 2014. Planted to jack pine in 2015. Came back well to both planted and natural jack
	Canopy Species	% Cover	Size Class	DBH	l Age						pine with fair amounts of oak regeneration. Good mixed stand. On the lower end of the canopy closure.
	Jack Pine	60	Sapling	1	7						lower end of the carropy closure.
7	122 - Road	I/Parking L	ot	Nonsto	ocked	0.7		Immature	No		F-97 county road



Stand	d Level 4 Co	over Type	S	ize De	nsity	Acres	Stand Age E	BA Range	Managed Site		General Comments
8	42110 - Plar	nted Red P	ne Sa	awtimb	er Poor	16.5	82	1-50	N/A		Mature red pine stand underburned by fire. Has some small rp in
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	understory. Stand was harvest leaving 30 basal area of log sized red pine trees along with all red pine under 6 inches. Natural regeneration
	Red Pine	100	Log/Pole/Sap	12	82	Ja	ck Pine	Medium	< 5 feet	Sapling	came back in real well. Have a mix of jack pine, oak, and some red
						Pir	Cherry	Low	10 - 20 feet	Sapling	pine. Scattered cherry also. Leave the dominate overstory one more
						Black/Red	d (Hybrid) Oak	Full	5 - 10 feet	Sapling	rotation and by then the regeneration will be even better and can look at removing the overstory.
9	42220 - Nati	ural Jack P	ine Po	oletimb	er Well	8.8	59	81-110	N/A		Mature block of jack pine that escaped the 1987 St. Helen fire. the jack
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	pine is mature with a fair amount of sawlog red pine mixed throughout. Also some oak saplings coming in too. recommend cutting this stand to
Bla	ick/Red (Hybrid) Oak	1	Pole/Sapling	5		Ja	ck Pine	Low	< 5 feet	Sapling	stagger for age classes in area.
	Red Pine	25	Log/Pole	13		Black/Red	d (Hybrid) Oak	Low	5 - 10 feet	Sapling	
	Jack Pine	74	Pole/Sap/Log	7	59						
10	42220 - Nati	ural Jack P	ine Po	oletimb	er Well	61.3	35	1-50	N/A		Natural jack pine stand from the 1987 St Helen Fire. Some resident
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	overstory red pine and oak that were underburned and survived. The jack pine is dense with the average dbh just into pole size. This also resulted
	Jack Pine	95	Pole/Sapling	5	35	Sw	eet Fern	Medium	Variable	Tall Shrub	in the basal area range is on the higher end of the range.
	Red Pine	5	Log/Pole	13	86	Ja	ck Pine	Low	< 5 feet	Sapling	
11	710 - S	and, Soil		Nonsto	cked	1.9			Managed O <sub>l</sub>	pening	St. Helen orv trail parking lot.
12	42220 - Nati	ural Jack P	ne Pole	etimbei	Mediur	n 29.2	59	51-80	N/A		This stand comprises the area that once was the village of Beaver Lake from the late 1800's. There is a cemetery in the far southern portion with
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	grave markers. The jack pine is mature and ready to treat. Tried a
	Jack Pine	94	Pole/Sap/Log	7	59	Ja	ck Pine	Low	Variable	Sapling	prescribed burn back in May 2006 to stimulate regeneration but didn't
	Northern Pin Oak	6	Log/Pole	10		Black/Red	d (Hybrid) Oak	Low	Variable	Sapling	work. Has oak regeneration coming in understory in some spots. Due to the historical factors within stand boundaries no treatment can be done.
13	42120 - Plar	ited Jack P	ine Sa		Лedium	2.3	15	Immature	N/A		Sand scramble area planted with jack pine. Pine doing good and secured the site back to forested. Scattered pole sized jack pine on outer
	Canopy Species		Size Class		Age						edges.
	Jack Pine	100	Sapling/Pole	2	15						
14	330 - L ow-E	Density Tre	es	Nonsto	cked	3.0			4222 - Natural .	Jack Pine	Pole and sapling size jack pine that are starting to fill in an opening. Still not quite forested but close. The opening is barricaded off to pre ent orvo
14	300 - LOW-L										from disturbing the site.
15		- Aspen		Sapling	Well	11.9	19	Immature	N/A		from disturbing the site.  Cut 2002, not planted to JP for KW. Came back in nice and dense.
		- Aspen	Size Class		Well <b>Age</b>		19 nopy Species		N/A Avg. Height	Size	
	4130					Sub-Ca				<b>Size</b> Sapling	
	4130 - Canopy Species	% Cover	Size Class	DBH		Sub-Car Quak	nopy Species	Density	Avg. Height		
	4130 - Canopy Species Red Maple	% Cover	Size Class Sapling	<b>DB</b> H		Sub-Car Quak	nopy Species ing Aspen	<b>Density</b> Low	Avg. Height 5 - 10 feet	Sapling	



Stand Lev	/el 4 Co	ver Type	\$	Size De	nsity	Acres	Stand Age E	BA Range	Managed \$	Site	General Comments
16 4	4122 - C	ak, Pine	Po	oletimb	er Poor	7.0	35	1-50	N/A		Mixed oak and jack pine stand on the sparse side that is fairly open
Canopy Spe	cies	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	grown but the canopy just is into the 25% to classify it as forested. Is the result of the St. Helen wildfire in 1987.
Jack Pine		40	Pole/Sapling	5	35	Re	ed Pine	Low	< 5 feet	Sapling	Toolie of the other winding in Tool.
Northern Pin C	Dak	60	Pole/Sap/Log	6	35						
<b>17</b> 42120	0 - Plant	ted Jack P	ine	Sapling	Poor	38.4	7	Immature	N/A		Stand was final harvested in the Summer 2014 and trenched in the fall
Canopy Spe	cies	% Cover	Size Class	DBH	I Age						2014. Planted to jack pine in 2015. Planted jack pine doing fairly well.
Jack Pine		90	Sapling	1	7						Stocking moderate with some high pockets with not much other
Pin Cherry		5	Sapling	1							regeneration other than little bit of cherry and oak.
Black/Red (Hybric	d) Oak	5	Sapling	1							
18 43	10 - Pin	e, Oak Mix	<b>(</b>	Sapling	Poor	106.1	18	Immature	N/A		Jack pine plantation from 2004. The jack pine plantation was not a real
Canopy Spe	cies	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	good success, moderate at best. Fair amount of natural oak, some cherry and little bit of red pine mixed with it.
Jack Pine		55	Sapling	3	18	Sw	eet Fern	Low	Variable	Tall Shrub	,, ,
Pin Cherry		4	Sapling	2							
Red Pine		1	Sapling	2							
Black/Red (Hybrid	d) Oak	40	Sapling	2	19						
19 42120	0 - Plant	ted Jack P	ine P	oletimb	er Well	30.0	43	51-80	N/A		Jack pine plantation from 1979, also some seeding from 1983 according to old records. Scattered sawlog red pine throughout. Fair amount of
Canopy Spe	cies	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	sapling sized jack pine as the result of density planted and lack of
Red Pine		5	Log/Pole	13		Sw	eet Fern	Low	Variable	Tall Shrub	
Jack Pine		95	Pole/Sapling	6	43						
20 42120	0 - Plant	ted Jack P	ine P	oletimb	er Well	36.2	39	51-80	N/A		Originally planted in 1979, replanted in 1983. Slightly higher diameter than similar aged stand to the north. Also higher mix of oak and cherry
Canopy Spe	cies	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	throughout. Towards the top of the basal area scale.
Jack Pine		77	Pole/Sapling	6	39	Sw	eet Fern	Low	Variable	Tall Shrub	
Pin Cherry		3	Sapling	3		Black/Re	d (Hybrid) Oak	Trace	< 5 feet	Sapling	
Red Pine		5	Log/XLog	15		Pir	Cherry	Trace	< 5 feet	Sapling	
Northern Pin C	Dak	15	Pole/Sapling	5	43						
<b>4</b> I		ted Jack P	rine P		er Well	40.0	43	51-80	N/A		Jack pine plantation from 1979. Hight percentage of jack pine planted are still in unmerchantable size. Large supercanopy red pine scattered
Canopy Spe	cies		Size Class		l Age		nopy Species		Avg. Height	Size	throughout stand. Basal area on lower end of scale and red pine
Red Pine		9	Log	12		Sw	eet Fern	Medium	Variable	Tall Shrub	accounts for some.
Jack Pine		86	Pole/Sapling	5	43						
Black/Red (Hybrid	d) Oak	1	Sapling/Pole	4							
Quaking Aspe	en	4	Pole/Sapling	5							

Report 7 - Stands



Stand	d Level 4 Co	ver Type	S	Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
22	42120 - Plan	ted Jack F	Pine	Sapling	Well	57.4	26 lı	mmature	N/A		Planted jack pine stand from 1996
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Jack Pine	88	Sapling/Pole	3	26	Sw	eet Fern	Medium	Variable	Tall Shrub	
	Pin Cherry	2	Sapling	3							
	Quaking Aspen	6	Pole/Sapling	5							
Bla	ck/Red (Hybrid) Oak	4	Sapling/Pole	4							
23	42201 - Natural V Deci	Vhite Pine duous	, Mixed Sa	awtimbe	er Well	14.6	71	81-110	N/A		Sawlog sized white pine stand with good regeneration of white pine in understory along with some maple. The ground has a high water table
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	resulting is some wetter depressions that are being mud bogged in. Majority of ground is dry. The south and west line is a long steep bank
Bla	ck/Red (Hybrid) Oak	3	Pole/Sapling	5		Wh	ite Pine	Low	5 - 10 feet	Sapling	that is forested. Numerous hill climbing spots along the perimeter. Do
	Red Maple	28	Pole/Sapling	5	36	Re	d Maple	Low	5 - 10 feet	Sapling	not treat when comes to maturity, water table rise even more, more RDR
	White Pine	68	Log/Pole/Sap	11	71						issues from mudding vehicles, and lose the pine cover to most likely maple.
24	6225	- Bog		Nonsto	cked	1.2	0		No		leatherleaf bog
25	4319 - Mixed	Upland Fo	prest :	Sapling		16.3		mmature	N/A		Red pine plantation established in 2015 that has been replanted twice.  There are pockets of decent red pine but they just don't have the height
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	yet. Fair amount of natural jack pine reseeded in and is doing better than
	Jack Pine	45	Sapling	1	8	Re	ed Pine	Medium	< 5 feet	Sapling	the planted pine. A lot of the jack pine seeded into the trenches. Some
Bla	ck/Red (Hybrid) Oak	18	Sapling	1							oak out there with a heavier concentration of pin cherry in the long narrow
	Pin Cherry	33	Sapling	2							portion. Trespasses from several residences including illegal trails and mowing of state land.
	Red Pine	4	Sapling	1	7						3
26	4133 - Aspe	n, Mixed F	rine Po	oletimb	er Well	9.6	43	51-80	N/A		Aspen stand from 1979. Low elevation stand that hooks around a ridge
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	top that is park of the Scramble Areas Rock Course.
	Red Maple	13	Pole/Log	8	43	Re	d Maple	Low	10 - 20 feet	Sapling	
	White Pine	28	Log/Pole	10		Wh	ite Pine	Low	Variable	Sapling	
	Quaking Aspen	45	Pole/Log/Sap	8	43	Black/Red	d (Hybrid) Oak	Low	5 - 10 feet	Sapling	
	Northern Pin Oak	11	Pole/Sapling	6	43			'			
	Pin Cherry	3	Sapling/Pole	4							
27	3301 - Low Densit	y Deciduo	us Trees	Nonsto	cked	4.9	lı	mmature			St. Helen ORV scramble area rock climbing courses.
28		Pine, Oak		oletimb			47	51-80	N/A		Steep ridge along the stands northerly line, but mainly a gentle rolling terrain with a few wetter potholes/kettles. The ridges consist of poor
	Canopy Species		Size Class		Age		nopy Species	Density	Avg. Height	Size	quality pin oak with slightly younger jack pine in the valleys. KOTAR
	Northern Pin Oak	30	Log/Pole	12	84		rn Pin Oak	Low	Variable	Sapling	type is PArVHa and GLO cover type shows as barrens/savannah. Two
	White Oak	5	Log	10		Ja	ck Pine	Medium	Variable	Sapling	aged with older oak and younger jack pine. The jack pine is still not ready to treat, fair amount of jack pine still in sapling stage.
	Red Pine	5	Pole	8							ready to treat, rail afflourit of jack pille still ill sapiling stage.
	Jack Pine	60	Pole/Sapling	6	47						



Stand	Level 4 Co	over Type	s	ize De	ensity	Acres	Stand Age B	BA Range	Managed S	ite	General Comments
29	4126 - White, B	Black, N. P	in Oak Sa	awtimb	er Well	11.3	106	81-110	N/A		A ridge top with the northern half sloping into a cedar type on the west
(	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	side and the bottom of the east side is a vernal swale attached to this stand. Beyond that swale is a high and dry jack pine stand. Primarily
No	orthern Pin Oak	43	Log/Pole	12	106	W	hite Pine	Medium	Variable	Sapling	oak sawloga with an occasional white pine and jack pine in the overstory
	Red Maple	8	Pole/Sap/Log	8							with a white pine understory. Small pocket of supercanopy white pines. ORV trail runs through stand. Leave for regeneration purposes and to
	White Pine	16	Pole/Sap/Log	7							deter hill climbing on side slopes by ORV users.
	Jack Pine	2	Pole/Sapling	6							
	White Oak	31	Log/Pole	12	106						
30	6128 - Lowland ( Deci	Coniferous duous	, Mixed Sa	awtimb	er Well	12.4	117	171-200	N/A		Large hemlocks scattered within a white cedar stand. Occasional supercanopy white pines. Intermittent streams. To the north where the
C	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	xss canopy is more open find some red map,e and the understory is dense balsam fir.
	Hemlock	32	Log/Pole/XLog	12	117	Re	ed Maple	Low	10 - 20 feet	Sapling	donoc baldam iii.
	Red Maple	15	Log/Pole/Sap	10		Ва	ılsam Fir	High	5 - 10 feet	Sapling	
	Paper Birch	5	Pole	7							
North	nern White Cedar	43	Pole/Log/Sap	9	117						
31	4191 - Mixed Upla Co Canopy Species	nifer % Cover			er Well	41.5	110 nopy Species	81-110  Density	Avg. Height	Size	Very variable and unique stand which is approaching all-aged if not there. Has sawlog log oaks, along with red and white pines. Some of the pines are approaching legacy status. Heavy amount of white pine
	Red Pine	14	Log/XLog	16			alsam Fir	Medium	Variable	Sapling	saplings which a fair percentage are pushed down., possibly from the heavy wet snowstorm this spring. Most of the stand is upland with a lot
	Jack Pine	2	Log/Pole	10			hite Pine	High	10 - 20 feet	Sapling	of small seeps, drainages, and potholes, stand has ridges which run SW
	Red Maple	19	Pole/Log	8						1 3	to north/northwest and there are wet cedar runs in between the ridges.
Black	/Red (Hybrid) Oak	25	Log/Pole/XLog	14	110						The base of hill on the northwest is heavy to pole size aspen but is wetter terrain, stand has numerous blowdowns and gaps with regeneration.
	Paper Birch	2	Pole	7							With the numerous wet areas and the amount of regeneration in the
	White Oak	15	Log	14	110						understory it's best to leave the stand. This would be difficult to harvest,
Q	uaking Aspen	3	Pole	6							potential for rutting, and damage too much of the regeneration coming up. Majority of the oak will die out and the stand will be dominated by
	White Pine	20	Log/Pole/XLog	15	137						white pine.
32	6120 - Lov	vland Ceda	ar Sa	awtimb	er Well	33.9	127	171-200	N/A		Wet cedar fingers that runs between numerous ridges of high ground pine/oak on either side. Numerous blowdown and gaps being created
C	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	with regeneration of mostly balsam fir and no cedar. Other than
	Red Maple	10	Log/Pole	10		Ba	ılsam Fir	Low	5 - 10 feet	Sapling	blowdown areas the understory is fairly open, stand has a perched water
	Paper Birch	5	Pole	8							table and seeps which create intermittent streams. Mostly cedar and white pine with occasional pockets of hemlock. Too wet to treat.
North	nern White Cedar	63	Log/Pole	10	127						write pine with occasional pockets of Hermock. Too wet to freat.
	Hemlock	7	Pole	8	127						
	Red Pine	5	Log	12	127						
	White Pine	10	XLog/Log	18	127						



Stand	Level 4 Co	over Type	Si			Acres Stand Age B		Managed S	110	General Comments
33	4319 - Mixed	Upland Fo	orest Sa	pling <b>I</b>	Лedium	11.9 29	51-80	N/A		Stand harvested to a 4" diameter spec. in 1993. Scattered large
	Canopy Species	% Cover	Size Class	DBH	Age					openings with mostly stump sprouted red maple and white pine residual. Lower end of the basal area average. Higher ridges on the east/west
	Red Pine	3	Sapling	3						ends with a valley in between. In this valley is some seasonally wet
	Jack Pine	2	Sapling	3						depressions. Inclusion of jack pine in the southeast corner.
	Red Maple	50	Pole/Sapling	5	29					
	White Pine	40	Pole/Sapling	5						
	Bigtooth Aspen	5	Sapling/Pole	4						
34	4191 - Mixed Upla Co	ınd Decidu nifer	ous with Sa	wtimb	er Well	30.7 80	81-110	N/A		The west side of the stand is a ridge of sparser stump sprouted maples and as go east turns into mature oak with a heavy mid and sub canopy of
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Species	Density	Avg. Height	Size	white pine and red maple. It drops off the ridge into a lower elevation. I won't call it wet but the water table is higher. Do have scattered vernal
	Red Maple	49	Log/Pole/Sap	10	80	White Pine	Full	Variable	Sapling	ponds with cedar/hemlock. The majority is mainly maple overstory with
	White Oak	5	Log/Pole	12	80	Balsam Fir	High	Variable	Sapling	some saplings in the mid canopy but has a heavy white pine and/or
	White Pine	27	Pole/Sap/Log	8						balsam fir understory. The stand is converting to a white pine stand. In the southeast corner is an island of very large oaks that is shading a
	Paper Birch	1	Pole	8	80					vernal pond area and producing good acorns. Evidence of recent turkey
	ck/Red (Hybrid) Oak	18	XLog/Log/Pole	18						and deer activity in here. Do not harvest. This stand is one of a small handful of stands that make up a unique habitat in this area. The area is
Blac										mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by
35	4199 - Other Mixed	d Upland D	Deciduous Pole	timbe	· Mediui	n 15.5 43	51-80	N/A		mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white
	4199 - Other Mixed		Deciduous Pole Size Class		· Mediui	m 15.5 43  Sub-Canopy Species	51-80 Density	N/A Avg. Height	Size	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of
35									<b>Size</b> Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white
35	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Species	Density	Avg. Height		mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small
35	Canopy Species Bigtooth Aspen	<b>% Cover</b>	Size Class Log/Pole	<b>DB</b> H	43	Sub-Canopy Species White Pine	<b>Density</b> Low	Avg. Height 5 - 10 feet	Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout
35	Canopy Species Bigtooth Aspen Northern Pin Oak	<b>% Cover</b> 13 17	Size Class Log/Pole Pole/Sapling	10 7	43	Sub-Canopy Species White Pine	<b>Density</b> Low	Avg. Height 5 - 10 feet	Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout
35	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry	% Cover 13 17 2	Size Class Log/Pole Pole/Sapling Sapling Log/Pole/XLog Pole/Sapling	10 7 4	43	Sub-Canopy Species White Pine	<b>Density</b> Low	Avg. Height 5 - 10 feet	Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout
35	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine	% Cover 13 17 2 15	Size Class Log/Pole Pole/Sapling Sapling Log/Pole/XLog	10 7 4 10	43	Sub-Canopy Species White Pine	<b>Density</b> Low	Avg. Height 5 - 10 feet	Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout
35	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine White Oak	% Cover 13 17 2 15 7	Size Class Log/Pole Pole/Sapling Sapling Log/Pole/XLog Pole/Sapling	10 7 4 10 6	43 43	Sub-Canopy Species White Pine	<b>Density</b> Low	Avg. Height 5 - 10 feet	Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout
35	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine White Oak Red Maple	% Cover 13 17 2 15 7 44 2	Size Class Log/Pole Pole/Sapling Sapling Log/Pole/XLog Pole/Sapling Pole/Sap/Log Pole/Sapling	10 7 4 10 6 7 6	43 43	Sub-Canopy Species White Pine	<b>Density</b> Low	Avg. Height 5 - 10 feet	Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout stand.
35	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine White Oak Red Maple Jack Pine	% Cover	Size Class Log/Pole Pole/Sapling Sapling Log/Pole/XLog Pole/Sapling Pole/Sap/Log Pole/Sapling	DBH 10 7 4 10 6 7 6	43 43 43	Sub-Canopy Species White Pine Red Maple	Density Low Low	Avg. Height 5 - 10 feet 10 - 20 feet	Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout stand.  Appears this stand was treated similar to the one to the north in late 70'S. All species, mostly red maple and oak was removed leaving the
35	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine White Oak Red Maple Jack Pine  4319 - Mixed	% Cover	Size Class Log/Pole Pole/Sapling Sapling Log/Pole/XLog Pole/Sapling Pole/Sap/Log Pole/Sapling Pole/Sapling	DBH 10 7 4 10 6 7 6 wtimb	43 43 43 er Well	Sub-Canopy Species White Pine Red Maple  24.3 80	Density Low Low 81-110	Avg. Height 5 - 10 feet 10 - 20 feet  N/A	Sapling Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout stand.  Appears this stand was treated similar to the one to the north in late 70'S. All species, mostly red maple and oak was removed leaving the pine. Some oaks were left. There are sparse to open pockets here and there with cherry. This brings the canopy closure down to the low end.
35	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine White Oak Red Maple Jack Pine  4319 - Mixed  Canopy Species	% Cover  13 17 2 15 7 44 2 Upland Fo	Size Class  Log/Pole  Pole/Sapling  Sapling  Log/Pole/XLog  Pole/Sapling  Pole/Sap/Log  Pole/Sapling  orest  Sa  Size Class	DBH 10 7 4 10 6 7 6 wtimb DBH 10 7	43 43 43 er Well	Sub-Canopy Species White Pine Red Maple  24.3 80  Sub-Canopy Species	Density Low Low 81-110 Density	Avg. Height 5 - 10 feet 10 - 20 feet  N/A  Avg. Height	Sapling Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout stand.  Appears this stand was treated similar to the one to the north in late 70'S. All species, mostly red maple and oak was removed leaving the pine. Some oaks were left. There are sparse to open pockets here and there with cherry. This brings the canopy closure down to the low end. The stand codes out as white pine with a high percentage of white pine in
35 N 36	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine White Oak Red Maple Jack Pine  4319 - Mixed  Canopy Species Bigtooth Aspen Jack Pine White Pine	% Cover  13 17 2 15 7 44 2 Upland Fc % Cover 5	Size Class  Log/Pole  Pole/Sapling  Sapling  Log/Pole/XLog  Pole/Sapling  Pole/Sap/Log  Pole/Sapling  orest  Sa  Size Class  Log/Pole	DBH 10 7 4 10 6 7 6 wtimb DBH 10 7 12	43 43 43 er Well	Sub-Canopy Species White Pine Red Maple  24.3 80  Sub-Canopy Species White Oak	Density Low Low 81-110 Density Low	Avg. Height 5 - 10 feet 10 - 20 feet  N/A  Avg. Height  Variable	Sapling Sapling Size Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout stand.  Appears this stand was treated similar to the one to the north in late 70'S. All species, mostly red maple and oak was removed leaving the pine. Some oaks were left. There are sparse to open pockets here and there with cherry. This brings the canopy closure down to the low end. The stand codes out as white pine with a high percentage of white pine in saw class size. The maple and oaks just getting to saw size. Wait to
35 N 36	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine White Oak Red Maple Jack Pine  4319 - Mixed Canopy Species Bigtooth Aspen Jack Pine	% Cover  13 17 2 15 7 44 2 Upland For % Cover 5 3	Size Class  Log/Pole  Pole/Sapling  Sapling  Log/Pole/XLog  Pole/Sapling  Pole/Sapling  Pole/Sapling  orest  Sa  Size Class  Log/Pole  Pole	DBH 10 7 4 10 6 7 6 wtimb DBH 10 7	43 43 43 er Well 43 80	Sub-Canopy Species White Pine Red Maple  24.3 80  Sub-Canopy Species White Oak	Density Low Low 81-110 Density Low	Avg. Height 5 - 10 feet 10 - 20 feet  N/A  Avg. Height  Variable	Sapling Sapling Size Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout stand.  Appears this stand was treated similar to the one to the north in late 70'S. All species, mostly red maple and oak was removed leaving the pine. Some oaks were left. There are sparse to open pockets here and there with cherry. This brings the canopy closure down to the low end. The stand codes out as white pine with a high percentage of white pine in
35 N 36	Canopy Species Bigtooth Aspen Northern Pin Oak Pin Cherry White Pine White Oak Red Maple Jack Pine  4319 - Mixed  Canopy Species Bigtooth Aspen Jack Pine White Pine	% Cover  13 17 2 15 7 44 2 Upland Fo % Cover  5 3 40	Size Class  Log/Pole  Pole/Sapling  Sapling  Log/Pole/XLog  Pole/Sapling  Pole/Sapling  Pole/Sapling  orest  Sa  Size Class  Log/Pole  Pole  Log/Pole/Sap	DBH 10 7 4 10 6 7 6 wtimb DBH 10 7 12	43 43 43 er Well 43	Sub-Canopy Species White Pine Red Maple  24.3 80  Sub-Canopy Species White Oak	Density Low Low 81-110 Density Low	Avg. Height 5 - 10 feet 10 - 20 feet  N/A  Avg. Height  Variable	Sapling Sapling Size Sapling	mainly jack pine either natural or artificial that has the trails closed off because of the amount of wet ground and RDR issues. Good place to hunt without the disturbances of the orvs. Stand has too much potential also for rutting and we'd do more harm than good to the regeneration by treating it.  Cut 1977, now aspen/red maple/oak with an scattered log class white pine. Appears no pine was cut in that harvest. East edge has pockets of larger white pine, the stands aspen clones, and bit of jack pine. Small pockets & wet runs of cedar/hemlock/white pine scattered throughout stand.  Appears this stand was treated similar to the one to the north in late 70'S. All species, mostly red maple and oak was removed leaving the pine. Some oaks were left. There are sparse to open pockets here and there with cherry. This brings the canopy closure down to the low end. The stand codes out as white pine with a high percentage of white pine in saw class size. The maple and oaks just getting to saw size. Wait to treat letting these get larger. The white pine will hold. Some of the



Stan	d Level 4 Co	over Type	;	Size D	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
37	4310 - Pir	ne, Oak Mi	x S	Sawtimb	oer Well	59.5	58	51-80	N/A		Stand with ridges and intermittent valleys. The mature oak is
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	predominantly on the ridge tops and slopes with the jack pine found mostly in the valleys. The oak is starting to die out and the jack pine is
	White Oak	20	Log	12	107	Ja	ack Pine	Medium	Variable	Sapling	close to rotation age. Recommend harvesting the site removing all
	Jack Pine	30	Pole/Sap/Log	8	58	W	hite Pine	Medium	Variable	Sapling	species to two inches. Leave all white oak for mast and white pine over
	Red Pine	5	Log/XLog	16	107						20 inches d.b.h Due to the orv trail within stand, do not chip site but scatter brush out to deter illegal trail construction.
	Northern Pin Oak	25	Log/Pole	12	107						could brash out to ustar mogar train construction.
	White Pine	20	Log/Pole/XLog	g 14	107						
38	4130	- Aspen		Saplin	g Well	8.1	19	Immature	N/A		Cut in 2003, aspen clone that came back in and was not planted to KW
	Canopy Species	% Cover	Size Class	DBI	H Age						jack pine.
	Jack Pine	10	Sapling	3							
	Quaking Aspen	80	Sapling/Pole		19						
	Northern Pin Oak	10	Sapling/Pole	3	19						
39	42120 - Plar	nted Jack F	Pine S	Sapling	Medium	498.7	15	Immature	N/A		Planted to jack pine for KW in 2007. On the higher end of the canopy closure. Being used by warblers in 2021 census.
	Canopy Species	% Cover	Size Class	DBI	H Age						closure. Defing used by warblers in 2021 census.
	Pin Cherry	5	Sapling	2							
Bla	ck/Red (Hybrid) Oak	12	Sapling	3							
	Jack Pine	83	Sapling	3	15						
40	4122 - 0	4122 - Oak, Pine		Sawtimber Medium		m 17.4	109	81-110	N/A		Stand is a ridge top along the west side that slopes towards lake with I of illegal ORV trails & erosion concerns in and around stand, stand is
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	Sub-Canopy Species D		Avg. Height	Size	over mature pin oak/jack pine with pin oak declining with lots of snags,
	Red Pine	10	Pole/Log	9		North	ern Pin Oak	Low	Variable	Sapling	white oak doing fair, and jack pine declining, stand has a decent
	Jack Pine	25	Pole/Log	9		R	ed Pine	Low	Variable	Sapling	understory of jack pine and oak starting to come in also, KOTAR shows
	White Oak	25	Log	11	109	Ja	ack Pine	Medium	Variable	Sapling	PArVHa with GLO covertypes showing as part of barrens/savannah complex to the north. Afraid if we treat this stand that the erosion
	White Pine	5	Pole	6							concerns from illegal orv use will spread on a larger scale. Small vernal
	Northern Pin Oak	35	Log	11	109						pond in the center. Midland to Mackinaw Trails bisects stand.
41	500 -	Water		Nonst	ocked	9.0			No		Beaver Lake - the water is about 2/3rds gone because its primary water source is being interrupted by the road alone the south side. A culvert has been crushed and germs along road blocking flow. The beavers have moved out and the water supply is not coming in anymore so it is drying up rapidly resulting in more exposed bottom lands with lots of illegal ORV traffic and accompanying erosion around and in lake
42	42141 - Planted Deci	Mixed Pine duous	, Mixed P	Poletim	oer Wel	21.1	27	51-80	N/A		The stand was plant to jack pine. Has natural oak, cherry, and other pine species coming in. Just into pole size. Lower end of canopy closure.
	Canopy Species	% Cover			H Age		nopy Specie		Avg. Height	Size	
	Northern Pin Oak	20	Sapling/Pole			Black/Re	ed (Hybrid) Oa	ak Low	< 5 feet	Sapling	
	Red Pine	5	Pole	6							
	Jack Pine	55	Pole/Sapling	5	27						
	Pin Cherry	15	Sapling	3							
	White Pine		Pole								



Stand	Level 4 Co	ver Type	s	ize De	nsity	Acres	Stand Age E	BA Range	Managed S	ite	General Comments
43	6225	- Bog	ľ	Nonsto	cked	1.3			No		Bog
44	4191 - Mixed Upla Col	nd Decidu	ous with Pole	timber	Mediur	n 19.8	37	1-50	N/A		The stand came back sparse and a fair amount of the regeneration is non-merchantable grade pin cherry. The oak came came via mostly
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	stump sprouting. The jack pine is mostly concentrated up at the northern end. Some scattered aspen here and there.
	Pin Cherry	32	Sapling/Pole	4	37	Jac	k Pine	Low	< 5 feet	Sapling	end. Some scattered aspentifiere and there.
	Red Pine	5	Pole	8		Black/Red	l (Hybrid) Oak	Low	< 5 feet	Sapling	
N	lorthern Pin Oak	35	Pole/Sapling	5	37						
45	4199 - Other Mixed	d Upland D	eciduous S	Sapling	Poor	21.5	23	Immature	N/A		1998 wildfire stand that killed most of the original forest cover. Have
	Canopy Species	% Cover	Size Class	DBH	Age						some oak stump sprouts, small pockets of aspen, but predominately pin
	Red Maple	5	Sapling	3	23						cherry. Some scattered large white pines also. On higher end of canopy closure.
	White Pine	1	Log	12							
N	lorthern Pin Oak	15	Sapling/Pole	3	23						
	Pin Cherry	66	Sapling	2	23						
(	Quaking Aspen	13	Pole/Sapling	5	23						
46	6225	- Bog	1	Nonsto	cked	1.7			No		Leather leaf bog that is drying up. because natural flow from bog to south is being interrupted by the road along south side.
47	6224 - T	reed Bog	ı	Nonsto	cked	12.1			No		treed bog with balsam fire, black spruce, and cedar
48	4404 Missad Hala										
		nd Decidu nifer	ous with Po	letimb	er Well	16.4	48	81-110	N/A		Harvest removing all the aspen, maple and some oak along with white pine. The stand is maple/aspen along the southerly two-thirds but
		nifer	ous with Po		er Well		48		N/A  Avg. Height	Size	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where
	Col	nifer				Sub-Can				<b>Size</b> Sapling	pine. The stand is maple/aspen along the southerly two-thirds but
	Canopy Species	nifer % Cover	Size Class	<b>DBH</b> 4 6	<b>Age</b> 48	Sub-Can	opy Species	Density	Avg. Height		pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of
	Con Canopy Species Paper Birch	% Cover	Size Class Sapling/Pole	<b>DBH</b>	Age	Sub-Can	opy Species	<b>Density</b> Medium	Avg. Height 5 - 10 feet	Sapling	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of regrowth trying to get the mature oak/white pine out. Oak is largely
	Concept Species Paper Birch Quaking Aspen	<b>% Cover</b> 1 15	Size Class Sapling/Pole Pole/Sapling	<b>DBH</b> 4 6 10 5	<b>Age</b> 48	Sub-Can	opy Species	<b>Density</b> Medium	Avg. Height 5 - 10 feet	Sapling	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of regrowth trying to get the mature oak/white pine out. Oak is largely
(	Concept Species Paper Birch Quaking Aspen White Pine Red Maple Red Pine	**Cover 1 15 30	Size Class Sapling/Pole Pole/Sapling Log/Pole/Sap	<b>DBH</b> 4 6 10	<b>Age</b> 48 89	Sub-Can	opy Species	<b>Density</b> Medium	Avg. Height 5 - 10 feet	Sapling	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of regrowth trying to get the mature oak/white pine out. Oak is largely
(	Canopy Species Paper Birch Quaking Aspen White Pine Red Maple	**Cover	Size Class Sapling/Pole Pole/Sapling Log/Pole/Sap Pole/Sapling	<b>DBH</b> 4 6 10 5	<b>Age</b> 48 89	Sub-Can	opy Species	<b>Density</b> Medium	Avg. Height 5 - 10 feet	Sapling	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of regrowth trying to get the mature oak/white pine out. Oak is largely
(	Concept Species Paper Birch Quaking Aspen White Pine Red Maple Red Pine k/Red (Hybrid) Oak	% Cover 1 15 30 42 1	Size Class Sapling/Pole Pole/Sapling Log/Pole/Sap Pole/Sapling Log Log	DBH  4 6 10 5 16 16	<b>Age</b> 48 89	Sub-Can	opy Species	<b>Density</b> Medium	Avg. Height 5 - 10 feet	Sapling	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of regrowth trying to get the mature oak/white pine out. Oak is largely white. Leave for mast and evaluate in 10 to see if can go a thin?  Rolling terrain with some steeper parts with an oak overstory of mature
Black	Concept Species Paper Birch Quaking Aspen White Pine Red Maple Red Pine k/Red (Hybrid) Oak	% Cover 1 15 30 42 1 1 1 Dak, Pine	Size Class Sapling/Pole Pole/Sapling Log/Pole/Sap Pole/Sapling Log Log	DBH 4 6 10 5 16 16	<b>Age</b> 48 89 48	Sub-Can Rec Whi	nopy Species d Maple ite Pine	Density  Medium  Low  81-110	Avg. Height 5 - 10 feet 5 - 10 feet	Sapling	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of regrowth trying to get the mature oak/white pine out. Oak is largely white. Leave for mast and evaluate in 10 to see if can go a thin?  Rolling terrain with some steeper parts with an oak overstory of mature pin oak that is starting to decline followed by a good mix of white oak in
Black	Concept Canopy Species Paper Birch Quaking Aspen White Pine Red Maple Red Pine k/Red (Hybrid) Oak	% Cover 1 15 30 42 1 1 1 Dak, Pine	Size Class Sapling/Pole Pole/Sapling Log/Pole/Sap Pole/Sapling Log Log Pole/Sapling	DBH 4 6 10 5 16 16	48 89 48 er Well	Sub-Can Rec Whi	nopy Species d Maple ite Pine	Density  Medium  Low  81-110	Avg. Height 5 - 10 feet 5 - 10 feet N/A	Sapling Sapling	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of regrowth trying to get the mature oak/white pine out. Oak is largely white. Leave for mast and evaluate in 10 to see if can go a thin?  Rolling terrain with some steeper parts with an oak overstory of mature pin oak that is starting to decline followed by a good mix of white oak in varying size classes. The white pine has reached pole size with a good amount of saplings in mid-canopy. If do a treatment it would be to
Black 49	Conopy Species Paper Birch Quaking Aspen White Pine Red Maple Red Pine k/Red (Hybrid) Oak 4122 - C	% Cover 1 15 30 42 1 1 1 Dak, Pine % Cover	Size Class Sapling/Pole Pole/Sapling Log/Pole/Sapling Log Log Size Class	DBH  4 6 10 5 16 16 DBH	48 89 48 er Well	Sub-Can Rec Whi	nopy Species  Maple ite Pine  84  nopy Species	Density Medium Low  81-110 Density	Avg. Height 5 - 10 feet 5 - 10 feet N/A Avg. Height	Sapling Sapling	pine. The stand is maple/aspen along the southerly two-thirds but gradually transitions to mostly white pine along the northern side where the ground gets wetter along the bog. Do not cut, destroy alot of regrowth trying to get the mature oak/white pine out. Oak is largely white. Leave for mast and evaluate in 10 to see if can go a thin?  Rolling terrain with some steeper parts with an oak overstory of mature pin oak that is starting to decline followed by a good mix of white oak in varying size classes. The white pine has reached pole size with a good



Stand	Level 4 Co	over Type	s	ize De	nsity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
50	4191 - Mixed Upla Co	and Decidu	ous with	Sapling	Poor	8.0	24	Immature	N/A		The stand burned in 1998 wildfire which killed ,ost of the forest cover except for the large white pines. jack pine has started to seed in with oak
	Canopy Species	% Cover	Size Class	DBH	Age						sprouting off the stumps. Still very sparse with alot of pin cherry.
	Pin Cherry	27	Sapling	3							
Black	k/Red (Hybrid) Oak	48	Sapling/Pole	3	24						
	White Pine	10	Log	14							
	Jack Pine	15	Sapling	2							
51	4126 - White, E	Black, N. Pi	in Oak S	awtimb	er Well	8.2	106	111-140	N/A		Mixed of large white oak and pin oaks with a midcanopy of white pine coming in here as well as the understory. Leave overstory oaks for mast
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	anopy Species	Density	Avg. Height	Size	and protection to white pine coming in. Heavy wet snowstorm last winter
	White Pine	22	Pole/Sap/Log	7	33	R	ed Maple	Low	Variable	Sapling	knocked a fair amount of sapling to small pole sized white pines down
	Red Pine	7	Pole/Log	8		W	hite Pine	Medium	10 - 20 feet	Sapling	that were out in the open and got a full snow load.
N	orthern Pin Oak	26	Log/Pole	13	106	F	Red Pine	Low	10 - 20 feet	Sapling	
	White Oak	45	Log/Pole	13	106						
52	4191 - Mixed Upla Co	and Decidu	ous with Pole	etimber	Mediu	n 40.5	28	1-50	N/A		Mixed stand of jack pine concentrated in pockets with the other areas being open or forested with oak and pin cherry mainly. On the lower end
	Canopy Species	% Cover	Size Class	DBH	Age						of the canopy closure. The jack pine is very limby and bushy.
	Pin Cherry	25	Pole/Sapling	5	28						
N	orthern Pin Oak	30	Pole/Sapling	5	28						
	Red Maple	5	Sapling	3	28						
	Red Pine	5	Pole/Sapling	5							
	Jack Pine	35	Pole/Sapling	5	28						
53	4133 - Aspe	n, Mixed P	ine S	awtimb	er Well	30.8	52	111-140	N/A		Aspen stand that could be treated. Nice quality aspen with areas of mostly white pine mixed with red maple in spots. The locations
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	anopy Species	Density	Avg. Height	Size	predominately red maple are in wet areas with evidence of old skidder
	Red Maple	18	Pole/Sapling	6		R	ed Maple	Medium	Variable	Sapling	ruts still that are full of water even though it is dry most everywhere else.
(	Quaking Aspen	35	Log/Pole	10	52						
N	orthern Pin Oak	1	Pole/Sapling	6							
	White Pine	20	Pole/Log	8							
E	Bigtooth Aspen	25	Log/Pole	11							
	Balsam Fir	1	Pole/Sapling	6							
54	4139 - Aspen, I	Mixed Deci	duous Po	oletimb	er Well	33.4	46	81-110	N/A		Prior harvest that removed aspen, maple, and majority of oaks. Left
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	anopy Species	Density	Avg. Height	Size	some larger oaks and pines scattered about. The diameters of the stand are on the smaller size for the age. Dense with alot of sapling sized trees
(	Quaking Aspen	41	Pole/Sap/Log	8	46	R	ed Maple	Medium	Variable	Sapling	in the canopy. Pocket of white pine in southwest tip.
	White Oak	2	Pole/Sapling	5		Qua	king Aspen	Low	< 5 feet	Sapling	
Black	k/Red (Hybrid) Oak	5	Pole/Sapling	5							
	White Pine	18	Pole/Sap/Log	8							
	Red Maple	34	Pole/Sapling	6	46						

Report 7 - Stands



Stand	Level 4 Co	over Type	s	ize De	ensity	Acres	Stand Age E	A Range	Managed S	Site	General Comments
55	4131 - A	spen, Oak	Po	letimb	er Well	14.5	29	81-110	N/A		Better quality aspen with less red maple in overstory but heavy in
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	understory under aspen. Where the aspen is void is scattered oak of lesser density.
	White Pine	10	Log/XLog/Pole	14		Re	d Maple	Medium	10 - 20 feet	Sapling	Toose delicity.
	White Oak	1	Sapling/Pole	4		Wh	nite Pine	Low	< 5 feet	Sapling	
1	Northern Pin Oak	22	Pole/Sapling	5							
	Bigtooth Aspen	45	Pole/Sapling	7	29						
	Red Maple	22	Pole/Sapling	6							
56	42290 - Natu	ral Mixed	Pine Sa	wtimb	er Well	52.2	77	81-110	N/A		Natural stand of mixed pine, treated with thinning in 1982 by removing
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	some hardwoods and jack pine. The jack pine is over mature but not enough to do a treatment so wait till the other species are at rotational
	Red Maple	12	Pole/Sapling	5		Wh	nite Pine	Low	>20 feet	Sapling	age to remove what jack pine still alive and thin the red/white pines.
١	Northern Pin Oak	10	Pole/Sapling	5		Re	ed Pine	Low	>20 feet	Sapling	
	Red Pine	18	Log/Pole	13	77	Ja	ck Pine	Low	>20 feet	Sapling	
	Jack Pine	28	Pole/Log	9	77	Re	d Maple	Medium	Variable	Sapling	
	White Pine	32	Log/Pole	11	77	Northe	ern Pin Oak	Medium	Variable	Sapling	
						Pir	Cherry	Low	Variable	Tall Shrub	
57	4133 - Aspe	n, Mixed F	Pine Po	letimb	er Well	27.4	39	81-110	N/A		Better aspen regeneration amounts in this stand with less red maple in overstory. The red maple is heavy in understory. Scattered sawlog
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	class white pine throughout. Some scatter oaks as well and pockets of
	White Pine	20	Log/XLog/Pole	14		Re	d Maple	High	10 - 20 feet	Sapling	decent white pine in the understory. On high end of basal area. Bisec
1	Northern Pin Oak	20	Pole/Log/Sap	8			ite Pine	Low	< 5 feet	Sapling	by MCCCT trail.
	Red Maple	15	Pole/Sapling	7		Black/Re	d (Hybrid) Oak	Medium	5 - 10 feet	Sapling	
	Bigtooth Aspen	45	Pole/Log/Sap	8	39						
58	4199 - Other Mixed	d Upland D	Deciduous Po	letimb	er Well	27.4	28	51-80	N/A		Harvest done in 1983 leaving some red/white oak and all white pine. The
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	remaining white pine are decent size sawlogs now.
	Bigtooth Aspen	29	Pole/Sapling	7	28	Re	d Maple	Medium	5 - 10 feet	Sapling	
١	Northern Pin Oak	17	Pole/Sapling	5		Wh	nite Pine	Medium	5 - 10 feet	Sapling	
	White Pine	10	Log/XLog/Pole	14	,						
	White Oak	5	Pole/Sapling	5							
	Red Maple	39	Pole/Sapling	6	28						
59	4199 - Other Mixed	d Upland [	Deciduous Sa	pling	Medium	60.1	19	mmature	N/A		Very low end of canopy closure, stand open grown with aspen clones interspersed with stump-sprout oak, red maple, and pin cherry. Not the
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	best regenerating stand.
	Pin Cherry	33	Sapling	3	19	Re	d Maple	Medium	< 5 feet	Sapling	
	,										
	Red Maple	27	Sapling	2							
١		27 25	Sapling Sapling	2	19 19						



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
60	42210 - Na	tural Red P	ine	Sawtimb	er Well	7.6	90	81-110	N/A		Nice natural red pine stand trending toward all-aged. Has small amount
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	of oak and white pine in the understory. Nice large mast producing oaks of both species along the perimeters. Was thinned in 2011
	Red Pine	75	Log/Pole	12	90	Black/Re	d (Hybrid) Oak	Low	< 5 feet	Sapling	
	White Oak	8	Log	14		Pir	n Cherry	Low	5 - 10 feet	Sapling	
	White Pine	5	Log/Pole	10		Wh	nite Pine	Low	Variable	Sapling	
l	Northern Pin Oak	12	Log	14							
61	4126 - White, I	Black, N. Pi	in Oak Sa	awtimbe	r Mediur	m 11.8	106	81-110	N/A		Thinned in 2011 leaning towards white oak for residual and large pin oaks. The understory is open with some white pine regeneration and re
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	and regeneration and repair with some write pine regeneration and remaining maple coming in as well. Oak is healthy so leave for wildlife at this time
	White Pine	15	Pole/Sap/Log	g 7		Wh	nite Pine	Low	10 - 20 feet	Sapling	and allow the smaller cover types to get larger.
	Red Pine	5	Pole/Log	8		Re	ed Pine	Trace	10 - 20 feet	Sapling	
	White Oak	45	Log/Pole	13	106	Re	d Maple	Low	< 5 feet	Sapling	
ı	Northern Pin Oak	35	Log/Pole	13	106						
62	710 - 8	Sand, Soil		Nonst	ocked	3.2					Buried gas line and railroad tracks.
63	42141 - Planted Dec	Mixed Pine iduous  % Cover		Poletimb	er Well		27 nopy Species	51-80  Density	Avg. Height	Size	The stand was plant to jack pine. Has natural oak, cherry, and other pin species coming in. Just into pole size. Lower end of canopy closure.
	Red Pine	5	Pole	6			d (Hybrid) Oak		< 5 feet	Sapling	
	Jack Pine	55	Pole/Sapling	g 5	27		( ) / -			1 3	
	Northern Pin Oak	20	Sapling/Pole	-							
	White Pine	5	Pole	8							
	Pin Cherry	15	Sapling	3							
64	42121 - Planted Dec	Jack Pine, iduous	Mixed	Saplino	g Well	51.6	26	1-50	N/A		Jack pine planatation from 1996. Can still see evidence of rows but the don't stand out to well on the ground. Have natural jack pine is small
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	amounts but fair amount of natural oak, some cherry and pockets of aspen. good mixed stand.
Bla	ck/Red (Hybrid) Oak	28	Pole/Sapling	g 5	27	Sw	eet Fern	Low	Variable	Tall Shruk	aspen. good mixed stand.
	Quaking Aspen	7	Pole/Sapling	g 5							
	Pin Cherry	2	Sapling	4							
65	4133 - Aspe	en, Mixed P	rine	Sawtimb	er Well	16.2	66	81-110	N/A		Sawlog sized aspen stand with fair amount of red maple in the
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	understory. White pine along the east edge. The ground has a high water table especially to the west. Majority of ground is dry though and
	White Pine	25	Log/Pole/Sap	p 11		Wh	nite Pine	Low	5 - 10 feet	Sapling	would benefit from a treatment to perpetuate the aspen type. Due to the
	Red Maple	10	Pole/Sapling	g 5		Re	d Maple	Medium	5 - 10 feet	Sapling	sandy road conditions coming in and the potential for rutting, treat in
	Quaking Aspen	65	Log/Pole/Sap	p 10	66						If frozen conditions. Do not chip the tops/slash but rather scatter out evenly over the stand to protect regeneration coming in from ORV traffic
											creating a large sand bowl. Access with be in from the north end.

Report 7 - Stands



Stand	d Level 4 Co	over Type	S	ize De	nsity	Acres	Stand Age E	SA Range	Managed S	ite	General Comments
66	4122 - 0	Oak, Pine	\$	Sapling	Poor	23.3	8	Immature	N/A		Red pine seedlings planted in the spring 2015. Been re-planted twice.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	The natural regeneration of oak and jack pine is very well. the red pine seedling mortality was hight. With the high urban volume immediately
	Jack Pine	33	Sapling	1	8	R	led Pine	Low	< 5 feet	Seeding	adjacent, a release spray will not be done. A good mix to fully stocked
Blad	ck/Red (Hybrid) Oak	67	Sapling	2	8						will be reached without further replants though. Contains an old oil well plugged in 1985 that was planted through.
67	6127 - Lo	wland Pine	e Sa	awtimb	er Wel	II 3.3	107	51-80	N/A		Wet white pine stand with thick understory of maple, balsam fir and some
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	white pine. The outer edge smaller white pine in the pole size along with maple. So far it is thick enough the orvs have not gone mud bogging in it
	White Pine	58	Log/Pole/XLog	16	107	W	hite Pine	High	5 - 10 feet	Sapling	yet.
	Red Maple	40	Pole/Sapling	5		Re	ed Maple	Medium	5 - 10 feet	Sapling	
							Tarana Eta	Low	5 - 10 feet	Sapling	
	Black Spruce	2	Pole/Sapling	5		Ва	alsam Fir	Low	5 - 10 leet	Sapility	
68	4191 - Mixed Upla Co	and Decidue	ous with Sa	pling I	Mediun	n 21.6		Immature	N/A	Заріпід	Final harvest done that has come back sparsely with jack pine, oak, and pin cherry coming in those areas. Where the aspen clones originally was came back well but has not spread out much from the parent clone.
68	4191 - Mixed Upla Co Canopy Species	and Deciduo onifer % Cover	ous with Sa	apling I	l Age	n 21.6				Заршія	pin cherry coming in those areas. Where the aspen clones originally was
68	4191 - Mixed Upla Co Canopy Species Jack Pine	and Decidue onifer % Cover	ous with Sa  Size Class  Sapling	DBH		n 21.6				Заршія	pin cherry coming in those areas. Where the aspen clones originally was
	4191 - Mixed Upla Co Canopy Species Jack Pine Pin Cherry	mand Deciduo onifer  % Cover  35  15	ous with Sa  Size Class Sapling Sapling	DBH 3 2	l Age	n 21.6				Заршія	pin cherry coming in those areas. Where the aspen clones originally was
	4191 - Mixed Upla Co Canopy Species Jack Pine Pin Cherry ck/Red (Hybrid) Oak	and Decidue onifer % Cover	ous with Sa  Size Class Sapling Sapling Sapling	DBH	l Age	n 21.6				Зарину	pin cherry coming in those areas. Where the aspen clones originally was
	4191 - Mixed Upla Co Canopy Species Jack Pine Pin Cherry	and Decidue onifer  **Cover* 35 15 22 28	ous with Sa  Size Class Sapling Sapling Sapling Sapling Sapling Sapling/Pole	3 2 3 3	19 19	n 21.6				Заршу	pin cherry coming in those areas. Where the aspen clones originally was came back well but has not spread out much from the parent clone.  A large pocket of white pine in the southeast corner that was left over
Blad	4191 - Mixed Upla Co Canopy Species Jack Pine Pin Cherry ck/Red (Hybrid) Oak Quaking Aspen	and Deciduonifer  % Cover  35  15  22  28  ural White F	ous with Sa  Size Class Sapling Sapling Sapling Sapling Sapling Sapling/Pole	DBH 3 2 3 3 3	19 19	n 21.6	19	Immature 81-110	N/A	Size	pin cherry coming in those areas. Where the aspen clones originally was came back well but has not spread out much from the parent clone.
Blad	4191 - Mixed Upla Co Canopy Species Jack Pine Pin Cherry ck/Red (Hybrid) Oak Quaking Aspen	and Deciduonifer  % Cover  35  15  22  28  ural White F	ous with Sa  Size Class Sapling Sapling Sapling Sapling Sapling/Pole Pine Sa	DBH 3 2 3 3 3 awtimb	19 19 eer We	n 21.6	19	Immature 81-110	N/A		pin cherry coming in those areas. Where the aspen clones originally was came back well but has not spread out much from the parent clone.  A large pocket of white pine in the southeast corner that was left over
Blac	4191 - Mixed Upla Co Canopy Species Jack Pine Pin Cherry ck/Red (Hybrid) Oak Quaking Aspen 42200 - Natu	and Deciduonifer  % Cover  35  15  22  28  ural White F	ous with Sa  Size Class Sapling Sapling Sapling Sapling/Pole Pine Sa  Size Class	DBH 3 2 3 3 3 awtimb	19 19 eer We	n 21.6	19 82 anopy Species	Immature  81-110  Density	N/A N/A Avg. Height	Size	pin cherry coming in those areas. Where the aspen clones originally was came back well but has not spread out much from the parent clone.  A large pocket of white pine in the southeast corner that was left over