



Compartment Review Presentation

Roscommon Forest Management Unit

Compartment 71106

Entry Year 2017

Acreage: 884

County Roscommon

Management Area: Houghton Lake Wetlands

Revision Date: 2015-07-08

Stand Examiner: Doug Bates

Legal Description:

T22N R03W Sections 1, 2, & 12

Identified Planning Goals:

Maintain current age and species diversity is a range of both early and late successional ecosystems.

Soil and topography:

Terrain is flat with much of the area being swamp or lowland brush. Soils are Rifle Peat in the lower areas and Grayling Sand and Newton Loamy Sand in the upland areas.

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

This compartment is solid state land with some private in-holdings, except for the isolated state parcel in the SESE of Section 12. Most of the private upland parcels have been or are being subdivided.

Unique Natural Features:

None noted.

Archeological, Historical, and Cultural Features:

None recorded or identified during field work.

Special Management Designations or Considerations:

None noted.

Watershed and Fisheries Considerations:

Houghton Lake lies to the west of this compartment.

Wildlife Habitat Considerations:

Mineral Resource and Development Concerns and/or Restrictions

Sections 1, 2, & 12, T22N R3W, Roscommon County

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift are the Mississippian Bayport Limestone and Michigan Formation and possibly a minor zone of Pennsylvanian Saginaw Formation. These rocks are commercially developed elsewhere in the state but are too deeply buried beneath glacial drift here to have economic potential. Most of the good gravel pits are associated with upland areas. There are no uplands close by and potential appears to be limited. The abandoned Denton Creek Field is located three miles to the southeast. The field produced nearly 55,000 bbls of oil from the Devonian Detroit River Group. The majority of the compartment is currently leased for oil and gas exploration and development

Vehicle Access:

Vehicle access is good to the outer perimeters of the compartment but is lacking on the interior due to wet terrain.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

There are no established recreational facilities in the compartment. The area is mainly used for hunting and dispersed hiking. The proximity of private land ownership increased the likelihood unofficial trails occur within the compartment. Utilize forest management practices to curtail damage by off road vehicle use and other trespasses.

Fire Protection:

Additional Compartment Information:

None noted.

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:

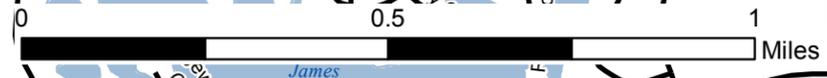
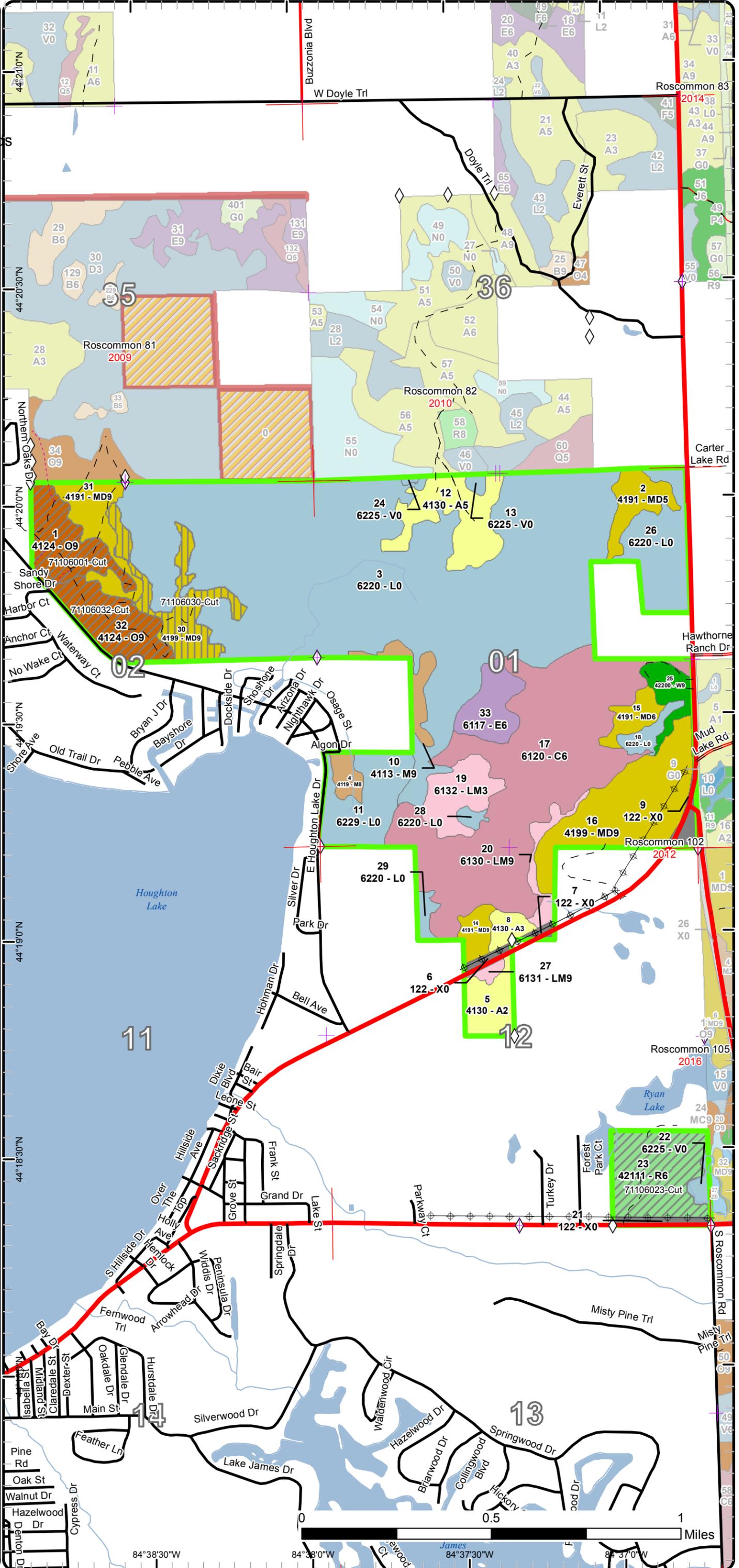
Base feature information, stand boundaries, cover types, and numbers
Proposed treatments
Site condition boundaries
Details on the road access system

Cover Type & Treatments

Compartment: 106
 T22N R03W 01, 02, 12
 County: Roscommon
 Unit: Roscommon
 Mgmt Area: Houghton Lake Wetlands
 YOE: 2017
 Acres: 884 GIS Calculated
 Examiner: Doug Bates
 Map Revised: 8/10/2015
 Map Phase: Pre-Review



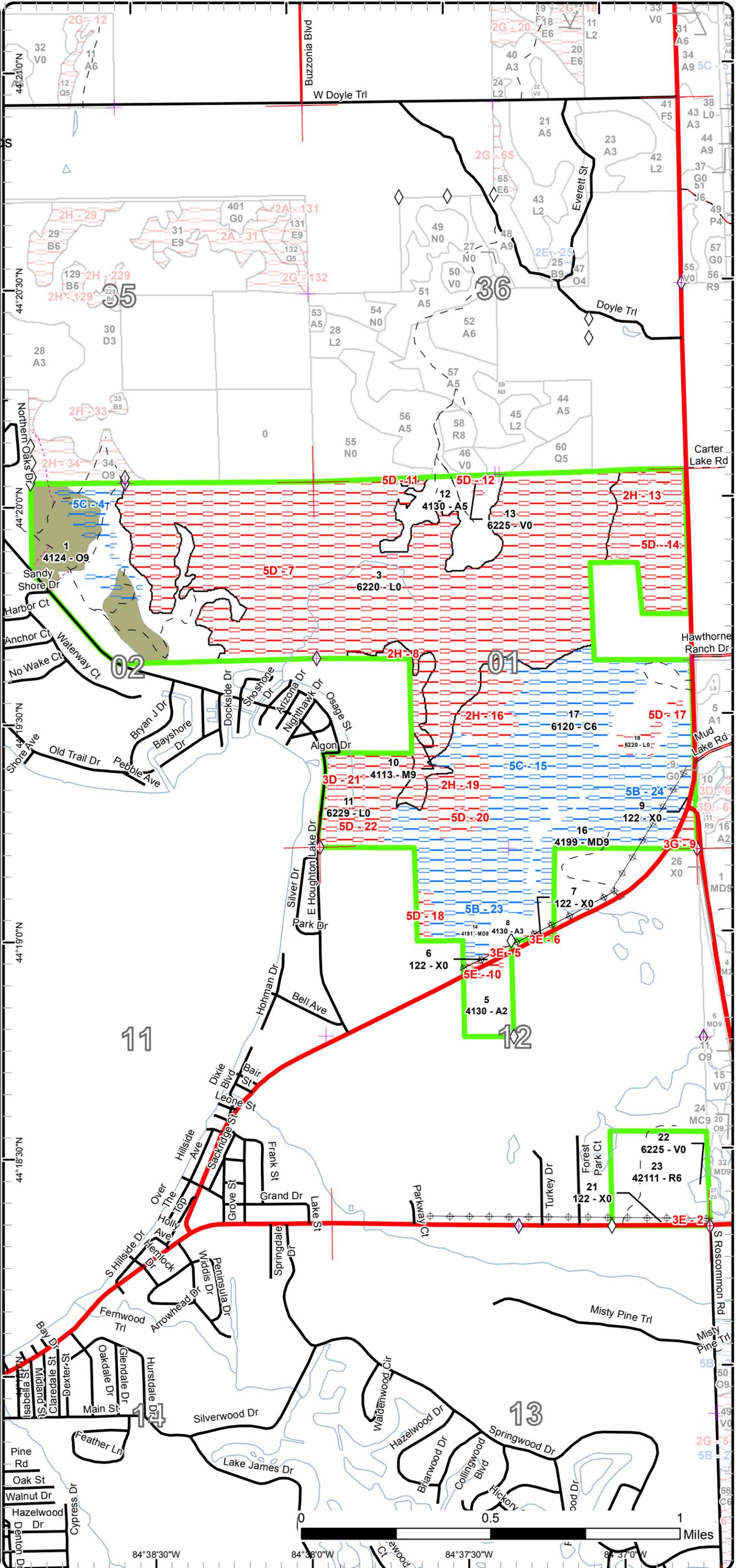
- ✚ Remonumented Section Corner
- ◇ Field Grade GPS Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Rivers
- Lakes
- Powerline
- Treatments
 - ▨ Thinning (Crown, Low, Systematic)
 - ▨ Shelter Wood (w/Reserves)
- Forest Coverture
 - 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Coverture
 - 122 - Roads/Parking Lot
 - 622 - Lowland Shrub



84°38'30"W 84°38'0"W 84°37'30"W 84°37'0"W

Special Conservation Areas & Site Conditions Map

Compartment: 106
 T22N R03W 01, 02, 12
 County: Roscommon
 Unit: Roscommon
 Mgmt Area: Houghton Lake Wetlands
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- ✚ Remonumented Section Corner
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- County Paved Roads
- Paved Roads
- County Gravel Roads
- - Poor Dirt Roads
- - County Poor Dirt Roads
- - Trail (Non-Recreation)
- Rivers
- Powerline
- Stand Boundaries

Site Condition

- Available w/ Constraints
- Unavailable

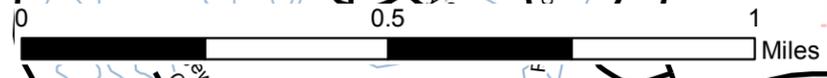
Available Factors W/ Constraints

- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality

Unavailable Factors

- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3D: Recreational / Scenic values
- 3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)
- 3G: Other Influence zones - See comments
- 5D: Unproductive Forest Land
- 5E: Long-Term Retention

Special Conservation Areas



84°38'30"W 84°38'0"W 84°37'30"W 84°37'0"W

Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	5	14	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Cedar	0	0	0	0	0	0	0	0	0	0	139	0	0	0	0	0	0	0	139
Lowland Deciduous	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	16
Lowland Mixed Forest	0	0	0	18	0	0	0	0	7	0	0	0	0	0	0	0	0	2	27
Lowland Shrub	412	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	412
Mixed Upland Deciduous	0	0	0	0	0	8	0	0	0	36	7	0	17	0	0	0	0	50	118
Northern Hardwood	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	14
Oak	0	0	0	0	0	0	0	0	0	26	0	23	0	0	0	0	0	0	49
Red Pine	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	34
Urban	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
White Pine	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9
Total	432	5	14	18	27	8	0	0	41	52	195	0	40	0	0	0	0	52	884



Report 2 – Treatment Summary

Roscommon Mgt. Unit
Year of Entry: 2017

Acres of Harvest

Compartment 106
Total Compartment Acres: 884

Commercial Harvest - 108
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Mixed Upland Deciduous	0	0	0	0	24	0	0	0	0	24
Oak	0	0	0	0	0	49	0	0	0	49
Red Pine	0	0	0	0	0	34	0	0	0	34
Total	0	0	0	0	24	83	0	0	0	108

Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	108	0	0	0	0	0	0	0	0	108
Next Step	0	0	0	0	0	0	24	0	0	24
Total	108	0	0	0	0	0	24	0	0	132



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	71106001-Cut	23.0	4124 - Red with White Oak	Sawtimber Well	115	111-140	Harvest	Low Thinning	4122 - Oak, Pine	Uneven-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Remove oak in the log sized class that is at maturity to open up regeneration gaps for younger oak and pine in understory. Leave the overly
Specs: large oaks for mast and visual as they most likely are hollow. Mark the poorly formed pines and multi-stemmed maples to bring the basal area between 70-90.

Next Step
Treatments:

Acceptable
Regen:

Other Stand 34 in Compartment 81 was factor limited due to access issues in 2009 YOY. Notes state to treat with stands in this Compartment, 106.
Comment: Can be treated in conjunction with this stand which will be the access route. Old next step comments:

Proposed Start Date: 10/1 /2016

23	71106023-Cut	34.2	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	79	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Two-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Remove all aspen to a 2 inch d.b.h.. Mark to remove red pine that are stunted, poorly formed, to have a residual basal area of around 120
Specs: average. This may be less where the starting basal area is less. Leave the large crowned/diametered oaks for mast/wildlife and clean up underneath removing stunted pine and oaks to open a future seed bed for oaks. Side to leaving white oaks when possible also. These oaks are hollow also and will be great snags in the future. No retention needed.

Next Step
Treatments:

Acceptable Red pine with a mix of oak.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

30	71106030-Cut	24.4	4199 - Other Mixed Upland Deciduous	Sawtimber Well	82	111-140	Harvest	Shelterwood	4199 - Other Mixed Upland Deciduous	Two-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest all red maple, white pine, and aspen to a 4 inch d.b.h.. Mark the oaks to a basal area of 40-50 siding to large crowned for mast and
Specs: white oaks also where applicable. Some areas the oaks are already below this target. Do harvest in winter for coppice stimulation and public impacts.

Next Step
Treatments:

Acceptable A mixed stand of oaks for natural seeding and wildlife mast with a mix of red maple, aspen, and pine of varying percentage mixed about to a
Regen: combined full stocking.

Other No retention due to the narrow, irregular stand boundary and that species other than oak will be left around some wet depressions anyways.
Comment: Follow the USFWS guidelines for eagle nests for treatment times/distances from the nest that is somewhere in the wetland complex to the east. Old next step comments:

Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
32	71106032-Cut	26.2	4124 - Red with White Oak	Sawtimber Well	97	141- 170	Harvest	Low Thinning	4124 - Red with White Oak	Uneven- Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Cut all aspen to 2 inches. Remove all multi-stemmed red maple to 2 inches also. Mark to remove poorly formed/quality oaks opening up around the large diameter /crowned oaks for mast and natural seeding. Do not cut these large oaks, they are hollow but good acorn producers for wildlife. Concentrate on oak trees under 16-18 inches to remove. Preference is to leave more white oak residual also. The average basal area should be around 70. This may be less in areas due to aspen clones, etc.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

**Total Treatment
Acreage Proposed: 107.8**

Report 5 – Site Conditions

Roscommon Mgt. Unit
Doug Bates : Examiner

Compartment: 106
Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres <i>Acres Avail</i> With Condition	Acres Not Available
46	3	0	2

Dominant Site Conditions

Acres	Available	With Condition	Not Available	Dominant Site Conditions	5B	5C	2H	3D	3E	3G	5D	5E
					46	3	0	2	Aspen			
5	3	0	2	Bog							2	
139	0	139	0	Cedar		139						
16	0	0	16	Lowland Deciduous			16					
27	7	0	20	Lowland Mixed Forest			18					2
412	0	0	412	Lowland Shrub							412	
118	32	74	12	Mixed Upland Deciduous	56	17	12					
14	0	0	14	Northern Hardwood			9	5				
49	49	0	0	Oak								
34	34	0	0	Red Pine								
15	0	0	15	Urban					8	7		
9	9	0	0	White Pine								
884	181	212	491	Total Forested Acres	56	156	55	5	8	7	414	2
	20%	24%	56%	Relative Percent								

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
2	Unavailable	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Roscommon Mgt. Unit

Doug Bates : Examiner

Compartment: 106

Year of Entry: 2017

5	Unavailable	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	5D: Unproductive Forest Land	344	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	3G: Other Influence zones - See comments	7	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	5E: Long-Term Retention	2	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Roscommon Mgt. Unit

Doug Bates : Examiner

Compartment: 106

Year of Entry: 2017

11	Unavailable	5D: Unproductive Forest Land	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	5D: Unproductive Forest Land	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	12	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	5D: Unproductive Forest Land	30	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	139	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Roscommon Mgt. Unit

Doug Bates : Examiner

Compartment: 106

Year of Entry: 2017

17	Unavailable	5D: Unproductive Forest Land	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Unavailable	5D: Unproductive Forest Land	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Unavailable	5D: Unproductive Forest Land	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	3D: Recreational / Scenic values	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Unavailable	5D: Unproductive Forest Land	27	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Roscommon Mgt. Unit

Doug Bates : Examiner

Compartment: 106

Year of Entry: 2017

23	Available	5B: Maintain for regeneration purposes	7	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments:							
24	Available	5B: Maintain for regeneration purposes	50	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				



Report 7 – 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.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4124 - Red with White Oak	Sawtimber Well	23.0	115	111-140	Mixed oak stand with a high percentage of large crowned/diameter mast producers. Some white pine mixed in but they are not the size nor the percentage as the stand to the west. The understory is about an equal mix of white pine, maple and oak. The pine is not at maturity but the a large number of the oaks are over, however, they are producing such good mast for wildlife I feel a treatment is needed to remove some of the log sized oaks and leave the overly large ones. Numerous unauthorized trails emanating from the Denton Township Park to the immediate west. Access will be from the south in Stand 32.
2	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	12.3	89	51-80	Birch die out once it seems to hit log size . The maple is still holding but the balsam fir is coming in thick. The north half is dense balsam understory. The south finger is more open with scattered maple and birch clumps with open grass between. This is a unique island about 10 feet higher than the marsh surrounding it. Is evidence of an old road being in here from years ago. It could be treated but to do so would require an MDOT permit for a culvert along M-18 and then 50+ feet of crane mats to get to the edge of high ground. Locals call it "Gilligan's Island" and would be best left for visual with the red maples in the fall.
4	4119 - Mixed Northern Hardwoods	Sawtimber Medium	5.3	91	51-80	Mature maple and oak stand on a higher ridge jutting out into a lowland marsh. Most of the maple is multi-stemmed stump sprouted trees. Nicer red oak. The aspen is mainly all older trees with several cavities but still find some smaller pole here and there. There is small regeneration of the aspen in pockets but it is being hit hard by deer. The red maple regeneration is scattered all over and the balsam fir is along the perimeter. It is used by locals for walking and would be best left for visual/recreation especially due to its small size and location.
5	4130 - Aspen	Sapling Medium	13.6	16	Immature	The aspen clones have filled in densely. Do find some red maple mixed in though. There is seeded oak all over the stand but they are being browsed hard and average around 2 feet. Still a good amount of open canopy yet where the aspen is absent. In these open areas is where find the stump sprouted oaks along with pine. These oaks are not being browsed and are over 10 feet tall.
8	4130 - Aspen	Sapling Well	5.4	5	Immature	Some pole/log sized oaks and white pine left scattered throughout sale for visual/mast. Not interfering with regeneration though. Illegal ORV traffic is coming off the powerline R.O.W. pushing new trails into stand.
10	4113 - R.Maple, Conifer	Sawtimber Well	9.0	91	81-110	Very similar to Stand 4. Mature stand blocked by private property and about half mile of tag alder.
12	4130 - Aspen	Poletimber Medium	26.8	35	Unspecified	Stand with several areas of open ground with some white pine mixed in but for the most part they are mainly brachen fern. This fragmentation is good for wildlife but they are so fragmented it is to hard to delineate them out so as they fall under the grass cover type. Where the original aspen clones were the aspen has come in very dense. The west side is where the log sized aspen is found. The east half is smaller diameter but higher basal area. There are a handful of small leatherleaf/tag alder depression in here also. To small to delineate out. The only access in is through the Compartment to the north. This is how it was harvested last time. Do it again when Stand 56 in Compartment 82's rotation is up.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	6.5	96	141-170	Large mature oaks in the overstory mixed with maple and red pine. The mid and sub-canopy are mostly to completely balsam fir respectively. No oak regeneration. Leave for now. The large oaks are giving mast for the deer in the cedar type to the north. Not enough smaller product to harvest at this time.
15	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	7.9	40	1-50	Stand had a treatment done in 1975. The understory is a dense balsam fir. The overstory is mainly multi-stemmed red maple from stump sprouting. The basam fir is next in density. There were some large crowned oaks left on a knob for mast. In the more open areas find oak and aspen.
16	4199 - Other Mixed Upland Deciduous	Sawtimber Well	49.7	95	141-170	Was treated in the Spring 2009 by removing all aspen, balsam fir, spruce and marked oaks/maple. Main sapling regeneration is either aspen or balsam fir. They are coming back in the spots where the corresponding past overstory were. The red maple that were saplings prior to the cut are just into pole sizes and are mainly multi-stemmed stump sprouts. The overstory now is mostly oak with white oak being the dominate and red oak second. Mid-canopy is the balsam fir and maple that were to small to cu when it was treated. A good finger of red pine logs mixed with white pine on the west fringe in the northern half. The deer are digging all over under the large oaks for acorns. The deer numbers are high here with the cedar cover to the west. Recommend holding another ten years or so and see how the oak is doing. The regeneration is good and do not want to run this over and the higher percentage oak is white being longer lived. Should hold especially for wildlife. Illegal ORV traffic is coming off the powerline R.O.W. pushing new trails into stand.
17	6120 - Lowland Cedar	Poletimber Well	138.6	99	81-110	Areas with heavy cedar blowdown. The balsam fir is taking over in both canopies. The regeneration is predominately balsam fir but have tag alder mixed in with lighter amounts of red maple. Pockets of pure tag alder scattered throughout in the lowest areas. No cedar regeneration but heavy sign of hare and deer in the area. Recommend not harvest, would not get cedar back for regenerating and would push it to balsam fir more quickly and lose the cedar component much faster. Any ash that was out there is dead.
19	6132 - Mixed Lowland Forest with Cedar	Sapling Well	17.9	24	Immature	Habitat cut done by Wildlife Division in the winter of 1991. Cut all species to 2 inch except for some marked trees and oak. Had a red maple overstory and good balsam under and appears the balsam has come in with the maple and mixed older cedar left post-harvest.
20	6130 - Fir, Aspen, Maple	Sawtimber Well	7.0	75	81-110	Transition stand on the slope that leads from the upland oak stand to the east and the cedar lowland to the west. It is narrow in several spots. Just a few areas where there is any size to it. Leave this stand untreated. May cause to much damage trying to treat. Wouldn't want to final harvest. Leave for diversity for now and treat with stand 16 next time it is prescribed by doing some sort of thinning.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	34.2	79	141-170	Two aged stand with large mature/overmature oaks. There are more white oaks than red. Appear to have inter-planted red pine in the 30's. The oaks suppressed the pine for some time as evident by the size classes versus the age. Recommend thinning this stand both from above and below. Leave the large white oaks because they are longer lived and remove the stunted pine from underneath. Mangle more so on the pine side. Want to keep the Basal Area around 120 in the areas where the pine is dominant. Where have oaks your B.A. maybe less after cleanup around them.
25	42200 - Natural White Pine	Sawtimber Well	9.1	90	111-140	White pine stand with sawlog sized trees and a heavy regeneration of white pine understory. There is pole sized red maple mixed about with some paper birch and balsam fir rounding it out. The regeneration is very dense and would result in heavy damage to it try to treat this stand. It is in a highly visible area and would be best left to allow the regeneration to get larger in size and thin out in amount and treat it then. The main overstory species will hold.
27	6131 - Hemlock, White Pine, Maple, Birch	Sawtimber Well	1.9	110	81-110	Lower ground stand between an aspen stand and highway. There is a small tag alder depression in the middle also. This stand was left as a visual buffer to the cut to the south. Continue to leave it for long term retention.. It has large canopied white pine and a thick white pine understory. It is doing good on its own.
30	4199 - Other Mixed Upland Deciduous	Sawtimber Well	24.4	82	111-140	Strip of red maple on lower ground between oak to the west and tag alder marsh to the east. There are oak and white pine mixed in also. The regeneration is heavier to white pine in the northern half and changes to full red maple in the southern portion. The maple in here is mainly log sized and mostly multi-stemmed stump sprouts. Recommend a treatment of removing the red maple and most of the overstory pine. Leave the oak, providing mast. At the south line there appears to be an old borrow pit of sorts that has grown trees but sparsely. It is getting illegal orv use climbing the steep embankments. Harvest what can and after harvest, before growing season take a dozer in there an slope the banks down so it is not a "hill climb" and let it re-vegetate. An eagle nest(s) have been found in the wetland complex to the east. Depending on the distance of nest to treatment will determine treat times. Follow guidelines set forth by USFWS.
31	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	17.4	115	141-170	Mixed oak stand with a high percentage of large crowned/diameter mast producers. There is a good mix of white pine overstory in there also. The understory is heavy white pine with a lighter mix of oak an maple. The pine is not at maturity but the a large number of the oaks are over, however, they are producing such good mast for wildlife I feel they should be left. The regeneration is heavy at this time and should be left to mature more resulting in less damages from a future treatment. This will also stagger the treatments in this area for this Y.O.E.. Numerous unauthorized trails emanate from the Denton Township Park to the immediate west.

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Roscommon Mgt. Unit

Report 8 – Forested Stands

Compartment: 106
Year of Entry: 2017

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4124 - Red with White Oak	Sawtimber Well	26.2	97	141-170	Mature oak stand with mainly large masted, big diameter oaks. The regeneration is fairly dense with mostly red maple followed by oaks. Possibly remove all the aspen to get a couple clones of it in there restarted plus remove all the multi-stemmed stump sprouted red maple in there that is taking up space around many of the oaks. Open up some regeneration gaps by these large oaks to get some seeding into. Bring the average basal area to around 70.
33	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	15.8	89	81-110	Red maple mixed with balsam fir and some cedar and paper birch. Was slated last Y.O.E. for a habitat treatment but was not done.



Stand	Cover Type	Acres	Managed Site	General Comments:
3	6220 - Alder/willow	343.9	No	Marsh towards the central areas with some small pockets of larger white pine growing on high ground islands. Sparsely scattered paper birch and cedar out there also. The outer fringes have more of a tag alder mix.
6	122 - Road/Parking Lot	2.7	No	South side is M-18 with a strip of oaks between the cleared R.O.W. on the north side for overhead utility lines and MichCon buried pipeline.
7	122 - Road/Parking Lot	1.8	No	M-18 runs through the middle with narrow clumps of oak on the north and south sides of the road. The north side is a cleared R.O.W. for overhead utility lines and MichCon buried pipeline.
9	122 - Road/Parking Lot	6.9	No	This stand consists of a portion of M-18 and M-157 along with a cleared grass field between the two roads for a cleared vision area where the two roads intersect. On the south end is a couple acre white pine/oak stand between this cleared vision area and the Roscommon County Health Department Building. The stand is too small to harvest and would be best left for scenic values. Combined all these different types into one because of their individual small sizes and that they will never be treated commercially.
11	6229 - Mixed lowland shrub	27.2	No	A varied lowland type with tag alder and red osier dogwood. Also find in pockets devoid of woody vegetation swamp grass and cattails. On the south line is a small finger of balsam fir jutting out into the marsh.
13	6225 - Bog	1.6	No	
18	6220 - Alder/willow	5.2	No	
21	122 - Road/Parking Lot	3.8	No	Contains M-55 on the south end with a thin strip of oak to the north and the north line in the cleared R.O.W. for an overhead powerline and other utilities.
22	6225 - Bog	3.2	No	
24	6225 - Bog	0.5	No	
26	6220 - Alder/willow	30.0	No	Tag alder marsh with sparsely scattered cedar
28	6220 - Alder/willow	2.1	No	Tag alder marsh with some scattered cedar in the perimeter
29	6220 - Alder/willow	3.4	No	Tag alder marsh with a small ridge of log sized oak on the west side isolated between the marsh and private property.