Compartment Review Presentation

Roscommon Forest Management Unit

Compartment 22
Entry Year 2016
Acreage: 1,153
County Roscommon
Management Area: Upper Muskegon

Revision Date: 05/12/2014

Stand Examiner: Ben Wiese

Legal Description:

T24N R04W Sec. 7 & 8

Identified Planning Goals:

Manage forest vegetation in compliance with the goals stated in the Upper Muskegon Management Plan.

Soil and topography:

Topography is hilly in the west part of the compartment and is part of the Grayling outwash plain. The east part is pitted outwash and is flat and poorly drained. Soils in the uplands are Klacking, Graycalm and Grayling sands which are well drained to exessively drained. Soils in the lowlands are Dawson muck and Tawas peat, both are very poorly drained.

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

Most of the compartment is continuos except for three five acre inclusions of privately owned land.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

None noted

Watershed and Fisheries Considerations:

None noted

Wildlife Habitat Considerations:

The compartment is important to deer, turkey, grouse and woodcock. Black bear and snowshoe hare also frequent the compartment, especially in association with the swamp. This compartment sees heavy pressure for hunting. Management considerations include treatments that will promote hard and soft mast production for wildlife including retention of large crown mast producing trees when possible. Early successional species such as aspen should be managed to ensure young stands are always available for grouse and woodcock. To promote snowshoe hare and other small mammals, brush piles will be constructed in association with timber harvests along lowland edges. Currently there are no managed wildlife openings within the compartment.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum in other areas of the state. Most of the good gravel pits are associated with upland areas. The nearest gravel pit is located just to the west and the potential appeas to be good. Part of the East Norwich Field is located in Section 7. The field has produced over 15.9 million BO and 15.7 Bcf gas primarily from the Devonian Richfield Formation and is currently in secondary recovery operations. Most of section 7 is currently leased and held by production.

Vehicle Access:

Vehicle access is excellent there are forest roads nearly every quarter mile intersection.

Survey Needs:

A survey may be needed to establish the boundary line between private and state owned lands that are to be

commercially harvested.

Recreational Facilities and Opportunities:

Recreational activities are popular in this compartment. The #6/7 Snowmobile trail and The West Higgins ORV 50" trail occur within the compartment. Assure warning signs are placed on the trails regarding logging activity on both trail systems. Focus any retention pockets or clusters along or near trails. All sign posts shall be preserved and protected. For confidence markers attached to trees cut stump high to retain presence of signs. No stacking of timber along the trail. Limit trail crossing and cross at right angles to decrease the obliteration of the trail. All stumps within 20 feet of the trail shall be Flush-Cut to ensure stumps do not result in unsafe conditions. If the snowmobile trail is used for hauling, it must be maintained and restored to a condition equal to or better than before the sale prior to December 1. If the trail is to be used as hauling during the snowmobile season of December 1 thru March 31 a snow bed free of ruts must be preserved.

Fire Protection:

Compartment is upland hardwoods and jackpine timber types. Numerous roads provide generally good access. Section 7 has oil and gas wells in it and is a no-plow zone. This compartment is also in the Zone 5 dispatch zone.

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**

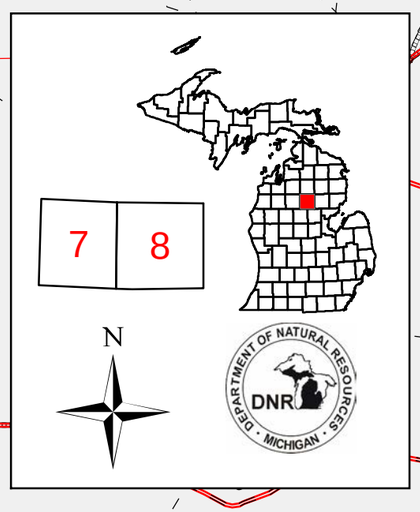
The following information is displayed, where pertinent, on the attached compartment maps:

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

Cover Type & Treatment Map

Compartment: 022
T24N R04W
Sections: 7, 8
County: Roscommon
Unit: Roscommon
Management Area: Upper Muskegon
YOE: 2016
Acres: 1,153 GIS Calculated
Examiner: Ben Wiese
Map Revised: 08/07/2014
Map Phase: Web Post

Stand # / Stocking Density
23
(412)0) - A7
Level 3 OI
Level 4 Code
Cover Type Code



Legend

- Miris Corners
- Remonumented Section Corners
- PLSS Corner
- Unclassified Corners
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Pipeline
- Powerline
- MCCCT Trails
- ORV Trails
- Snowmobile Trails
- ORV Trail
- Snowmobile Trail
- MCCCT Trail

Regen Legend

- Natural
- Planted

Treatments

- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Clearcut (w/Reserves, Patch/Strip)
- Treatments w/ Site Condition

Forest Stands

Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 790 - Other Bare/Sparsely Vegetated
- Lakes and Rivers
- State Forest Land

Stand Boundary Map

Compartment: 022
T24N R04W
Sections: 7, 8
County: Roscommon
Unit: Roscommon
Management Area: Upper Muskegon
YOE: 2016
Acres: 1,153 GIS Calculated
Examiner: Ben Wiese
Map Revised: 08/07/2014
Map Phase: Web Post

Stand # 23 — Stocking Density: (412)0) - A7
Level 3 Cover Type Code: OI
Level 4 Code

Legend
- Miris Corners
- Remonumented Section Corners
- PLSS Corner
- Unclassified Corners
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Pipeline
- Powerline
- MCCCT Trails
- ORV Trails
- Snowmobile Trails
- ORV Trail
- Snowmobile Trail
- MCCCT Trail
- Stand Boundaries

1 4211-R9
2 4130-A3
4 4125-O9
5 4125-O9
7 4131-A3
8 4191-MD9
9 4125-O3
10 4191-MD6
11 4125-O9
13 4125-O9
14 4125-O9
15 4226-MC6
18 4199-MD3
19 4121-O3
21 4130-A9
22 4311-UM9
23 4191-MD6
24 4211-R9
26 4123-O9
27 4191-MD9
28 4310-UM9
29 4191-MD9
30 4126-O9
31 4125-O9
32 4130-A3
33 4125-O6
34 4131-A3
35 4199-MD5
36 4191-MD3
37 4133-A9
38 4126-O6
39 4130-A6
40 6127-Q9
41 4110-M1
42 4130-A9
43 4222-J6
44 6121-T3
45 6127-Q1
47 6126-J6
48 6122-S3
49 429 -MC3
51 6126-J3
52 6126-J1

W Pinewood Dr
Pinewood Dr W
N East County Line Rd
Carpenter Rd
Washburn Rd
Moorestown Rd
Gravling Rd
Elm Rd
Burgett Rd W
E Oil Well Rd
County Road 104
Woodcock Dr
Hoss Rd
Cambridge Rd
Deadstream Rd
Hudson Rd

84°52'0"W
84°51'0"W
84°50'0"W
84°49'0"W
84°48'0"W
44°30'0"N
44°29'0"N

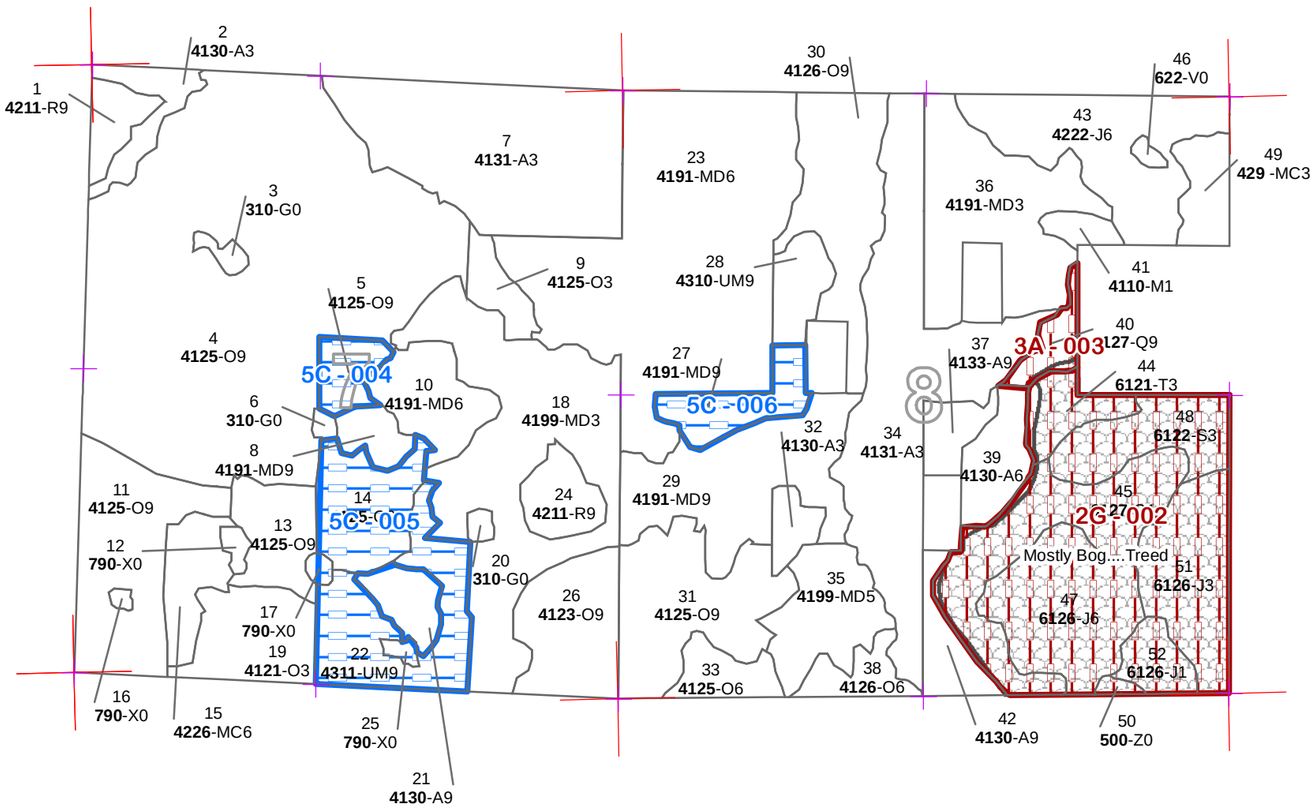
1 0.5 0 1 Miles

Special Conservation Areas & Site Conditions Map

84°52'0"W 84°51'0"W 84°50'0"W 84°49'0"W 84°48'0"W

44°30'0"N

44°29'0"N



Legend

- Miris Corners
- Stand Boundaries
- Remonumented Section Corners
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)

Reviewable SCAs

- Proposed SCA
- SCA Removal

Special Conservation Areas

- Cold Water Streams
- High Priority Trout Stream Buffer

Report 1 – Total Acres by Cover Type and Age Class

Roscommon Mgt. Unit **Compartment 022 Year of Entry 2016**

Ben Wiese : Examiner

Age Class

	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 +	Uneven Age	Total
Aspen	70	14	74	0	0	24	0	0	0	0	0	0	0	0	**182**
Bare/Sparsely Vegetated	5	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Herbaceous Openland	4	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
Jack Pine	0	0	37	7	26	0	31	0	0	0	0	0	0	0	**101**
Lowland Conifers	0	0	0	35	0	0	0	0	0	0	0	0	6	0	**41**
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	18	0	0	0	0	**18**
Mixed Upland Deciduous	0	153	86	0	60	0	0	0	0	0	18	0	0	0	**317**
Natural Mixed Pines	0	0	0	12	0	0	0	0	0	0	0	0	0	0	**12**
Northern Hardwood	0	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**
Oak	7	0	19	0	16	0	0	0	0	221	73	58	0	0	**394**
Red Pine	0	0	0	0	0	10	0	7	0	0	0	0	0	0	**17**
Tamarack	0	0	0	0	0	0	0	0	9	0	0	0	0	0	**9**
Upland Conifers	0	0	0	9	0	0	0	0	0	0	0	0	0	0	**9**
Upland Mixed Forest	0	0	0	0	0	0	0	0	27	0	9	0	0	0	**36**
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Total	**88**	**171**	**216**	**64**	**102**	**34**	**31**	**7**	**36**	**239**	**100**	**58**	**6**	**0**	**1153**

Report 2 – Proposed Treatment Summaries

Roscommon Mgt. Unit
Year of Entry 2016

Compartment 022
Total Compartment Acres: 1,153

Acres by Treatment Type

Commercial Harvest - 359	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	24	0	0	0	0	0	**24**
Oak Types	49	0	217	60	0	0	**326**
Planted Pines	0	0	0	0	10	0	**10**
Total	**73**	**0**	**217**	**60**	**10**	**0**	**359**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	71022004-Cut	185.8	4125 - Black, N. Pin Oak	High Density Log	94	81-110	Harvest	Seed Tree	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Heavy thinning or shelterwood to remove suppressed and unhealthy trees. Open the canopy enough to induce stump sprouting and allow the understory to develop. Leave most of the pine to follow the natural succession path of the stand.

Other Comments: The future condition will be oak, pine and red maple. Because of its size and age the oak may not coppice.

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
11	71022011-Cut	36.8	4125 - Black, N. Pin Oak	High Density Log	116	111-140	Harvest	Shelterwood	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Manage for a mixed oak and white pine stand. Heavy thinning or shelterwood. Thin by removing suppressed and co-dominant oak, allow the white pine logs and poles to grow by opening the canopy around them. Remove all poor quality trees. Open the canopy enough to allow stump sprouting.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	71022013-Cut	14.3	4125 - Black, N. Pin Oak	High Density Log	111	141-170	Harvest	Clearcut	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Regenerate by clearcutting to a 2" diameter. Due to the small size of the stand leave aretention pocket that is representative of the pre-harvest stand that is 1% of the harvest area.

Other Comments: Expect vigorous red maple sprouting with some aspen and oak.

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	71022021-Cut	8.0	4130 - Aspen	High Density Log	54	81-110	Harvest	Clearcut	413 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut to regenerate aspen. Recommend no retention.

Other Comments: Expect vigorous sprouting of aspen and red maple.

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	71022024-Cut	9.7	42110 - Planted Red Pine	High Density Log	53	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: Thin to promote diameter growth. Thin to a residual basal area of 80-90 to grow big trees and to develop the oak understory. Thin to promote diameter growth. Thin to a residual basal area of 80-90 to grow big trees and to develop the oak understory.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
26	71022026-Cut	23.2	4123 - Red Oak	High Density Log	101	111-140	Harvest	Shelterwood	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal

Prescription Specs: Shelterwood harvest. Remove all low quality/poor health oak to reduce competition with the residual large healthy oak and to hopefully induce oak stump sprouting.

Other Comments: The red maple is dense and we can expect this stand to one day be dominated by it. This is an attempt to keep a component of oak within the stand. Due to its age and size the oak may not coppice. Re-route the West Higgins Lake ORV trail along the north boundary of the timber harvest.

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
30	71022030-Cut	30.9	4126 - White, Black, N. Pin Oak	High Density Log	101	111-140	Harvest	Seed Tree with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Regenerate with a seed tree/shelterwood. Leave large canopy, healthy oaks for seed production. Leave pine except in areas where the basal area exceeds 60 square feet/ acre, in these areas it should be thinned. Leave retention in clumps where practical.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
31	71022031-Cut	34.8	4125 - Black, N. Pin Oak	High Density Log	97	81-110	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Clearcut with reserves to a 2" diameter. Leave healthy large crowned oak. Leave white pine and red pine but thin them in areas that are dense.

Other Comments: Re-route the West Higgins Lake ORV trail along the north boundary of the timber harvest.

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37	71022037-Cut	6.9	4133 - Aspen, Mixed Pine	High Density Log	59	111-140	Harvest	Clearcut	413 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut to regenerate aspen and red maple. Leave no retention. Leave one large slash pile per two acres and two drumming logs per one acre.

Other Comments: Expect a mix of aspen and red maple to regenerate.
A survey may be needed. Cut to the edge of state ownership.

Next Steps:

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
42	71022042-Cut	9.1	4130 - Aspen	High Density Log	59	141-170	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut with reserves, mark to leave healthy pine and pole size red maple of good form. Leave no retention. Leave one large slash pile per two acres using rabitat specs and leave two drumming logs per one acre.

Other Comments: Expect a mix of aspen and red maple to regenetate.
A survey may be needed. Cut to the edge of state ownership.

Next Steps:

Proposed Start Date: 10/01/2015

Report 3 -- Treatments Prescribed with No Limiting Factor

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status

Total Treatment Acreage Proposed: **359.4**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
		#Type!	#Type!							

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Type!

Limiting Factor

Total Treatment Acreage Proposed: 0.0

Report 5 – Site Conditions

Roscommon Mgt. Unit | **Compartment 022**

Ben Wiese : Examiner | **Year of Entry 2016**

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	5C	3A	2G
181	181		**Aspen**	181	0		
101	37	65	**Jack Pine**	37			65
41	0	41	**Lowland Conifers**	0		6	35
18		18	**Lowland Spruce/Fir**				18
317	317		**Mixed Upland Deciduous**	305	12		
12	12		**Natural Mixed Pines**	12			
4	4		**Northern Hardwood**	4			
394	394		**Oak**	369	26		
17	17		**Red Pine**	17			
9		9	**Tamarack**				9
9	9		**Upland Conifers**	9			
36	36		**Upland Mixed Forest**	9	27		
1,141	1,008	133	Total Forested Acres	943	65	6	127
	88%	12%	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
002	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	128				
	Comments:						
003	**Not Available**	**3A: Potential old growth / biodiversity**	6				
	Comments:						

004	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	7

Comments:

005	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	48

Comments:

006	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	12

Comments:

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
Mostly Bog....Treed	Potential Old Growth		**SCA Removal**	
Comments				
Remove from SCA layer				

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
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42110 - Planted Red Pine	High Density Log	7.1	76	51-80	Small red pine stand that has been well managed. The trees are large with excellent growth rates. There is a dense understory of oak and red maple. This stand was harvested in 1999 by removing marked red pine and all jack pine with at least one 100 inch pulpwood stick.
2	4130 - Aspen	High Density Sapling	8.9	15		Aspen with maple, likely regenerated in 1999
4	4125 - Black, N. Pin Oak	High Density Log	185.8	94	81-110	This stand was harvested in 1999 by cuting all aspen and red maple which contain at least one 100 inch pulpwood stick and all orange marked trees. The current stand is mixed oak that is mature and healthy. There are pockests of red pine and white pine. Overall the understory is full.
5	4125 - Black, N. Pin Oak	High Density Log	7.2	112	111-140	Red and black oak stand with red maple and red pine. The red maple was harvested approximately 35-38 years ago and has since regenerated into well developed cohort that is entering the pole class.. The oak canopy is relatively healthy and the diameters are large compared to nearby stands that havn't had previous management.
7	4131 - Aspen, Oak	High Density Sapling	61.9	25		Cut during the dormant season late in 1988. Stand was regenerated all trees two inches in diameter and over were cut. Oak and red maple from stump sprouts but mostly single stem.
8	4191 - Mixed Upland Deciduous with Conifer	High Density Log	6.0	104	51-80	Mixed upland oak the pin oak is of poor quality and black oak is moderate. This is a great pine site it is doing very well here. There is a fair ammount of coarse woody debris. The are scattered x size pin oak and red pine monarchs.
9	4125 - Black, N. Pin Oak	High Density Sapling	7.1	6		Small oak stand that was harvested in the winter of 2007-2008 by cuting all trees that are two inches or more in dbh except birch, white oak and all reserve trees marked with green paint.
10	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	16.5	24	1-50	Aspen and jack pine stand that was regenerated in 1988. The density is variable and there are some open areas in the south part of the stand.
11	4125 - Black, N. Pin Oak	High Density Log	36.8	116	111-140	Mixed black/red oak and white oak. There is a developing cohort of white pine in the log pole class. The dominant oak is healthy, the co-dominant and suppressed oak are declining. There is more white pine understory in the north part of the stand.
13	4125 - Black, N. Pin Oak	High Density Log	14.3	111	141-170	Nice log size oak stand that appears to have been previously thinned. There is a fully stocked red maple understory with white pine that is just developing. Oil and gas opening in the northwest part of the stand.
14	4125 - Black, N. Pin Oak	High Density Log	19.2	107	111-140	Mixed oak stand with a well developed red maple understory. The dominant oak is healthy.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	42260 - Natural Pine, Mixed Deciduous	High Density Pole	12.0	35	1-50	Cut in 1988 by removing all trees with at least a 100 inch pulp stick consequently the age of the current stand is variable. The majority of the stand is white pine, there is some unevenly scattered super canopy oak.
18	4199 - Other Mixed Upland Deciduous	High Density Sapling	69.5	20		Cut in 1988 by removing all trees with at least a 100 inch pulp stick. The stand is aspen and oak and red maple.
19	4121 - Oak, Aspen	High Density Sapling	19.4	20		Cut in 1988 by removing all trees with at least a 100 inch pulp stick.
21	4130 - Aspen	High Density Log	8.0	54	81-110	Aspen stand with mixed deciduous and a well stocked red maple understory of saplings and poles that are just reaching into the canopy.
22	4311 - Pine, Aspen Mix	High Density Log	27.3	87	111-140	This a two-aged upland stand there is a cohort of oak, aspen and maple poles and a cohort of super canopy red pine. There are scattered log sized red maple and white oak. The red pine is healthy, most have large crowns. There is a pocket of red pine poles in the southwest part of the stand.
23	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	110.9	17	1-50	Two-aged stand with log sized red pine and white pine and a sapling class of quaking aspen, red maple and oak. Harvested in 1997 by cutting all trees which contain one 100 inch pulp stick except did not cut red pine or white pine. ORV trail.
24	42110 - Planted Red Pine	High Density Log	9.7	53	141-170	Small isolated log/pole red pine stand with a few saplings. This stand should be thinned to maintain vigor, the growth has slowed in the last six years. There are several small open pockets.
26	4123 - Red Oak	High Density Log	23.2	101	111-140	Good quality red oak stand on a ridge top. Harvested in 1997 by cutting all red maple with at least one 100" pulp stick and all orange marked oak. There is dense red maple understory. Fire scarred white oak stumps. Lots of illegal firewood activity. ORV trail.
27	4191 - Mixed Upland Deciduous with Conifer	High Density Log	12.1	105	111-140	Mixed upland white oak and black oak with red pine and white pine. There is a trace ammount of scattered quaking aspen. The red maple understory is full in places. ATV/ORV trail. Boders small private land ownership.
28	4310 - Pine, Oak Mix	High Density Log	8.8	102	51-80	Upland oak with red pine.
29	4191 - Mixed Upland Deciduous with Conifer	High Density Log	39.9	43	51-80	Mixed upland stand of mostly pin oak, jack pine, quaking aspen and red maple. There are two dominant age classes pole and log size hardwoods and log size pine. The stand age is variable along with the species ditribution and density. There are scattered red pine monarchs. ATV trail.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	4126 - White, Black, N. Pin Oak	High Density Log	30.9	101	111-140	Mixed stand of white oak, hybrid black and red oak and pin oak. There is red pine and white pine, the red pine is scattered unevenly throughout the stand and is also in a small pocket in the north part. There are large healthy oaks producing good mast and a trace ammount of large white pine.
31	4125 - Black, N. Pin Oak	High Density Log	34.8	97	81-110	Black oak and red oak mix.
32	4130 - Aspen	High Density Sapling	5.3	17		This stand was harvested in 1997 by cutting all trees greater than 2 inches dbh.
33	4125 - Black, N. Pin Oak	High Density Pole	8.3	44	81-110	Upland pin oak stand with a component of red pine. This is a good pine site.
34	4131 - Aspen, Oak	High Density Sapling	69.6	6		This stand was harvested in the winter of 2007-2008 by cutting all trees that are two inches or more in dbh except birch, white oak and all reserve trees marked with green paint. The current stand is two-aged with a red pine super canopy and mixed oak, cherry, maple and aspen saplings. There is a small ammount of white pine super canopy trees.
35	4199 - Other Mixed Upland Deciduous	Medium Density Pole	20.3	44	81-110	Mixed upland pin oak and red maple.
36	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	42.3	17		This stand was harvested in 1997 by cutting all trees greater than 2 inches dbh. Planted 20,000 jack pine seedlings in 1998. Current canopy is a mix of jack pine oak and cherry. Oak and cherry is single stem and stump sprout.
37	4133 - Aspen, Mixed Pine	High Density Log	6.9	59	111-140	This is a small stand of quaking aspen and red maple with a trace ammount of jack pine. Aspen is more concentrated to the south and red maple is more concentrated to the north. The is a fair ammount of coarse woody debris, mostly jack pine.
38	4126 - White, Black, N. Pin Oak	High Density Pole	7.5	44	81-110	Mixed oak upland stand, mostly poles and saplings. There is a minor component of large oak and red pine. This is a diverse stand with a lot of coarse woody debris, there is a range of ages for the dominant canopy class. Old grade present.
39	4130 - Aspen	High Density Pole	11.9	25	81-110	Quaking aspen stand that borders lowland, may be seasonally flooded. Regenerated in the dormant season of 1988 and 1989 by cutting all trees 2 inches or more in diameter.
40	6127 - Lowland Pine	High Density Log	5.9	125	1-50	
41	4110 - Sugar Maple Association	Low Density Sapling	3.8	10		The stand is of fire origin, a wildfire likely occured between 2003-2005
42	4130 - Aspen	High Density Log	9.1	59	141-170	Aspen mixed with mature pin oak and white pine with developing red maple and aspen poles.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	42220 - Natural Jack Pine	High Density Pole	36.8	27	51-80	Jack pine plantation. The stand was harvested in 1987 and planted in 1988.
44	6121 - Tamarack	High Density Sapling	9.1	81	51-80	Lowland tamarack stand with alder understory.
45	6127 - Lowland Pine	Low Density Sapling	35.4	36		Treed bog, mixed lowland conifer.
47	6126 - Lowland Jack Pine	High Density Pole	31.5	68	81-110	Lowland jack pine and black spruce.
48	6122 - Black Spruce	High Density Sapling	18.4	94	51-80	Lowland spruce and tamarack, mostly pole sized.
49	429 - Mixed Upland Conifers	High Density Sapling	9.4	39	1-50	Harvested in 1987 by cutting all species which contain at least one 100 inch pulp stick. Mostly sapling and pole mixed conifers.
51	6126 - Lowland Jack Pine	High Density Sapling	25.7	48		Lowland jack pine bog.
52	6126 - Lowland Jack Pine	Low Density Sapling	7.4	35		Jack pine bog, density increases from south to north.

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	3104 - Degraded	2.0	No	Unspecified	
6	3104 - Degraded	1.1	No	Unspecified	
12	790 - Other Bare/Sparsely Vegetate	1.7	No	Unspecified	
16	790 - Other Bare/Sparsely Vegetate	0.7	No	Unspecified	
17	790 - Other Bare/Sparsely Vegetate	1.2	No	Unspecified	
20	3104 - Degraded	1.4	No	Unspecified	
25	790 - Other Bare/Sparsely Vegetate	1.2	No	Unspecified	
46	6225 - Bog	1.1	No	Unspecified	Leatherleaf and willow
50	50 - Water	1.1	No	Unspecified	