Compartment Review Presentation

Atlanta Forest Management Unit

Compartment 40
Entry Year 2015
Acreage: 1,370
County Montmorency
Management Area: Rattlesnake Hills

Revision Date: 10/31/2013

Stand Examiner: Darrick Coy

Legal Description:

T31N, R02E, Sections 5, 6, & 7

Identified Planning Goals:

To provide for the protection, integrated management and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

Soil and topography:

Soils are mostly excessively drained with minor pockets of well drained loamy sands. Dominating soil types are grayling and graycalm sands. Jack pine and red pine are the dominating cover type species. Overall, the topography is rolling to flat. The forest habitat types are mostly PVCd and unclassified lowland.

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

State land ownership is fairly solid except for the S1/2SE section 6 and a small 20 acre parcel within section 7. Private land mostly borders only to the N and E. Canada Creek Ranch is along the entire N boundary. A 62 acre parcel was recently aquired within SENW & E1/2 of SWNW of section 7 which consists primarily of jack pine.

Unique Natural Features:

Element occurences- hungerford's crawling water beetle
Possible occurences- hungerford's crawling water beetle, ram's-head lady's slippler, hills thistle, and others

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Visual management of High Country Hiking Trail and Co. Rd 622 scenic route are of importance. This compartment is part of the managed lands for eastern massasauga rattle snake.

Watershed and Fisheries Considerations:

Van Hetton Creek flows through the compartment; it has been a major source of beaver in recent decades. Maintain healthy buffer/setback against streams and do not promote aspen regeneration.

Wildlife Habitat Considerations:

This is a compartment that receives use by elk, white-tailed deer, wild turkey, as well as other wildlife species. It is in the core elk range and receives heavy elk use at certain times of year. It is adjacent to large private landownerships with significant interest in deer and elk. Openings present should be maintained to provide seasonal wildlife habitat and viewing opportunities. Conifer stands should be managed for a mixed conifer/deciduous component to provide both food and cover sources for wildlife.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Devonian Antrim Shale. The Antrim is quarried for cement products elsewhere in the State. A gravel pit is located two miles to the northwest and there may be potential on the upland areas. This area has been drilled and is producing gas from the Antrim Shale.

Vehicle Access:

Access to the compartment is good. No trails or roads are being recommended for closure.

Survey Needs:

Possibly within Section 5 W N-S line of SWSW
Possibly within Section 7 W N-S line of E1/2 of SWNW

Recreational Facilities and Opportunities:

The High Country Trail is located within section 5, crossing the Van Detton Creek and a bog near the Pug Lakes. Camping sites are located at Doty Dam and around Doty Lake. The Pug Lakes also receive camping pressure in a few locations.

Fire Protection:

Atlanta field office.
A majority of this compartment is young jack pine and has potential for large fires.
Water resources are available with lakes to SE and Van Detton Creek county road crossings.
If fire increasingly becomes problematic, clearcut more areas of jack pine and/or introduce tree species that are less threatening.

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

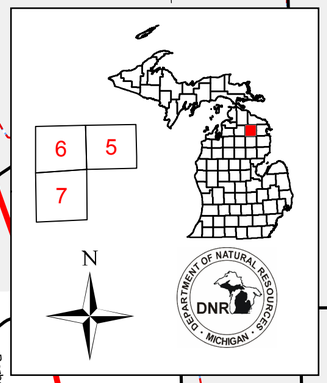
The following information is displayed, where pertinent, on the attached compartment maps:

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

Cover Type & Treatment Map

Compartment: 040
T31N R02E
Sections 5, 6, 7
County: Montmorency
Unit: Atlanta
YOE: 2015
Acres: 1,370 GIS Calculated
Examiner: Darrick Coy
Map Revised: 09/10/2013
Map Phase: Web Post

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



Legend

- Miris Corners
- Remonumented Section Corners
- Gate
- PLSS Corner
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Pipeline
- Stream
- Intermittent Stream
- Lakes and Rivers
- Bike Trails
- Hiking Trails
- Ski Trail
- Bike Trail

Treatments
- Opening Maintenance
- Other Treatment - See Comments
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Clearcut (w/Reserves, Patch/Strip)

Forest Stands
Level 3
- 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
- 613 - Lowland Mixed Forest

Non-Forest Stands
Level 3
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- State Forest Land

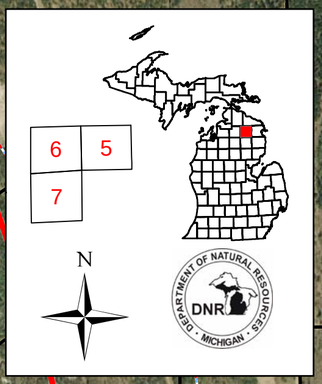
1 0.5 0 1 Miles

84°15'0"W 84°14'0"W 84°13'0"W 84°12'0"W 84°11'0"W 84°10'0"W
45°7'0"N 45°6'0"N 45°5'0"N

Stand Boundary Map

Compartment: 040
T31N R02E
Sections 5, 6, 7
County: Montmorency
Unit: Atlanta
YOE: 2015
Acres: 1,370 GIS Calculated
Examiner: Darrick Coy
Map Revised: 09/10/2013
Map Phase: Web Post

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



Legend
- Miris Corners
- Remonumented Section Corners
- Gate
- PLSS Corner
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Pipeline
- Stream
- Intermittent Stream
- Bike Trails
- Hiking Trails
- Ski Trail
- Bike Trail
- Stand Boundaries

1 0 0.5 0 1 Miles

Special Conservation Areas & Site Conditions Map

Compartment: 040
T31N R02E
Sections 5, 6, 7
County: Montmorency
Unit: Atlanta
YOE: 2015
Acres: 1,370 GIS Calculated
Examiner: Darrick Coy
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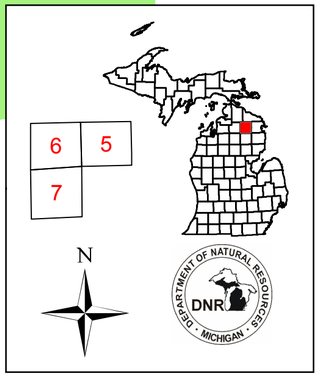

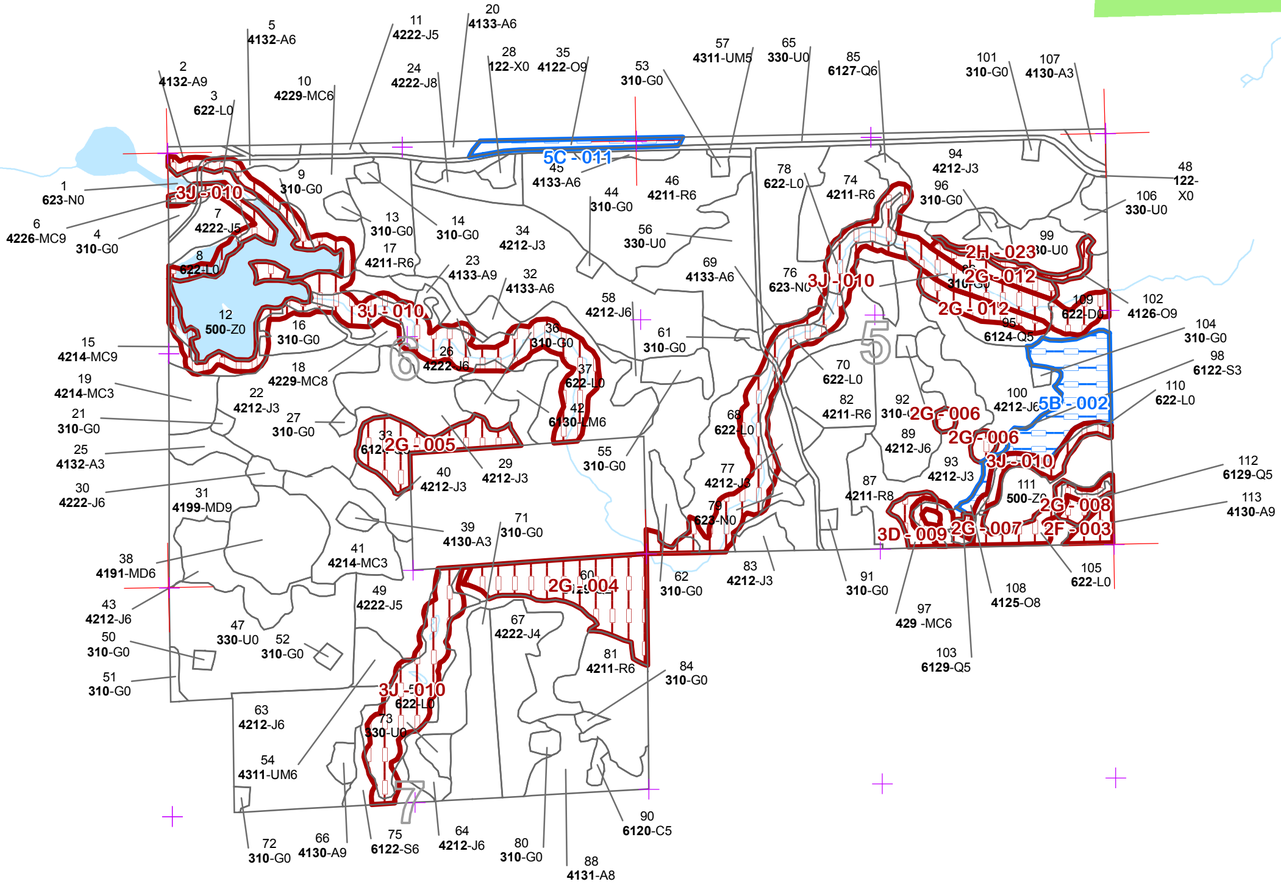

Legend

- Miris Corners
- Remonumented Section Corners

Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)

Dedicated Special Conservation Areas
- Cold Water Lakes
- Cold Water Streams
- Essential Habitat (Kirtland Warbler)
- Stand Boundaries

1 0.5 0 1 Miles

84°15'0"W · 84°14'0"W · 84°13'0"W · 84°12'0"W · 84°11'0"W · 84°10'0"W
45°8'0"N · 45°7'0"N · 45°6'0"N · 45°5'0"N

Report 1 – Total Acres by Cover Type and Age Class

Atlanta Mgt. Unit **Compartment 040 Year of Entry 2015**

Derek Coy : 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	0	0	12	0	2	2	2	3	33	0	0	0	0	0	**54**
Cedar	0	0	0	0	0	0	0	0	0	0	2	0	0	0	**2**
Herbaceous Openland	78	0	0	0	0	0	0	0	0	0	0	0	0	0	**78**
Jack Pine	0	150	68	59	79	95	0	7	1	0	0	0	0	0	**458**
Low-Density Trees	132	0	0	0	0	0	0	0	0	0	0	0	0	0	**132**
Lowland Conifers	0	0	0	0	29	51	0	0	5	0	0	0	0	0	**86**
Lowland Mixed Forest	0	0	0	0	0	0	0	0	9	0	0	0	0	0	**9**
Lowland Shrub	147	0	0	0	0	0	0	0	0	0	0	0	0	0	**147**
Lowland Spruce/Fir	0	0	0	0	0	10	0	0	0	0	0	0	0	0	**10**
Marsh	6	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**
Mixed Upland Deciduous	0	0	0	0	23	0	0	0	0	16	0	0	0	0	**39**
Natural Mixed Pines	0	0	0	0	20	0	0	5	13	0	0	0	0	0	**37**
Oak	0	0	0	0	0	0	0	0	8	0	26	0	0	0	**34**
Planted Mixed Pines	0	8	20	0	0	0	6	0	0	0	0	0	0	0	**35**
Red Pine	0	0	0	94	0	37	0	22	0	0	0	0	0	0	**153**
Treed Bog	11	0	0	0	0	0	0	0	0	0	0	0	0	0	**11**
Upland Conifers	0	0	0	0	0	0	0	0	4	0	0	0	0	0	**4**
Upland Mixed Forest	0	0	0	0	7	0	1	0	0	0	0	0	0	0	**8**
Urban	20	0	0	0	0	0	0	0	0	0	0	0	0	0	**20**
Water	46	0	0	0	0	0	0	0	0	0	0	0	0	0	**46**
Total	**440**	**158**	**99**	**154**	**160**	**195**	**10**	**36**	**74**	**16**	**27**	**0**	**0**	**0**	**1370**

Report 2 – Proposed Treatment Summaries

Atlanta Mgt. Unit
Year of Entry 2015

Compartment 040
Total Compartment Acres: 1,370

Acres by Treatment Type

Commercial Harvest - 143	Tree Planting - 64	Other - 0
Habitat Cut - 0	Opening Maintenance - 63	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	21	0	0	0	0	0	**21**
Lowland Mixed Forest	8	0	0	0	0	0	**8**
Mixed Upland Deciduous	0	0	30	0	0	0	**30**
Natural Pines	9	0	0	0	0	0	**9**
Planted Pines	57	0	0	0	19	0	**76**
Total	**95**	**0**	**30**	**0**	**19**	**0**	**143**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	54040002-Cut	1.7	4132 - Aspen, Jack Pine	High Density Log	83	51-80	Harvest	Clearcut	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Specs: -clearcut (partial stand treatment, see trmt layer)
-no retention necessary
-leave other portion untreated (west of E Branch Rd) indefinitely (let sapling oaks come in as aspen and jp decline))

Other Comments:

Next Steps: -regen survey 3-5 years
-acceptable regen is aspen, jp, and oak of medium to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
11	54040011-Cut	1.8	42220 - Natural Jack Pine	Medium Density Pole	83		Harvest	Clearcut	3303 - Mixed Low Density Trees	Cmpt. Review Proposal

Prescription Specs: -cc
-no retention necessary

Other Comments:

Next Steps: -regen survey 3-5 years
-trench and replant to jp if stocking is inadequate
-acceptable regen is jp, oak, and aspen of low to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	54040020-Cut	7.5	4133 - Aspen, Mixed Pine	High Density Pole	83		Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Specs: -clearcut
-leave all rp, wp, and 1 clump 2-3 oak/ac
-no other retention necessary due to size

Other Comments:

Next Steps: -regen survey 3-5 years
-acceptable regen is aspen, oak, and pine of medium to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	54040024-Cut	6.9	42220 - Natural Jack Pine	Medium Density Log	73		Harvest	Clearcut with Reserves	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: -clearcut
-leave 1-2 oak, rp, and/or wp per acre
-no other retention necessary, small stand size
-require chipping of tops

Other Comments:

Next Steps: -trench and replant to rp if stocking is low
-acceptable regeneration is rp, jp, wp, and aspen of medium to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
31	54040031-Cut	16.5	4199 - Other Mixed Upland Deciduous	High Density Log	96	51-80	Harvest	Seed Tree with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Specs:
-treatment will be a combination of clearcutting and shelterwood to regenerate aspen in dense clones and keep aspen from overwhelming oak regen and existing wp saps (residual ba range of 10-30 of rp, oak, and wp is anticipated post-harvest)
-cut all aspen, rm, and jack pine
-mark-to-cut dense rp, wp, and oak areas to 30-50 residual when opportunity arises (when over residual shelterwood ba range, mostly NE corner of treatment)
-leave trees with best crown development and trees over 26 in dbh
-rentention pocket(s) 3-7%
-protect wp saps in specs

Other Comments:
-suggest accessing stand using adjacent jp planting two-track to the S
-hill-top and adjacent aspen stand create access problems to the N

Next Steps:
-regen survey 3-5 years
-acceptable regen is aspen, oak, rm, and pine of medium to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
38	54040038-Cut	13.3	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	48	81-110	Harvest	Seed Tree with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs:
-treatment will be a combination of clearcutting and shelterwood to regenerate aspen in dense clones and keep aspen from overwhelming existing wp saps (residual ba range of 10-30 of rp, oak, and wp is anticipated post-harvest)
-cut all aspen, rm, and jack pine
-mark-to-cut dense rp, wp, and oak areas to 30-50 residual when opportunity arises (when over residual shelterwood ba range)
-leave trees with best crown development and trees over 26 in dbh
-rentention pocket(s) 3-7%
-protect wp saps in specs

Other Comments:
-suggest accessing stand using adjacent jp planting two-track to the S
-hill-top and adjacent aspen stand create access problems to the N

Next Steps:
-regen survey 3-5 years
-acceptable regen is aspen, oak, rm, and pine of medium to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
42	54040042-Cut	7.6	6130 - Fir, Aspen, Maple	High Density Pole	82		Harvest	Clearcut with Reserves	6130 - Fir, Aspen, Maple	Cmpt. Review Proposal

Prescription Specs:
-clearcut
-leave stream buffer
-leave all wp and oak
-require harvesting outside of Spring to alleviate rutting concerns

Other Comments:
-access two-track to W will need some trees to be marked for removal to allow equipment access

Next Steps:
-regen survey 3-5 yrs
-acceptable regen is aspen, wp, rp, bf, bs, oak and rm of medium to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
58	54040058-Cut	23.7	42120 - Planted Jack Pine	High Density Pole	57		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs:
-cc (partial stand harvest- see trmt layer)
-leave 1-2 oak, rp, and/or wp per acre
-leave the 1-2 chain buffer strip for adjacent clearcut to the north if not in compliance with green-up guidelines (see trmt layer)
-leave creek buffer areas to NE, S, & NW (follow treatment line and BMP guidance), this will serve and satisfy area retention requirements
-require whole tree skidding to try and get some natural jp with adjacent lowland
-require chipping of tops

Other Comments:
-will need survey work/assistance for W line, could not locate corners

Next Steps:
-trench and replant to jp
-acceptable regeneration is jp, oak, rp, wp, and aspen of medium to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
74	54040074-Cut	18.8	42110 - Planted Red Pine	High Density Pole	54	141-170	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs:
-3rd row thin
-cut all jp
-no need to mark, rows fairly well defined

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
88	54040088-Cut	12.1	4131 - Aspen, Oak	Medium Density Log	84	51-80	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs:
-clearcut
-leave all rp, wp, and oak
-mark 1 log aspen/ac to leave for cavities
-leave area north of two-track for area retention purposes (see trmt layer)

Other Comments:

Next Steps:
-regen survey in 3-5 years
-acceptable regen is pine, aspen, oak, and rm of low to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
89	54040089-Cut	33.5	42120 - Planted Jack Pine	High Density Pole	54		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs:
-clearcut
-leave all oak
-buffer river to north at least 100ft (follow treatment line and BMP guidance), this and untreated areas to east will serve and satisfy area retention requirements
-protect high county pathway in sale specs
-require chipping of tops

Other Comments:

Next Steps:
-trench and replant to JP
-acceptable regen is jp and oak of medium to high stocking

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	NF_54040013-NonFor	2.3	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods

Other Comments:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
36	NF_54040036-NonFor	5.3	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods or fire to maintain grasses.

Other Comments:

Next Steps: Monitor and treat on rotation.

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
55	NF_54040055-NonFor	5.9	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods or fire.

Other Comments:

Next Steps: Monitor and treat on rotation.

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62	NF_54040062-NonFor	5.8	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods or fire

Other Comments:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
71	NF_54040071-NonFor	18.8	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods. Plant to food and cover crops if funding and time allow

Other Comments:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73	NF_54040073-NonFor	3.1	3302 - Low Density Conifer Trees				Non-Forest Management	Brush Cutting	3102 - Grass	Cmpt. Review Proposal

Prescription Specs: Cut woody vegetation to promote grasses and open character

Other Comments:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
80	NF_54040080-NonFor	1.9	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods or fire

Other Comments:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
84	NF_54040084-NonFor	1.1	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods or fire.

Other Comments:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
86	NF_54040086-NonFor	5.1	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Plant to food and cover crops if funding and time allow. Maintain opening using mechanical methods otherwise.

Other Comments:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
96	NF_54040096-NonFor	2.6	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods or fire.

Other Comments:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

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

Total Treatment Acreage Proposed: **195.3**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
9	NF_54040009-NonFor	2.4	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods

Other Comment:

Next Steps: Monitor and treat on rotation

Proposed Start Date: Unspecified

Limiting Factor: 3J: Water quality / BMPs (stream, river, or lake)

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
16	NF_54040016-NonFor	8.9	310 - Herbaceous Openland				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Specs: Maintain opening using mechanical methods or fire to maintain grasses. Plant a portion to food and cover crops if funding and time allow.

Other Comment:

Next Steps: Monitor and treat on rotation.

Proposed Start Date: Unspecified

Limiting Factor: 3J: Water quality / BMPs (stream, river, or lake)

Total Treatment Acreage Proposed: 11.3

Report 5 – Site Conditions

Atlanta Mgt. Unit

Darrick Coy : Examiner

Compartment 040

Year of Entry 2015

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	5C	5B	3J	3D	2H	2G	2F
58	51	7	**Aspen**	51			4				4
2	2		**Cedar**	2							
459	449	10	**Jack Pine**	449			10				
85	10	76	**Lowland Conifers**	10			17			59	
9	9	1	**Lowland Mixed Forest**	9			1				
10	6	4	**Lowland Spruce/Fir**	6			1			3	
39	39		**Mixed Upland Deciduous**	39							
37	22	15	**Natural Mixed Pines**	22			15				
36	29	6	**Oak**		6	23	2		4		
35	30	4	**Planted Mixed Pines**	30			4				
153	153		**Red Pine**	153							
4	0	4	**Upland Conifers**	0			1	3			
8	7	0	**Upland Mixed Forest**	7			0				
935	808	127	Total Forested Acres	778	6	23	55	3	4	62	4
	86%	14%	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		**Available**	**5B: Retention for regeneration purposes**	23				
Comments:								
003		**Not Available**	**2F: Too steep**	4	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values		
Comments: -small area below slope being used for camping								

004	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	27	5D: Unproductive Forest Land	5A: Not able to obtain desirable regeneration

Comments:

005	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	16	5A: Not able to obtain desirable regeneration	

Comments:

006	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	3		

Comments:

007	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	1	5A: Not able to obtain desirable regeneration	

Comments:

008	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	2	5A: Not able to obtain desirable regeneration	

Comments:

009	**Not Available**	**3D: Recreational / Scenic values**	3		

Comments:

-large diameter wp along trail and buffers lowland with riparian concerns

Report 5 – Site Conditions

Atlanta Mgt. Unit

Darrick Coy : Examiner

Compartment 040

Year of Entry 2015

010	**Not Available**	**3J: Water quality / BMPs (stream, river, or lake)**	158	

Comments:

- Minimum ~100ft buffer distance for stream and lake protection with 0% slope
- Selection or thinning may be allowed within certain forested areas and distances but no clearcutting

011	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	6	

Comments:

012	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	13	5A: Not able to obtain desirable regeneration

Comments:

023	**Not Available**	**2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)**	4	2F: Too steep

Comments:

-steep ridge to north and significantly wet to south

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 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4132 - Aspen, Jack Pine	High Density Log	3.1	83	51-80	-mast white oak -developed sapling oak subcanopy
5	4132 - Aspen, Jack Pine	High Density Pole	2.5	48		
6	42260 - Natural Pine, Mixed Deciduous	High Density Log	4.9	73	51-80	-slightly older stand that is more of a pine mix
7	42220 - Natural Jack Pine	Medium Density Pole	8.1	39		
10	42290 - Natural Mixed Pine	High Density Pole	19.6	48	51-80	-fairly mixed stand with jp dominant
11	42220 - Natural Jack Pine	Medium Density Pole	1.0	83		
15	42140 - Planted Mixed Pine	High Density Log	6.5	66	111-140	-rp rows to east
17	42110 - Planted Red Pine	High Density Pole	17.7	31	81-110	-planted RP in 1983 6'x9'
18	42290 - Natural Mixed Pine	Medium Density Log	12.7	82	51-80	
19	42141 - Planted Mixed Pine, Mixed Deciduous	High Density Sapling	8.4	17	1-50	-R3 understory planted the same time as stand 45 -looks good -natural oak -trenched to rp with natural jp
20	4133 - Aspen, Mixed Pine	High Density Pole	6.0	83		-heavier to subcanopy wp and aspen to east half
22	42120 - Planted Jack Pine	High Density Sapling	41.2	17	1-50	-treated 3/21/96-4/2/96
23	4133 - Aspen, Mixed Pine	High Density Log	2.1	83		-lowland pocket of tag alder in center of stand
24	42220 - Natural Jack Pine	Medium Density Log	6.9	73		
25	4132 - Aspen, Jack Pine	High Density Sapling	5.2	28		-removed equal mix of 50% aspen, 25% oak, and 25% jp -completed 11/06/85
26	42220 - Natural Jack Pine	High Density Pole	4.2	44		
29	42120 - Planted Jack Pine	High Density Sapling	18.3	24		-removed 632 cds jp & 54 cds aspen -planted to jp in 5/90, good season -conducted a jp spacing trial within stand according to records 4x4, 6x6, 8x8 for jp weevil effects

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	42220 - Natural Jack Pine	High Density Pole	2.5	48		
31	4199 - Other Mixed Upland Deciduous	High Density Log	16.5	96	51-80	Hill top, difficult access.
32	4133 - Aspen, Mixed Pine	High Density Pole	3.7	83		
33	6124 - Lowland Spruce-Fir	Medium Density Pole	15.7	50	1-50	-very high water table -tag alder pockets throughout
34	42120 - Planted Jack Pine	High Density Sapling	71.7	17		-Left all oak -Planted to Jack pine May, 1997
35	4122 - Oak, Pine	High Density Log	4.0	83	51-80	
38	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	23.0	48	81-110	-some huge wp
39	4130 - Aspen	High Density Sapling	2.1	27		-removed 632 cds jp & 54 cds aspen -completed 10/10/86
40	42120 - Planted Jack Pine	High Density Sapling	6.0	24		-removed 632 cds jp & 54 cds aspen -planted to jp in 5/90, good season -let develop
41	42140 - Planted Mixed Pine	High Density Sapling	19.8	24	1-50	-removed 632 cds jp & 54 cds aspen -completed 10/10/86
42	6130 - Fir, Aspen, Maple	High Density Pole	9.5	82		
43	42120 - Planted Jack Pine	High Density Pole	15.7	48		
45	4133 - Aspen, Mixed Pine	High Density Pole	2.3	68		
46	42110 - Planted Red Pine	High Density Pole	53.4	31	81-110	-removed 245 cds jp and 137 cds aspen in 25 ac in 1975 -planted RP in 1983 6'x9'
49	42220 - Natural Jack Pine	Medium Density Pole	16.6	48		-more of an open stand
54	4311 - Pine, Aspen Mix	High Density Pole	6.7	47		-appears to be two aged in parts (26 and 46)
57	4311 - Pine, Aspen Mix	Medium Density Pole	1.0	66	1-50	-scattered aspen and jp

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	42120 - Planted Jack Pine	High Density Pole	30.7	57		-some planting rows evident to NE portion of stand
60	6129 - Mixed Coniferous Lowland Forest	Medium Density	28.9	42		-cedar crowns are declining/very poor -blowdown/hard to walk through -tag alder mixes throughhout stand
63	42120 - Planted Jack Pine	High Density Pole	40.1	48		
64	42120 - Planted Jack Pine	High Density Pole	28.8	36		
66	4130 - Aspen	High Density Log	2.6	78		
67	42220 - Natural Jack Pine	Low Density Pole	22.2	37		-definitely have good natural jp seed out-put -rather open stand of jp -past management thought stocking was good enough and didn't plant -adds diversity but is a poor timber quality stand
69	4133 - Aspen, Mixed Pine	High Density Pole	2.0	57		-transition stand
74	42110 - Planted Red Pine	High Density Pole	18.9	54	141-170	Gas well stake in stand
75	6122 - Black Spruce	High Density Pole	6.9	52	51-80	-smaller diameter trees along lowland perimeter with increasing diameters when moving out to higher/drier ground
77	42120 - Planted Jack Pine	High Density Sapling	7.3	24		-planting completed in 05/90- extremely good planting conditions/consistent rains
81	42110 - Planted Red Pine	High Density Pole	23.4	31	111-140	-treated in 1976, was JP before -planting completed 4/29/83
82	42110 - Planted Red Pine	High Density Pole	18.4	52	111-140	-not the greatest quality due to poorer site and jp ingrowth -more variable density stand
83	42120 - Planted Jack Pine	High Density Sapling	4.2	24		-planting completed in 05/90- extremely good planting conditions/consistent rains
85	6127 - Lowland Pine	High Density Pole	5.4	57	51-80	-small drainage bisects stand
87	42110 - Planted Red Pine	Medium Density Log	21.6	74	81-110	
88	4131 - Aspen, Oak	Medium Density Log	13.7	84	51-80	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
89	42120 - Planted Jack Pine	High Density Pole	42.1	54		-High Country Hiking Trail -appear to be planting trenches, however rows have lost some integrity -jp are healthy
90	6120 - Lowland Cedar	Medium Density Pole	1.6	106	51-80	-small lowland pocket -fair amount of blowdown -hard to walk through
93	42120 - Planted Jack Pine	High Density Sapling	32.0	27		-healthy stand -planting completed in 05/90- extremely good planting conditions/consistent rains
94	42120 - Planted Jack Pine	High Density Sapling	36.7	16		-Left all oak -Planted to jack pine May 1997 -jp are healthy
95	6124 - Lowland Spruce-Fir	Medium Density Pole	30.3	54	81-110	-Van Hetton Creek and hiking trail -cedar significantly declining, less dense, and located in central core of stand -tamarack and black spruce along 300 ft perimeter, mostly high density poles
97	429 - Mixed Upland Conifers	High Density Pole	4.3	85	51-80	-jp declining -steeper slopes to south -some huge wp, 35 in -split between lowland (north 1/2) and upland (south 1/2) types
98	6122 - Black Spruce	High Density Sapling	3.0	55		Bog along hiking trail -larger diameters along bog transition -stagnant growth in middle portion of stand
100	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	22.1	53		-appear to be planting trenches, however rows have lost some integrity -more of an oak component than adjacent jp stand
102	4126 - White, Black, N. Pin Oak	High Density Log	3.9	86	51-80	-steep drop-off to get to stand -transition stand
103	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	1.7	82	1-50	
107	4130 - Aspen	High Density Sapling	4.3	27		High Country Hiking Trail.
108	4125 - Black, N. Pin Oak	Medium Density Log	25.7	102	51-80	-left rp, wp, and oak completed 1/10/11 -wp moderately occupies stand throughout -steep slopes in southeast -camping area near private -oak are declining, resprouting potential low in places -poor quality firewood oak

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
112	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	3.6	82	1-50	
113	4130 - Aspen	High Density Log	4.6	83		-on a hill with camping site below by lake

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	623 - Emergent Wetland	1.2	No	Unspecified	
3	622 - Lowland Shrub	2.6	No	Unspecified	
4	310 - Herbaceous Openland	1.7	Yes	Low	
8	622 - Lowland Shrub	7.4	No	Unspecified	
9	310 - Herbaceous Openland	2.4	Yes	Low	
12	50 - Water	31.6	No	Unspecified	Doty Flooding
13	310 - Herbaceous Openland	2.3	Yes	Low	
14	310 - Herbaceous Openland	1.3	Yes	Low	
16	310 - Herbaceous Openland	8.9	Yes	Low	
21	310 - Herbaceous Openland	1.2	Yes	Low	
27	310 - Herbaceous Openland	1.3	Yes	Low	
28	122 - Road/Parking Lot	2.4	No	Unspecified	
36	310 - Herbaceous Openland	5.3	Yes	Low	
37	622 - Lowland Shrub	55.7	No	Unspecified	
44	310 - Herbaceous Openland	1.2	Yes	Low	
47	3302 - Low Density Conifer Trees	49.4	Plantation	Jack Pine	
48	122 - Road/Parking Lot	17.5	No	Unspecified	
50	310 - Herbaceous Openland	1.1	Yes	Low	

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
51	310 - Herbaceous Openland	1.5	Yes	Low	
52	310 - Herbaceous Openland	1.2	Yes	Low	
53	310 - Herbaceous Openland	1.0	Yes	Low	
55	310 - Herbaceous Openland	5.9	Yes	Low	
56	3302 - Low Density Conifer Trees	26.5	Plantation	Jack Pine	
59	622 - Lowland Shrub	24.8	No	Unspecified	
61	310 - Herbaceous Openland	1.0	Yes	Low	
62	310 - Herbaceous Openland	5.8	Yes	Low	
65	3303 - Mixed Low Density Trees	33.0	Plantation	Jack Pine	
68	622 - Lowland Shrub	31.0	No	Unspecified	
70	6220 - Alder/willow	3.0	No	Low	
71	310 - Herbaceous Openland	18.8	Yes	Low	
72	310 - Herbaceous Openland	1.0	Yes	Low	
73	3302 - Low Density Conifer Trees	3.1	No	Unspecified	
76	623 - Emergent Wetland	2.3	No	Unspecified	-possibly back-up from a beaver dam
78	6220 - Alder/willow	5.6	No	Low	
79	623 - Emergent Wetland	2.1	No	Unspecified	
80	310 - Herbaceous Openland	1.9	Yes	Low	

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
84	310 - Herbaceous Openland	1.1	Yes	Low	
86	310 - Herbaceous Openland	5.1	Yes	Low	
91	310 - Herbaceous Openland	1.0	Yes	Low	
92	310 - Herbaceous Openland	1.2	Yes	Low	
96	310 - Herbaceous Openland	2.6	Yes	Low	
99	3303 - Mixed Low Density Trees	14.8	Plantation	Jack Pine	
101	310 - Herbaceous Openland	1.0	Yes	Low	
104	310 - Herbaceous Openland	1.1	Yes	Low	
105	6220 - Alder/willow	12.1	No	Unspecified	
106	3303 - Mixed Low Density Trees	5.5	No	Low	
109	6224 - Treed Bog	11.0	No	Low	
110	6220 - Alder/willow	5.2	No	Unspecified	
111	50 - Water	14.4	No	Unspecified	