Compartment Review Presentation

Sault Ste. Marie Forest Management Unit

Compartment 41
Entry Year 2015
Acreage: 2,098
County Chippewa
Management Area: Kincheloe Highlands

Revision Date: 06/27/2013

Stand Examiner: Jason Caron

Legal Description:

T45N-R1W, Sections 13-16,21,22 & 26-28

Identified Planning Goals:

Timber and wildlife are the main objectives within this compartment. This compartment has a large variety of forest types which provides a continuous flow of timber while also meeting wildlife management goals. The majority of the prescriptions scheduled for this year of entry will focus on selective hardood management with a few clearcuts mixed in as well.

Soil and topography:

Soils include Markey-Kinross-Croswell poorly drained muck and sand, Markey-Dawson poorly drained muck, and Kalkaska-Rubicon well drained sand. There is also an area of Alcona-Ingalls-Manistee, deep, moderately drained, sand on outwash plains. Topography is generally rolling to flat with swampy lowland and a few oak ridges. There are a large area of wetland within the compartment within the northwest corner.

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

This comparment consists of two blocks of ownership which ties into larger areas of state land to the north and west. A few private cabins exist either within or next to this compartment.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

No special management planned for this year of entry.

Watershed and Fisheries Considerations:

The Little Munuscong River, a designated trout stream, flows through this compartment. Prescribed treatments are appropriate for the protection of this waterbody.

Wildlife Habitat Considerations:

This compartment is part of the Kincheloe Highlands Management Area. It is in the transition between a sandy outwash plain to the south and clay lake plain to the north. It contains a mix of types ranging from oak and northern hardwoods to lowland conifers and bog. Oak is common in the southern part of the compartment where sandy soils dominate. North of this area, lowlands stands that include cedar, black spruce, and tamarack dominate. This area is similar to parts of the adjacent compartment to the west located in the Kinross Bog Management Area. Hemlock is also common in some locations, particularly in the transition zone between uplands and lowlands. Aspen stands are near hardwoods in the northeast and south ends. Ponds and stream corridors as well as bog and marshy areas provide habitat for numerous wetland wildlife including beaver; a number of beaver ponds are located particularly on the west side of the compartment.

Wildlife objectives in this compartment focus on providing age class and structural diversity in upland stands, and encourage production of hard mast. Oak will be favored to encourage acorn production for deer and bear. Some hardwoods will be treated to encourage growth near the ground level and improve diversity while also retaining potential nesting trees for hawks. Some aspen stands will be treated to enhance the age class diversity between stands for deer, ruffed grouse, and other species. Regenerating lowland conifer stands will provide habitat for snowshoe hare. The integrity of wetlands and waterbodies will be protected by buffering these areas when harvesting nearby. A unique stand containing hemlock and larger trees will be left and protected as the habitat type it provides is uncommon for the area. Additional species benefitting from management include bobcat, gray wolf, red crossbill and numerous other neotropical migratory birds.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel, peat and muck and course-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Ordovician, Utica, Collingwood Shales and Trenton Group subcrop below the glacial drift. The Trenton is used for stone/dolomite elsewhere in the UP. Gravel pits are located in this area and potential appears to be good. There is no economic oil and gas production in the UP.

Vehicle Access:

The east block of this compartment has good access via. M-129. The west block has good access via. M-80 from the south. Old Mackinaw Trail off of Gaines highway provides decent access but is gated to prohibit road degradation due to wet ground.

Survey Needs:

No survey needed at this time.

Recreational Facilities and Opportunities:

There are several developed facilities for recreation within this compartment. The Kinross Motorcycle trails is located in stands from the southeast through the northerwestern part of the compartment. If possible, do not cut trees with trail markers on them. If necessary to cut, then cut above the marker. There are also three snowmobile trails 472, 494, and 49 in or immediately adjacent to the compartment boundary. The Old Mackinaw trail is designated snowmobile trail #49. Hunting is a primary use within this compartment for grouse, gray squirrels, deer and hare.

Fire Protection:

Access to a fire within this compartment would be good in the southernmost and east part of the compartment. Access would be poor in the northwest corner due to wet ground. Structure protection might be a concern with a few of the cabins that exist.

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: 041
T45N R01W Sections 13-16, 21, 22, 26-28
County: Chippewa
Unit: Sault Ste. Marie
YOE: 2015
Acres: 2,098 GIS Calculated
Examiner: Jason Caron
Map Revised: 06/17/2014
Map Phase: Post-Review

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

16 15 14 13
21 22
28 27 26

N

Legend

- Miris Corners
- Remonumented Section Corners
- Survey Grade
- PLSS Corner
- Iron Post
- Wood Post
- Gate
- Berms
- Cabin
- House
- Mining
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Pipeline
- Powerline
- Motorcycle (DNR License)
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments Post Review

- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)
- Planting (tree species)

Forest Stands — Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands — Level 3

- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub

1 0.5 0 1 Miles

84°27'0"W 84°26'0"W 84°25'0"W 84°24'0"W 84°23'0"W 84°22'0"W 84°21'0"W
46°18'0"N 46°17'0"N 46°16'0"N

Stand Boundary Map

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Non-Forest Stands

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Special Conservation Areas & Site Conditions Map

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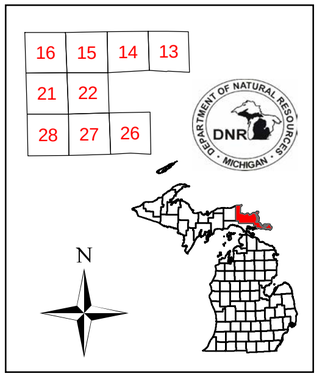

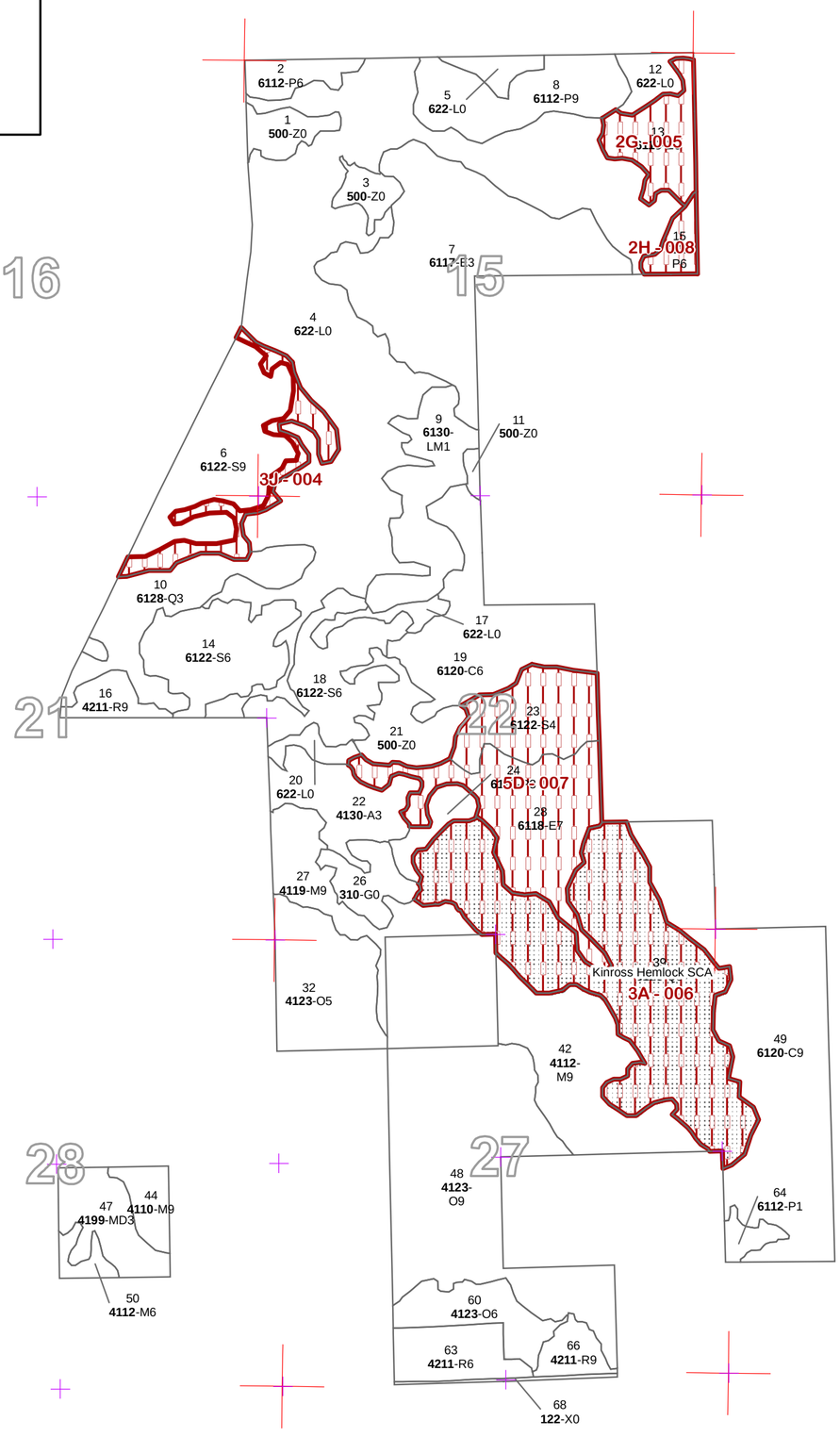

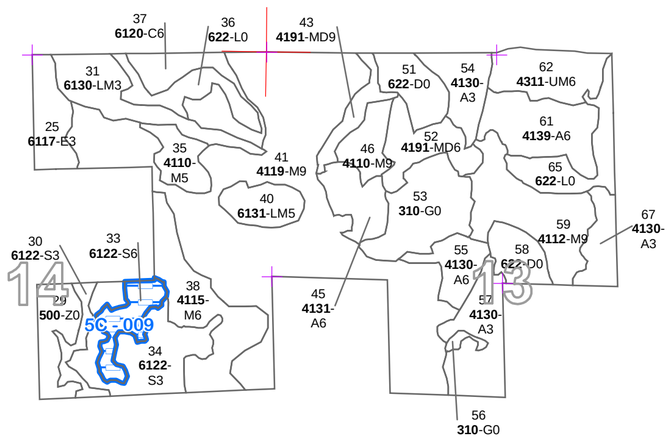

Legend

- Miris Corners
- Remonumented Section Corners
- Stand Boundaries

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

Site Condition Type

Available Factors W/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality

Unavailable Factors
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3A: Potential old growth / biodiversity
- 3J: Water quality / BMPs (stream, river, or lake)
- 5D: Unproductive Forest Land

Reviewable SCAs
- Proposed SCA
- SCA Removal

Dedicated Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- Wildlife Management Areas

1 0.5 0 1 Miles

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Report 1 – Total Acres by Cover Type and Age Class

Sault Ste. Marie Mgt. Unit **Compartment 041 Year of Entry 2015**

Jason Caron : 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	30	0	11	56	0	0	9	0	0	0	0	0	0	0	**105**
Cedar	0	0	0	0	0	0	0	0	14	0	130	0	63	0	**207**
Herbaceous Openland	38	0	0	0	0	0	0	0	0	0	0	0	0	0	**38**
Lowland Aspen/Balsam Poplar	6	0	21	0	0	8	0	0	0	0	0	0	0	40	**76**
Lowland Conifers	0	42	0	0	0	0	0	0	0	0	0	0	0	145	**187**
Lowland Deciduous	0	0	122	0	0	0	0	0	87	0	0	0	0	0	**210**
Lowland Mixed Forest	0	40	17	0	0	0	0	0	0	0	0	9	0	0	**66**
Lowland Shrub	310	0	0	0	0	0	0	0	0	0	0	0	0	0	**310**
Lowland Spruce/Fir	0	0	5	0	0	105	0	0	114	9	0	0	0	0	**232**
Mixed Upland Deciduous	24	0	0	13	0	0	0	6	0	0	0	0	0	0	**43**
Northern Hardwood	0	0	0	6	0	8	0	182	43	61	0	0	0	0	**300**
Oak	0	0	0	44	0	0	0	23	0	123	0	0	0	0	**191**
Red Pine	0	21	0	0	0	21	0	0	0	0	0	0	0	0	**43**
Treed Bog	19	0	0	0	0	0	0	0	0	0	0	0	0	0	**19**
Upland Mixed Forest	0	0	0	15	0	0	0	0	0	0	0	0	0	0	**15**
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Water	55	0	0	0	0	0	0	0	0	0	0	0	0	0	**55**
Total	**483**	**103**	**176**	**134**	**0**	**142**	**9**	**211**	**258**	**194**	**130**	**9**	**63**	**185**	**2098**

Report 2 – Proposed Treatment Summaries

Sault Ste. Marie Mgt. Unit
Year of Entry 2015

Compartment 041
Total Compartment Acres: 2,098

Acres by Treatment Type

Commercial Harvest - 349	Tree Planting - 24	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	9	0	0	0	0	0	**9**
Lowland Coniferous Forest	57	0	0	0	0	0	**57**
Northern Hardwood	0	138	0	0	0	0	**138**
Oak Types	0	123	0	0	0	0	**123**
Planted Pines	0	0	0	0	23	0	**23**
Total	**65**	**261**	**0**	**0**	**23**	**0**	**349**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	45041006-Cut	56.6	6122 - Black Spruce	High Density Log	81		Harvest	Clearcut with Reserves	6122 - Black Spruce	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Clearcut with reserves. Do not cut oak, hemlock, pine, yellow birch and cedar. Leave a patch of mature timber within the stand for retention purposes. Red line around any wet areas that may exist within the stand, especially along the East stand boundary.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce, black spruce and white pine.

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
16	45041016-Cut	11.3	42110 - Planted Red Pine	High Density Log	53	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Thin red pine to around 120 Basal Area. Leave species diversity within the stand where present.

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
27	45041027-Cut	32.5	4119 - Mixed Northern Hardwoods	High Density Log	81	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Mark stand to 80 to 90 Basal Area. Leave any under-represented species within the stand such as conifer and yellow birch. Some larger canopy gaps may be desirable around the oak to regenerate those species and enhance the advanced regeneration present. Limit oak harvest to only what is necessary, with the goal of promoting oak and mast production in the stand. Leave some large wolfy trees. Watch for hawk nests.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is maple, cherry, beech, paper and yellow birch, balsam fir, spruce, aspen, red oak and hemlock.

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	45041042-Cut	61.3	4112 - Maple, Beech, Cherry Association	High Density Log	91	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Mark stand to 80 to 90 Basal Area. Leave any under-represented species within the stand such as hemlock, white pine, yellow birch and cedar. Leave some large wolfy trees within the stand. Watch for hawk nests. Some larger canopy gaps may be desirable around the oak to regenerate those species and enhance the advanced regeneration present. Buffer wetland on southeast side of stand by 75 feet or more.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce, red oak and white pine.

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
44	45041044-Cut	10.6	4110 - Sugar Maple Association	High Density Log	81	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Mark stand to 80 to 90 Basal Area. Leave any under-represented species within the stand such as yellow birch and oak. Some larger canopy gaps may be desirable around the oak to regenerate those species and enhance the advanced regeneration present. Leave most or all oak. Promote oak in the stand for mast production.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce and white pine.

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
46	45041046-Cut	7.9	4110 - Sugar Maple Association	High Density Log	71	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Mark stand to 80 to 90 Basal Area. Leave any under-represented species within the stand such as conifer and yellow birch. Some larger canopy gaps may be desirable in areas where the advanced regeneration is good and the merchantable timber is poor quality.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, red oak, balsam fir, white spruce and white pine.

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
48	45041048-Cut	123.3	4123 - Red Oak	High Density Log	91	111-140	Harvest	Single Tree Selection	412 - Oak	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Mark stand to 80 to 90 Basal Area. Leave any under-represented species within the stand such as conifer and yellow birch. Some larger canopy gaps may be desirable around the oak to regenerate those species and enhance the advanced regeneration present. Limit oak harvest to only what is necessary, with the goal of promoting oak and mast production in the stand. Leave some large wolfy trees. Watch for hawk nests.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce, red oak and white pine.

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
55	45041055-Cut	8.9	4130 - Aspen	High Density Pole	61		Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Clearcut with reserves. Do not cut oak, hemlock, pine, cedar, ironwood. Leave a patch of mature timber within the stand for retention purposes.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, beech, yellow and paper birch, ironwood, balsam fir, white spruce and white pine.

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
59	45041059-Cut	25.5	4112 - Maple, Beech, Cherry Association	High Density Log	71	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Mark stand to 80 to 90 Basal Area. Leave any under-represented species within the stand such as conifer, aspen, oak and yellow birch. Some larger canopy gaps may be desirable to enhance the pockets of advanced regeneration. Leave some large wolfy trees and watch for hawk nests.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, beech, yellow and paper birch, ironwood, balsam fir, white spruce and white pine.

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
63	45041063-Cut_small	1.4	42110 - Planted Red Pine	High Density Pole	15		Harvest	Crown Thinning	4211 - Planted Red Pine	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Strip of mature red pine that should be thinned. Remove suppressed trees within the 2-3 rows that exist.

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
66	45041066-Cut	10.1	42110 - Planted Red Pine	High Density Log	54	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Thin to around 120 Basal Area. Leave species diversity within the stand were present.

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
47	45041047-Plant	24.0	4199 - Other Mixed Upland Deciduous	High Density Sapling	5		Tree Planting	Hand Plant	4191 - Mixed Upland Deciduous with Conifer	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Plant red oak seedlings/saplings within stand if funding allows. Local wildlife biologist will coordinate planting and determine the number of trees to plant.

Other Comments:

Next Steps: Wildlife biologits will monitor oak seedlings/saplings to see if planting has been successful.

Proposed Start Date: 10/07/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63	45041063-Monitor	19.9	42110 - Planted Red Pine	High Density Pole	15		Monitoring	See Comments	4211 - Planted Red Pine	Fld. Tr. Bdy. - Incomplete

Prescription Specs: Monitor the stand for web-spinning sawfly infestations and treat if necessary per TMS guidelines.

Other Comments: Stand has had repeated infestations each year since around 2007. Plantation was sprayed by Bob Heyd and Don Kuhr in 2012.

Next Steps:

Proposed Start Date: 05/01/2014

Total Treatment Acreage Proposed: 393.2

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

Sault Ste. Marie Mgt. Unit

Jason Caron : Examiner

Compartment 041

Year of Entry 2015

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	5D	5C	3J	3A	2H	2G
105	105		**Aspen**	105						
207	207		**Cedar**	207						
76	67	8	**Lowland Aspen/Balsam Poplar**	67					8	
187	42	145	**Lowland Conifers**	42				145		
210	122	87	**Lowland Deciduous**	122	62					25
66	66		**Lowland Mixed Forest**	66						
232	175	57	**Lowland Spruce/Fir**	166	35	9	22			
43	43		**Mixed Upland Deciduous**	43						
300	300		**Northern Hardwood**	300						
191	191		**Oak**	191						
43	43		**Red Pine**	43						
15	15		**Upland Mixed Forest**	15						
1,674	1,377	298	Total Forested Acres	1,368	97	9	22	145	8	25
	82%	18%	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
004		**Not Available**	**3J: Water quality / BMPs (stream, river, or lake)**	22				
	Comments: Buffer left along the wetland for retention and BMP purposes.							
005		**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	25	5D: Unproductive Forest Land			
	Comments: Very wet stand with little productivity.							

006	**Not Available**	**3A: Potential old growth / biodiversity**	145	

Comments:

Very unique stand for the Sault unit. Old growth hemlock with other mixed conifer and deciduous throughout. Ground is wet in some locations

007	**Not Available**	**5D: Unproductive Forest Land**	97	2G: Too wet (sensitive soils, does not include access issues)

Comments:

008	**Not Available**	**2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)**	8	

Comments:

Cut if adjacent landowner cuts their property. No access anywhere near this stand from both state and private at the time being.

009	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	9	

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
Kinross Hemlock SCA	Type 1 or Type 2 Old Growth	Verified Type 2 Old Growth Area	**SCA**	144.8

Comments

Stand consists of large hemlock with a mix of deciduous and conifer in the understory. This stand is very unique to the Sault Mgmt. Unit.

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.
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.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6112 - Lowland Aspen	High Density Pole	11.2	22		Stand contains nice aspen just getting into the pole size class. Stand is part of a larger type in adjacent compartment to the north.
6	6122 - Black Spruce	High Density Log	78.7	81		Stand is in need of trtment. Balsam fir is in very poor condition due to bud worm. Black spruce is in poor condition as well.
7	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	111.3	23		Stand is thick with regeneration of deciduous and conifer. Regeneration looks very good. Stand was cut from '86 to '96 therefore ages vary. I averaged the age @ 22 years.
8	6112 - Lowland Aspen	High Density Log	40.1	Uneven Age		Old stand with mixed ages, multi-storied. Aspen is very old and white spruce has been hit very hard by budworm. No access to this stand due to L types, it's an island essentially. West half of stand contains better timber.
9	6130 - Fir, Aspen, Maple	Low Density Sapling	40.2	13		Stand has filled in thick with tag alder but regeneration is coming back on the slightly higher areas within the stand. OI notes say stand was cut in 2001.
10	6128 - Lowland Coniferous, Mixed Deciduous	High Density Sapling	41.8	19		OI notes say stand was cut in 1995. Stand has regenerated back nicely to a mix of species.
13	6115 - Lowland Ash	High Density Pole	25.1	85		Poor quality, stagnant black ash swamp, very high water table exists. Black ash ranges from 2-8" dbh.
14	6122 - Black Spruce	High Density Pole	40.6	59		Stand of younger black spruce. Stand is healthy and holding up well. Some tag alder areas exist within the stand.
15	6112 - Lowland Aspen	High Density Pole	8.3	51		If private landowner decided to cut we could cut this. Red maple is in good shape. Aspen and fir is in poor condition.
16	42110 - Planted Red Pine	High Density Log	11.3	53	171-200	Thinned in 2003 or 2004. Pine is good quality and needs to be thinned again.
18	6122 - Black Spruce	High Density Pole	40.1	59		Stand of decent quality black spruce of a younger age with a mix of tamarack. Stand is holding up well.
19	6120 - Lowland Cedar	High Density Pole	63.0	139		Poor quality stand of dense cedar, stunted, cowhorn and old.
22	4130 - Aspen	High Density Sapling	29.6	7		Aspen regeneration is fully stocked and looks good. A few large red oak scattered within the stand as well as some smaller diameter red maple.
23	6122 - Black Spruce	Low Density Pole	35.0	85		Very poor quality stand of scattered balsam fir and black spruce of varying ages. High water table. Balsam fir is dying out due to budworm damage.
24	6112 - Lowland Aspen	High Density Sapling	10.3	27		Stand of good quality young aspen. Balsam fir understory is thick!

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	11.0	29		Stand consists of dense regeneration.
27	4119 - Mixed Northern Hardwoods	High Density Log	32.5	81	81-110	Decent stand of hardwood with varying basal area's. Overall stand should be managed to improve quality. Took 12 basal area points and they averaged out to 100 BA.
28	6118 - Lowland Deciduous with Cedar	Low Density Log	62.4	89		Stand is very poor quality. White birch is falling apart. Balsam fir understory is thick but has a lot of budworm damage.
30	6122 - Black Spruce	High Density Sapling	5.2	26		Small linear stand along flowage, many different aged trees.
31	6130 - Fir, Aspen, Maple	High Density Sapling	16.6	29		Stand of young conifer of thick density. Ground is low and wet.
32	4123 - Red Oak	Medium Density Pole	44.4	32	51-80	Stand of young hardwood, mostly red oak. A few grass openings exist in northern part of the stand. Hardwood is young but looks good.
33	6122 - Black Spruce	High Density Pole	9.0	91		Stand with a mix of aspen, black spruce and balsam fir. Stand is old and needs treatment.
34	6122 - Black Spruce	High Density Sapling	23.9	53		Majority of stand is sapling size, a few pockets of merchantable wood exist but it is in tough shape. Ground is very wet/bog like!
35	4110 - Sugar Maple Association	Medium Density Pole	8.2	51	51-80	Stand of small diameter sugar maple with a thick understory of balsam, basal area is low. Let stand mature and cut in a future YOE.
37	6120 - Lowland Cedar	High Density Pole	14.0	83		Stand of lowland conifer and deciduous of poor quality. Some of the cedar is decent quality.
38	4115 - Y.Birch, Hemlock NH	High Density Pole	25.0	71	81-110	stand of poorer quality hardwood with a thick understory of balsam. Ground is lower than adjacent hardwood stand. Basal area is low overall but stand needs a thinning.
39	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	144.8	Uneven Age		Unique stand of rolling hills with very large hemlock. Stand consists of both upland and lowland areas. Red maple and yellow birch are growing within the canopy gaps. Not many stands in the Sault unit could compare to this, very unique for the area! Northwest corner of stand was logged along time ago, old stumps in the area.
40	6131 - Hemlock, White Pine, Maple, Birch	Medium Density Pole	8.9	111	81-110	Stand is a mix of poor quality red maple poles with patches of large hemlock. Do not manage due to wet ground and poor quality timber.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	4119 - Mixed Northern Hardwoods	High Density Log	123.5	71	81-110	Large hardwood stand. Some areas consist of mostly red maple while others sugar maple. Yellow birch scattered throughout with some oak and a few basswood as well. Basal area is low but a light thinning is needed to remove some of the poor quality timber. Hardwood was last thinned in 1995.
42	4112 - Maple, Beech, Cherry Association	High Density Log	61.3	91	81-110	Stand of decent quality sugar maple and red maple. Basal area is low but plenty of poor quality trees to remove. A good amount of sugar maple and red maple saps in the understory.
43	4191 - Mixed Upland Deciduous with Conifer	High Density Log	6.1	72		Stand is literally a strip of aspen, spruce, balsam fir and sugar maple. Stand is old and needs management! Stand is only a chain wide in some locations.
44	4110 - Sugar Maple Association	High Density Log	10.6	81	81-110	Nice stand of hardwood, quality is good. Stand doesn't have a very high basal area but enough to support a thinning. Stand hasn't been managed since 1995.
45	4131 - Aspen, Oak	High Density Pole	10.5	31		Stand of mostly young big tooth aspen. Stand is healthy and is fully stocked.
46	4110 - Sugar Maple Association	High Density Log	7.9	71	81-110	Decent stand of hardwood. Plenty of poor quality stems to take out. Basal area is decent in some spots and lower in others. Plenty of sugar maple whips in the understory.
47	4199 - Other Mixed Upland Deciduous	High Density Sapling	24.0	5		White spruce plantation that was clearcut in 2009. Stand has flushed back to mostly choke cherry with a few pockets of quaking aspen.
48	4123 - Red Oak	High Density Log	123.3	91	111-140	Stand of large diameter red oak with scattered sugar maple in the central part of stand. Some oak decline is occuring with a few dead trees here and there.
49	6120 - Lowland Cedar	High Density Log	130.5	107		Stand of cedar mixed with knobs of very large hemlock, very unique! Scattered red maple,white birch,etc.... Cedar is decent quality. Balsam fir is thick in the understory.
50	4112 - Maple, Beech, Cherry Association	High Density Pole	5.6	31	51-80	Stand of young hardwood, quality is good. Stand is young and needs time to mature.
52	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	12.8	36	51-80	Stand is a hodge podge of species and ages. West part of stand contains decent red oak poles. Center of stand contains supercanopy white pine with small diameter balsam fir, white spruce and red maple underneath. East side is wet ground. Overall stand is small diameter and needs time.
54	4130 - Aspen	High Density Sapling	10.7	28		Stand of young aspen. Fully stocked stand that is healthy.
55	4130 - Aspen	High Density Pole	8.9	61		Stand of multi-aged aspen, aspen regeneration is thick in areas due to declining aspen.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
57	4130 - Aspen	High Density Sapling	17.7	32		Decent stand of young aspen, thick stem density!
59	4112 - Maple, Beech, Cherry Association	High Density Log	25.5	71	111-140	Last thinned in 2005. Basal area is decent and stand needs another thinning. Maple is pretty good quality within the stand.
60	4123 - Red Oak	High Density Pole	23.0	71	51-80	Stand was cut hard many years ago. What remains is scattered large diameter oak with pole/sap sized trees in the gaps, mostly oak. Stand looks good but needs time to mature.
61	4139 - Aspen, Mixed Deciduous	High Density Pole	19.5	39		Stand of young deciduous, stand is healthy and diverse. A few mature deciduous and conifer within the stand.
62	4311 - Pine, Aspen Mix	High Density Pole	15.4	31		Stand looks to have been cut via. shelterwood many years ago. What remains are scattered large white pine with a mix of young white pine, aspen and red maple. I typed the stand out as the dominant young growth, some white pine was planted in the openings as well.
63	42110 - Planted Red Pine	High Density Pole	21.3	15		Red pine plantation, planted in 1999. Red pine has been hit by sawfly for at least the last 5 years. Bob Heyd and Don Kuhr sprayed the plantation in 2012 with hopes to at least slow it down. Tree mortality has been minimal but trees have definitly been stunted due to the defoliation.
64	6112 - Lowland Aspen	Low Density Sapling	5.7	2		Aspen and red maple is regenerating, it will take a few more years to fill in.
66	42110 - Planted Red Pine	High Density Log	10.1	54	171-200	Nice stand of red pine, check to see when last thinned. Pockets of red oak and white spruce exist, a few oak scattered within the stand as well. West side of stand contains a 3.5 acre pocket of planted white spruce. White spruce has major budworm damage.
67	4130 - Aspen	High Density Sapling	8.5	30		Stand of young aspen, well stocked.

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	50 - Water	10.7	No	Unspecified	
3	50 - Water	8.2	Unspecified	Unspecified	
4	6220 - Alder/willow	257.6	Unspecified	Unspecified	
5	6220 - Alder/willow	6.9	Unspecified	Unspecified	
11	50 - Water	2.1	No	Unspecified	
12	6220 - Alder/willow	9.4	No	Unspecified	
17	6220 - Alder/willow	6.6	Unspecified	Unspecified	
20	6220 - Alder/willow	5.9	Unspecified	Unspecified	
21	50 - Water	23.1	Unspecified	Unspecified	
26	310 - Herbaceous Openland	15.7	Unspecified	Unspecified	
29	50 - Water	11.1	Unspecified	Unspecified	
36	6220 - Alder/willow	10.1	Unspecified	Unspecified	
51	6224 - Treed Bog	10.3	No	Unspecified	stand is filling in w/ sapling white pine w/ a few tam and bs.
53	310 - Herbaceous Openland	20.7	Unspecified	Unspecified	
56	310 - Herbaceous Openland	1.1	Unspecified	Unspecified	
58	6224 - Treed Bog	8.3	No	Unspecified	bog that is filling in in with wp,bs and tam.
65	622 - Lowland Shrub	13.4	Unspecified	Unspecified	
68	122 - Road/Parking Lot	2.2	Unspecified	Unspecified	