Compartment Review Presentation

Newberry Forest Management Unit

Compartment 57
Entry Year 2016
Acreage: 1,987
County Chippewa
Management Area: Whitefish Vermillion Point

Revision Date:

Stand Examiner: Ryan Mattila

Legal Description:

T49N R7W Sections 3 & 4
T49N R7W Sections 3 & 4, T50N R7W Sections 33, 34, 35, & 36

Identified Planning Goals:

Recreation, timber, and wildlife are the main uses of this area. The goal is to manage for all of these simultaneously and to provide, enhance and perpetuate their uses.

Soil and topography:

The upland areas in the compartment are comprised mostly of Deer Park sand and Rousseau sand. The forest cover types associated with these soils are mainly jack pine and red pine with some isolated areas of northern hardwoods, aspen, and white pine. The lowland areas are mostly Dawson and Loxley peats along with Kinross-Wainola Comlex. The forest cover type in these lowland areas is a treed bog. Along the Betsy River is Markey and Carbondale muck with lowland brush and mixed swamp conifer as the cover type. The topography is level in the lowland areas and rolling in the upland areas with a steep slope down to the Betsy River corridor.

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

The compartment is almost entirely state owned with a couple of small private parcels. The majority of the land adjacent to the compartment on the south side is state owned with numerous small private parcels, ranging from 10 to 40 acres, to the south and west. The Companions of Christ the Lamb church camp borders the compartment to the north of Sections 35 and 36. Land use in the area is primarily recreational use (hunting, snowmobiling, fishing, berry picking) with several small seasonal camps. Development is still minimal in the area with the largest development being the church camp to the north.

Unique Natural Features:

MNFI lists an extensive high quality muskeg in Sections 35 and 36.

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:

Management activities near the Betsy River will follow all BMP guidelines and any special considerations developed concerning the waterway.

Watershed and Fisheries Considerations:

Fisheries Values: Good
Fisheries Concerns: The Betsy River which skirts the northern edge of the compartment is a designated trout stream downstream to the Widewaters. Brook trout are present in this portion of the river and does provide some fishing opportunities although limited due to access. Any treatments in stands near the river need to adhere to a minimum buffer of 100 feet.

Wildlife Habitat Considerations:

Compartment 57 lies in northern Chippewa county in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment lies within the Whitefish Vermillion Point Management Area and moose, piping plover, red crossbill and spruce grouse are featured species in the compartment. The western portion of the compartment is largely aspen and jack pine. The central portion has a fairly good mix of jack pine, upland hardwoods, aspen, low areas, swamp conifers, and white pine stands. The far eastern areas are dominated by treed bogs with jack pine islands. Pre-settlement data are consistent with current vegetation patterns.

Maintaining as much structural diversity as possible in managed stands will be important to achieving wildlife objectives. Retaining soft and hard mast producing species and red and white pine in jack pine final harvests will provide food sources,

nest and den trees, and improve stand diversity. Conifers and hard mast producing species will be left in aspen final harvests to provide similar benefits. Wildlife species potentially using this compartment include white-tailed deer, snowshoe hare, spruce and ruffed grouse, black bear, gray wolves, and moose.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel, peat and muck and an end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was used as a building stone in the past. Gravel pits are not located in the area and potential appears to be limited. There is no economic oil and gas production in the UP.

Vehicle Access:

Access to the compartment can be gained via the Maple Block Road (county road), the East Tower-Betsy River Road, and the Farm Truck Trail. The Maple Block Road is maintained by the Chippewa County Road Commission. Several unimproved forest roads and two track roads transect the compartment providing ample access. Roads in this area are sandy and can become difficult to pass in extended dry periods. The East Tower-Betsy River Road diminishes in quality through Section 36.

Survey Needs:

Section 3 will need some corner work to complete the timber sale work.

Recreational Facilities and Opportunities:

The East Tower – Betsy River Road and the Maple Block Road are part of the groomed snowmobile trail system. Other recreational opportunities in the area include hunting, fishing, berry picking, and hiking. There is a fair amount of summer recreation as a result of the number of camps in the area.

Fire Protection:

Compartment is in the Whitefish Zone Dispatch Area. Response time is an issue for potentially larger fires on days of high fire danger. Access is good in upland areas. The lowland areas in this compartment will be challenge suppression efforts and may require modifed suppression tactics. Risk to private property would be high because of the potential for large fire growth.

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**

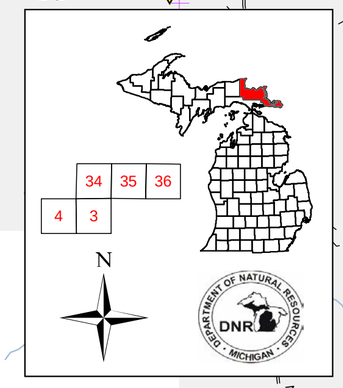
The following information is displayed, where pertinent, on the attached compartment maps:

- **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: 057
T49N R07W Sections 3, 4
T50N R07W Sections 34-36
County: Chippewa
Unit: Newberry
Management Area: Whitefish Vermillion Point
YOE: 2016
Acres: 1,987 GIS Calculated
Examiner: Ryan Mattila
Map Revised: 08/28/2014
Map Phase: Pre-Review

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



Legend

- Miris Corners
- Remonumented Section Corners
- PLSS Corner
- GPS Point
- Iron Post
- Gate
- Berms
- Bridges
- House
- Mining
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Non-Forest Regeneration

Planned Regeneration
- Natural
- Planted

Treatments
- Planting (tree species)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Other Harvest - See Comments
- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)
- Treatments w/ Site Condition

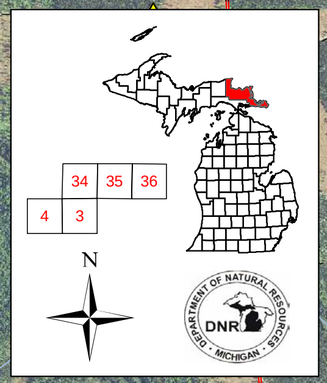
Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 629 - Mixed non-forested wetland

Stand Boundary Map

Compartment: 057
T49N R07W Sections 3, 4
T50N R07W Sections 34-36
County: Chippewa
Unit: Newberry
Management Area: Whitefish Vermillion Point
YOE: 2016
Acres: 1,987 GIS Calculated
Examiner: Ryan Mattila
Map Revised: 08/25/2014
Map Phase: Pre-Review

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



34 35 36 4 3

Legend

- Miris Corners
- Remonumented Section Corners
- PLSS Corner
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- Gate
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- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Snowmobile Trail
- Stream
- Intermittent Stream
- Stand Boundaries

Forest Stands
Level 3
411 - Northern Hardwood
413 - Aspen Types
419 - Mixed Upland Deciduous
421 - Planted Pines
422 - Natural Pines
423 - Other Upland Conifers
429 - Mixed Upland Conifers
431 - Upland Mixed Forest
612 - Lowland Coniferous Forest

Non-Forest Stands
Level 3
310 - Herbaceous Openland
330 - Low-Density Trees
629 - Mixed non-forested wetland

1 0.5 0 1 Miles

Special Conservation Areas & Site Conditions Map

Compartment: 057
T49N R07W Sections 3, 4
T50N R07W Sections 34-36
County: Chippewa
Unit: Newberry
Management Area: Whitefish Vermillion Point
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Acres: 1,987 GIS Calculated
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Stand # 23
Stocking Density
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Level 3 Level 4 OI Code
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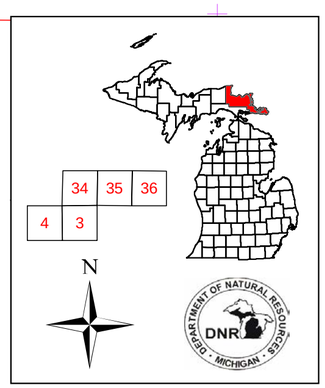

Legend

- 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
- 5B: Retention for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2B: Unknown if access through adjacent landowner(s) is possible

Unavailable Factors
- 2F: Too steep
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3J: Water quality / BMPs (stream, river, or lake)
- 5D: Unproductive Forest Land

Dedicated Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Non-Dedicated Natural Areas and National Natural Landmarks

Report 1 – Total Acres by Cover Type and Age Class

Newberry Mgt. Unit **Compartment 057 Year of Entry 2016**

Ryan Mattila : 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	19	14	0	0	0	0	0	0	0	0	0	0	0	0	**34**
Cedar	0	0	0	0	0	0	0	0	9	0	26	12	0	0	**48**
Herbaceous Openland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Jack Pine	137	241	171	5	11	0	209	5	0	18	0	0	0	0	**798**
Low-Density Trees	176	0	0	0	0	0	0	0	0	0	0	0	0	0	**176**
Lowland Shrub	111	0	0	0	0	0	0	0	0	0	0	0	0	0	**111**
Lowland Spruce/Fir	0	0	4	113	0	0	0	0	0	0	0	0	0	235	**351**
Mixed Upland Deciduous	0	0	0	0	0	0	125	0	0	0	0	0	0	0	**125**
Natural Mixed Pines	0	0	0	0	0	0	0	22	54	0	31	0	0	0	**107**
Northern Hardwood	0	0	0	0	0	0	4	0	0	6	0	0	0	0	**10**
Red Pine	0	0	0	0	0	0	0	31	55	0	5	0	0	0	**92**
Upland Conifers	0	0	0	0	0	0	16	0	42	0	0	0	0	0	**58**
Upland Mixed Forest	0	0	0	0	53	0	0	0	0	0	0	0	0	0	**53**
Upland Spruce/Fir	0	0	0	0	0	0	8	0	0	0	0	0	0	0	**8**
White Pine	0	0	0	0	0	0	0	16	0	0	0	0	0	0	**16**
Total	**445**	**255**	**174**	**118**	**64**	**0**	**362**	**74**	**161**	**24**	**62**	**12**	**0**	**235**	**1987**

Report 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2016

Compartment 057
Total Compartment Acres: 1,987

Acres by Treatment Type

Commercial Harvest - 294 | Tree Planting - 177 | Other - 0
Habitat Cut - 0 | Opening Maintenance - 0

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Mixed Upland Conifers	8	0	0	0	0	18	**26**
Mixed Upland Deciduous	90	0	0	0	0	0	**90**
Natural Pines	81	0	0	10	5	0	**96**
Northern Hardwood	0	10	0	0	0	0	**10**
Other Upland Conifers	8	0	0	0	0	0	**8**
Planted Pines	13	0	0	0	0	0	**13**
Upland Mixed Forest	53	0	0	0	0	0	**53**
Total	**252**	**10**	**0**	**10**	**5**	**18**	**294**

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Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	42057008-Cut_exp-0	17.9	429 - Mixed Upland Conifers	High Density Log	87		Harvest	Other - Specify in Comments	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Clearcut all tree species but white pine, red pine, and hemlock. Mark red and white pine to 100 BA. Green tree some birch and aspen, 1 per acre in areas where it is not likely to regenerate well.

Other Comments:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

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
10	42057010-Cut	6.2	4112 - Maple, Beech, Cherry Association	High Density Pole	92	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Specs: Mark to harvest to 80 BA, make sure to leave most hemlock cut only what is needed for maneuverability.

Other Comments:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

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
16	42057016-Cut	12.6	42110 - Planted Red Pine	Low Density Log	75	51-80	Harvest	Clearcut with Reserves	42140 - Planted Mixed Pine	Cmpt. Review Proposal

Prescription Specs: Clearcut to remove Red pine overstory, leave 50' strip on east side of stand for retention. (treatment shape already adjusted)

Other Comments:

Next Steps: Trench and plant to Mixed Pine, mostly red pine with some white pine, herbicide to discourage aspen regeneration within 300 feet of Betsy River.

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
25	42057025-Cut	3.7	4112 - Maple, Beech, Cherry Association	High Density Pole	60	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Specs: Mark to harvest to 80 BA, leave any oak and hemlock if it exists to maintain structural and species diversity for wildlife.

Other Comments:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

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
29	42057029-Cut	80.6	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	60		Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Clearcut to regenerate, during stand set up, red line areas larger that 2 ac that are more than 20% sugar maple and mark to 80 ba. Leave all oak, hemlock and leave a tree/acre of mixed species throughout the stand to maintain species diversity for wildlife.

Other Comments:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

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	42057030-Cut	54.3	42290 - Natural Mixed Pine	Medium Density Pole	81		Harvest	Clearcut with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Clearcut leaving all red pine, any oak, hemlock if it exists and one white pine or spruce for every 2 acres harvested for retention. If natural regen fails , due to PR land, discuss next steps with wildlife.

Other Comments:

Next Steps: Scarify after harvest. Do regen servey, any mix of tree species is acceptable regen.. If natural regen fails, due to PR land, discuss next steps with wildlife.

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
32	42057032-Cut	9.8	42200 - Natural White Pine	Low Density Log	71	51-80	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal

Prescription Specs: Mark to cut, target the multi stemed white pine to release and encourage regeneration and improve stand form. Target residual BA of 30. The harvest is being prescribed to promote regeneration to a more fully stocked stand. Regenerating species in the more fully stocked stand will be beneficial to wildlife.

Other Comments:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

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
33	42057033-Cut	52.8	4311 - Pine, Aspen Mix	Medium Density Pole	42		Harvest	Clearcut with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Clearcut, leave all oak and spruce for species and structural diversity for wildlife, do not cut all mutli-stemmed pine trees to benefit wildlife.

Other Comments:

Next Steps: Do regen servey, any mix of tree species acceptable regen, if regen fails plant to mixed pine mostly red pine with some white pine

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
38	42057038-Cut	7.7	42340 - Upland Spruce/Fir	High Density Pole	60		Harvest	Clearcut with Reserves	42340 - Upland Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Clear cut to regenerate, reserve 1 tree per acre of spruce for retention.

Other Comments:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

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
39	42057039-Cut	3.7	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	60		Harvest	Clearcut	413 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut aspen pocket to regenerate aspen. No retention except leave any Hemlock if it exists. Look to expand stand to the north and south in to the pine but do not harvest more than twice the acres to expand the aspen.

Other Comments:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

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
45	42057045-Cut	4.9	42210 - Natural Red Pine	High Density Log	102	200+	Harvest	Crown Thinning	4221 - Natural Red Pine	Cmpt. Review Proposal

Prescription Specs: Mark to 120 BA, target red pine pole trees and poor form white pine. Cut all jack pine.

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
53	42057053-Cut	18.3	42220 - Natural Jack Pine	High Density Pole	90		Harvest	Clearcut with Reserves	4222 - Natural Jack Pine	Cmpt. Review Proposal

Prescription Specs: Clearcut to regenerate. Leave red and white pine to meet retention 3-5% scattered along stand for red crossbill.

Other Comments:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

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	NF_42057024-Plant	66.9	3302 - Low Density Conifer Trees				Tree Planting	Hand Plant	4212 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: plant to jack pine fallowing previous prescription- FTP # C42-663, residual left last time will be retained for wildlife

Other Comments:

Next Steps: Do regen check per work instructions

Proposed Start Date: 10/24/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	NF_42057027-Plant	9.0	3302 - Low Density Conifer Trees				Tree Planting	Hand Plant	4212 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: plant to jack pine fallowing previous prescription- FTP # C42-665, residual left last time will be retained for wildlife

Other Comments:

Next Steps: Do regen check per work instructions

Proposed Start Date: 10/24/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
31	NF_42057031-Plant	75.9	3302 - Low Density Conifer Trees				Tree Planting	Hand Plant	4212 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: plant to jack pine fallowing previous prescription- FTP # C42-665, residual left last time will be retained for wildlife

Other Comments:

Next Steps: Do regen check per work instructions

Proposed Start Date: 10/24/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
34	NF_42057034-Plant	12.1	3302 - Low Density Conifer Trees				Tree Planting	Hand Plant	4212 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: plant to jack pine fallowing previous prescription- FTP # C42-665, residual left last time will be retained for wildlife

Other Comments:

Next Steps: Do regen check per work instructions

Proposed Start Date: 10/24/2014

Total Treatment Acreage Proposed: 436.5

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	42057004-Cut	3.6	42220 - Natural Jack Pine	High Density Pole	78		Harvest	Clearcut with Reserves	4222 - Natural Jack Pine	Cmpt. Review Proposal

Prescription Specs: Access to stand is through private. If private land owner sells timber offer as negotiated sale. Clearcut, stand retention is left in BMP buffer of Betisy River

Other Comment:

Next Steps: Do regen check, any mix of tree species acceptable. If regen fails, trench and plant with red pine if private landowner allows access. If access is denied manage as nonforested stand.

Proposed Start Date: 10/01/2015

Limiting Factor: 2B: Unknown if access through adjacent landowner(s) is possible

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
9	42057009-Cut	4.9	42290 - Natural Mixed Pine	High Density Pole	70		Harvest	Clearcut with Reserves	4222 - Natural Jack Pine	Cmpt. Review Proposal

Prescription Specs: Clearcut to regenerate, leave steep slopes for retention, make sure to have mature pine, and spruce or jack pine in retention slopes for red crossbill and spruce grouse.

Other Comment:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

Proposed Start Date: 10/01/2015

Limiting Factor: 2B: Unknown if access through adjacent landowner(s) is possible

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	42057012-Cut	5.6	4199 - Other Mixed Upland Deciduous	High Density Pole	65		Harvest	Clearcut with Reserves	4193 - Birch, Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut to regenerate, leave steep slopes for retention, also leave some large white pine in the stand and some large diameter aspen in the red line for wildlife.

Other Comment:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

Proposed Start Date: 10/01/2015

Limiting Factor: 2B: Unknown if access through adjacent landowner(s) is possible

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	42057013-Cut	7.7	429 - Mixed Upland Conifers	High Density Pole	87		Harvest	Clearcut with Reserves	4222 - Natural Jack Pine	Cmpt. Review Proposal

Prescription Specs: Clearcut to regenerate, leave steep slopes for retention, make sure to have mature pine, and spruce or jack pine in retention slopes for red crossbill and spruce grouse.

Other Comment:

Next Steps: Do regen servey, any mix of tree species is acceptable regen.

Proposed Start Date: 10/01/2015

Limiting Factor: 2B: Unknown if access through adjacent landowner(s) is possible

Total Treatment Acreage Proposed: 21.8

Report 5 – Site Conditions

Newberry Mgt. Unit | **Compartment 057**

Ryan Mattila : Examiner | **Year of Entry 2016**

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	5D	5C	5B	3J	2H	2F	2B
34	34		**Aspen**	34							
48	38	10	**Cedar**	38				3	6	0	
798	796	2	**Jack Pine**	583		209		2			3
351	117	235	**Lowland Spruce/Fir**	117	235						
125	124	1	**Mixed Upland Deciduous**	118						1	6
107	90	17	**Natural Mixed Pines**	54		31				17	5
10	10		**Northern Hardwood**	10							
92	92		**Red Pine**	36			55				
57	44	13	**Upland Conifers**	37						13	8
53	53		**Upland Mixed Forest**	53							
8	8		**Upland Spruce/Fir**	8							
16	16		**White Pine**	16							
1,697	1,421	277	Total Forested Acres	1,104	235	240	55	5	6	31	21
	84%	16%	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
003	**Not Available**	**2F: Too steep**	19				
	Comments:						
007	**Available**	**2B: Unknown if access through adjacent landowner(s) is possible**	20				
	Comments:						

009	**Not Available**	**3J: Water quality / BMPs (stream, river, or lake)**	2	2B: Unknown if access through adjacent landowner(s) is possible	

Comments:

010	**Available**	**2B: Unknown if access through adjacent landowner(s) is possible**	3		

Comments:

011	**Not Available**	**3J: Water quality / BMPs (stream, river, or lake)**	0	2B: Unknown if access through adjacent landowner(s) is possible	

Comments:

012	**Not Available**	**2F: Too steep**	12		

Comments:

013	**Not Available**	**2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)**	6		

Comments:

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

Comments:

016	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	209

Comments:

017	**Available**	**5B: Maintain for regeneration purposes**	32

Comments:

018	**Available**	**5B: Maintain for regeneration purposes**	24

Comments:

019	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	31

Comments:

020	**Not Available**	**5D: Unproductive Forest Land**	235

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

Comments

Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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

Conservation Area	Type	Description
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.
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	6120 - Lowland Cedar	Medium Density	12.2	113		Access difficult, stand wet, factor limit access and BMP's
4	42220 - Natural Jack Pine	High Density Pole	5.3	78		
8	429 - Mixed Upland Conifers	High Density Log	32.5	87		
9	42290 - Natural Mixed Pine	High Density Pole	5.9	70		
10	4112 - Maple, Beech, Cherry Association	High Density Pole	6.2	92	111-140	
11	42290 - Natural Mixed Pine	High Density Log	15.8	76	200+	
12	4199 - Other Mixed Upland Deciduous	High Density Pole	6.6	65		
13	429 - Mixed Upland Conifers	High Density Pole	9.1	87		
15	6120 - Lowland Cedar	High Density Pole	26.2	103		
16	42110 - Planted Red Pine	Low Density Log	19.0	75	51-80	
17	6120 - Lowland Cedar	High Density Sapling	9.3	86		
18	4132 - Aspen, Jack Pine	Medium Density	3.6	15		
19	4133 - Aspen, Mixed Pine	Medium Density	19.2	5		
20	42220 - Natural Jack Pine	High Density Sapling	39.2	12		
21	42220 - Natural Jack Pine	High Density Sapling	96.6	12		
22	42220 - Natural Jack Pine	Medium Density Log	5.2	32		
23	4132 - Aspen, Jack Pine	High Density Sapling	10.7	15		
25	4112 - Maple, Beech, Cherry Association	High Density Pole	3.7	60	111-140	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density Pole	11.1	45		
28	42221 - Natural Jack Pine, Mixed Deciduous	High Density Sapling	21.9	15		
29	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	80.6	60		wp mostly found in pockets
30	42290 - Natural Mixed Pine	Medium Density Pole	54.3	81		
32	42200 - Natural White Pine	Low Density Log	16.0	71	51-80	
33	4311 - Pine, Aspen Mix	Medium Density Pole	52.8	42		stand stocking poor harvest to regenerate
35	42210 - Natural Red Pine	Medium Density Log	12.4	71	81-110	
36	42220 - Natural Jack Pine	High Density Sapling	83.3	15		
37	429 - Mixed Upland Conifers	High Density Log	16.2	60		
38	42340 - Upland Spruce/Fir	High Density Pole	7.7	60		
39	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	37.6	60		
40	42210 - Natural Red Pine	Medium Density Log	23.8	87	1-50	
41	42220 - Natural Jack Pine	Low Density Sapling	137.1	6		
42	42290 - Natural Mixed Pine	High Density Log	31.0	101	81-110	more RP in eastern protion of stand
43	42210 - Natural Red Pine	Medium Density Log	31.7	86	81-110	
45	42210 - Natural Red Pine	High Density Log	4.9	102	200+	
46	42220 - Natural Jack Pine	High Density Sapling	83.5	22		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	6122 - Black Spruce	Medium Density	234.6	Uneven Age		Stand is multi age with the close water table and the wet conditions during wet years resulting in ocainal die off. trees growing on humocks are older and have survived mutipal high water flucuations. the prolonged drought has given the existing regen a chance to grow well and become established. natural wet dry cycles will continue to control this stand no management activity recomended.
48	6126 - Lowland Jack Pine	Medium Density	63.6	22		stand gets wetter with more spruce to the east
49	6122 - Black Spruce	Low Density Sapling	3.8	22		
50	42220 - Natural Jack Pine	Low Density Sapling	23.6	22		
52	6122 - Black Spruce	Medium Density	113.1	35		
53	42220 - Natural Jack Pine	High Density Pole	18.3	90		
56	6126 - Lowland Jack Pine	Medium Density	209.3	63		stand mostly lower ground with smaller 2-4 in JP with and ocational ridge that has 6-10 in JP. stand looks to be two age with the smaller jp in the lower areas doing well with the prolonged drought and lower water table

Report 9 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	629 - Mixed non-forested wetland	10.5	Unspecified	Unspecified	
2	629 - Mixed non-forested wetland	5.3	Unspecified	Unspecified	
5	629 - Mixed non-forested wetland	4.4	Unspecified	Unspecified	
6	629 - Mixed non-forested wetland	3.8	Unspecified	Unspecified	
7	629 - Mixed non-forested wetland	16.4	Unspecified	Unspecified	
14	310 - Herbaceous Openland	1.5	Unspecified	Unspecified	
24	3302 - Low Density Conifer Trees	66.9	Natural Regen	Jack Pine	
27	3302 - Low Density Conifer Trees	18.4	Natural Regen	Jack Pine	
31	3302 - Low Density Conifer Trees	75.9	Natural Regen	Jack Pine	
34	3302 - Low Density Conifer Trees	12.1	Natural Regen	Jack Pine	
44	3302 - Low Density Conifer Trees	2.9	Natural Regen	Jack Pine	
51	629 - Mixed non-forested wetland	16.6	Unspecified	Unspecified	
54	629 - Mixed non-forested wetland	18.4	Unspecified	Unspecified	
55	629 - Mixed non-forested wetland	35.4	Unspecified	Unspecified	