



Compartment Review Presentation

Newberry Forest Management Unit

Compartment 85

Entry Year 2015

Acreage: 2,008

County Luce

Management Area: 8 Mile Corner

Revision Date: 09/04/2013

Stand Examiner: Jason Tokar

Legal Description:

T47N R10W Sections 5, 6, 7, 8, 16, 17 & 18

Identified Planning Goals:

Maintain or improve the forest health, productivity, and diversity of the area through proper management. Timber management, wildlife habitat, and recreational opportunities such as hunting and snowmobiling are the main uses of the compartment.

Soil and topography:

The majority of the compartment is upland with rolling topography and small hills. Soils typical of the upland areas include Kalkaska sand, Dillingham-Kalkaska complex, and Wallace sand. The forest cover types on the upland soils are primarily northern hardwoods and aspen with some red pine and white spruce plantations. The lowland, swamp areas are found mainly in the eastern portion of the compartment. These areas are level and are comprised of wet soils such as Carbondale, Lupton, and Tawas Mucks. Forest cover types on these lowland soils include cedar, swamp conifers, and some lowland aspen. Several small, shallow lakes are found within the compartment.

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

The compartment has a mix of ownership within its boundaries. Approximately one-half of the land within the compartment is under State of Michigan ownership. The Forest Land Group and The Nature Conservancy are other major land owners. There are also several small private land owners located throughout the entire compartment. State land borders most of the compartment to the west, north, and south with Forest Land Group and State of Michigan land to the east. There is a small amount of development in the compartment consisting of a private resort (Halfway Lake Resort), a restaurant (Wolf Inn) and a small gas station. A high percentage of the small private land holdings within the boundaries are permanent residences. The remaining small private parcels are used as hunting camps and seasonal residences. Land use in the compartment entails various forms of outdoor recreation including hunting, fishing, snowmobiling, wildlife viewing, ORV use and hiking. Timber production also is a major use of the compartment.

Unique Natural Features:

MNFI has identified a loon on Halfway Lake. Potential in the compartment for merlin, yellow rail, American bittern, grey wolf, and several critical marsh/bog plants.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

Fisheries Values: Good to Excellent

Fisheries Concerns: This compartment contains the designated trout stream section of the Auger River (Auger Creek). There are native brook trout present in this section of the creek as good groundwater input is present. Beaver activity is present here. The stands were treatments are prescribed are already buffered from the creek, but should still maintain a 200 foot buffer. Specifics were discussed with stand examiner.

Wildlife Habitat Considerations:

This compartment is located in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. Vegetative diversity of this compartment is excellent with aspen, swamp conifers and upland hardwoods comprising roughly 60% of the total area. Current species composition appears to represent an increase in aspen and upland hardwood habitats and a decrease in pine habitats from what existed during presettlement times.

Mast producing species and a conifer component will be maintained in hardwood and aspen managed stands to enhance

food availability and structural and species diversity. Hemlock and cedar canopies will not be disturbed to preserve thermal capabilities of those stands. Nest and den trees, snags, and woody debris will be maintained in stands where they exist. Wildlife featured species in the management area include Blackburnian warbler, white-tailed deer, pileated woodpecker, and ruffed grouse.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of peat and muck and an end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Ordovician Trenton and Black River Formations subcrop below the glacial drift. The Trenton and Black River are quarried for stone/dolomite in the UP. A gravel pit is located in Section 6 and potential appears to be good in the west half. There is no economic oil and gas production in the UP.

Vehicle Access:

The compartment is located approximately 12 miles north and west of Newberry along County Road 407. Access to the compartment can be gained by various county maintained roads, both year round and seasonal. County Roads 407 and 505 run north and south through the compartment while County Roads 415 and 422 run westerly from County Road 407. Several two track woods roads provide access to most of the upland areas. The very eastern portion of the compartment has limited vehicle access due to private land and lowland areas.

Survey Needs:

Corner establishment - T47N R10W Sections 7 and 8, N1/16 common to both sections. T47N R10W Section 16 - N1/16 corner.

Recreational Facilities and Opportunities:

The Silver Creek ORV Trail runs through the southwest portion of the compartment, through stands 51 and 63. Do not skid along the trail, and keep the trail clear of logging slash and debris. If trail marker trees must be cut, please work with trails analyst or Rec Spec to place carsonite posts with trail markers. The Pine Stump Snowmobile Trail, Trail 498, follows County Road 415 during the winter months. Other recreational opportunities would include hunting, fishing, hiking, and wildlife viewing.

Fire Protection:

Potential for large fire runs may be low, because of the hardwood fuel types and scattered Red Pine plantations. Upland ground and network of roads are favorable for fire equipment access. Private property risk would be low.

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**

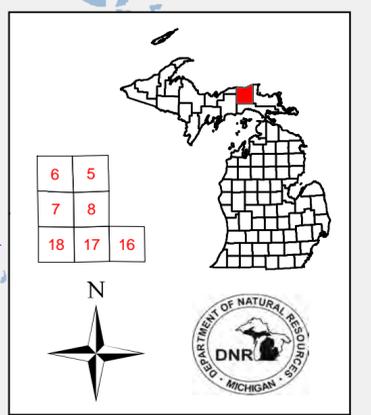
The following information is displayed, where pertinent, on the attached compartment maps:

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

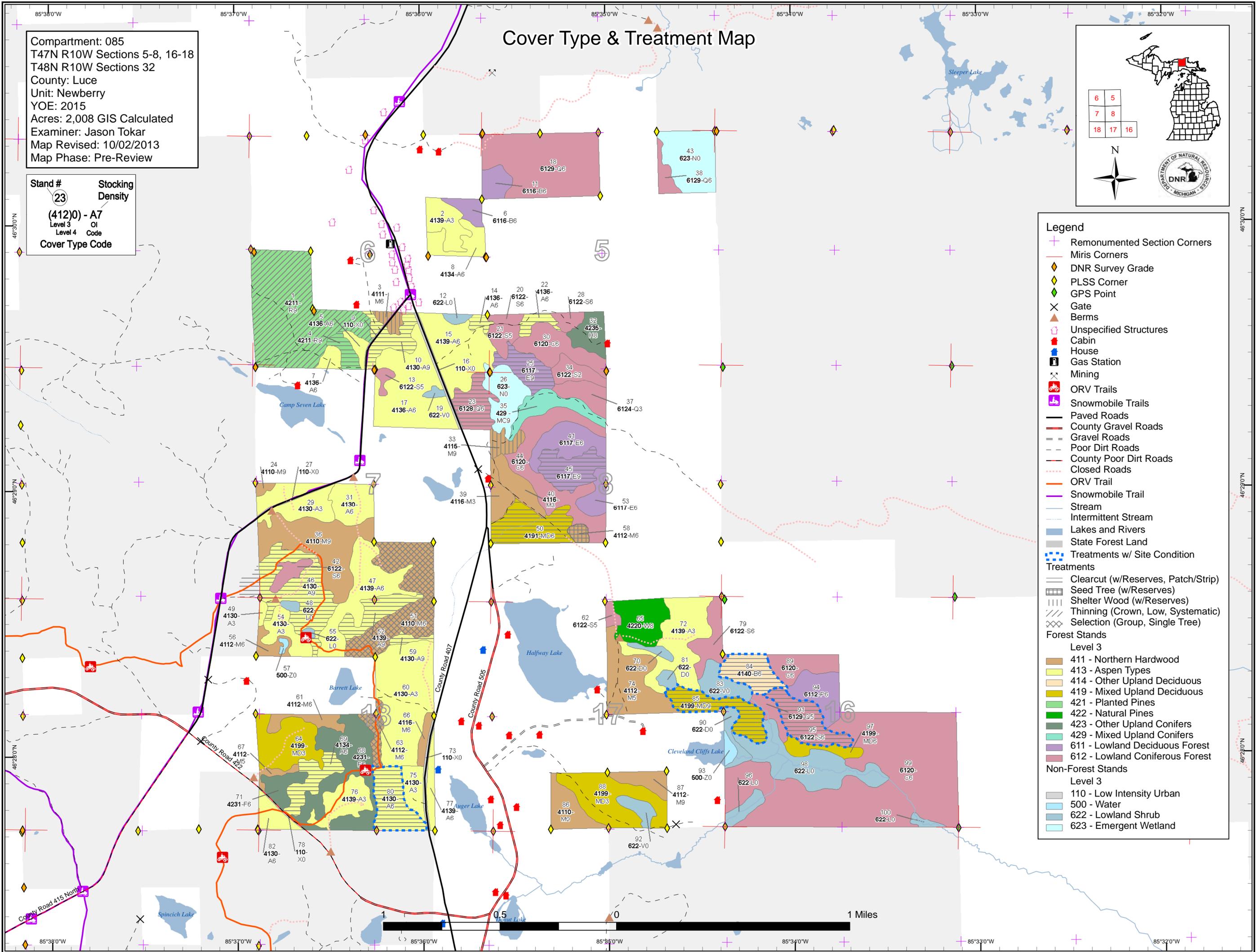
Cover Type & Treatment Map

Compartment: 085
 T47N R10W Sections 5-8, 16-18
 T48N R10W Sections 32
 County: Luce
 Unit: Newberry
 YOY: 2015
 Acres: 2,008 GIS Calculated
 Examiner: Jason Tokar
 Map Revised: 10/02/2013
 Map Phase: Pre-Review

Stand #
 23
 Stocking Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code



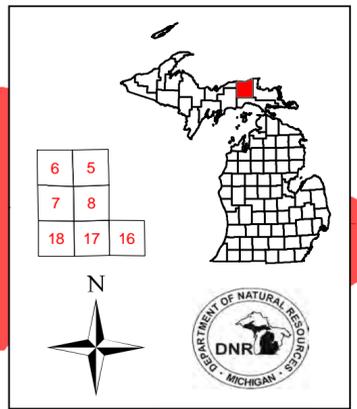
- ### Legend
- ✚ Remonumented Section Corners
 - Miris Corners
 - ◆ DNR Survey Grade
 - ◇ PLSS Corner
 - ◇ GPS Point
 - ✕ Gate
 - ▲ Berms
 - Unspecified Structures
 - Cabin
 - House
 - Gas Station
 - ✂ Mining
 - ORV Trails
 - Snowmobile Trails
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Closed Roads
 - ORV Trail
 - Snowmobile Trail
 - Stream
 - Intermittent Stream
 - Lakes and Rivers
 - State Forest Land
 - Treatments w/ Site Condition
- ### Treatments
- Clearcut (w/Reserves, Patch/Strip)
 - Seed Tree (w/Reserves)
 - Shelter Wood (w/Reserves)
 - Thinning (Crown, Low, Systematic)
 - Selection (Group, Single Tree)
- ### Forest Stands
- Level 3
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
- ### Non-Forest Stands
- Level 3
- 110 - Low Intensity Urban
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland



Special Conservation Areas & Site Conditions Map

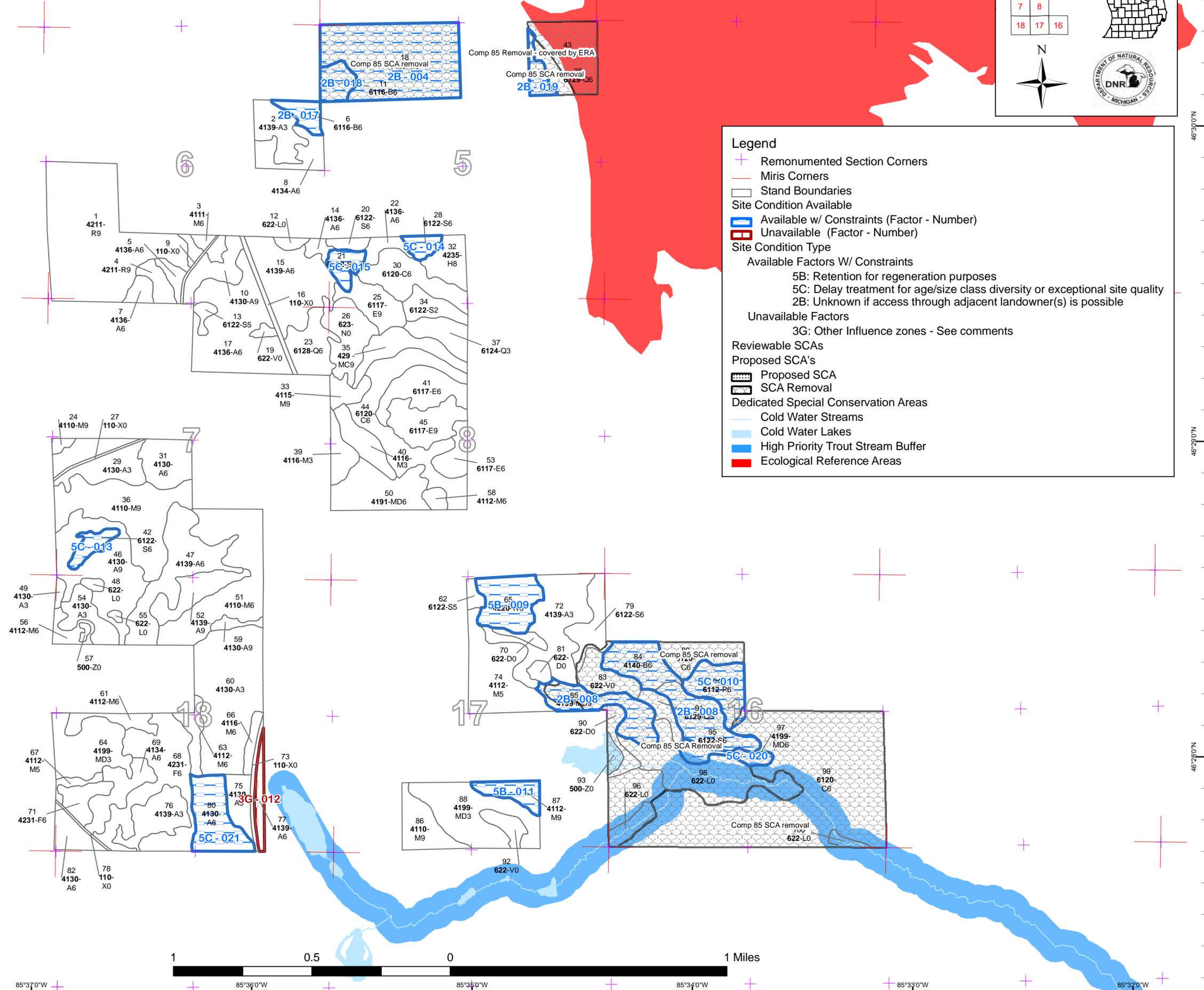
Compartment: 085
 T47N R10W Sections 5-8, 16-18
 T48N R10W Sections 32
 County: Luce
 Unit: Newberry
 YOE: 2015
 Acres: 2,008 GIS Calculated
 Examiner: Jason Tokar
 Map Revised: 10/02/2013
 Map Phase: Pre-Review

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



Legend

- Remonumented Section Corners
- Miris 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
 - 3G: Other Influence zones - See comments
- Reviewable SCAs
- Proposed SCA's
 - Proposed SCA
 - SCA Removal
- Dedicated Special Conservation Areas
 - Cold Water Streams
 - Cold Water Lakes
 - High Priority Trout Stream Buffer
 - Ecological Reference Areas



46°30'0"N
46°29'0"N
46°28'0"N
46°27'0"N

46°30'0"N
46°29'0"N
46°28'0"N
46°27'0"N

85°38'0"W 85°37'0"W 85°36'0"W 85°35'0"W 85°34'0"W 85°33'0"W 85°32'0"W

85°38'0"W 85°37'0"W 85°36'0"W 85°35'0"W 85°34'0"W 85°33'0"W

Report 1 – Total Acres by Cover Type and Age Class



	Age Class														Total
	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	
Aspen	95	42	115	40	117	0	83	64	0	0	0	0	0	0	556
Bog	23	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Cedar	0	0	0	0	0	0	0	0	0	73	0	225	0	0	298
Hemlock	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	21	0	0	0	0	0	0	0	21
Lowland Conifers	0	0	13	0	0	0	0	8	106	0	0	0	0	0	126
Lowland Deciduous	0	0	0	0	0	0	0	33	0	40	0	0	0	0	73
Lowland Shrub	63	0	0	0	0	0	0	0	0	0	0	0	0	0	63
Lowland Spruce/Fir	0	0	0	0	11	0	16	3	56	0	0	0	0	0	87
Marsh	59	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Mixed Upland Deciduous	74	0	0	0	0	0	31	0	35	0	0	0	0	0	141
Northern Hardwood	0	10	13	0	0	0	0	0	222	13	0	0	0	0	258
Paper Birch	0	0	0	0	0	0	0	0	38	0	0	0	0	0	38
Red Pine	0	0	0	0	0	0	111	0	0	0	0	0	0	0	111
Treed Bog	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Upland Conifers	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18
Upland Spruce/Fir	0	0	0	0	0	63	0	0	0	0	0	0	0	0	63
Urban	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
White Pine	0	0	0	0	0	0	0	0	0	0	25	0	0	0	25
Total	349	52	141	40	128	63	263	109	456	157	25	225	0	0	2008



Report 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2015

Compartment 085
Total Compartment Acres: 2,008

Acres by Treatment Type

Commercial Harvest - 498 Tree Planting - 8 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	140	0	0	0	0	0	0	140
Lowland Coniferous Forest	46	0	0	0	0	0	0	46
Lowland Deciduous Forest	40	0	0	0	0	0	0	40
Mixed Upland Deciduous	57	0	0	0	0	0	0	57
Northern Hardwood	0	67	4	13	0	0	0	84
Other Upland Deciduous	20	0	0	0	0	0	0	20
Planted Pines	8	0	0	0	104	0	0	111
Total	310	67	4	13	104	0	0	498

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1 42085001-Cut	103.9	42110 - Planted Red Pine	High Density Log	62	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Crown thinning. Remove approximately half the volume. Residual BA of 100-110. Concentrate marking on the larger diameter red pine, 14 inch and greater dbh. Residual should be mainly the smaller diameter red pine. Leave all non-red pine species.

Specs:

Other Comments: Red pine plantation. Planted in early 1950's (1951). Thinned as sales #033-95-01 and \$41-97-02, both completed in 1997.

Next Steps:

Proposed Start Date: 10/01/2014

3 42085003-Cut	5.1	4111 - S.Maple, Hard Mast Association	High Density Pole	80	81-110	Harvest	Shelter Wood with Reserves	411 - Northern Hardwood	Cmpt. Review Proposal
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Prescription Shelterwood harvest. Residual BA of 50-60. Adjacency to private property is the reason for shelterwood and not a final harvest. Remove aspen, beech and low quality maple. Leave healthier, single stem maple. Retain some laege diameter aspen in the red line/sale boundary. Leave conifers.

Specs:

Other Comments:

Next Steps: Regeneration check per work instructions.

Proposed Start Date: 10/01/2014

4 42085004-Cut	7.5	42110 - Planted Red Pine	High Density Log	64	141-170	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Clearcut. Remove all trees down to 2 inches in diameter. Small acreage, no retention.

Specs:

Other Comments: RX burn and planting to follow.

Next Steps: Harvest to be followed by prescribed burn to prepare site for planting. Trench site following prescribed burn and plant red pine. Spray competition to release red pine regeneration as needed.

Proposed Start Date: 10/01/2014

10 42085010-Cut	17.1	4130 - Aspen	High Density Log	64	141-170	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Retention not to exceed 3% of total stand acreage. Individual tree retention of conifers up to 20 BA. Mature aspen to be retained in red line/boundary trees. Leave any hemlock if it exists.

Specs:

Other Comments:

Next Steps: Regeneration check per work instructions.

Proposed Start Date: 10/01/2014



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
14	42085014-Cut	3.6	4136 - Aspen, Mixed Conifer	High Density Pole	77	81-110	Harvest	Clearcut	413 - Aspen	Cmpt. Review Proposal

Prescription Clearcut with reserves. Leave all paper birch, cedar, hemlock and white pine.

Specs:

Other Stand was part of sale #030-05. Was never cut, sale was closed. Sale boundary is still visible. Re-offer with the other stands in the vicinity
Comments: (original sale #030-05). Proposed start date of 12/04/2013.

Next Regeneration check per work instructions. Acceptable regen of aspen with mixed conifers, maple and birch.
Steps:

Proposed
Start Date: 12/04/2013

22	42085022-Cut	6.0	4136 - Aspen, Mixed Conifer	High Density Pole	77	81-110	Harvest	Clearcut	413 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Leave all paper birch, cedar, hemlock and white pine.

Specs:

Other Stand was part of sale #030-05. Was never cut, sale was closed. Sale boundary is still visible. Re-offer with the other stands in the vicinity
Comments: (original sale #030-05). Proposed start date of 12/04/2013.

Next Regeneration check per work instructions. Acceptable regeneration of aspen with mixed conifers, maple and birch.
Steps:

Proposed
Start Date: 12/04/2013

23	42085023-Cut	19.1	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	82	111-140	Harvest	Clearcut with Reserves	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Retain some conifer either individually or in pockets.

Specs:

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2014

25	42085025-Cut	17.1	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	91	81-110	Harvest	Clearcut	611 - Lowland Deciduous Forest	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Leave all cedar, hemlock and white pine.

Specs:

Other Stand was part of sale #030-05. Was never cut, sale was closed. Sale boundary is still visible. Re-offer with the other stands in the vicinity
Comments: (original sale #030-05). Proposed start date of 12/04/2013.

Next Regeneration check per work instructions. Accpetable regen of aspen, mixed conifers, maple.
Steps:

Proposed
Start Date: 12/04/2013



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
33	42085033-Cut	7.8	4115 - Y.Birch, Hemlock NH	High Density Log	85	111-140	Harvest	Shelter Wood with Reserves	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal
<u>Prescription</u> Shelterwood harvest. Remove low quality red maple and all balsam. Mark some hemlock and white pine to cut in order to open the stand up for										
<u>Specs:</u> regeneration. Retain some hemlock of all sizes. Retain most of the yellow birch. Residual BA of 50-60 sq ft total.										
<u>Other</u> Include this stand with the re-offering of the other stands in the vicinity (original sale #030-05). Proposed start date of 12/04/2013.										
<u>Comments:</u>										
<u>Next</u> Regeneration check per work instructions. Acceptable regen of maple, yellow birch, hemlock, white pine and aspen.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 12/04/2013										
45	42085045-Cut	22.7	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	91	81-110	Harvest	Clearcut	6112 - Lowland Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with reserves. Leave all cedar, hemlock and white pine.										
<u>Specs:</u>										
<u>Other</u> Stand was part of sale #030-05. Was never cut, sale was closed. Sale boundary is still visible. Re-offer with the other stands in the vicinity										
<u>Comments:</u> (original sale #030-05). Proposed start date of 12/04/2013.										
<u>Next</u> Regeneration check per work instructions. Acceptable regen of aspen with maple, cherry, balsam poplar, spruce and balsam fir.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 12/04/2013										
46	42085046-Cut	48.0	4130 - Aspen	High Density Log	68	141-170	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with reserves. Retention not to exceed 5% of total stand acreage. Patch retention, concentrate on diverse patches. Retention areas to										
<u>Specs:</u> be located a minimum of 1 tree length away from ORV trail. Retain some mature aspen and conifers in sale boundary line.										
<u>Other</u> ORV trail runs through the stand. Stand 69, Comp 89 is to be treated at the same time as this stand.										
<u>Comments:</u>										
<u>Next</u> Regeneration check per work instructions. Acceptable regen of aspen with maple, birch, white pine, balsam and spruce.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
50	42085050-Cut	31.0	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	66	111-140	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with reserves. Leave a buffer along the drainage. Buffer strip to contain some mature conifer. Possibly mark some leave tree red										
<u>Specs:</u> maple within 2 chains of the county road. Retention to be in pockets and not to exceed 5% of the total stand area, including the drainage buffer strip. Leave hemlock.										
<u>Other</u> Include this stand with the re-offering of the other stands in the vicinity (original sale #030-05). Proposed start date of 12/04/2013.										
<u>Comments:</u>										
<u>Next</u> Regeneration check per work instructions. Acceptable regen of a mix of aspen, maple and balsam with some white birch and white pine.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 12/04/2013										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
51	42085051-Cut	58.3	4110 - Sugar Maple Association	High Density Pole	82	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Selection harvest. Residual BA of 70-80 sq ft. Remove trees with maple borer damage and multi stem maple. Remove most of the beech. <u>Specs:</u> Mark aspen to cut, retaining 1/3 to 1/2 as residual. Leave a good conifer component and any hemlock. Stand boundary with adjacent aspen stand distinguished by change in sub canopy. Higher component of aspen in subcanopy of aspen stand. <u>Other</u> Portions of the fenceline along the eastern stand boundary may be in trespass. ORV Trail runs through the southern portion of the stand. <u>Comments:</u> <u>Next</u> Regeneration check per work instructions. Acceptable regen of maple with a minor component of aspen. <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2014										
52	42085052-Cut	17.5	4139 - Aspen, Mixed Deciduous	High Density Log	70	141-170	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with reserves. Retention not to exceed 3% of total acreage, patch retention. Mature aspen and some conifers can be retained in red <u>Specs:</u> line and will be retained in adjacent stands as well. Leave any hemlock. <u>Other</u> Access via abandoned road to the north. <u>Comments:</u> <u>Next</u> Regeneration check per work instructions. Acceptable regen of aspen with maple, birch and balsam. <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2014										
58	42085058-Cut	3.8	4112 - Maple, Beech, Cherry Association	High Density Pole	85	81-110	Harvest	Seed Tree with Reserves	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Seed Tree with reserves. Retain 20-30 BA of good quality red maple poles, as well as any hemlock and white pine as seed trees. Small <u>Specs:</u> acreage stand. Remove/cut as much young balsam as possible to promote better maple regeneration. <u>Other</u> Include this stand with the re-offering of the other stands in the vicinity (original sale #030-05). Proposed start date of 12/04/2013. <u>Comments:</u> <u>Next</u> Regeneration check per work instructions. Acceptable regen of red maple with white pine and hemlock. <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 12/04/2013										
59	42085059-Cut	3.5	4130 - Aspen	High Density Log	70	111-140	Harvest	Clearcut	413 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clearcut. Small acreage stand, no retention. Access from the north, steep slope to the south. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> Regeneration check per work instructions. Acceptable regen of aspen with maple, balsam. <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2014										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63	42085063-Cut	8.7	4112 - Maple, Beech, Cherry Association	High Density Pole	80	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Selection harvest. Remove mature aspen (showing decline) and low quality red maple. Maintain a good component of better quality black cherry poles where present and a variety of conifer. Residual BA of 70. <u>Specs:</u> <u>Other</u> ORV trail runs through the stand. <u>Comments:</u> <u>Next Steps:</u> Regeneration check per work instructions. Acceptable regen of maple with aspen and cherry. <u>Proposed Start Date:</u> 10/01/2014										
69	42085069-Cut	17.5	4134 - Aspen, Spruce/Fir	High Density Pole	61	111-140	Harvest	Clearcut	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
<u>Prescription</u> Clearcut. No retention needed, narrow winding stand. Retain some aspen in the boundary line trees. <u>Specs:</u> <u>Other</u> This stand is a portion of the spruce plantation that failed as a spruce stand. Planted in 1962. Harvest will increase species diversity in the immediate area. <u>Comments:</u> <u>Next Steps:</u> Regeneration check per work instructions. Acceptable regen of aspen with maple, cherry, balsam and spruce. <u>Proposed Start Date:</u> 10/01/2014										
	42089_OutOfYOE-Cut	5.4					Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with reserves. Retention not to exceed 5% of total stand acreage. Patch retention, concentrate on diverse patches. Retention areas to be located a minimum of 1 tree length away <u>Specs:</u> <u>Other</u> ORV trail runs through the stand. Treat with Stand 46, Comp 85 in 2015 YOE. <u>Comments:</u> <u>Next Steps:</u> Regeneration check per work instructions. Acceptable regen of aspen with maple, birch, white pine, balsam and spruce. <u>Proposed Start Date:</u> 10/01/2014										
Total Treatment Acreage Proposed:		403.5								



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
80	42085080-Cut	26.6	4130 - Aspen	High Density Pole	70	81-110	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal

Prescription Clearcut with reserves. Retention not to exceed 3% of total stand area. Retention to be in pockets. Locate retention pockets near adjacent
Specs: young aspen stands. Open areas in the stand will provide pockets of advanced aspen, maple and cherry regen post harvest. Treatment was delayed due to request by wildlife for aspen age-class diversity. Stand will be checked periodically. If the stand begins to decline, it will be set up for harvest prior to 2025 YOY. Otherwise stand will be treated in 2025.

Other
Comment:

Next
Steps: Regeneration check per work instructions. Acceptable regen of aspen with maple, cherry, balsam, spruce and white pine.

Proposed
Start Date: 10/01/2014

Limiting Factor 5C: Delay treatment for age/size class diversity or exceptional site quality

84	42085084-Cut	20.2	4140 - Other Upland Deciduous	High Density Pole	87	141- 170	Harvest	Clearcut with Reserves	4137 - Aspen, Birch	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Retain 3-5 healthy white birch per acre. Other retention to be patch retention, up to 5% of stand acreage. Leave a
Specs: conifer component in teh retention patches.

Other
Comment: Access through private property is questionable due to recent lans sales. Possible access through another adjacent land owner.

Next
Steps: Regeneration check per work instructions. Acceptable regen of white birch, aspen, maple, white pine, spruce and balsam.

Proposed
Start Date: 10/01/2014

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

85	42085085-Cut	26.0	4199 - Other Mixed Upland Deciduous	High Density Log	87	141- 170	Harvest	Clearcut with Reserves	4137 - Aspen, Birch	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Retain 3-5 healthy white birch per acre. Other retention to be patch retention, up to 5% of stand acreage. Leave a
Specs: conifer component in retention patches. Maintain a 200 foot buffer along Auger Creek.

Other
Comment: Access is through private land is questionable due to recent land sales. Possible access through another adjacent land owner.

Next
Steps: Regeneration check per work instructions. Acceptable regen of white birch, aspen, maple, balsam and white pine.

Proposed
Start Date: 10/01/2014

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

95	42085095-Cut	26.8	6122 - Black Spruce	High Density Pole	83	111- 140	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Retention to be in pockets due to wet soils and potential for blowdown of individual trees. Retention not to exceed 5%
Specs: total stand acreage. Maintain a 200 foot buffer along Auger Creek.

Other
Comment:

Next
Steps: Regeneration check per work instructions. Acceptable regen of spruce with a mix of balsam, maple, aspen, white birch and white pine.

Proposed
Start Date: 10/01/2014

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

**Total Treatment
Acreage Proposed: 99.6**

Report 5 – Site Conditions

Newberry Mgt. Unit
Jason Tokar : Examiner

Compartment 085
Year of Entry 2015

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions				
				No	5C	5B	3G	2B
555	548	7	Aspen	522	27		7	
298	298		Cedar	298				
14	14		Hemlock	14				
21	21		Lowland Aspen/Balsam Poplar		21			
126	126		Lowland Conifers	40				86
73	73		Lowland Deciduous	73				
87	87		Lowland Spruce/Fir	38	22			27
141	141		Mixed Upland Deciduous	105	9			26
258	258		Northern Hardwood	247		11		
38	38		Paper Birch					38
111	111		Red Pine	111				
18	18		Upland Conifers	18				
63	63		Upland Spruce/Fir	63				
25	25		White Pine			25		
1,827	1,820	7	Total Forested Acres	1,528	79	36	7	177
	100%	0%	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	Available	2B: Unknown if access through adjacent landowner(s) is possible	80				
Comments:							
008	Available	2B: Unknown if access through adjacent landowner(s) is possible	73				
Comments:							

Report 5 – Site Conditions

Newberry Mgt. Unit
Jason Tokar : Examiner

Compartment 085
Year of Entry 2015

009	Available	5B: Retention for regeneration purposes	25	
Comments: Stand treated via shelterwood harvest as sale #029-05. Stand is in the process of regenerating.				
010	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	21	
Comments:				
011	Available	5B: Retention for regeneration purposes	11	
Comments:				
012	Not Available	3G: Other Influence zones - See comments	7	
Comments: Narrow stand on hillside adjacent to Co Rd 407 ROW. Between county road and private residence. No approach to the road, low volumes.				
013	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	
Comments: Pocket of spruce within a large aspen harvest.				
014	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	
Comments:				

Report 5 – Site Conditions

Newberry Mgt. Unit
Jason Tokar : Examiner

Compartment 085
Year of Entry 2015

015	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9
Comments:			
017	Available	2B: Unknown if access through adjacent landowner(s) is possible	8
Comments:			
018	Available	2B: Unknown if access through adjacent landowner(s) is possible	10
Comments:			
019	Available	2B: Unknown if access through adjacent landowner(s) is possible	7
Comments:			
020	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9
Comments:			

Report 5 – Site Conditions

Newberry Mgt. Unit
Jason Tokar : Examiner

Compartment 085
Year of Entry 2015

021	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	27	No Limiting Factor
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Comments:

Treatment was delayed due to request by wildlife for aspen age-class diversity. Stand will be checked periodically. If the stand begins to decline, it will be set up for harvest prior to 2025 YOY. Otherwise stand will be treated in 2025.



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
Comp 85 SCA removal	Other SCA		SCA Removal	13.8
Comments Doesn't meet SCA criteria - old stand condition 8				
Comp 85 SCA removal	Other SCA		SCA Removal	17.6
Comments Remove from SCA - old stand condition 8. Possible future management with access from the east.				
Comp 85 Removal - covered by ERA	Other SCA		SCA Removal	28.7
Comments SCA removal - Area is already covered by ERA designation and shown by ERA layer.				
Comp 85 SCA removal	Other SCA		SCA Removal	89.4
Comments Doesn't meet SCA criteria - old stand condition 8				
Comp 85 SCA removal	Other SCA		SCA Removal	192.9
Comments Remove from SCA - old stand condition 8. Possible future lowland management with access from the east.				
Comp 85 SCA Removal	Other SCA		SCA Removal	206.6
Comments Doesn't meet SCA criteria - old stand condition 8				



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.
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.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42110 - Planted Red Pine	High Density Log	103.9	62	171-200	Red pine plantation. Planted in early 1950's (1951). Thinned as sales #033-95-01 and \$41-97-02, both completed in 1997. Red pine diameters average 14 inch dbh, ranging from 8 and 9 inches up to 16-18 inches. Scattered white pine and red maple in areas. Healthy stand. Diameters getting to the point of final harvest.
2	4139 - Aspen, Mixed Deciduous	High Density Sapling	17.2	16		Stand harvested in 1997. Not a clean cut. Access to the area is now cut off by the private owner to the west.
3	4111 - S.Maple, Hard Mast Association	High Density Pole	5.1	80	81-110	Low quality hard maple. Multiple stems, maple borer damage, decline and top dieback. Open in a few spots. Large diameter aspen mixed in. Beech component is dying out due to BBD. Single stem hard maple has some better quality.
4	42110 - Planted Red Pine	High Density Log	7.5	64	141-170	Large diameter red pine and white pine with red maple, aspen, white birch and some balsam. This portion of the plantation was cut through as it was thought it had failed. Larger diameter red pine than main portion of the plantation. Advanced understory, scattered large diameter aspen.
5	4136 - Aspen, Mixed Conifer	High Density Pole	4.8	34		Stand was cut in 1979. Portion of the red pine plantation that had failed and was cut for aspen management. Mix of species regenerating (aspen, maple, birch, cherry, balsam, etc). Some residual, large diameter, overstory of red pine and white pine.
6	6116 - Lowland Birch	High Density Pole	7.8	81		
7	4136 - Aspen, Mixed Conifer	High Density Pole	5.2	34		Stand was cut in 1979. Portion of the red pine plantation that had failed and was cut for aspen management. Mix of species regenerating (aspen, maple, birch, cherry, balsam, etc). Some residual, large diameter, overstory of red pine and white pine.
8	4134 - Aspen, Spruce/Fir	High Density Pole	14.3	43	51-80	Stand was harvested in 1969.
10	4130 - Aspen	High Density Log	17.1	64	141-170	Large diameter, mature Big Tooth Aspen, tall heights. Smaller hard maple and white birch throughout. Some log size white birch. Multiple stem maple, showing dieback and decline. Beech component infested with BBD. Large diameter balsam in the stand is snapping off and dying out.
11	6116 - Lowland Birch	High Density Pole	9.9	81		
13	6122 - Black Spruce	Medium Density Pole	3.4	79	51-80	Small pocket of black spruce on low, bog ground. Small diameters, semi open canopy.
14	4136 - Aspen, Mixed Conifer	High Density Pole	3.6	77	81-110	Stand was part of sale #030-05. Was never cut, sale was closed. Sale boundary is still visible. Ridge of mature aspen. Showing signs of mortality throughout stand. Up to half of the aspen is dead in spots. Component of white birch, red maple, balsam, spruce and some white pine. Some dead tops in white birch. Fair amount of blowdown in the stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4139 - Aspen, Mixed Deciduous	High Density Pole	42.6	47		Pole size aspen stand with white birch, red maple, balsam, white spruce, black spruce, and white pine. Nice mixed stand, young stand. Nice regeneration. Some areas with larger diameter aspen and white birch, slightly older than rest of aspen. Areas with junberry in the understory. Areas of lower ground in northern part and eastern part of the stand.
17	4136 - Aspen, Mixed Conifer	High Density Pole	60.1	46		Pole size aspen stand with white birch, maple, black cherry, balsam, white spruce, and white pine. Nice mixed stand, young stand. Nice regeneration. Some areas with larger diameter aspen and white birch. Areas with junberry in the understory.
18	6129 - Mixed Coniferous Lowland Forest	High Density Pole	79.5	81		
20	6122 - Black Spruce	High Density Pole	4.0	83	111-140	Low ground black spruce with cedar, red maple, white birch and aspen. Primarily black spruce, pole size. Wet.
21	6122 - Black Spruce	Medium Density Pole	8.6	83	51-80	Low ground black spruce with some cedar and white pine. Occasional white birch. Stand has higher density in the southern portion of the stand. Very wet stand.
22	4136 - Aspen, Mixed Conifer	High Density Pole	6.0	77	81-110	Stand was part of sale #030-05. Was never cut, sale was closed. Sale boundary is still visible. Ridge of mature aspen. Showing signs of mortality throughout stand. Up to half of the aspen is dead in spots. Component of white birch, red maple, balsam, spruce and some white pine. Some dead tops in white birch. Fair amount of blowdown in the stand.
23	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	19.1	82	111-140	Mixed stand with areas of higher ground near Co Rd 407. Wet areas with mainly cedar and spruce. Eastern portion of the stand is mix of red maple, cedar, hemlock. Stand is primarily low ground with a high component of cedar and other conifers. Small drainage runs east/west through the stand.
24	4110 - Sugar Maple Association	High Density Log	2.2	82	81-110	Stand thinned in 2007 as sale #036-05. Nice hard maple sawlog stand. Good regeneration of maple, with pockets of aspen, starting to establish.
25	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	17.1	91	81-110	Stand was part of sale #030-05. Was never cut, sale was closed. Sale boundary is still visible. Ridge of mature aspen along the marsh and some lower ground aspen. Showing signs of mortality throughout stand. Up to half of the aspen is dead in spots. Component of red maple, balsam, spruce, white pine and some hemlock. Fair amount of blowdown in the stand.
28	6122 - Black Spruce	High Density Pole	5.7	81	111-140	Low ground black spruce with cedar, red maple, white birch and aspen. Primarily black spruce, pole size. Wet.
29	4130 - Aspen	High Density Sapling	29.0	6		Stand was harvested in 2007 as sale #036-05. Good aspen regeneration with component of white birch, red maple, cherry. 10-20 ft tall.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	6120 - Lowland Cedar	High Density Pole	25.7	95	111-140	Cedar stand with a component of spruce, balsam, white birch and red maple. Good cedar regeneration throughout the stand. No deer browse problems. Regeneration of all heights, from 2 ft up to 10 ft tall. Old notes stand the stand was cut through (high graded) in the past
31	4130 - Aspen	High Density Pole	19.1	38	81-110	Stand was harvested in 1977. Aspen stand (primarily big tooth aspen with some quaking) with red maple and white birch. Nice tall aspen, large diameter for the age of the stand in some areas, up to 12 inches dbh.
32	42350 - Upland Hemlock	Medium Density Log	14.1	95		Stand was cut in 2008 as sale #030-05. This was the only unit of the sale that got harvested. All aspen, spruce, balsam and maple removed from the stand. Retained hemlock, cedar and white pine. Stand is now a stand of mature hemlock and white pine over nice red maple, balsam, birch regeneration.
33	4115 - Y.Birch, Hemlock NH	High Density Log	7.8	85	111-140	Red maple with hemlock, white pine, balsam and yellow birch. Red maple has some quality, fairly tall. Ridges through the stand. Yellow birch regeneration in open areas, balsam understory throughout most of the stand.
34	6122 - Black Spruce	Medium Density	11.2	47		
35	429 - Mixed Upland Conifers	High Density Log	17.7	95	81-110	Stand was cut in 1995. Sale was not complete, but was closed. Some areas are thick to mature hemlock mixed with maple and others are more open with good regeneration of maple, hemlock and balsam.
36	4110 - Sugar Maple Association	High Density Log	55.9	82	81-110	Stand thinned in 2007 as sale #036-05. Nice hard maple sawlog stand. Good regeneration of maple, with pockets of aspen, starting to establish.
37	6124 - Lowland Spruce- Fir	High Density Sapling	13.1	26		Stand was harvested in 1987 as sale #087-84. Regeneration is a mix of lowland species. Black spruce, balsam, cedar, tamarack, occasional white pine, red maple and white birch.
38	6129 - Mixed Coniferous Lowland Forest	High Density Pole	7.0	81		
39	4116 - Mixed N. Hardwood - Aspen	High Density Sapling	9.7	15		Stand was harvested in 1998 as sale #38-95. Real mix of regeneration. Aspen, maple, cherry, white birch, some spruce, balsam and white pine
40	4116 - Mixed N. Hardwood - Aspen	High Density Sapling	13.4	27		Stand harvested in 1986. Red maple, sugar maple, aspen, cherry, balsam, spruce regeneration. Very thick stand, beginning to transition from a sapling stand to a pole size stand.
41	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	22.9	74	81-110	Lowland red maple, large diameter aspen and balsam poplar, cedar and some black spruce. Wet ground. Thick understory. Scattered large diameter white pine, some black ash in pockets. A few yellow birch



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42	6122 - Black Spruce	High Density Pole	7.4	83	51-80	Low ground pocket of black spruce with some red maple and white pine.
44	6120 - Lowland Cedar	High Density Pole	47.0	93	141-170	Mixed stand of cedar with black spruce, balsam, some hemlock, and red maple. Wet stand. Pockets of thick cedar.
45	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	22.7	91	81-110	Stand was part of sale #030-05. Was never cut, sale was closed. Sale boundary is still visible. Mature aspen, lower ground. Showing signs of mortality throughout stand. Up to half of the aspen is dead in spots. Component of red maple, balsam, spruce, white pine and some balsam poplar. Scattered cedar. Fair amount of blowdown in the stand. Large diameter aspen, very tall.
46	4130 - Aspen	High Density Log	48.0	68	141-170	Mature aspen stand. Large diameter aspen (10-15 inches), very tall. Some aspen showing signs of decline and mortality. Good maple component as well as balsam, white birch, and some white spruce and white pine. **old notes state the area/stand was cut over in the early 60's and recommended harvesting in 2005. Was held for 10 yrs for age class diversity. ORV trail runs through the stand.
47	4139 - Aspen, Mixed Deciduous	High Density Pole	42.2	26	51-80	Stand harvested in 1987. Young aspen stand with white birch, red maple, white pine, cherry. Stand is transitioning from a sapling stand to a pole size stand. Scattered larger diameter white birch and maple. Large diameter white pine as well.
49	4130 - Aspen	High Density Sapling	2.0	26		
50	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	31.0	66	111-140	Stand of red maple and balsam with a high component of large diameter aspen. White pine and white birch as well. Pockets of spruce. Red maple is mostly low quality. Aspen is showing signs of rot and mortality. Pockets thicker to balsam and others thicker to red maple and aspen. Southern portion of the stand has an area that is more open. Wet drainage runs through the stand.
51	4110 - Sugar Maple Association	High Density Pole	58.3	82	111-140	Sugar maple stand with large diameter aspen in pockets. Primarily a pole size stand with areas of larger diameter maple. Some areas of multi stem maple, lower quality. Beech and balsam in stand. Beech is low quality (BBD). Some maple borer damage. Rolling topography.
52	4139 - Aspen, Mixed Deciduous	High Density Log	17.5	70	141-170	Large diameter aspen with good maple component (both sugar and red maple). Balsam and white birch as well. Aspen is tall, large diameter and mature. Areas of mortality. Maple in the stand is multiple stem and lower quality.
53	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	10.2	74	81-110	Lowland red maple, large diameter aspen and balsam poplar, cedar and some black spruce. Wet ground. Thick understory. Scattered large diameter white pine, some black ash in pockets. A few yellow birch
54	4130 - Aspen	High Density Sapling	14.3	13		Stand was harvested in 1997 as sale #047-95. Aspen with red maple, balsam, white birch.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	4112 - Maple, Beech, Cherry Association	High Density Pole	6.5	80	81-110	Red maple stand with balsam. Large diameter white pine. Small acreage.
58	4112 - Maple, Beech, Cherry Association	High Density Pole	3.8	85	81-110	Red maple pole stand, with component of hemlock and some white pine along stand edges. Tall red maple poles with a few sawlog size trees. Many of the trees have top dieback. Thick balsam understory.
59	4130 - Aspen	High Density Log	3.5	70	111-140	Large diameter aspen with good maple component. Balsam and white birch as well. Aspen is tall, large diameter and mature. Stand lies at the top of a steep slope. Small acreage stand of mature aspen between younger aspen and northern hardwoods stands.
60	4130 - Aspen	High Density Sapling	70.6	27		Stand harvested in 1986. Northern portion of the stand was a separate sale (086-84), has more scattered residual. South part of the stand was originally a firewood cutting and then a free timber permit. Regeneration is a mix of species, primarily an aspen stand with maple, birch, cherry, balsam, spruce and white pine. Abandoned road into the stand is grown closed with balsam and white pine.
61	4112 - Maple, Beech, Cherry Association	High Density Pole	9.1	93	51-80	Stand thinned in 2008 as sale #037-05. Mainly red maple with balsam component. Some black cherry.
62	6122 - Black Spruce	Medium Density Pole	3.4	87	51-80	Small diameter black spruce stand. Eastern portion of the stand is more open bog ground.
63	4112 - Maple, Beech, Cherry Association	High Density Pole	8.7	80	111-140	Narrow stand of red maple with black cherry and large diameter aspen. Better quality is in the southern portion of the stand. Thick balsam understory throughout. Scattered hard maple. ORV trail runs through the stand.
64	4199 - Other Mixed Upland Deciduous	High Density Sapling	32.5	5		Stand harvested in 2008 as sale #037-05. Regenerating nicely to aspen, red maple, pin cherry primarily. Skid trails and roads are filling in with white pine as well, 1-2 ft tall. Thick regeneration. Residual mature white pine mainly in the western half of the stand.
65	42200 - Natural White Pine	Medium Density Log	25.1	105	51-80	Stand was harvested via shelterwood in 2009 as sale #029-05. Red maple, aspen, white birch, beech, spruce, balsam was removed. Stand has good regeneration of maple, cherry, aspen and some white pine.
66	4116 - Mixed N. Hardwood - Aspen	High Density Pole	4.9	82	81-110	Small diameter red maple with large diameter aspen. Balsam and cherry. Quality decreases in northern portion of the stand. Aspen is showing decline, mature. Narrow stand along Co Rd 407. Hilly in southern end.
67	4112 - Maple, Beech, Cherry Association	Medium Density Pole	3.6	93	51-80	Stand thinned in 2008 as sale #037-05. Red maple with balsam, spruce and cherry. Some large aspen retained along the road.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
68	42310 - Planted Spruce	High Density Pole	52.1	51	51-80	Planted in 1962. Mainly spruce with a minor component of aspen and red maple throughout. Scattered white pine as well. Much of the spruce is small diameter still. 3-4 sticks merchantable in many areas, some pockets of shorter spruce and even submerchantable spruce.
69	4134 - Aspen, Spruce/Fir	High Density Pole	17.5	61	111-140	This stand is a portion of the spruce plantation that failed as a spruce stand. Planted in 1962, most of the spruce is stunted, small diameter. Stand is a mix of aspen, red maple, small spruce, balsam and large white pine. Aspen is declining, poor quality maple, stunted spruce.
71	42310 - Planted Spruce	High Density Pole	10.5	51		Planted in 1962. Mainly spruce with a minor component of aspen and red maple throughout. Scattered white pine as well. Much of the spruce is small diameter still. 3-4 sticks merchantable in many areas, some pockets of shorter spruce and even submerchantable spruce.
72	4139 - Aspen, Mixed Deciduous	High Density Sapling	45.3	5		Stand was harvested in 2008 as sale #029-05. Regenerating to a mix of aspen, maple, cherry, balsam and white birch. Residual white pine, spruce, cedar. Nice thick regeneration.
74	4112 - Maple, Beech, Cherry Association	Medium Density Pole	39.8	87	51-80	Stand was thinned/shelterwood cut in 2009 as sale #029-05. Beech Bark Disease was prevalent, all beech was removed from the stand. Maple and other species were thinned. Areas of the stand are now more open due to amount of beech removed. Thick regeneration of beech, maple, and some cherry and aspen in the open areas. Some yellow birch regeneration. West of the old grade the residual BA of maple is higher and more of a balsam and maple understory.
75	4130 - Aspen	High Density Sapling	11.1	17		Stand was cut in 1996 as sale #010-95. Nice aspen regeneration with red maple. Very thick stand. Subcanopy of red maple, cherry and a few balsam.
76	4139 - Aspen, Mixed Deciduous	High Density Sapling	20.2	5		Stand harvested in 2008 as sale #037-05. Stand was a portion of the spruce plantation that failed and therefore harvested for aspen management. Current regeneration is a mix of aspen, pin cherry, red maple and some balsam. Thick regeneration 10-15 ft tall average.
77	4139 - Aspen, Mixed Deciduous	High Density Pole	7.3	70	51-80	Narrow stand of aspen, red maple and black cherry along the east shoulder of Co Rd 407. Short height in aspen. Very thick understory of maple, aspen and balsam. Low quality maple. Travel influence zone.
79	6122 - Black Spruce	High Density Pole	16.3	66	51-80	Black spruce, small diameters. Areas of more sapling size spruce and cedar and very wet.
80	4130 - Aspen	High Density Pole	26.6	70	81-110	Mature aspen, showing decline. Component of red maple, black cherry, white pine and white spruce. Stand is semi open in areas with a thick understory of maple, cherry and balsam. Pockets of more maple. Southwest portion of the stand is more open. Aspen averaging 4 sticks merchantable height.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
82	4130 - Aspen	High Density Pole	10.5	38		Stand was harvested in 1975. Part of a large cut that extends into compartments 89 and 90. Young aspen with component of red maple, black cherry, balsam, spruce, white pine, white birch. large diameter white pine and white spruce throughout. Transitioned from sapling stand to pole stand.
84	4140 - Other Upland Deciduous	High Density Pole	20.2	87	141-170	White birch with white spruce and red maple and large diameter aspen. Balsam and red maple in the understory. Birch and aspen are mature, showing signs of decline. Access through private land, could be questionable due to recent land sales.
85	4199 - Other Mixed Upland Deciduous	High Density Log	26.0	87	141-170	Birch ridge, steep in spots. Mix with red maple, large aspen, beech and balsam. Large diameter white pine. Birch and aspen showing decline and mortality. Red maple is lower quality. Thick balsam understory in many areas. Small pockets of red maple (M6).
86	4110 - Sugar Maple Association	High Density Log	18.1	82	81-110	Stand was thinned in 2009 as sale #029-05. Most of the beech was removed. Good regeneration coming up already....maple, cherry, beech and aspen.
87	4112 - Maple, Beech, Cherry Association	High Density Log	10.7	82	111-140	Primarily a beech stand. Good hard maple and red maple component. Thick beech understory. Beech scale throughout the stand, even on the saplings. Fairly steep slope on the south side of the stand. There is a beech scale (BBD) monitoring plot within the stand.
88	4199 - Other Mixed Upland Deciduous	High Density Sapling	41.7	4		Stand harvested in 2009 as sale #029-05. Regeneration is a mix of aspen, maple, cherry, white birch, balsam, white pine. Residual pole size maple, birch, black cherry and white pine. Stand has alot of species diversity currently. The stand was originally cut in 1979 (07-79) and was not a "clean" cut.
89	6120 - Lowland Cedar	High Density Pole	17.5	110	111-140	
91	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	7.6	71		
94	6112 - Lowland Aspen	High Density Pole	21.4	69		
95	6122 - Black Spruce	High Density Pole	26.8	83	111-140	Mainly spruce with red maple, balsam and white birch. Old notes say stand was cut in early 1930's. large white pine throughout. Pockets of older birch and aspen.
97	4199 - Other Mixed Upland Deciduous	High Density Pole	9.3	87	111-140	
99	6120 - Lowland Cedar	High Density Pole	207.6	110		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
9	11 - Low Intensity Urban	1.5	No	Unspecified	County Road 415 and cleared ROW
12	6229 - Mixed lowland shrub	2.8	No	Unspecified	
16	11 - Low Intensity Urban	5.4	No	Unspecified	County Road 407 and cleared ROW
19	6225 - Bog	2.1	No	Unspecified	Small bog with beaver pond
26	6239 - Mixed Emergent Wetland	23.8	No	Unspecified	
27	11 - Low Intensity Urban	1.9	No	Unspecified	County Road 415 and cleared ROW
43	6239 - Mixed Emergent Wetland	35.5	No	Unspecified	
48	6229 - Mixed lowland shrub	2.1	No	Unspecified	
55	622 - Lowland Shrub	1.1	Unspecified	Unspecified	
57	50 - Water	1.2	Unspecified	Unspecified	
70	6224 - Treed Bog	3.5	No	Unspecified	
73	11 - Low Intensity Urban	4.7	No	Unspecified	Count Road 407 and cleared ROW
78	11 - Low Intensity Urban	1.3	No	Unspecified	County Road 422 and cleared ROW
81	6224 - Treed Bog	3.6	No	Unspecified	
83	6225 - Bog	14.1	No	Unspecified	Bog with small pond in SE corner, beaver activity
90	6224 - Treed Bog	7.7	No	Unspecified	
92	6225 - Bog	7.1	No	Unspecified	
93	50 - Water	3.3	No	Unspecified	East end of Cleveland Cliffs Lake



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
96	6229 - Mixed lowland shrub	7.5	No	Unspecified	
98	6229 - Mixed lowland shrub	47.1	No	Unspecified	Headwaters of Auger Creek
100	6229 - Mixed lowland shrub	3.0	No	Unspecified	Auger Creek runs through stand