



Compartment Review Presentation

Newberry Forest Management Unit

Compartment 42088

Entry Year 2017

Acreage: 1,294

County Luce

Management Area: 8 Mile Corner

Revision Date: 2015-08-31

Stand Examiner: Jason Tokar

Legal Description:

T47N R10W Sections 19, 30 & 31

Identified Planning Goals:

The overriding goal is to maintain or improve the forest health, productivity and diversity of the area. Treatments prescribed will help ensure the sustainability of the forest resource and continue to enhance the quality of the wildlife habitat. Aspen and hardwood management will continue with the current sustainable level of management, promoting an array of both age class and structural diversity in the cover types, not only within the compartment boundaries but also in relation to the adjacent resource. Harvest treatments will be increased in red pine stand which are silviculturally ready for management. Red pine stands will be harvested, burned and planted back to red pine. Due to a spruce budworm outbreak, spruce plantations in northern reaches of the compartment will be harvested, a number of which will be planted back to red pine. All management activities adjacent to Luce County Lease Lands should take into consideration the current management on those afore mentioned lands.

Soil and topography:

The predominant soil type of the compartment is a Liminga-Alcona complex; a fine sand to sandy loam soil type found on ground moraines or lake plains. Kalkaska sand (burned), an outwash sand, is also found throughout much of the compartment. Small pockets of lower ground consisting of bogs and treed bogs are scattered across the compartment. The overall topography of the compartment is level to slightly rolling.

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

Ownership pattern within and adjacent to this compartment is mixed. State lands are adjacent to the north and west with one private parcel bordering on the western compartment boundary. To the south is a mix of State land and private land. The eastern compartment boundary is bordered primarily by private ownership. Within the compartment the State lands form contiguous blocks with numerous small acreage private parcels adjacent to those blocks. While still under State ownership, some parcels within the compartment are under lease with Luce County. Development is moderate with many permanent residences, along with seasonal camps and cabins throughout the vicinity. Land use of the area is high. The main types of land use include hunting, ORV use and snowmobiling.

Unique Natural Features:

MNFI has not identified any species of concern within the compartment. The potential exists for various threatened and endangered flora and fauna.

Archeological, Historical, and Cultural Features:

The site of an old CCC camp is located within the compartment.

Special Management Designations or Considerations:

Approximately 200 acres within the compartment are under a lease agreement with Luce County (coded as Luce County Lease Land). Timber management on those lands is performed by Luce County through Grossman Forestry with approval of the DNR. Management on adjacent State land should take into account possible prescriptions and appropriate timing with harvests on Luce County Lease Land. Compartment 90, also a 2007 YOE compartment, is immediately adjacent to the west. This has been factored into proposed management activities for both compartments.

Watershed and Fisheries Considerations:

Fisheries Values: Poor

Fisheries Concerns: Many of the lakes in and near this compartment are surrounded by private ownership. The ones that are not provide very little in terms of fisheries to the angling public. Outside of some use by amphibians and reptiles the fisheries values here are poor in these waterbodies.

Standard BMP's should apply when working near surface water.

Wildlife Habitat Considerations:

Compartment 88- This compartment is located in the Grand Marais Sandy End Moraine and Outwash ecological sub-

subsection. The compartment is part of the 8 Mile Corner Management Area and pileated woodpecker, blackburnian warbler, and ruffed grouse and white-tailed deer are featured species in this management area. Vegetative diversity of this compartment is excellent with aspen and upland hardwoods comprising much of the total area and scattered conifers mixed throughout. Southern portions of the stand are dominated by red pine and openings. 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. Nest and den trees, snags, and woody debris will be maintained in stands where they exist. Wildlife species expected to be present in this compartment include deer, gray wolf, black bear, fisher, marten, ruffed grouse and sharp-tailed grouse.

Mineral Resource and Development Concerns and/or Restrictions

Sections 19 & 29-31, T47N R10W, Luce County

Surface sediments consist of an end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness (~ >100 feet). The Ordovician Trenton Formation and Collingwood and Utica shales subcrop below the glacial drift. The Trenton is quarried for limestone/dolomite in the UP. There are no gravel pits in the area but there is good potential. There is no economic oil and gas production in the UP.

Vehicle Access:

The compartment is approximately 8 miles northwest of Newberry. Access to the compartment is very good. County Road 407 runs along the east side of the compartment while County Road 455 and 422 provide east-west access to the compartment. Several woods roads (two track) transect the area providing additional access to the interior of the compartment.

Survey Needs:

For management activities to occur the following survey work is needed: verification of E1/16 on north line of section 19, NE1/16 and E1/16 of Section 19; verification n1/16 and the N1/16 on east section line of section 31.

Recreational Facilities and Opportunities:

Recreational facilities within the compartment include the Silver Creek ORV Trail and the Three Mile Snowmobile Trail. Other recreational opportunities include hunting, hiking, wildlife viewing and fishing on some private lakes in the area. The proximity of the compartment to the town of Newberry lends to a high amount of hunting activity. Numerous camps and permanent residences are located within the compartment boundary. Oswald's Bear Ranch is also located nearby. Interpretive opportunities exist for local school kids through the guidelines of the Luce County Lease Lands located within the compartment.

Fire Protection:

The compartment has good road access for fire suppression activities. Small stands of conifer intermixed with hardwoods and a moderate response time can keep the potential for large fires low in this compartment.

Additional Compartment Information:

Retention within prescribed treatments will not be located near ORV trails. Minimum of one (1) tree length away from the trail for all retention, individual tree and patch retention.

The following reports from the Inventory are attached:

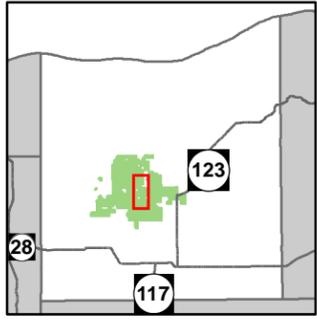
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

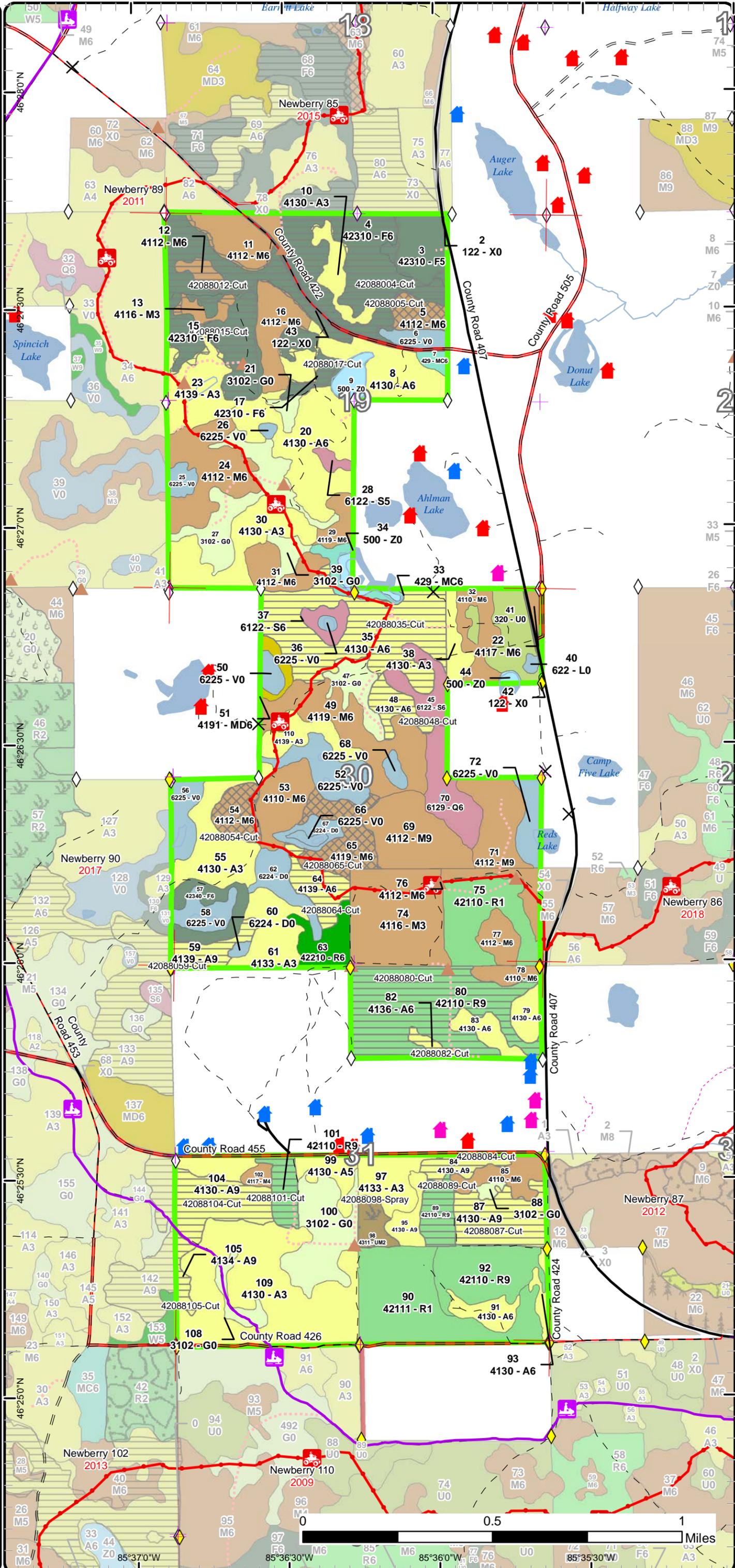
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 88
 T47N R10W 19, 30, 31
 County: Luce
 Unit: Newberry
 Mgmt Area: 8 Mile Corner
 YOE: 2017
 Acres: 1294 GIS Calculated
 Examiner: Jason Tokar
 Map Revised: 3/31/2016
 Map Phase: Post-Review



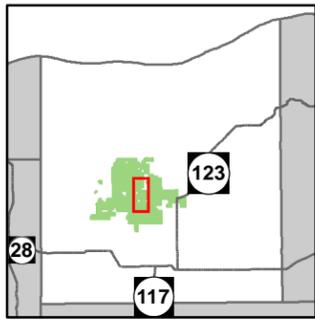
- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◆ Field Grade GPS Corners
- ORV Trails
- Snowmobile Trails
- ORV License & Trail Permit
- Designated ATV
- Designated Snowmobile Trails
- X Gate
- ▲ Berms
- Cabin
- House
- Structures, Seasonal Dwelling
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Rivers
- Compartment Boundary
- Treatments**
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Pesticide
- Forest Covertype**
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forests
- 612 - Lowland Coniferous Forest
- Non-Forest Covertype**
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 500 - Water
- 622 - Lowland Shrub
- Lakes



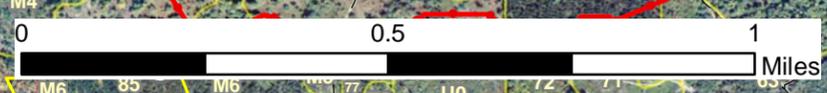
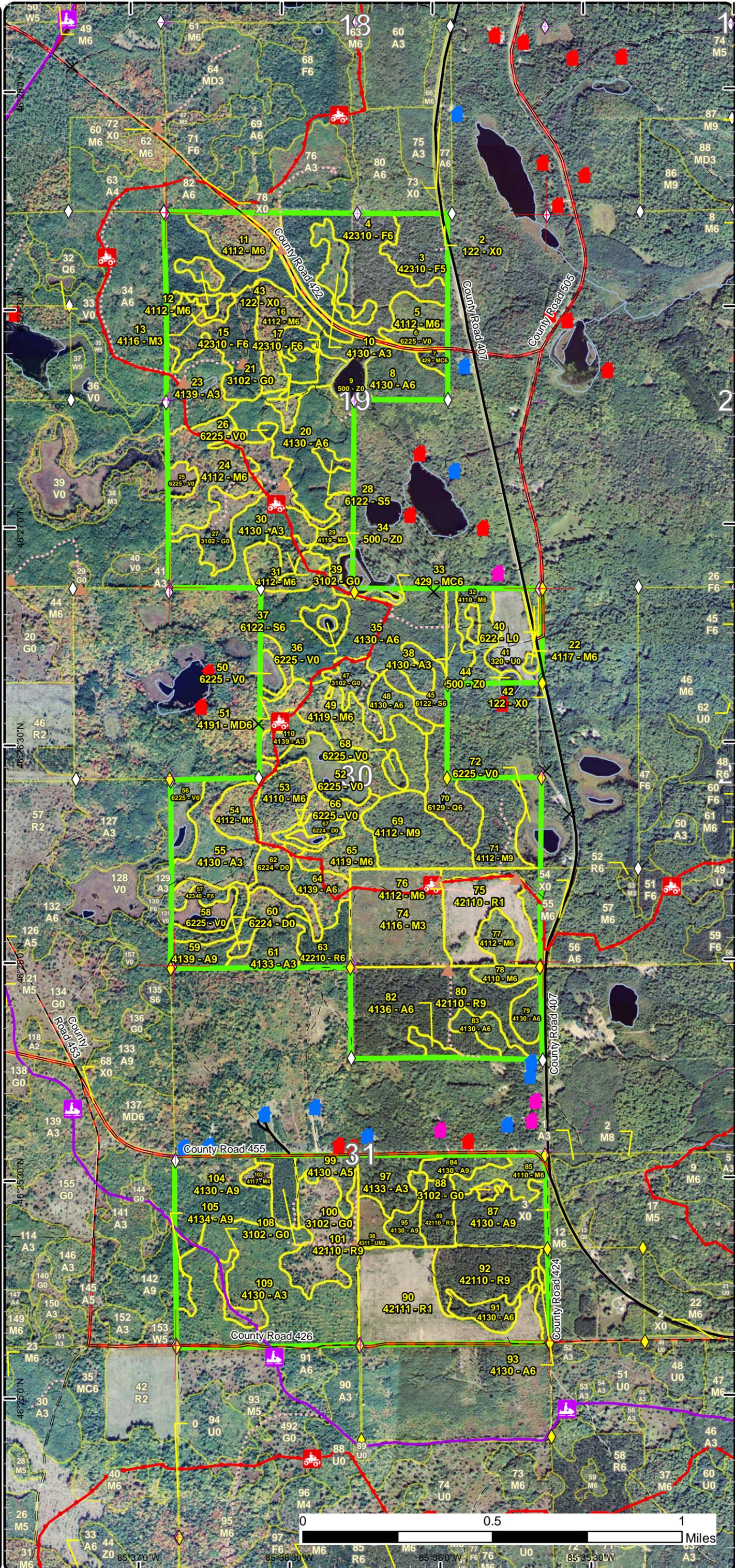
85°37'0"W 85°36'0"W 85°35'30"W 85°35'0"W

Stand Boundary Map

Compartment: 88
 T47N R10W 19, 30, 31
 County: Luce
 Unit: Newberry
 Mgmt Area: 8 Mile Corner
 YOE: 2017
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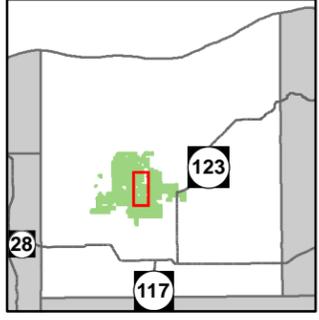


- Miris Corners
- Remonumented Section Corners
- Survey Grade GPS Corners
- Field Grade GPS Corners
- ORV Trails
- Snowmobile Trails
- ORV License & Trail Permit
- Designated ATV
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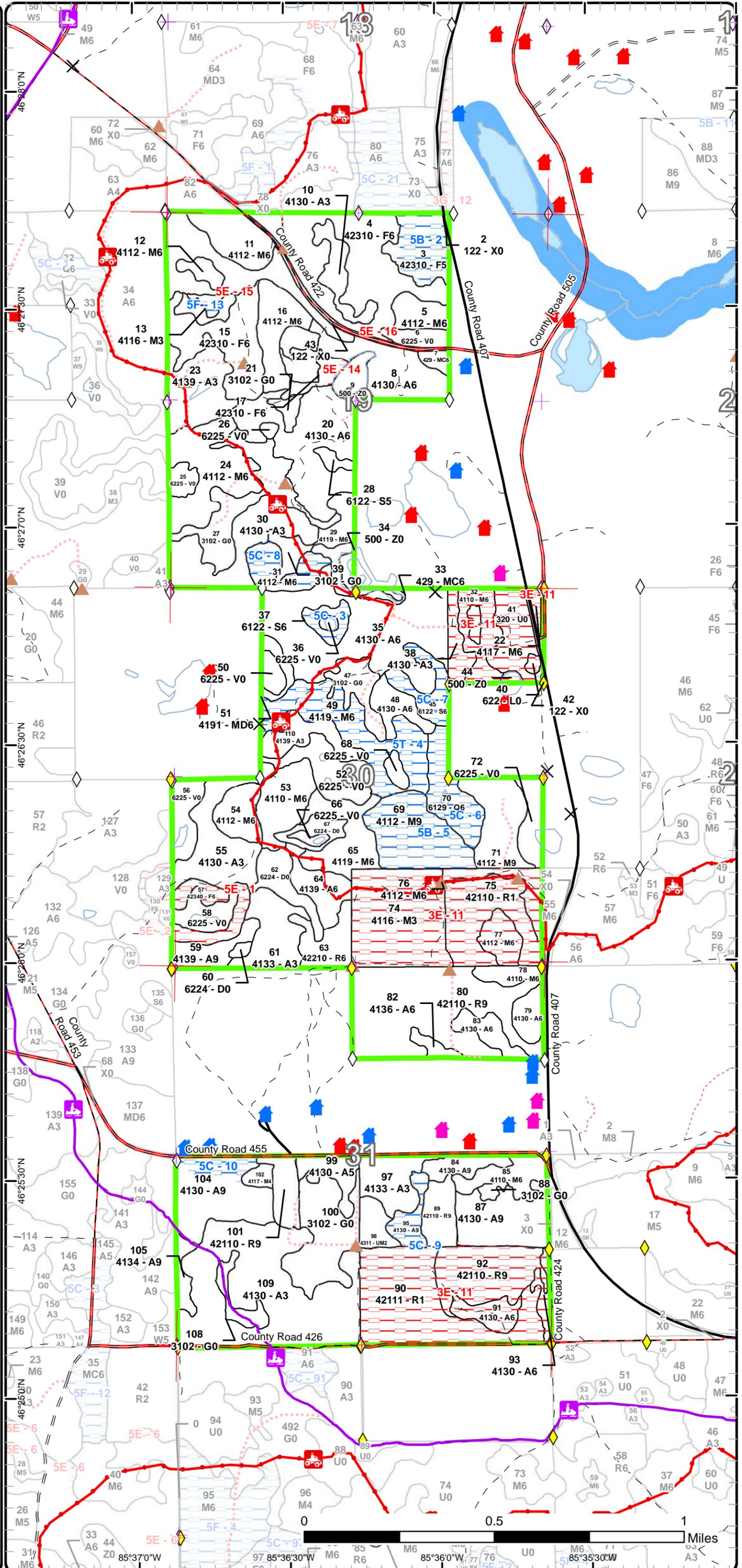


Special Conservation Areas & Site Conditions Map

Compartment: 88
 T47N R10W 19, 30, 31
 County: Luce
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- Miris Corners
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- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 5T: Contingency Treatment for Forest Health Concerns
- 3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)
- 5E: Long-Term Retention
- Stand Boundaries
- Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	172	27	64	11	16	84	55	12	0	0	0	0	0	0	0	0	8	449
Bog	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Herbaceous Openland	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
Lowland Conifers	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	16
Lowland Shrub	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	2	15	0	0	0	0	0	0	0	0	17
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
Northern Hardwood	0	41	4	0	3	0	0	0	0	0	0	0	0	0	0	0	0	251	299
Red Pine	0	72	0	0	0	0	68	43	0	0	0	0	0	0	0	0	0	0	183
Treed Bog	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Upland Conifers	0	0	0	0	0	0	3	0	0	5	0	0	0	0	0	0	0	0	8
Upland Mixed Forest	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Upland Shrub	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Upland Spruce/Fir	0	0	0	0	0	0	121	0	11	0	0	0	0	0	0	0	0	0	132
Urban	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Water	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	183	291	31	64	14	16	276	98	25	36	0	262	1296						



Report 2 – Treatment Summary

Newberry Mgt. Unit

Compartment 88

Year of Entry:

Acres of Harvest

Total Compartment Acres: 1,294

Commercial Harvest - 361
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	140	0	0	0	0	0	0	0	0	140
Northern Hardwood	4	35	0	0	0	0	0	0	0	39
Red Pine	75	0	0	0	0	0	0	0	0	75
Upland Spruce/Fir	107	0	0	0	0	0	0	0	0	107
Total	326	35	0	0	0	0	0	0	0	361

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	361	0	0	0	0	6	0	0	0	367
Next Step	0	189	350	0	155	311	744	0	0	1750
Total	361	189	350	0	155	317	744	0	0	2117



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
4	42088004-Cut	73.5	42310 - Planted Spruce	Poletimber Well	55	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Field Boundary

Habitat Cut: No Site Condition:

Prescription Clearcut. No retention. Leave mixed species in the red line. Stand is to be planted with red pine. Slash will be chipped. If chipping is not possible, slash will need to be burned. If areas regenerate naturally and fully to aspen, maple and cherry, these areas will be planted around to help add diversity to the area.

Next Step Burn, Slash; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Acceptable Red pine with areas of natural aspen, maple and cherry regeneration.

Other Early start date for treatment due to impacts of Spruce Budworm on the stand. Old next step comments:

Proposed Start Date: 10/28/2015

5	42088005-Cut	7.4	4112 - Maple, Beech, Cherry Association	Poletimber Well	71	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No Site Condition:

Prescription Selection harvest. Residual BA of 70-80 sq ft. Remove low quality, multi stem red maple. Favor good quality sugar maple and red maple poles as residual. Leave some conifer. Access from the west due to sandy slope on east side bordering Co Rd 407

Next Step Treatments:

Acceptable Red maple with hard maple, some white pine and cherry.

Other Old next step comments:

Proposed Start Date: 10/01/2016

12	42088012-Cut	3.6	4112 - Maple, Beech, Cherry Association	Poletimber Well	83	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Field Boundary
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Habitat Cut: No Site Condition:

Prescription Clearcut. No retention. Stand is to be planted with red pine. Slash will be chipped. If chipping is not possible, slash will need to be burned. If areas regenerate naturally and fully to aspen, maple and cherry, these areas will be planted around to help add diversity to the area.

Next Step Burn, Slash; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Acceptable Red Pine, with small pockets of natural aspen and maple regeneration.

Other Prescription is to not spray a second time on any portions of Stand 12 that may have good aspen regeneration coming in by that time. Portions of the stand that don't have good aspen regeneration can be sprayed as usual. The initial spray for site prep for planting can be done through the entire stand. Old next step comments:

Proposed Start Date: 10/28/2015

15	42088015-Cut	24.9	42310 - Planted Spruce	Poletimber Well	55	81-110	Harvest	Clearcut with Retention	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Field Boundary
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Habitat Cut: No Site Condition:

Prescription Clearcut with retention. Retain a few small patches of spruce, approximately 100 ft in diameter throughout the stand. Also retain portion of stand surrounded by stand 13. Retain one (1) white pine for every three (3) acres where present. Remove all species to ensure that the stand regenerates.

Next Step Monitoring, Natural Regen (Intermediate); SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Natural Regen (Re-Inventory)

Acceptable Aspen, maple, cherry, spruce and white pine.

Other Early start date for treatment due to impacts of Spruce Budworm on the stand. Old next step comments:

Proposed Start Date: 10/28/2015



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
17	42088017-Cut	8.3	42310 - Planted Spruce	Poletimber Well	55	81-110	Harvest	Clearcut with Retention	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clearcut with retention. Retain 2-3 spruce per acre. Could retain a couple large limby white pine as well. Remove all species to ensure that the stand regenerates.

Specs:

Next Step Monitoring, Natural Regen (Intermediate); SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Natural
Treatments: Regen (Re-Inventory)

Acceptable Aspen, maple, cherry and white pine with some spruce.

Regen:

Other Early start date for treatment due to impacts of Spruce Budworm on the stand. Old next step comments:

Comment:

Proposed Start Date: 10/28/2015

35	42088035-Cut	56.2	4130 - Aspen	Poletimber Well	59	111- 140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut with retention. Retention to be multiple pockets. One (1) retention pocket on east edge. Mature aspen and conifer to be left in red
Specs: line. Retain all hemlock. Retention not to exceed 3% of stand acreage. Use a 2 inch cutting spec on hardwoods.

Next Step

Treatments:

Acceptable Aspen with maple, balsam, white birch, cherry, spruce.

Regen:

Other Access could be through Luce County Lease Land and use abandoned E/W road to eliminate truck traffic on two track into private camp. Old
Comment: next step comments:

Proposed Start Date: 10/01/2016

48	42088048-Cut	8.0	4130 - Aspen	Poletimber Well	73	81-110	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut. No retention, small acreage, narrow stand with lots of edge. Leave mature aspen and conifer in red line. Leave all hemlock.

Specs:

Next Step

Treatments:

Acceptable Aspen with maple, balsam, white birch and white pine.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

54	42088054-Cut	9.7	4112 - Maple, Beech, Cherry Association	Poletimber Well	86	141- 170	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven- Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Selection harvest. Residual BA of 80-90. Concentrate on removing maple with dieback, beech, and larger maple. Create regeneration gaps,
Specs: open up the canopy in areas of advanced regen from the last harvest. Leave conifer.

Next Step

Treatments:

Acceptable sugar maple with red maple

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
59	42088059-Cut	8.7	4139 - Aspen, Mixed Deciduous	Sawtimber Well	66	111- 140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clearcut with retention. Retention in pockets, treatment boundary adjusted to account for retention areas. Leave one (1) large diameter white pine or spruce for every 3 acres. There will be a lot of small diameter aspen, maple, white pine retained after harvest. Timber sale cutting spec for maple down to 2 inches in diameter. Retention not to exceed 5% of stand area.

Next Step
Treatments:

Acceptable Aspen with maple, birch, cherry and conifers.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

64	42088064-Cut	10.6	4139 - Aspen, Mixed Deciduous	Poletimber Well	63	111- 140	Harvest	Clearcut	4134 - Aspen, Spruce/Fir	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut. No retention, 10 acres. Leave a few wolfy maple and a few large spruce.
Specs:

Next Step
Treatments:

Acceptable Aspen with balsam, spruce and maple.
Regen:

Other ORV trail runs through stand. Keep clear of slash. Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

65	42088065-Cut	18.1	4119 - Mixed Northern Hardwoods	Poletimber Well	81	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Selection harvest. Residual BA of 80 sq ft average. Mark aspen and spruce to cut, leave a component. Release around hemlock and yellow birch. Remove low quality red maple and sugar maple. Don't mark through low area with black spruce. Leave hemlock except in northern portion of the stand when needed to remove for operability. Leave large diameter White Pine.

Next Step
Treatments:

Acceptable Sugar maple with red maple, yellow birch, some aspen and hemlock.
Regen:

Other Access through Luce County Lease land Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

80	42088080-Cut	57.1	42110 - Planted Red Pine	Sawtimber Well	57	111- 140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut. No retention in order to facilitate planting to red pine. Leave non-pine in red line in west and south sides.
Specs:

Next Step Burn, Slash; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)
Treatments:

Acceptable Red pine
Regen:

Other Proposed to have the stand chipped during harvest due to the amount of advanced regeneration present and adjacency to private residence. If chipping isn't possible, stand will need to be burned for slash reduction
Comment:

The "fingers" of the stand between stands 79 and 83 and between stands 78 and 79 will not be burned or replanted to red pine. Let those areas regenerate naturally to aspen and maple. Old next step comments:

Proposed Start Date: 10/01/2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
82	42088082-Cut	3.0	4136 - Aspen, Mixed Conifer	Poletimber Well	40	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Clearcut with stand 80, replant to red pine to help block in the plantation. Portion of stand 80 between stands 79 and 83 will be clearcut but not planted back to red pine, swapped for this acreage. No retention to facilitate slash burn and planting.

Next Step Burn, Slash; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Acceptable Red pine
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

84	42088084-Cut	6.7	4130 - Aspen	Sawtimber Well	62	111-140	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Clearcut. No retention, small acreage, narrow stand. Hardwood stand (st 85) is not being cut, borders the stand to the south. Leave aspen in red line.

Next Step
Treatments:

Acceptable Aspen with maple, spruce and balsam.
Regen:

Other Recommend using a 2 inch spec on the hardwoods in the sale. Access from the south. No need for new driveway off Co Rd 455. Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

87	42088087-Cut	22.0	4130 - Aspen	Sawtimber Well	66	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Clearcut with retention. Retention to be in patches. Leave multiple retention patches, one (1) along south side. Leave aspen and conifer in red line. Good spot for retention - south side of stand 88 - mix of aspen and spruce. Retention not to exceed 3% of stand acres. Recommend a 2 inch timber sale spec on the maple.

Next Step
Treatments:

Acceptable Aspen with maple, white birch, spruce and balsam.
Regen:

Other Access from the east and south. Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

89	42088089-Cut	9.6	42110 - Planted Red Pine	Sawtimber Well	67	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Clearcut. No retention in order to facilitate planting to red pine.
Specs:

Next Step Burn, Slash; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Acceptable Red pine
Regen:

Other Propose to get the stand chipped due to the amount of advanced regeneration present. If chipping isn't possible, stand will need to be burned for slash reduction. Old next step comments:
Comment:

Proposed Start Date: 10/01/2016



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
98	42088098-Spray	6.5	4311 - Pine, Aspen Mix	Sapling Medium	8	Immature	Pesticide	Skidder/Mechanical	4212 - Planted Jack Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Herbicide application to release jack pine and red pine planting, to control/reduce/eliminate hardwood competition and promote jack pine and red pine.
Specs:

Next Step Monitoring, Herbicide Use; Planting, Interplant
Treatments:

Acceptable Jack pine and red pine with a minor component of maple, cherry and aspen.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

101	42088101-Cut	8.6	42110 - Planted Red Pine	Sawtimber Well	67	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut, no retention to facilitate prescribed burn and planting to red pine. Leave species diversity in the red line. Recommend a 2 inch timber sale spec on the maple.
Specs:

Next Step Burn, Slash; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)
Treatments:

Acceptable Red pine
Regen:

Other Propose to get the stand chipped during harvest operations due to the amount of advanced regeneration present. If chipping doesn't happen, stand will need to be burned for slash reduction. Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

104	42088104-Cut	20.6	4130 - Aspen	Sawtimber Well	59	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut with retention. Retention to be in multiple patches, one (1) to be along Stand 109. Leave aspen and conifer in red line. Retention not to exceed 3% of total stand area. Buffer Co Rd 455 to end of the pavement.
Specs:

Next Step
Treatments:

Acceptable Aspen with maple, cherry, balsam and spruce.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

105	42088105-Cut	4.2	4134 - Aspen, Spruce/Fir	Sawtimber Well	72	111-140	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut with reserves (in conjunction with Stand 142, Comp 90). Could retain all white pine over 20 inches, and 1 large white spruce per acre where present. Retention would be in patches. Total retention not to exceed 5% of total stand acreage.
Specs:

Next Step
Treatments:

Acceptable Aspen with maple, spruce, balsam and white pine.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/01/2016

Total Treatment Acreage Proposed: 367.3

Report 5 – Site Conditions

Newberry Mgt. Unit
Jason Tokar : Examiner

Compartment: 88
Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available		Dominant Site Conditions						
		With Condition				5B	5C	5F	5T	3E	5E	
449	417	14		18	Aspen		14				18	
59	59	0		0	Bog							
73	73	0		0	Herbaceous Openland							
16	0	16		0	Lowland Conifers		16					
1	0	0		1	Lowland Shrub					1		
17	2	15		0	Lowland Spruce/Fir		15					
3	3	0		0	Mixed Upland Deciduous							
298	159	70		70	Northern Hardwood	26	11		32	70		
183	86	0		97	Red Pine					97		
16	16	0		0	Treed Bog							
8	8	0		0	Upland Conifers							
6	6	0		0	Upland Mixed Forest							
16	0	0		16	Upland Shrub					16		
131	105	15		12	Upland Spruce/Fir	14		1			12	
8	8	0		0	Urban							
10	9	0		1	Water					1		
1,294	951	129		215	Total Forested Acres	40	56	1	32	203	12	
	73%	10%		17%	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
1	Unavailable	5E: Long-Term Retention	11	3J: Water quality / BMPs (stream, river, or lake)	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified
Comments: Evaluated for SBW							
2	Available	5B: Maintain for regeneration purposes	14	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
Comments: Evaluated for SBW.							

Report 5 – Site Conditions

Newberry Mgt. Unit
Jason Tokar : Examiner

Compartment: 88
Year of Entry: 2017

3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	5T: Contingency Treatment for Forest Health Concerns	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments: If mortality continues to increase in the maple, stand will be harvested by shelterwood prior to the next inventory cycle.							
5	Available	5B: Maintain for regeneration purposes	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Newberry Mgt. Unit
Jason Tokar : Examiner

Compartment: 88
Year of Entry: 2017

9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Treatment removed per request of wildlife division.							
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Portion of stand 104 along Co Rd 455 will be held for age class diversity as well as for a visual buffer due to the amount of harvests prescribed along the road.							
11	Unavailable	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	203	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Luce County Lease Land							
13	Available	5F: Evaluated for Forest Health Considerations	1	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments: Evaluated for SBW. Maintained this portion of stand 15 for age class and species diversity.							
14	Unavailable	5E: Long-Term Retention	1	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Newberry Mgt. Unit
Jason Tokar : Examiner

Compartment: 88
Year of Entry: 2017

16	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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
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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	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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	42310 - Planted Spruce	Poletimber Medium	15.7	55	1-50	Stand planted in 1961, Hardwoods, aspen, birch and balsam all removed in 2000-2001 (sale #053-97). Released the spruce. Open areas are more of an A3/M3. Pockets of thicker spruce. Stand has been hit by budworm again this summer. 2/3-3/4 of trees affected. Stand has good regeneration of aspen, maple, birch and some cherry from the previous harvest. Possibly hold this stand due to amount of cutting in adjacent stands, visual concerns along the road. May lose the spruce eventually out of the stand, stand may convert to a mixed aspen and maple stand. Kalkaska sand.
4	42310 - Planted Spruce	Poletimber Well	69.1	55	111-140	<p>Planted in 1961. Some release work done by Title X Crew in 1976. Stand extends into Compartment 85 (stand 69). Areas thicker to spruce are still an F6. Spruce BA averages 90-130. Areas with 20-30 BA of white pine as well. Scattered aspen and a few maple and cherry. The portions of the original plantation which contained more aspen and maple have been harvested and converted to aspen stands, in an effort to promote diversity in the area.</p> <p>Spruce budworm has hit the stand again this summer. 2/3-3/4 of the trees are affected. Substantial defoliation on branches, needles are browning. This is at least the 3rd time the stand has been hit by budworm in past 13 years. Mortality starting to show in the stand. Overall stand health is declining. Treat the stand with a clearcut and plant it back to red pine. Only very minor components of aspen, maple, cherry and white pine in this portion of the plantation. Stand won't fully regenerate. In areas where aspen and maple regenerate fully, planting will go around them. Kalkaska sand.</p>
5	4112 - Maple, Beech, Cherry Association	Poletimber Well	7.4	71	111-140	Primarily lesser quality red maple with some better quality single stem hard maple. Most of the stand is multiple stem red maple. Component of black cherry. Pockets of advanced white pine in teh understory (west end). Kalkaska sand.
7	429 - Mixed Upland Conifers	Poletimber Well	2.6	55	51-80	Small stand along Co Rd 422. Spruce, but not as thick as other portions of the plantation. Try to hold this stand for diversity in the area. Maple, aspen and white pine also in the stand. If spruce dies out as a result of budworm, stand should regenerate to other species present. Planted in 1961. Some release work done by Title X Crew in 1976. Small diameter spruce. Kalkaska sand.
8	4130 - Aspen	Poletimber Well	25.3	25	1-50	Stand cut as sale #029-89-01. Completed 10/18/1991. Nice, thick aspen regeneration. Stand is transitioning to a pole size stand. Still areas of an aspen sapling stand but overall stand is now a small pole stand. Averaging 40-60 BA in pole size areas. Good wildlife habitat. Liminga-Alcona complex.
10	4130 - Aspen	Sapling Well	9.3	8	Immature	Stand harvested as "422 Contract Mix", sale #038-07-01. Completed 10/23/08. Nice aspen regeneration with component of maple and cherry. 10-15 ft tall regen. Thick. Minor component of balsam and spruce as well. A few scattered large diameter white pine retained after harvest. Kalkaska sand.
11	4112 - Maple, Beech, Cherry Association	Poletimber Well	16.6	92	81-110	<p>Stand harvested via selection as "422 Contract Mix", sale #038-07-01. Complete 10/23/08.</p> <p>Mostly red maple with some hard maple and black cherry. A few small sawlog diameter trees. Some good quality staight boles. Less quality along Co Rd 422 (both sides). Stand was non-commercially thinned in the past. Kalkaska sand.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	4112 - Maple, Beech, Cherry Association	Poletimber Well	3.6	83	81-110	Poor quality red maple stand with a thick balsam understory. Fair amount of aspen along the stand's western edge. Hold stand from treatment due to surrounding spruce stand prescribed for final harvest and planting to red pine. Check for treatment in 10 years Kalkaska sand.
13	4116 - Mixed N. Hardwood - Aspen	Sapling Well	3.9	15	Immature	Stand was cut as sale #053-97. Converting to a maple and aspen mix. Mainly red maple stump sprouts. 10-20 ft tall maple, cherry with some aspen. A few spruce scattered within the stand, residual from harvest. Liminga-Alcona complex.
15	42310 - Planted Spruce	Poletimber Well	27.3	55	81-110	Planted in 1961. Some release work done by Title X Crew in 1976. Stand cut as sale #053-97 (422 hardwoods). This was a delayed removal. Completed 01/02/02. Areas in the stand that had more hardwoods and aspen are now more of an F4/F5 with an M3/A3 understory. Areas thicker to spruce are still an F6. Spruce BA averages 90-130. Spruce budworm has hit the stand again this summer. 2/3-3/4 of the trees are affected. Substantial defoliation on branches, needles are browning. This is at least the 3rd time the stand has been hit by budworm in past 13 years. Mortality starting to show in the stand. Overall stand health is declining. Stand has a component of maple, aspen and white pine. Treat the stand with a clearcut and let it regenerate naturally. Based on regeneration in portions of the stand from previous harvest as well as in stand 13 from the previous harvest, maple, aspen and white pine should regenerate well. Liminga-Alcona soil complex.
16	4112 - Maple, Beech, Cherry Association	Poletimber Well	14.6	92	81-110	Stand harvested via selection as "422 Contract Mix", sale #038-07-01. Some good quality in the stand. Straight boles in both red maple and hard maple. Tall trees. Rolling hills. Pockets with a thicker balsam understory. Decent quality throughout. Some dieback in red maple tops. Check stand in 10 years to see what the condition is. Liminga-Alcona soil complex.
17	42310 - Planted Spruce	Poletimber Well	8.2	55	81-110	Planted in 1961. Some release work done by Title X Crew in 1976. Spruce BA averages 90-130. Small diameter spruce in areas. Spruce budworm has hit the stand again this summer. 2/3-3/4 of the trees are affected. Substantial defoliation on branches, needles are browning. This is at least the 3rd time the stand has been hit by budworm in past 13 years. Mortality starting to show in the stand. Overall stand health is declining. Stand has a component of maple, aspen and white pine. Treat the stand with a clearcut and let it regenerate naturally. Based on regeneration in portions of the stand from previous harvest as well as in stand 13 from the previous harvest, maple, aspen and white pine should regenerate well.
20	4130 - Aspen	Poletimber Well	38.2	25	1-50	Stand cut as sale #029-89-01. Completed 10/18/1991. Nice, thick aspen regeneration. Stand is transitioning to a pole size stand. Still areas of an aspen sapling stand but overall stand is now a small pole stand. Averaging 40-60 BA in pole size areas. Good wildlife habitat. Liminga-Alcona complex.
22	4117 - Mixed N. Hardwood - Pine	Poletimber Well	1.6	81	81-110	LUCE COUNTY LEASE LAND. Small stand in between Co Rd 407 and Co Rd 505. Some red pine from the 1949 planting along Co Rd 407. Hard maple and beech.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	4139 - Aspen, Mixed Deciduous	Sapling Well	19.9	15	Immature	Stand was cut as sale #053-97. Converted to aspen. Nice regeneration 10-12 ft tall. Stand was originally poor quality hardwoods with scattered large overmature aspen throughout. Some nice M3 regeneration mixed in. Large ravine through the stand. Liminga-Alcona soil complex.
24	4112 - Maple, Beech, Cherry Association	Poletimber Well	26.7	83	81-110	Semi-open stand in spots. Multiple stems, shorter heights. Some quality in single stem sugar maple. Scattered pockets of large diameter aspen. More red maple with aspen along the bog. Component of beech and cherry, thought most beech is dying out. ORV trail runs through the stand. Liminga-Alcona soil complex.
28	6122 - Black Spruce	Poletimber Medium	2.3	71	1-50	Small spruce bog with small diameter black spruce. Dawson, Greenwood and Loxley peats.
29	4119 - Mixed Northern Hardwoods	Poletimber Well	6.1	81	81-110	Red maple with hard maple, balsam and some aspen along the edges. Lower quality, multiple stems. Aspen and balsam along the private property. F2/M2 understory (beech, balsam, maple). Liminga-Alcona soil complex.
30	4130 - Aspen	Sapling Well	25.3	8	Immature	Stand harvested as "422 Contract Mix", sale #038-07-01. Completed 10/23/08. Stand continues into Compartment 90. Aspen with maple, cherry and some white birch 10-20 ft tall on average. Residual maple and cherry poles retained after harvest. Also some large diameter white pine retained. Small bog included in the stand. Liminga-Alcona soil complex.
31	4112 - Maple, Beech, Cherry Association	Poletimber Well	11.3	81	111-140	Maple stand with some good quality, straight clear boles in sugar maple. Scattered large beech and an occasional aspen. Most of the beech is dead or dying out. Stand quality decreases along the edges. ORV trail runs through the stand. Hold for 10 years due to the amount of harvests proposed in the vicinity. Small opening included in western portion of the stand. Liminga-Alcona soil complex.
32	4110 - Sugar Maple Association	Poletimber Well	11.9	86	51-80	LUCE COUNTY LEASE LAND. Stand was thinned by selection harvest in 2009-2010. Old notes: Stand sold as a sale in 2001. Thinned from 2001-2003. Multiple stems, lower quality. Most of larger diameter trees removed in the most recent harvest. The western portion of the original stand (stand 21) was clearcut. The county is planning to evaluate the stand for a traditional thinning/selection in 2009 when stand 740 and 741 are harvested.
33	429 - Mixed Upland Conifers	Poletimber Well	5.2	81	81-110	Large, limby white pine, balsam with spruce and poor quality red maple bordering a small pond and private land. Mature balsam is healthy and of good quality. Some beaver activity on the hardwoods within the stand. Eastern portion of the stand is more white pine, western portion is more balsam and spruce. ORV trail runs through the majority of the stand. Liminga-Alcona soil complex.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	4130 - Aspen	Poletimber Well	56.2	59	111-140	Mature aspen stand. Showing mortality and rot in all diameter sizes of aspen. Blowdown in areas. Pockets of small diameter aspen in more open areas. Overall average diameter of aspen in the stand is 10-11. BA ranges from 60 - 130 sq ft. Two ages taken...55 years and 60 years. Good heights averaging 5-6 sticks on aspen. Balsam, red maple and cherry mixed in. Old notes state that stand was clearcut and TSI'd in 1975. Liminga-Alcona soil complex and Paquin-Finch sands.
37	6122 - Black Spruce	Poletimber Well	4.9	84	81-110	Small diameter, short black spruce. Very wet stand. Small bog in the middle of the stand. Dawson, Greenwood and Loxley peats.
38	4130 - Aspen	Sapling Well	6.7	14	Immature	LUCE COUNTY LEASE LAND. Stand was clearcut in 2001-2002. Regenerating to aspen on the north and south portions and more of an M2/A2 in the middle. Stand was originally part of stand 739 (originally Stand 21).
45	6122 - Black Spruce	Poletimber Well	10.2	84	81-110	Small diameter, wet black spruce stand. Spruce average diameter of 7 inch. Tamarack and white pine. Component of small diameter white birch and red maple. Carbondale, Lupton and Tawas mucks.
48	4130 - Aspen	Poletimber Well	8.0	73	81-110	Aspen, balsam and red maple. Low quality in the hardwoods. Mortality and decay showing in large diameter aspen. Component of hard maple and white birch within the stand Liminga-Alcona soil complex.
49	4119 - Mixed Northern Hardwoods	Poletimber Well	32.0	83	111-140	Stand is a mix of red maple, hard maple, beech, yellow birch, and balsam. Multiple stem maple, seams. Pockets of aspen and also some individual aspen, all large diameter. Some good quality near the private. Lower BA (M5) around the openings that are filling in. Red maple is starting to show top dieback and also some mortality. Clumpy appearance to the stand. Hold for 10 years because of the amount of cutting prescribed in the compartment. Liminga-Alcona soil complex.
51	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	3.5	81	81-110	Border around a bog. Large aspen, some maple, balsam and white pine. Beaver activity has altered the stand composition and density. More of an M6 with a thick M3 understory. Maple and aspen throughout. Paquin-Finch sands.
53	4110 - Sugar Maple Association	Poletimber Well	15.3	86	81-110	Stand harvested via selection as sale #040-07-01, Red's Lake Mix. Completed 05/13/10. Mix of hard maple and red maple. Good regeneration from the harvest. BA 80-90. Scattered yellow birch. Liminga-Alcona soil complex.
54	4112 - Maple, Beech, Cherry Association	Poletimber Well	9.7	86	141-170	Old notes state the stand was "heavily thinned in 1969". Lots of large diameter maple throughout. Primarily an M9 stand with areas of M6. The stand has a "patchy" appearance in areas. Good quality in sawlogs. Beech is dying out and there is some top dieback in the larger maple. ORV trail is the eastern boundary of the stand. Liminga-Alcona soil complex.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
55	4130 - Aspen	Sapling Well	23.0	6	Immature	Stand harvested via final harvest as sale #040-07-01, Red's Lake Mix. Completed 05/13/10. Stand is regenerating well. Thick aspen regeneration with maple and cherry, balsam and spruce scattered throughout. Regen is 10+ ft tall.
57	42340 - Upland Spruce/Fir	Poletimber Well	10.7	71	81-110	Stand consists of the spruce/balsam edge around the bog as well as the "buffer" left from the adjacent timber sale. Balsam fir, white pine, spruce, maple. Beaver have removed almost all aspen from the stand. Younger aspen trying to regenerate in those open areas. Kalkaska sand with some Liminga-Alcona soil complex.
59	4139 - Aspen, Mixed Deciduous	Sawtimber Well	8.7	66	111-140	Mature aspen over younger maple. Black cherry, sugar maple, red maple, white birch. Scattered large white pine and white spruce. Mortality and rot in the aspen. Areas of shorter aspen. Smaller aspen along stand edges. BA ranges from 80-140. Few pockets of medium quality sugar maple. White birch is patchy, showing decline. Kalkaska sand.
61	4133 - Aspen, Mixed Pine	Sapling Well	16.7	7	Immature	Stand harvested as "Porky Pine", sale #005-07-01. Complete 6/3/09. White pine and red pine left as residual. Aspen, maple and cherry regeneration is thick, 10-20 ft tall average. Less regeneration in areas where red pine and white pine was left as residual.
63	42210 - Natural Red Pine	Poletimber Well	10.9	56	111-140	Stand harvested as "Porky Pine", sale #005-07-01. Complete 6/3/09. Planted 1960. Rows run roughly north and south and are approx. 12ft apart. Current BA averages 110-140 sq ft. Quite a bit of maple and aspen encroachment in the subcanopy from adjacent harvests. Hold for 10 years with amount of adjacent harvests prescribed. Liminga-Alcona soil complex.
64	4139 - Aspen, Mixed Deciduous	Poletimber Well	10.6	63	111-140	Pockets of low quality maple throughout. Good conifer component. Open areas. Aspen is tall and fairly healthy. Some areas where aspen is lower quality and showing rot. ORV trail runs through the stand. Old notes state "aspen was cut in 1973". The 1973 cut must not have been a clean cut. Liminga-Alcona soil complex.
65	4119 - Mixed Northern Hardwoods	Poletimber Well	18.1	81	111-140	Sugar maple with red maple, yellow birch and large aspen. Component of hemlock and spruce. Primarily sugar maple. Some decent quality in the sawlog sugar maple. Fairly tall trees. Northern portion of the stand contains more hemlock and spruce (pockets). Most of the aspen is along the edge of the trees bog. Good quality in the understory. Pockets of yellow birch throughout stand. Liminga-Alcona soil complex.
69	4112 - Maple, Beech, Cherry Association	Sawtimber Well	26.4	86	111-140	Thinned as sale #19-97. Completed 12/30/98. Mix of hard maple and red maple. Some good quality in the sugar maple. Slight top dieback on some red maple. Some scattered beech throughout, but most of the beech is dead now. Good regeneration coming in, mix of maple and beech. Skid trails from the harvest are filling in with saplings. Allow the advanced regeneration to establish for another 10 years before harvest. Overstory BA ranges from 70-120. Some open areas in canopy still, especially where beech has died out. Liminga-Alcona soil complex.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	15.6	84	81-110	Mix of spruce and tamarack with some hemlock and white pine. More hemlock on the edge of the hardwoods. More tamarack along the edge of the pond within the stand. Dawson, Greenwood and Loxley peats.
71	4112 - Maple, Beech, Cherry Association	Sawtimber Well	19.0	86	81-110	Stand harvested via selection as sale #051-08-01, Section 30 Hardwoods. Complete 07/02/10. Tall, straight maple. Some good quality in both the hard maple and red maple. Scattered black cherry. Drainage flowing west to east through the middle of the stand (from bog to west to the pond to the east). Slightly less quality in the north portion of the stand. Liminga-Alcona soil complex.
74	4116 - Mixed N. Hardwood - Aspen	Sapling Well	40.9	6	Immature	LUCE COUNTY LEASE LAND. Stand was originally 2 stands. All clearcut (2003, 2007) and proposed to be planted to red pine. Stand had a chemical site prep 09/04/2008. Another chemical site prep in Fall 2011. Prescribed burn (DNR) done in 2011. Not a clean burn, didn't kill/knock back much of the hardwood competition. Trenched in Fall 2012. Planting to red pine didn't happen. Grossman Forestry (on behalf of Luce County) decided to let the stand continue to regenerate to aspen, maple, cherry, etc. Old notes: Stand was originally planted in 1960. Recently final harvested in 2003-2004. Management plan states that the stand is to be re-planted to red pine after final harvest. Grossman Forestry will have a planting plan developed next spring to replant the stand back to red pine. The site will be herbicided, trenched and planted, followed by a release.
75	42110 - Planted Red Pine	Sapling Poor	26.0	5	Immature	LUCE COUNTY LEASE LAND. Stand was harvested in 2011. Trenched 09/16/2011. Planted 10/24/2011. Released 09/03/2013. Replanted 11/17/2014. Scheduled for release in 2016 if needed. Stand was set up for sale in 2003, thinned between 2003-2004. January 2004 Administrative Update - Luce County Lease Lands list this stand as prescribed for harvest again in 2011. The plan of the county forester is to evaluate the stand for final harvest, followed by site preparation and planting back to red pine, in accordance with the management plan specifications. Treatment should be within the guidelines established in the management plan of the Luce County Lease.
76	4112 - Maple, Beech, Cherry Association	Poletimber Well	8.3	86	81-110	LUCE COUNTY LEASE LAND. Open canopy maple stand with M3 understory. Pocket of aspen in the middle of the stand along the road. Some quality in the stand. Some large diameter beech. Liminga-Alcona soil complex.
77	4112 - Maple, Beech, Cherry Association	Poletimber Well	7.5	86	81-110	LUCE COUNTY LEASE LAND. Originally prescribed by county for conversion to red pine. Recommend leaving as hardwood stand. Some quality within the stand. Scattered yellow birch. Basal area ranges from 90-110 sq ft on average. Liminga-Alcona soil complex. The most recent information from the county forester is to maintain as a hardwood stand and evaluate for a traditional thinning/selection within the next 10 years, probably in 2011 when stand 75 is harvested. Update 2015: Stand was not thinned as part of the sale when stand 75 harvested.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
78	4110 - Sugar Maple Association	Poletimber Well	4.9	86	81-110	Small hardwood stand bordering Co Rd 407 and Luce County Lease Land. Some quality in the hard maple. Both sugar maple and red maple are multiple stems. Stand BA averages 100-130. M6 stand with an M9 component. Occasional aspen. Liminga-Alcona soil complex.
79	4130 - Aspen	Poletimber Well	6.3	40	51-80	Young pole size aspen. Areas still sapling size aspen. Good conifer component. Component of white birch along Co Rd 407. Log size red pine throughout the stand. Thick stand. Liminga-Alcona soil complex.
80	42110 - Planted Red Pine	Sawtimber Well	57.1	57	111-140	<p>Stand was thinned as sale #550-07-01. Completed 06/03/2009. Limby trees, large diameters, averaging 14 inches. Lots of porcupine damage throughout the stand, especially in eastern portions near the aspen stands. Quality and heights vary throughout the stand. Tall 7 stick red pine in areas down to 4 sticks in other areas. Stand should be harvested and replanted.</p> <p>Red Pine plantation planted in 1959. East and west rows. Some larger (12-14" dbh) trees that are fairly limby. Low quality logs. More aspen in the east half of the stand. No evidence of the stand ever being thinned. High basal area. Prescribe for a thinning, 3rd row thinning if spacing between rows allows. If tight in areas, go to a method of removing 2 rows and leaving 3 rows. Management objective is to thin the stand and improve the growth and vigor of the residual trees. No alternative MO is needed. Liminga-Alcona soil complex. ***Stand harvested as "Porky Pine", sale #005-07-01. Complete 6/3/09.</p>
82	4136 - Aspen, Mixed Conifer	Poletimber Well	3.0	40	51-80	Young aspen. Small diameters. Thick stand. This stand will be clearcut with stand 80, replanted to red pine to help block in the plantation. Portion of stand 80 between stands 79 and 83 will be clearcut but not planted back to red pine, swapped for this acreage. Liminga-Alcona soil complex.
83	4130 - Aspen	Poletimber Well	6.9	40	51-80	Young pole size aspen. Component of A3 still in the stand. Pocket of sugar maple in the middle of the stand. Component of balsam and spruce. Component of log size red pine. Thick stand. Liminga-Alcona soil complex.
84	4130 - Aspen	Sawtimber Well	6.7	62	111-140	Mature aspen along County Rd 455. Showing signs of mortality, blowdown and decline. Aspen diameters range from 8-9 to 12-14 inches. Good component of balsam and spruce in the understory. Advanced maple understory. Maple averages 7-8 inches in pole timber. Liminga-Alcona soil complex.
85	4110 - Sugar Maple Association	Poletimber Well	10.1	86	81-110	Sugar maple stand with aspen and balsam. Multiple stems, doubles and triples. Clumpy appearance to the stand. Some beech. Some better quality in the single stem maple. Stand will provide a nice "visual break" for the adjacent aspen clearcuts. Liminga-Alcona soil complex.
87	4130 - Aspen	Sawtimber Well	22.0	66	111-140	Mature aspen. Lots of mortality and blowdown in the aspen. Aspen diameters vary throughout the stand. Pockets of spruce and balsam. White birch component. Lots of small diameter maple, 3-4 inches. Semi-open areas on western stand boundary. Thick pockets with high BA. Spruce around the openings. Liminga-Alcona soil complex.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
89	42110 - Planted Red Pine	Sawtimber Well	9.6	67	111-140	Planted in 1949. Stand was thinned as sale #026-97. Removed all species other than red pine and also marked red pine. Thick M3/A3 understory now present after the harvest. Maple, cherry and beech 10-20 ft tall and thick. Good quality in the residual red pine. Average 14 inch diameter. BA ranges from 60 up to 140. Liminga-Alcona soil complex.
90	42111 - Planted Red Pine, Mixed Deciduous	Sapling Poor	46.4	5	Immature	<p>LUCE COUNTY LEASE LAND. Stand was clearcut in 2011. Trenched Fall 2012. Planted in Fall 2012. Released (spray) 09/03/2013, a portion of the red pine were killed by the herbicide mix. Re-planted 11/17/2014.</p> <p>Old Notes: Stand was set up for sale in 2000, thinned between 2000 and 2002. No exact time available. Fairly well spaced crowns. The January 2004 Administrative Update for the Luce County Lease Lands, written by Grossman Forestry Company states that this stand is prescribed for another harvest in 2010. The county forester's plan is to evaluate the stand for final harvest, to be followed by site preparation and planting back to red pine, in accordance with the management plan specifications. Treatment of the stand should be within the guidelines established in the management plan of the Luce County Lease.</p>
91	4130 - Aspen	Poletimber Well	7.1	34	1-50	LUCE COUNTY LEASE LAND.
92	42110 - Planted Red Pine	Sawtimber Well	24.5	67	111-140	<p>LUCE COUNTY LEASE LAND. Stand was partially thinned through in 2011. This stand is a portion of the originally larger R9 stand that was removed from the clearcut prescription. A portion of the stand was thinned and the rest was not managed.</p> <p>Old notes: Stand was set up for sale in 2000, thinned between 2000 and 2002. No exact time available. Fairly well spaced crowns. The January 2004 Administrative Update for the Luce County Lease Lands, written by Grossman Forestry Company states that this stand is prescribed for another harvest in 2010. The county forester's plan is to evaluate the stand for final harvest, to be followed by site preparation and planting back to red pine, in accordance with the management plan specifications. Treatment of the stand should be within the guidelines established in the management plan of the Luce County Lease.</p>
93	4130 - Aspen	Poletimber Well	4.3	34	1-50	LUCE COUNTY LEASE LAND.
95	4130 - Aspen	Sawtimber Well	6.6	66	111-140	Mature aspen. Lots of mortality and blowdown in the aspen. Aspen diameters vary throughout the stand. Pockets of spruce and balsam. White birch component. Lots of small diameter maple, 3-4 inches. Thick pockets with high BA. Spruce around the openings. Liminga-Alcona soil complex.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
97	4133 - Aspen, Mixed Pine	Sapling Well	13.8	8	1-50	<p>Stand harvested as "455 Pine", sale #032-07-01. Completed 11/12/08. Thinned. Jack Pine removed and Red Pine thinned. Summer 2012: Aspen = 2740. Stand is regenerating to nice aspen and maple regeneration. Thick regeneration with residual red pine. No treatment prescribed. Allow the stand to convert to aspen, maple with a large diameter red pine component.</p> <p>Old Notes: Planted to red pine in fall of 1949. Stand is a mix red pine, jack pine and smaller maple and some aspen. Alternating rows of red pine and jack pine. Pockets of maple and aspen. Jack pine is mature, showing decline and needs to be harvested out of the stand. Harvest the stand by thinning. Remove all jack pine, maple and aspen. Some red pine may be marked in areas for maneuverability if needed. Manage the stand for red pine. Set up for sale with stand 98. Management objective is to thin the stand to improve the growth and vigor of the residual red pine. No alternative management objective is needed. Liminga-Alcona soil complex.</p>
98	4311 - Pine, Aspen Mix	Sapling Medium	6.5	8	Immature	<p>Stand harvested as "455 Pine", sale #032-07-01. Completed 11/12/08. Stand burned spring 2009. Stand planted to jack pine in spring 2010 (trenched). Summer 2012: Aspen = 2740</p> <p>Stand is a mix of jack pine, red pine, aspen, maple and cherry. Stand looks to have had red pine planted...at same time jack pine was planted? Followup planting? Northern end of the stand has a higher component of jack pine and red pine than the southern portion. More hardwoods competition in the southern end. Jack pine and red pine average about 3-4 ft tall.</p>
99	4130 - Aspen	Poletimber Medium	8.3	48	1-50	<p>Aspen stand adjacent to Co Rd 455. Aspen overstory with aspen and maple understory. Low quality. Thicker in spots - clones of aspen. Areas of sapling size maple and cherry without much aspen. Some decay/rot in the stand. Scattered spruce. Hold for 10 years for age class diversity until the stand is more mature. Also will serve as a visual buffer along Co Rd 455 with adjacent harvests. Liminga-Alcona soil complex.</p>
101	42110 - Planted Red Pine	Sawtimber Well	8.6	67	111-140	<p>Stand thinned as "455 Pine", sale #032-07-01. Completed 11/12/08. Stan was planted in 1949, thinned in 1980 and thinned again in 1999 (#026-97). Stand is ready to be final harvested and replanted to red pine. Good diameters, utility pole market size throughout stand. Manage as a red pine plantation.</p>
102	4117 - Mixed N. Hardwood - Pine	Poletimber Poor	2.6	31	1-50	<p>Grass opening filling in with multiple stem cherry and maple, along with limby white pine. Low quality. Liminga-Alcona complex</p>
104	4130 - Aspen	Sawtimber Well	27.7	59	81-110	<p>Mature aspen stand. Area with mortality and blowdown. Some white pine is dying out. Component of maple, white birch, balsam, spruce and cherry. Sub canopy of maple is thick. Open areas within the stand. Some clones showing some rot. Travel influence and residence across county road. Snowmobile trail transects stand.</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
105	4134 - Aspen, Spruce/Fir	Sawtimber Well	4.2	72	111-140	Mature aspen stand that crosses the compartment boundary, in both comp 88 and comp 90. Good component of balsam and large white spruce. A few 20+ inch white spruce, central portion. Aspen is showing decline and rot, areas of blowdown. Kalkaska sand.
109	4130 - Aspen	Sapling Well	72.9	8	Immature	Stand harvested as "426 Aspen", sale #031-08-01. All white pine left as residual. Complete 12/12/08. Summer 2012: Aspen Fully Stocked. Nice thick regeneration. Snowmobile trail runs through the stand.
110	4139 - Aspen, Mixed Deciduous	Sapling Well	10.7	6	Immature	Stand harvested via final harvest as sale #040-07-01, Red's Lake Mix. Completed 05/13/10. Good aspen, maple, cherry regeneration 10-15 ft tall. Borders a bog with beaver activity to the south. Final harvest the stand before the aspen is all dead. Leave any yellow birch as residual. ORV trail runs through the stand. Liminga-Alcona soil complex.



Stand	Cover Type	Acres	Managed Site	General Comments:
2	122 - Road/Parking Lot	0.6	No	County Road 407 and right of way
6	6225 - Bog	4.8	No	small bog bordering Co Rd 422. Spruce along the edges. Dawson, Greenwood and Loxley peats.
9	500 - Water	5.7	No	Small pond with a lot of beaver activity.
21	3102 - Grass	2.8	No	Some aspen and cherry encroachment from adjacent stands. Grass and reindeer moss. Liminga-Alcona soil complex.
25	6225 - Bog	3.8	No	OPIC - FMD: Bog with substantial beaver activity.
26	6225 - Bog	1.0	No	OPIC - FMD: OI Stand Year Origin was
27	3102 - Grass	23.7	No	Large opening with lots of "fingers". Scattered bushy white pine and spruce. Some aspen and cherry encroachment from adjacent stands. Grass and reindeer moss. Liminga-Alcona soil complex.
34	500 - Water	3.2	No	Small pond with a bog in the center. Appears to be fairly deep.
36	6225 - Bog	1.1	No	
39	3102 - Grass	4.4	No	Large opening with lots of "fingers". Scattered bushy white pine and spruce. Some aspen and cherry encroachment from adjacent stands. Grass and reindeer moss. Liminga-Alcona soil complex.
40	622 - Lowland Shrub	1.1	No	LUCE COUNTY LEASE LAND
41	320 - Upland Shrub	15.9	No	<p>LUCE COUNTY LEASE LAND. Stand was clearcut in 2009. Trenched 09/16/2011. Planted to red pine 10/24/2011. Release (spray) done 09/03/2013, stand was shocked by herbicide and most of red pine died. Replanted 11/17/2014. Release (spray) scheduled for summer 2016.</p> <p>Small western portion of the stand was not sprayed to eliminate the hardwood competition. More of a component of maple and cherry as well as slightly taller red pine (older).</p> <p>Old notes: Stand was thinned between 1999-2001. January 2004 Administrative Update - Luce County Lease Land lists this stand scheduled for harvest again in 2009. The plan of the county is to evaluate for final harvest, followed by site preparation and planting the site back to red pine. Treatment should be within the guidelines established in the management plan of the Luce County Lease.</p>
42	122 - Road/Parking Lot	2.5	No	County Road 407 and County Road 505 and right of ways. Within Luce County Lease Land boundary.



Stand	Cover Type	Acres	Managed Site	General Comments:
43	122 - Road/Parking Lot	4.6	No	County Road 422 and cleared right of way
44	500 - Water	1.0	No	LUCE COUNTY LEASE LAND. Small pond.
47	3102 - Grass	9.3	No	Opening filling in with some white birch, aspen and cherry encroachment along the edges. Some small balsam an spruce. Liminga-Alcona soil complex.
50	6225 - Bog	3.6	No	
52	6225 - Bog	15.0	No	Open bog. Some tree cover. Clumps of spruce. Dawson, Greenwood and Loxley mix
56	6225 - Bog	9.0	No	
58	6225 - Bog	7.9	No	
60	6224 - Treed Bog	1.2	No	small treed bog
62	6224 - Treed Bog	9.8	No	treed bog and drainage to the southeast
66	6225 - Bog	1.6	No	small bog with treed edge
67	6224 - Treed Bog	5.0	No	Bog type ground. Low quality stand of black spruce. Some dead white pine.
68	6225 - Bog	2.6	No	Dawson, Greenwood and Loxley peats
72	6225 - Bog	8.5	No	
88	3102 - Grass	1.6	No	Opening with clumps of cherry and aspen encroachment from adjacent stands. Scattered spruce and balsam. Liminga-Alcona soil complex.
100	3102 - Grass	25.8	No	Large opening starting to fill in with clumps of cherry and aspen. Scattered spruce and balsam. Liminga-Alcona soil complex.
108	3102 - Grass	5.5	No	Snowmobile trail runs through the stand. Liminga-Alcona soil complex.