

Compartment Review Presentation

Newberry Forest Management Unit

Compartment 42090 Entry Year 2017 Acreage: 3,246

County Luce

Management Area: 8 Mile Corner

Revision Date: 2015-08-31

Stand Examiner: Jason Tokar

Legal Description:

T47N R11W Sections 23-26, 35 & 36

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, while also sustaining the level of recreation use in the area. 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. Harvest treatments will be increased in red pine stands which are silviculturally ready for management. Red pine stands will be burned, and planted to red pine, and released as necessary. Management of a few natural white pine stands will take place. Prescribed burning will facilitate opening maintenance for wildlife considerations.

Soil and topography:

The predominant soil type of the compartment is Kalkaska sand, an outwash sand, is also found throughout much of the compartment. A lesser component of Liminga-Alcona soil complex, a find sandy loam complex, also occurs. Cover types found on these soil types include overwhelmingly aspen, natural white pine stands and large grass opening complexes. Northern hardwood stand also make up a substantial percentage of the cover types on these sandy soils. Red pine plantations and jack pine plantations are also present. Small pockets of lower ground consisting of bogs and treed bogs are scattered across the compartment. Wallace sand is found along the Silver Creek corridor supporting white pine and upland fir cover types. The overall topography of the compartment is level to slightly rolling. An increase in topographical change is evident in the southwestern corner of the compartment.

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

The majority of the compartment is comprised of one large contiguous block of State land, with a few small private in holdings near Kelly Lake and Spincich Lake. State land borders the compartment to the south, west and north, while a mixture of State land and private land borders to the east. Development in and around the compartment is low to moderate due to the large amount of State land in the vicinity. Several small camps are located within the compartment boundary. The main types of land use in the area are hunting, ORV and snowmobile riding, and fishing the stocked trout ponds.

Unique Natural Features:

MNFI doesn't list any occurrences within the compartment. Potential is there for a variety of types of flora and fauna.

Archeological, Historical, and Cultural Features:

There are no records of historical features within the compartment.

Special Management Designations or Considerations:

Sharptail grouse are known in inhabit the large opening complex in and around the compartment. Prescribed fire is the proposed management tool to help maintain this intricate habitat complex. Best Management Practices Guidelines (BMP) shall be followed with any management near or adjacent to water courses within the compartment boundaries. Compartment 88, also a 2007 YOE compartment, is immediately adjacent to the east. This has been factored into proposed management activities for both compartments.

Watershed and Fisheries Considerations:

Fisheries Values: Excellent

Fisheries Concerns: This compartment contains Silver Creek Pond, Silver Creek, and the upstream portion of Brockies Pond. All are designated for Brook Trout. Silver Creek and Brockies Ponds are stocked annually with Brook Trout. The fishery of Silver Creek is sustained either by trout going through the level control structures or by natural reproduction. Spawning habitat is available in the creek, so we assume the majority of the trout are natural. These are not only excellent fisheries, but their relatively easy access and close proximity to Newberry make them very desirable. Any treatments near Silver Creek (stream) should maintain a 300 ft buffer from the stream.

Wildlife Habitat Considerations:

Compartment 90- This compartment is located in the Grand Marais Sandy End Moraine and Outwash ecological subsubsection. 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 white pine comprising much of the total area and scattered hardwoods and openings mixed throughout. 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. There are numerous parcels of wildlife purchased lands in this compartment.

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, coyote, fox, black bear, fisher, marten, and ruffed grouse.

Mineral Resource and Development Concerns and/or Restrictions

Sections 23-26, 35, & 36, T47N R11W and sections 31 & 32, T47N R10W, Luce County Surface sediments consist of an end moraine of coarse-textured till and glacial outwash sand and gravel and postglacial alluvium. 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 guarried for limestone/dolomite in the UP.

and Collingwood and Otica snales subcrop below the glacial driπ. The Trenton is quarried for limestone/dolomite in the C 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 10 miles northwest of Newberry. There is substantial vehicle access to the compartment. Multiple maintained county roads traverse the area. County Road 453 runs northwest/southeast through the heart of the compartment, while County Road 415 runs north easterly through the northern area and County Road 455 runs on a northwest line through the southern reaches of the compartment. Several woods roads (two track) transect the area providing additional access to the interior of the compartment. The section of Three Mile snowmobile trail located within the compartment follows a well used two track road, providing additional vehicle access during non-winter months.

Survey Needs:

For management activities to occur the following corners need to be set: The N1/16 between Sections 23 and 24 (private corner) should be verified for proper location; NW1/16 of Section 24; S1/16 of Section 26; N1/16 on east section of Section 36. 1/4 corner common to Section 36 and Section 31 (T47N, R10W).

Recreational Facilities and Opportunities:

Recreational facilities within the compartment include the Silver Creek ORV Trail and the Three Mile Snowmobile Trail. Silver Creek Trout Pond and a portion of Brockies Trout Pond provide good fishing opportunities within the compartment. Other recreational opportunities include hunting, hiking, wildlife viewing. The proximity of the compartment to the town of Newberry lends to a high amount of hunting activity. Numerous hunting camps are located within the compartment boundary.

Fire Protection:

The compartment has good road access for fire suppression activities. Some stands of conifer intermixed with hardwoods and moderate response times can keep the potential for large fires low in the south half of the compartment. The north half has more conifer types with few hardwood stands and some openings which could have a potential for large fires to occur. Private property in the north half could be at risk to wildfire.

Additional Compartment Information:

The Spincich Lake Remote Weather Station is located in Section 24.

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:

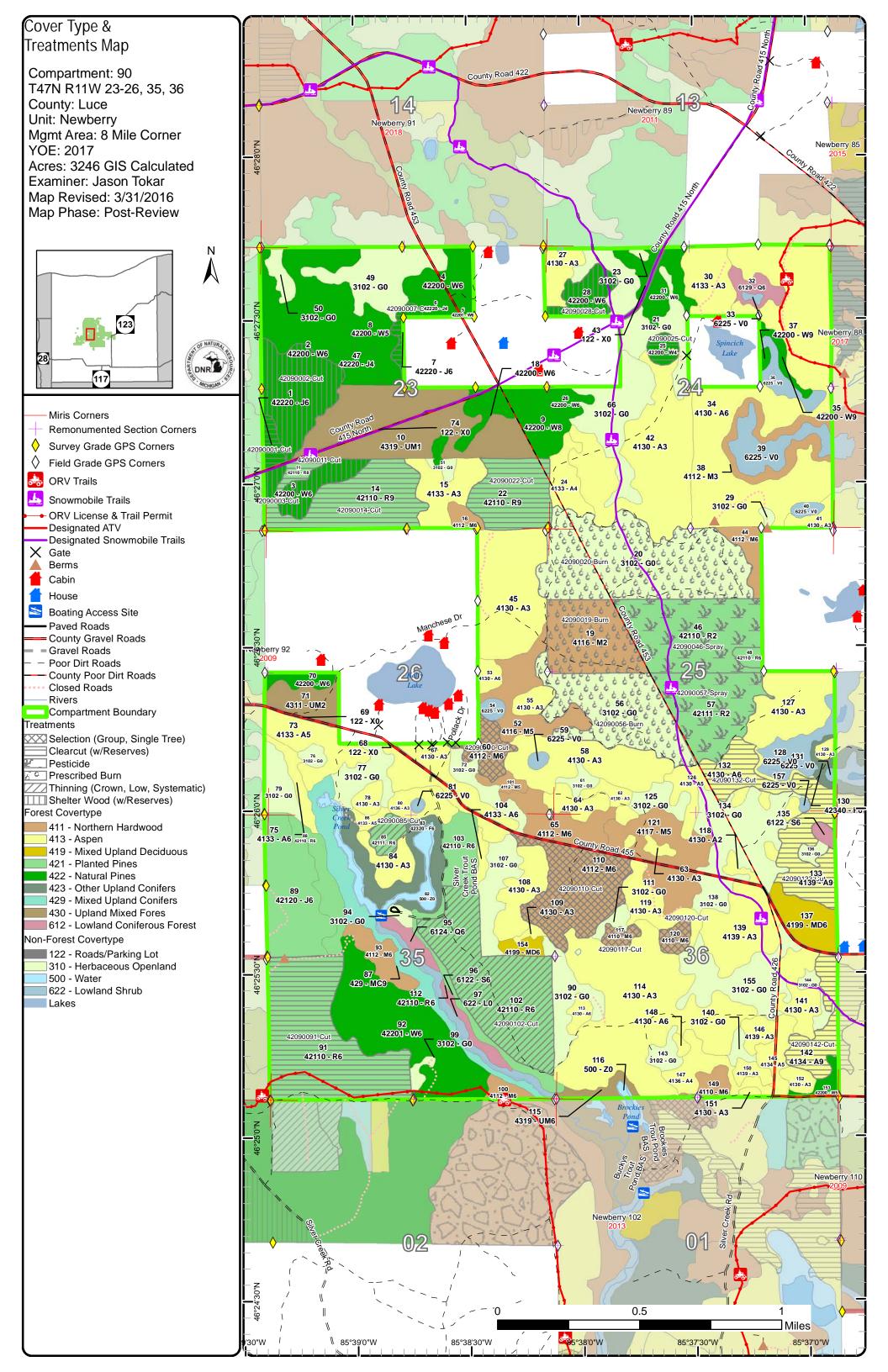
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

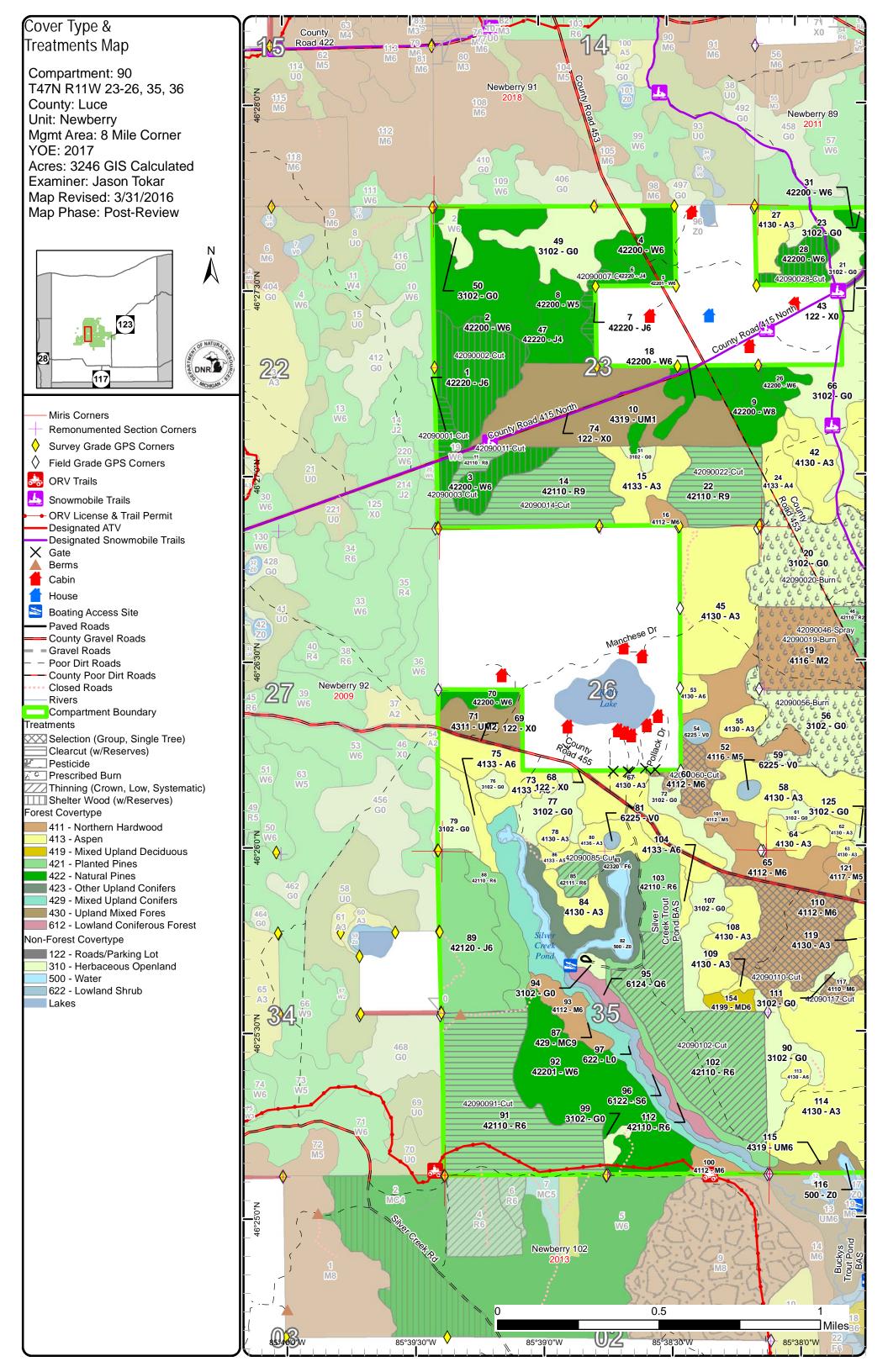
The following information is displayed, where pertinent, on the attached compartment maps:

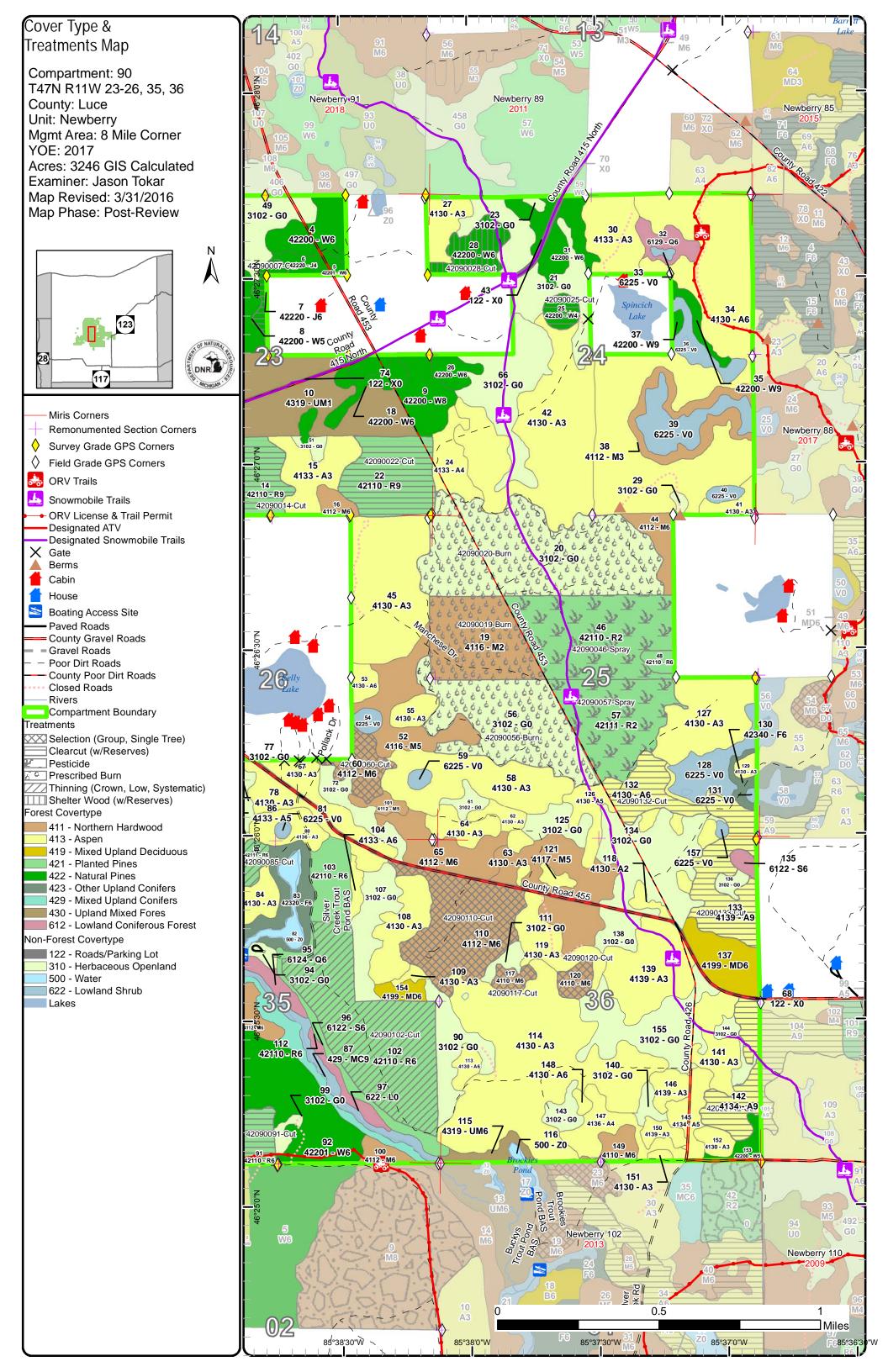
Base feature information, stand boundaries, cover types, and numbers

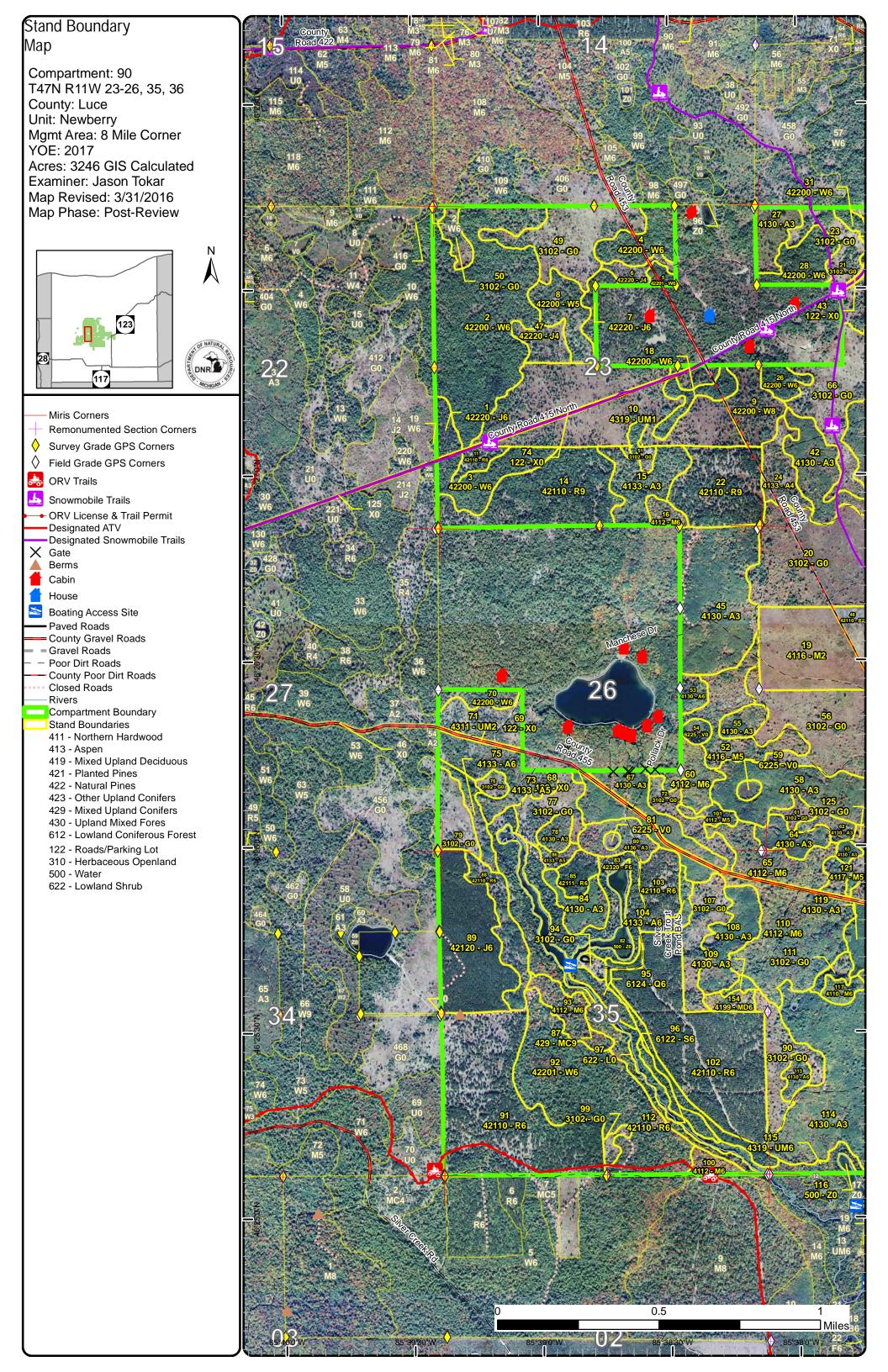
Proposed treatments
Site condition boundaries

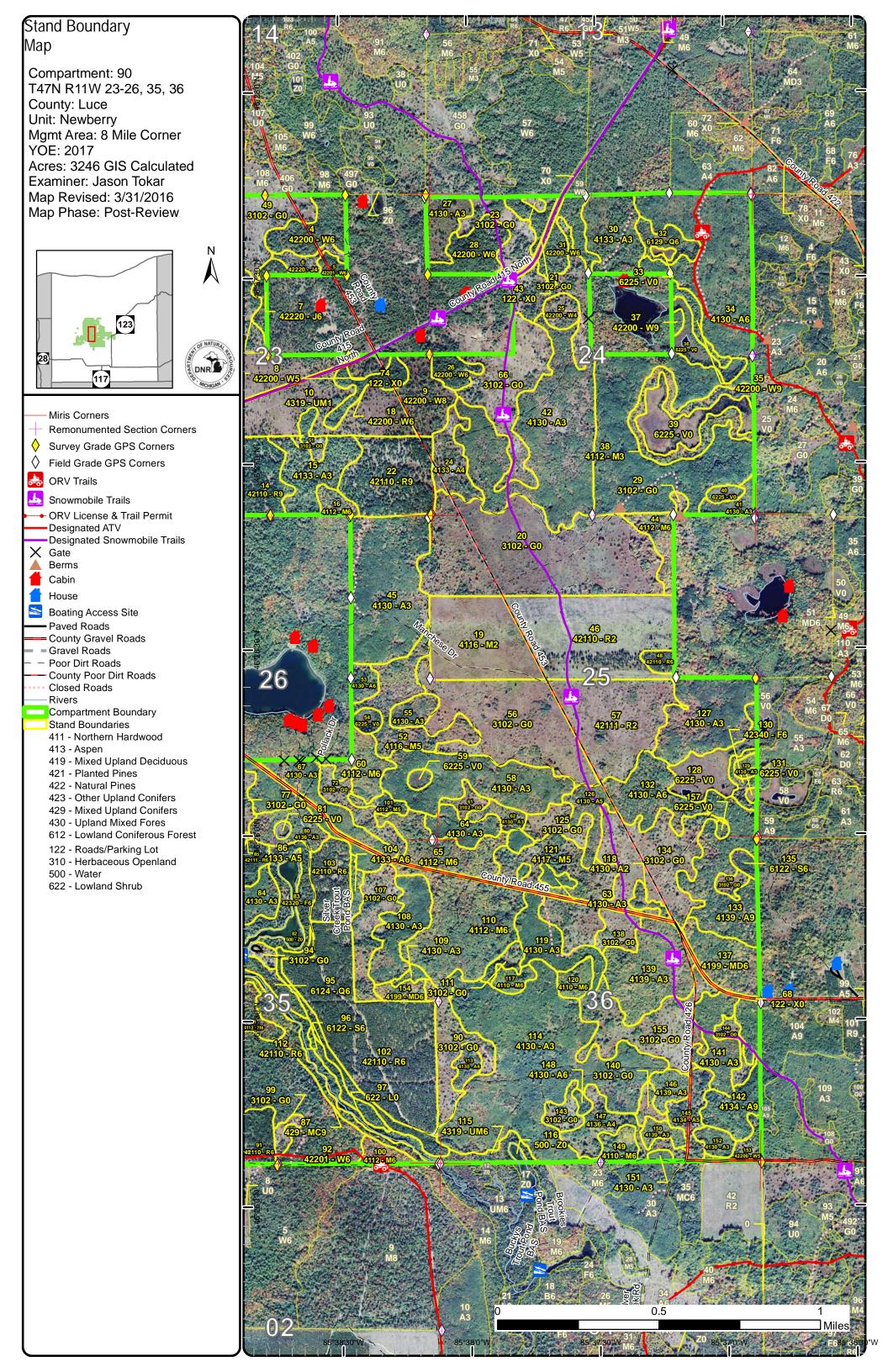
Details on the road access system

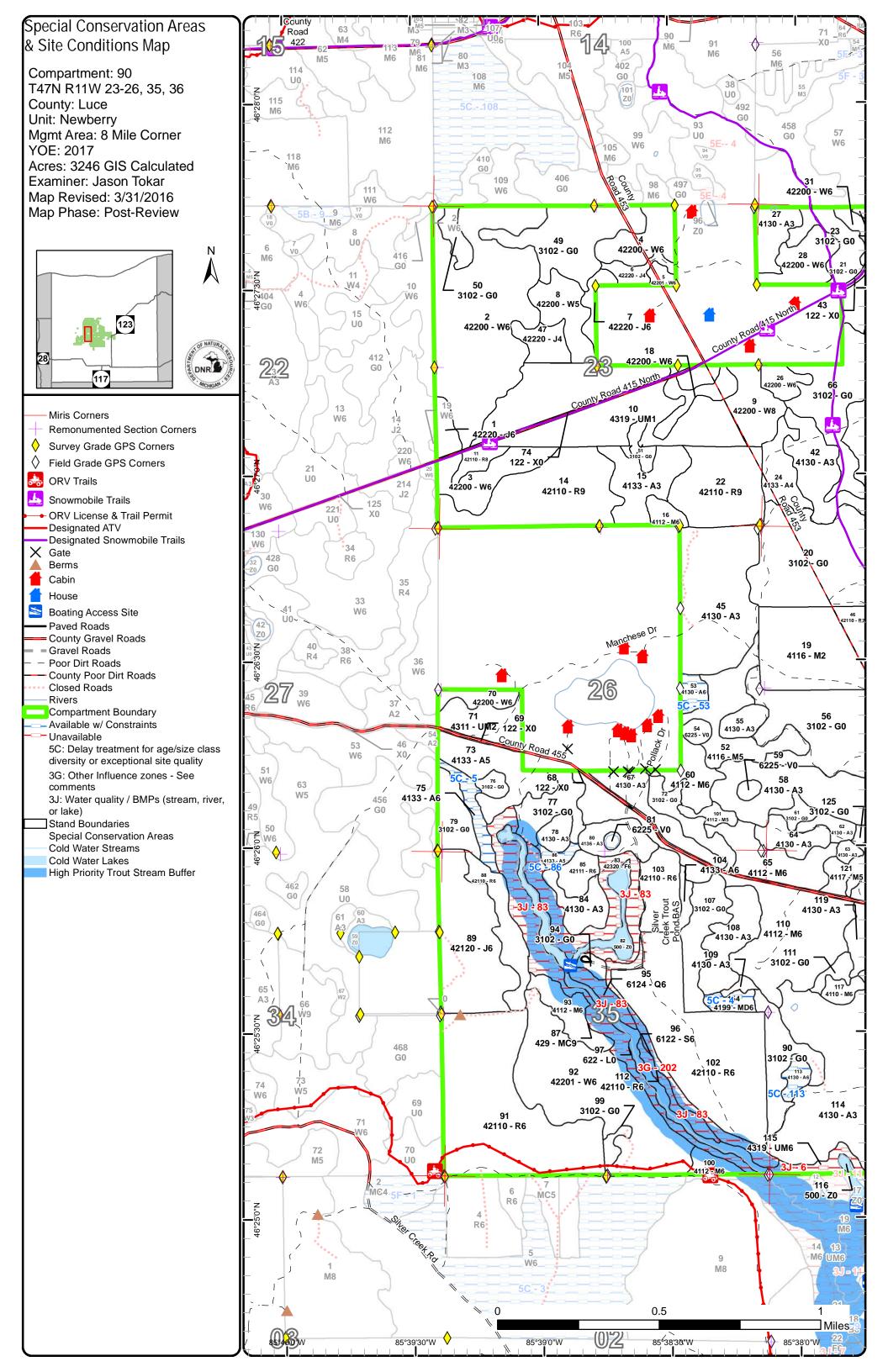


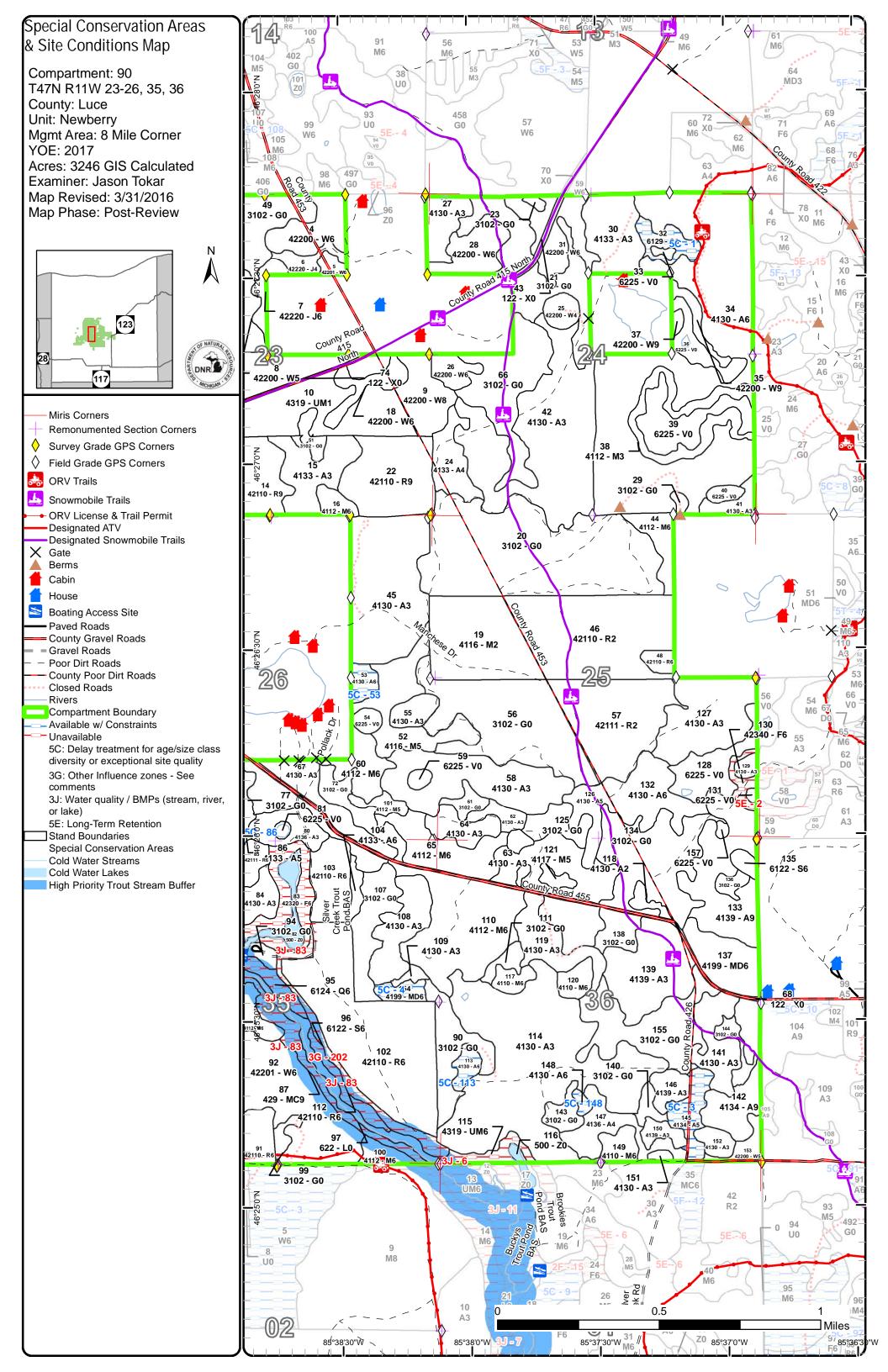












Compartment 90

Year of Entry 2017

Newberry Mgt. Unit Jason Tokar: Examiner



Age Class

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Aspen	0	98	97	497	22	172	22	76	24	6	0	0	0	0	0	0	0	40	1054
Bog	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
Herbaceous Openland	559	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	559
Jack Pine	0	0	0	11	7	56	6	7	0	0	0	0	0	0	0	0	0	0	87
Lowland Conifers	0	0	0	0	0	0	0	0	0	9	7	0	0	0	0	0	0	0	16
Lowland Shrub	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	3	7	0	0	0	0	0	0	0	10
Mixed Upland Deciduous	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	6	27
Northern Hardwood	0	48	0	52	0	0	0	0	43	0	5	0	0	0	0	0	0	154	302
Red Pine	0	126	0	0	0	0	269	103	0	0	0	0	0	0	0	0	0	0	498
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0	0	38
Upland Mixed Forest	0	97	0	18	0	0	0	0	0	7	0	0	0	0	0	0	0	0	122
Upland Spruce/Fir	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	31	36
Urban	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
White Pine	0	0	0	0	0	0	0	32	0	22	0	0	0	6	0	0	0	315	375
Total	681	369	97	578	29	228	297	239	72	47	19	0	0	44	0	0	0	546	3246



Report 2 – Treatment Summary

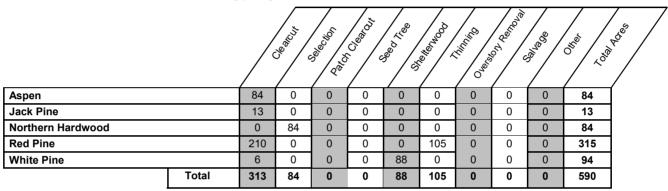
Newberry Mgt. Unit

Year of Entry: Acres of Harvest

Compartment 90
Total Compartment Acres: 3,246

Commercial Harvest - 590 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method

		/.			Cillian C		Silling (10 10 10 10 10 10 10 10 10 10 10 10 10 1	Out of the second	ju ^t	40 / 20	Kg /
Current		590	0	0	0	237	126	0	0	0	953	
Next Step		0	366	559	0	503	704	1259	6	0	3398	
	Total	590	366	559	0	741	830	1259	6	0	4352]

White Pine Well 170 Retention White Pine, Aged Boundary Mixed

Deciduous

Habitat Cut: No Site Condition:

Prescription Shelterwood with retention harvest. Residual BA of 40 sq ft. Retain a component of mature aspen and maple. Specs:

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable White pine, component of red pine, aspen and maple

Regen: **Other**

Follow the harvest with scarification to promote white pine regeneration. Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

42090007-Cut 42220 - Natural Poletimber 51-80 Harvest Clearcut 4222 - Natural Even-Aged Draft Field

Jack Pine

Well

Jack Pine

Boundary

Habitat Cut: No Site Condition:

Prescription Clearcut. No retention, small acreage.

Specs:

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Jack pine, with aspen component.

Regen:

Other Small narrow stand, no retention needed. Borders private land, scarify for natural regeneration. Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

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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
11	42090011-Cut	5.9	42110 - Planted Red Pine	Sawtimber Medium	65	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Clearcut. No retention (to facilitate a prescribed burn (if needed) and planting operations). Retain non pine species in the red line.

Specs:

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

Treatments:

Acceptable Red pine

Regen:

Other Propose to have the stand chipped during harvest operations. If the stand is not chipped during timber sale harvest, burn for slash reduction to

<u>Comment:</u> facilitate planting red pine. Old next step comments:

Proposed Start Date: 10/01/2016

1442090014-Cut56.142110 - PlantedSawtimber65141-HarvestClearcut4211 - PlantedEven-AgedDraft FieldRed PineWell170Red PineRed PineBoundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Clearcut. No retention (to facilitate a prescribed burn (if needed) and planting operations). Retain non pine species in the red line.

Specs:

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

Treatments:

Acceptable Red Pine.

Regen:

Comment:

Other Propose to have the stand chipped during harvest operations. If the stand doesn't get chipped during timber sale harvest, burn for slash

reduction to facilitate planting red pine. Old next step comments:

Proposed Start Date: 10/01/2016

19 42090019-48.4 4116 - Mixed N. Sapling 9 Immatu Rurn Opening 3102 - Grass Draft Field Burn Hardwood - Aspen Medium Boundary re

Habitat Cut: No Site Condition:

Prescription Opening maintenance. Prescribed burn to maintain as an opening.

Specs:

Next Step Monitoring, Other - Specify; Pesticide, Aerial; Monitoring, Herbicide Use; Burn, Opening

Treatments:

Acceptable Regen:

Other Multiple burns over a period of years will be needed to maintain the opening. Due to high amount of hardwood sprouting and encroachment since the previous burn, this stand may need to be sprayed with herbicide if the first burn does not kill enough of the vegetation. Large planted

oak along fire lines. Old next step comments:

Proposed Start Date: 10/01/2016

20 42090020- 119.5 3102 - Grass Nonstocked Unspec Burn Opening 3102 - Grass Draft Field Boundary

Habitat Cut: No Site Condition:

Prescription Rx burn. Multiple burns over a period of years.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other Large planted oak along fire lines. Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

Boundary

Compartment: 90 Year of Entry: 2017

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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
22	42090022-Cut	40.6	42110 - Planted Red Pine	Sawtimber Well	65	141- 170	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

Prescription Clearcut. No retention (to facilitate a prescribed burn, if needed, and planting operations). Retain non pine species in the red line.

Specs:

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

Treatments:

Acceptable Red Pine

Regen:

Other Propose to have the stand chipped during harvest operations. If stand doesn't get chipped during timber sale operations, burn for slash

Comment: reduction to facilitate planting to red pine. Old next step comments:

Proposed Start Date: 10/01/2016

25 42090025-Cut 42200 - Natural 6.5 Poletimber 121 1-50 Harvest Clearcut 3102 - Grass Draft Field

> White Pine Poor

Site Condition: Habitat Cut: No

Prescription Remove/cut all large white pine, maple, aspen within a 300 ft radius of the weather station.

Specs:

Next Step **Treatments:**

Acceptable None. Maintain as an opening

Regen:

Other Opening is needed for accurate fire weather predictions. Old next step comments:

Comment:

10/01/2016 **Proposed Start Date:**

42090028-Cut 17.1 42200 - Natural Poletimber 101 141-Harvest Shelterwood with 42201 - Natural Even-Aged Draft Field White Pine Well 170 Retention White Pine. Boundary

> Mixed Deciduous

Habitat Cut: No Site Condition:

Prescription Shelterwood with retention. Residual BA of 40 sq ft.

Specs:

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable White pine with component of red pine and aspen.

Regen:

Other Follow the harvest with scarification to promote white pine and red pine regeneration. Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

46 42090046-73.5 42110 - Planted Sapling 6 Immatu Pesticide Aerial 4211 - Planted Even-Aged Draft Field Spray Red Pine Medium Red Pine Boundary

Habitat Cut: No Site Condition:

Prescription Site prep herbicide spray. Replant red pine in portions of the stand (mainly eastern half) that aren't fully stocked to red pine from the initial

planting. Herbicide release spray to promote red pine and control deciduous competition. Specs:

Next Step Planting, Replant; Pesticide, Aerial; Monitoring, Herbicide Use; Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Red pine

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016 Next Step Treatments:

Acceptable Regen:

Other Historically a sharptail grouse area, so try to establish favorable open habitat. Repetitive burning may be needed until the objective is accomplished. Large planted oak along fire lines. Old next step comments:

Proposed Start Date: 10/01/2016

Sapling 57 42090057-52 9 42111 - Planted 6 Immatu Pesticide Aerial 4211 - Planted Even-Aged Draft Field Red Pine, Mixed Medium Red Pine Boundary Spray re Deciduous

Habitat Cut: No Site Condition:

<u>Prescription</u> Herbicide treatment to eliminate the hardwood competition from the red pine plantation. Do not spray the "ridge of maple in the center of the <u>Specs:</u> stand.

ppcos.

<u>Next Step</u> Pesticide, Aerial; Monitoring, Herbicide Use; Planting, Replant; Monitoring, Artificial Regen(3yr); Pesticide, Aerial

<u>Treatments:</u>

Acceptable Red pine

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

42090060-Cut 14.5 4112 - Maple, Poletimber 86 111-4110 - Sugar Draft Field Harvest Single Tree Uneven-Beech, Cherry Well 140 Selection Maple Aged Boundary Association Association

Habitat Cut: No Site Condition:

<u>Prescription</u> Selection harvest. Residual BA of 70 sq ft. Mark the aspen to cut, leave a component. Leave large white pine and hemlock. Remove lower Specs: quality red maple and overmature trees. Best quality is in pole size hard maple.

Next Step
Treatments:

Acceptable Sugar maple with red maple, aspen.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

42090085-Cut 42111 - Planted Poletimber 57 141-Harvest Systematic 4211 - Planted Even-Aged Draft Field Red Pine, Mixed Red Pine Well 170 **Thinning** Boundary Deciduous

Site Condition:

Prescription Thin the stand, row thinning. Remove all misc species within the cut rows. Leave non pine in un-cut rows for wildlife benefits. Thin red pine to

Specs: 140 BA. Access will be from the east.

Next Step Treatments:

Habitat Cut: No

Acceptable Regen:

<u>ixegen.</u>

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

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Treatment Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age Approval Method Structure Objective d Name CoverType Density Age Range Type Status 42110 - Planted 4211 - Planted 42090091-Cut 107.1 Poletimber 57 111-Harvest Clearcut with Even-Aged Draft Field 91 Red Pine Well 140 Retention Red Pine Boundary

Habitat Cut: No Site Condition:

Prescription Clearcut with retention. Retain 10 BA, composed of a variety of species where present. Plant the north 1/3 of the stand to jack pine and the Specs: southern 2/3 of the stand to red pine, for wildlife benefits.

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

Treatments:

Acceptable Red pine

Regen:

Other Propose to have the stand chipped during harvest operations. If the stand doesn't get chipped during timber sale harvest, burn for slash

Comment: reduction to facilitate planting operations. Old next step comments:

Proposed Start Date: 10/01/2016

42110 - Planted 102 42090102-Cut 96.8 Poletimber 57 141-Harvest Crown Thinning 4211 - Planted Even-Aged Draft Field Red Pine Well 170 Red Pine Boundary

Site Condition: **Habitat Cut: No**

Prescription Thin the plantation (2nd thinning). Remove approximately 1/3 of the volume. Leave all non red pine for diversity for wildlife.

Specs:

Next Step

Treatments:

Acceptable Regen:

Other Old next step comments:

Comment:

10/01/2016 Proposed Start Date:

110 42090110-Cut 57.5 4112 - Maple. Poletimber 86 111-Harvest Single Tree 4110 - Sugar Uneven-Draft Field Beech, Cherry Well 140 Selection Maple Aged Boundary Association Association

Habitat Cut: No Site Condition:

Prescription Selection harvest. Residual BA of 80 sq ft. Lower residual BA within northern most portion of the stand where quality is lower. Best quality is in the 8-10 inch hard maple poles. Remove low quality trees. Retain hemlock and spruce for Blackburnian Warbler. Remove all beech (dying out). Specs:

Next Step Monitoring, Natural Regen (Re-Inventory); Planting, Other - Specify

Treatments:

Acceptable Sugar maple with red maple and beech.

Regen: Other

Wildlife to plant large oak in openings after harvest. Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

117 42090117-Cut 5.4 4110 - Sugar Maple Poletimber 86 Draft Field 111-Harvest Single Tree 4110 - Sugar Uneven-Association 140 Selection Maple Aged Boundary Association

Habitat Cut: No Site Condition:

Prescription Selection harvest. Residual BA of 80-90. Don't remove trees right on stand edge to help prevent further aspen encroachment. Leave a

Specs: component of large aspen. Retain conifer.

Next Step Treatments:

<u>Acceptable</u> Sugar maple with a small component of aspen

Regen:

Other Old next step comments:

Comment

Proposed Start Date: 10/01/2016

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Approval	
Status	

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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
120	42090120-Cut	6.6 41	110 - Sugar Maple Association	Poletimber Well	86	111- 140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven- Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

Prescription Selection harvest. Residual BA of 80-90. Don't remove trees right on stand edge to help prevent further aspen encroachment. Leave a Specs:

component of large aspen. Retain conifer.

Next Step Treatments:

Acceptable Sugar maple with a component of aspen

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

132 42090132-Cut Draft Field 20.7 4130 - Aspen Poletimber 61 81-110 Clearcut with Harvest 413 - Aspen Even-Aged Retention 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 Specs:

for maple down to 2 inches in diameter.

Next Step Treatments:

Acceptable Aspen with components of maple, cherry, white pine, balsam.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

133 42090133-Cut 39.0 4139 - Aspen, Sawtimber 66 111-Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Mixed Deciduous Well 140 Retention 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 Specs:

for maple down to 2 inches in diameter.

Next Step Treatments:

<u>Acceptable</u> Aspen with sugar maple, red maple, birch and conifers.

Regen:

<u>Other</u> Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

142 42090142-Cut 23.9 4134 - Aspen, Sawtimber 72 111-Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Spruce/Fir Well 140 Retention Boundary

Habitat Cut: No Site Condition:

Prescription Clearcut with reserves. Retain all white pine over 20 inches, and 1 large white spruce/acre where present. Retention would be in patches. Total Specs: retention not to exceed 5% of total stand acreage (in conjunction with stand 105 in Comp 88).

Next Step Treatments:

Acceptable Aspen with a component of maple, spruce, balsam.

Regen:

Other Old next step comments:

Comment

Proposed Start Date: 10/01/2016

Total Treatment 953.4 Acreage Proposed:

Report 5 - Site Conditions

Newberry Mgt. Unit

Jason Tokar: Examiner

Compartment: 90 Year of Entry: 2017

Availability for Management Total Acres Avail **Dominant Site Conditions** Acres Acres 3G 3J 5E With Condition Not Available Acres Available 5C Aspen Bog Herbaceous Openland **Jack Pine Lowland Conifers** Lowland Shrub Lowland Spruce/Fir Mixed Upland Deciduous Northern Hardwood **Red Pine Upland Conifers Upland Mixed Forest** Upland Spruce/Fir Urban Water White Pine 3,246 3,082 **Total Forested Acres** 3% 95% 2% 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.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
2	Unavailable	5E: Long-Term Retention	5	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
C	omments:						

Report 5 – Site Conditions

Newberry Mgt. Unit Jason Tokar: Examiner

3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
	Comments: Evaluated for SBW						
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Treatment removed	per request of wildlife division.					
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	2F: Too steep	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified
	Comments: Steep buffer along t	rout pond. Evaluated for SBW.					
53	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
	Comments:						
83	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	83	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
	Comments: Evaluated for SBW						

Report 5 - Site Conditi	ions
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Newberry Mgt. Unit Jason Tokar: Examiner

86	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
113	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
148	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
202	Unavailable	3G: Other Influence zones - See comments	15	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						

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
Comments				

Newberry Mgt. Unit Compartment: 90
Year of Entry 2017



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.

Conservation Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area					
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish speci conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	es to persist from year to year. Suitable ey are relatively deep, have substantial the state. Such lakes are established by					
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 influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high documunities are ecologically and socially significant in their effects as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well					

S t	Newberry	Newberry Mgt. Unit			– Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42220 - Natural Jack Pine	Poletimber Well	6.8	65	81-110	Mature jack pine. J6/J9. Fair amount of mortality in jack pine. Small component of white pine. Kalkaska-Okeefe sand complex.
2	42200 - Natural White Pine	Poletimber Well	111.8	91	141-170	Natural white pine stand. White pine of various diameters. Large diameter, tall, older trees over younger, small diameter trees. Diameters range from 8 inches up to 22 inches and larger. Scattered pockets of thick red pine through stand. Very typical of the natural white pine stands in the area. Northern half of the stand is Kalkaska sand and the southern half is more of a Kalkaska-Okeefe sand complex.
3	42200 - Natural White Pine	Poletimber Well	21.6	83	141-170	Stand planted with red pine in the fall of 1952, replanted in fall of 1959 with red pine. Mixed pine stand of red pine (planted) and white pine. Aspen throughout stand. White pine in the stand is of variable ages. Diameters of white pine are variable throughout. Lots of structural diversity in the stand. Appears to be evidence of weevil damage in some white pine. Open in areas. Density of the stand is variable. Kalkaska sand.
4	42200 - Natural White Pine	Poletimber Well	18.7	91	51-80	Open areas with scrubby, limby white pine (cabbage pine). Pockets of larger white pine with higher BA. Clumps of merchantable aspen. Slightly better quality in eastern portion of the stand. Kalkaska sand.
5	42201 - Natural White Pine, Mixed Deciduous	Poletimber Well	3.0	63	81-110	Open areas with scrubby, limby white pine (cabbage pine). Pockets of larger white pine with higher BA. West of county road has mature, large diameter aspen. Kalkaska sand.
6	42220 - Natural Jack Pine	Poletimber Poor	6.6	31	1-50	OPIC - FMD: OI Stand Year Origin was
7	42220 - Natural Jack Pine	Poletimber Well	6.1	57	51-80	Narrow jack pine stand bordering private property. Jack pine is mature. Aspen and white pine components.
8	42200 - Natural White Pine	Poletimber Medium	19.4	91	1-50	Open areas with scrubby, limby white pine (cabbage pine). Pockets of larger white pine with higher BA. Clumps of merchantable aspen. Kalkaska sand.
9	42200 - Natural White Pine	Sawtimber Medium	23.6	66	1-50	Portion of Deer Feeder Jack Pine, sale #028-07-01. Residual white pine and red pine BA was too high for scarification. Stand is now more of a W4/W7 with maple, aspen and white pine

is now more of a W4/W7 with maple, aspen and white pine

regeneration coming in.Old notes: Jack pine planted in 1951, red pine planted in 1952, and jack pine planted again in 1960. Multiple plantings. ***Sale #050-07-02. Completed 9/25/07. Luce County Road Commission widened the Co Rd

415 ROW (approx 10 ft each side of the road) which runs through this stand. ***Stand harvested as "Deer Feeder Jack Pine", sale #028-07-01. Completed 11/12/08. Scarification completed Fall 2009. Regen check needed 2013.

s t	Newberr	y Mgt. Unit		Report 8	– Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	4319 - Mixed Upland Forest	Sapling Poor	97.2	8	Immature	Jack pine planted in 1951, red pine planted in 1952, and jack pine planted again in 1960. Multiple plantings. Sale #050-07-02. Completed 9/25/07. Luce County Road Commission widened the Co Rd 415 ROW (approx 10 ft each side of the road) which runs through this stand. Minimal acreage or volume was affected. Stand harvested as "Deer Feeder Jack Pine", sale #028-07-01. Completed 11/12/08. Left white pine and red pine as residual. Scarification completed Fall 2009. Good amount of residual white pine and red pine left, more so in the eastern portion of the stand. Regen check found jack pine at 422 trees/acre, birch at 422 trees/acre, and red maple at 460 trees/acre.
11	42110 - Planted Red Pine	Sawtimber Medium	5.9	65	51-80	Stand is open grown throughout most of the stand. Red pine is larger diameter but limby and short. Stand was planted in 1952 and then again in 1959. Small component of white pine. Kalkaska sand.
14	42110 - Planted Red Pine	Sawtimber Well	56.1	65	141-170	Large diameter red pine. Scattered aspen throughout the stand. High BA in many parts of the stand. Plantation. Evidence of planting (old rows N/S). Records indicate red pine planted in 1952 and again in 1959. Diameters range from 10 inches up to 18-20 inches. Components of white pine and aspen. Much of the white pine is lower quality, limby. Larger white pine is "weeviled". Liminga-Alcona soil complex.
15	4133 - Aspen, Mixed Pine	Sapling Well	24.3	6	Immature	Stand harvested via clearcut with reserves as sale #42-030-07-01, Spincich Lake Aspen. Completed 07/02/2010. All white birch, cherry, red pine and white pine was retained. Good aspen and maple regeneration coming in, 10-20 ft tall.
						Old Notes: Mixed stand of aspen with red maple, red pine and white pine. Scattered juneberry. Pockets of balsam. Decline and mortality in the aspen. Harvest - cut all species except red pine, white pine and juneberry. NE corner of the stand has higher BA of white pine. Some white pine may need to be marked for maneuverability. Access to the stand would be via road to the south of the stand. Management objective of aspen. Alternative MO would be a mixed pine stand of red and white pine (residual) with aspen and northern hardwoods. Liminga-Alcona soil complex.
16	4112 - Maple, Beech, Cherry Association	Poletimber Well	5.3	96	51-80	Stand was thinned as sale #42-030-07-01. Completed 07/02/2010. Residual BA average 80-90.
						Old Notes: Red maple stand. Some quality pole size trees. Lots of clumps of 3-4 trees. Some good crop trees. Areas with twists, forks, multiple stems. Thin by selection system. Remove low quality trees and multiple stems. Management objective is northern hardwoods. Liminga-Alcona soil complex.
18	42200 - Natural White Pine	Poletimber Well	13.9	96	141-170	Small mixed stand of jack pine, white pine, and aspen. White pine is limby and young. Jack pine and aspen are healthy. Leave for 10 years for visual concerns with harvest of adjacent jack pine stand (stand 10). Liminga-Alcona soil complex.

s t	Newberry Mgt. Unit			Report 8	– Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4116 - Mixed N. Hardwood - Aspen	Sapling Medium	48.4	9	Immature	Stand is regenerating to a mix of aspen, maple, cherry and some jack pine. Stand was clearcut and then burned as part of treatment to maintain as an opening. Stand is filling in vigorously with saplings. If the objective is to maintain it as an opening, it will need to be managed this inventory cycle.
						Old Notes: Planted in the spring of 1960. Stand suffered severe wind damage in Oct/Nov 2003. Lots of broken tops and blowdown. Areas with blowdown completely through the strips. Try to prevent budworm problems by salvaging the stand prior to 2007. Salvage stand immediately while the blown down trees are still sound. This stand was created from the portion of stand 46 west of Co Rd 453 as a result of discussion at the Compartment Review. Per the request of the Wildlife Ecologist, following harvest, this stand will be maintained as an opening along with stands 247 and 250 (originally parts of stands 47 and 50 respectively) in return for stand 452 being converted to jack pine. The purpose of the change was to create on large contiguous opening complex to benefit the sharptail grouse in the area rather than 2 separate openings on opposite sides of a jack pine plantation. Following harvest, the stand will be maintained through a prescribed burn to promote grass and reduce slash. Repetitive burns may be needed over a few years until the objective is accomplished. Management objective is grass opening. ***Stand harvested as "Weather Station Salvage", sale #035-05-01. Completed 10/18/07. This stand will be maintained now as an opening as agreed to at the Comp Review. Prescribed burn yet to take place as of 11/21/07.
22	42110 - Planted Red Pine	Sawtimber Well	40.6	65	141-170	Large diameter red pine. Scattered aspen throughout the stand. High BA throughout most of the stand with some areas of lower BA and more open. Old plantation (1952, 1959 plantings - notes from adjacent stands). Remnants of furrows N/S direction. Red pine is good quality, diameters are 14 inch and larger on average, up to 20 inches White pine is limby and lower quality. Aspen is showing signs of decline and mortality. Liminga-Alcona soil complex.
24	4133 - Aspen, Mixed Pine	Poletimber Poor	15.4	26	Immature	Open ground with cherry and scattered aspen clones. Stand is filling in with aspen, maple, cherry saplings as well as slightly older, limby low quality white pine. Aspen is patchy. Liminga-Alcona soil complex.
25	42200 - Natural White Pine	Poletimber Poor	6.5	121	1-50	Managed area surrounding the Spincich Lake Weather Station. Grass opening with a high number of open grown, limby white pine. Some areas within the stand could type out as a W4. Separated from stand 425 due to the amount of white pine

42200 - Natural White

Pine

26

Poletimber

Well

7.5

61

81-110

Separated from stand 425 due to the amount of white pine within the stand. Kalkaska sand.

Small diameter, young white pine with scattered large diameter (22-28 inch) white pine throughout. Young aspen component. Kalkaska sand.

S t		erry Mgt. Unit		Report 8	– Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	4130 - Aspen	Sapling Well	13.0	6	Immature	Stand final harvested as sale #030-07-01, Spincich Lake Aspen. Complete 07/02/10. Regenerating nicely to aspen with maple and cherry. 10+ ft tall regeneration. Scattered large diameter white pine that were left as residual after the harvest.
						Old notes: Mature aspen showing signs of rot and mortality. Some aspen is large diameter. NE portion of the stand has more white pine. Southern portion of the stand is smaller diameters and more open. Poor quality white pine within the stand. Harvest - Cut all white pine within the stand due to quality and to promote thick aspen regeneration. Management objective is aspen. Alternative MO would be a mixed stand of white pine, aspen and some northern hardwoods. Kalkaska sand.
28	42200 - Natural White Pine	Poletimber Well	17.1	101	141-170	Thick, natural stand of white pine, mostly 10 inches in diameter. Scattered large red and white pine throughout. Lots of trees right around merchantable size. Variable heights of trees within the stand. Understory of W2. One pocket (1 ac.) of R6/R9 in the middle of the stand. Diameters in the stand range from 8 - 20 inches. Typical of natural white pine stands in the area. Kalkaska sand.
30	4133 - Aspen, Mixed Pine	Sapling Well	25.1	6	1-50	Stand final harvested as sale #42-030-07-01, Spincich Lake Aspen. Completed 07/02/2010. Good aspen and red maple regeneration. White pine and red pine poles and sawlogs retained after harvest. Areas with higher BA of residual white pine don't have as well stocked aspen regeneration as the more open areas.
31	42200 - Natural White Pine	Poletimber Well	22.6	84	81-110	All age white pine stand. Diameters range from 6 inches to over 22 inches. Much of the stand is very limby. Typical of natural white pine stands in the area. Large diameter white pine is pulp quality (limby). Kalkaska sand.
						Sale #050-07-02. Completed 9/25/07. Luce County Road Commission widened the Co Rd 415 ROW (approx 10 ft each side of the road) which runs through this stand. Minimal acreage or volume was affected.
32	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	9.3	84	81-110	Black spruce with tamarack and white birch. Scattered white pine on higher parts of the stand. Low quality. Wallace-Spot complex.
34	4130 - Aspen	Poletimber Well	168.5	41	51-80	Stand recently transitioned from sapling to pole size class. Lots of trees 3-4 inch in diameter in areas still. Understory of cherry and maple. Stand was total tree chipped in 1974. Areas within the stand where merchantable BA is around 70. Silver Creek ORV trail runs through the NE portion of the stand. Old timber sale road entering stand from the SW was bermed.
35	42200 - Natural White Pine	Sawtimber Well	5.5	151	81-110	White pine between bog and the yound aspen. Kalkaska sand.
37	42200 - Natural White Pine	Sawtimber Well	1.6	151	81-110	White pine island surrounded by bog. Extends onto the private land. Kalkaska-Okeefe sand.

S t				Report 8	Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	4112 - Maple, Beech, Cherry Association	Sapling Well	22.1	26	Immature	Stand was originally part of stand 34 (A6), but due to beaver activity it is now more of an M3 with most of the aspen removed. Zone around the bog with heavy beaver influence. Mostly cherry and maple 2-3 inch dbh. Kalkaska sand.
41	4130 - Aspen	Sapling Well	6.4	8	Immature	Stand harvested as "422 Contract Mix", sale #038-07-01. Complete 10/23/08. Nice aspen regeneration with red maple. Spruce edge left along the bog (stand 40). Kalkaska sand.
42	4130 - Aspen	Sapling Well	94.2	24	Immature	Stand was cut in 1992, sale #048-91-01. Mainly quaking aspen regeneration with some white birch, red maple, and cherry mixed in. Scattered 6-8 inch aspen and larger "wolfy" white pine that were left after the harvest. Some semi-open areas within the stand are filling in with aspen regeneration. Stand will be transitioning to an aspen pole stand by the next inventory cycle. Kalkaska sand.
44	4112 - Maple, Beech, Cherry Association	Poletimber Well	11.3	81	51-80	Beech is infected with scale (BBD). Even the beech saplings are "coated" with BBD. Maple is in clumps. Understory is primarily beech. Kalkaska sand.
45	4130 - Aspen	Sapling Well	65.0	25	Immature	Stand clearcut in 1991, sale #019-89-01. Nice stand of quaking aspen, 35 ft tall. Some cherry, maple, balsam and spruce mixed in. Understory of maple. Liminga-Alcona soil complex.
46	42110 - Planted Red Pine	Sapling Medium	73.5	6	Immature	OPIC - FMD: Planted in the spring of 1960. Stand suffered severe wind damage in Oct/Nov 2003. Lots of broken tops and blowdown. Areas with blowdown completely through the strips. Try to prevent budworm problems by salvaging the stand prior to 2007. Salvage stand immediately while the blown down trees are still sound. Follow up the harvest with scarification. Planting may be needed if scarification does not produce the desired jack pine regeneration. Management objective is jack pine. ***Per the request of the Wildlife Ecologist at the Compartment Review, the portion of this stand west of Co Rd 453, now designated as stand 246, will not be regenerated to jack pine following the harvest. The same is true for those portions of stands 47 and 50 that lie west of Co Rd 453, now designated as stands 247and 250 respectively. In return the portion of stand 451 east of Co Rd 453, now designated as stand 452 will be converted to jack pine by trenching and planting. The purpose of the change was to create one large contiguous opening complex rather than have 2 separate openings on opposite sides of a jack pine plantation to better benefit the wildlife using the opening (sharptail) At the same time, the jack pine acreage will be maintained and the wind suseptible strip plantations will be "blocked in". Kalkaska sand. ***Stand harvested as "Weather Station Salvage", sale #035-05-01. Completed 10/18/07. Change in Management Objective: This stand with adjacent stands (47, 49, 50, and 452) will be planted to red pine. This site has a habitat type PArV and is more suited to red pine than Compartment 96, stand 4. This stand with the others listed above will replace C96, St4 which was red pine and will be allowed to regenerate jack pine. The habitat type of C96, St4 is PVE which is more suited to jack pine. C96, St4 is part of the Red Pine Project. Stand planted to red pine in spring 2010 (trenched).
47	42220 - Natural Jack Pine	Poletimber Poor	10.7	26	Immature	Open stand filling in with jack pine, white pine and aspen. Limby jack pine and white pine. Patchy. Small aspen.

s t				Report 8	– Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
48	42110 - Planted Red Pine	Poletimber Well	4.0	56	81-110	Kalkaska sand. ***Stand harvested as "Weather Station Salvage", sale #035-05-01. Completed 10/18/07. This stand was treated by a thinning.
52	4116 - Mixed N. Hardwood - Aspen	Poletimber Medium	30.4	28	1-50	Stand was cut in 1988, sale #002-87-01. This portion of the cut is coming back as more of an M4 with an A3/M2 component. Mix of maple, cherry and aspen. Lower quality in the pole size trees within the stand. Combined this stand with the adjacent stand to the south, formerly a "U" type. Entire area is maple, cherry and aspen with some semi open areas. Dilingham-Kalkaska complex.
53	4130 - Aspen	Poletimber Well	5.7	88	81-110	Small acreage aspen stand along private property. Some cankers on the aspen. Short, lower quality red maple in spots. Leave for 10 years for diversity. Dillingham-Kalkaska complex
55	4130 - Aspen	Sapling Well	7.3	28	1-50	Stand cut in 1988, sale #002-87-01. This portion of the cut is coming back as more of an A3 with an M3 understory. Majority of the regeneration is aspen. Deilingham-Kalkaska complex.
57	42111 - Planted Red Pine, Mixed Deciduous	Sapling Medium	52.9	6	Immature	OPIC - FMD: Large grass opening filling in with small aspen and cherry. Old plow lines around the edges of the stand (N,E, & W). Possible old fire or RX burn?? No records found to support either. This stand was created from the portion of the original stand 451 lying east of Co Rd 453 as a result of discussion at the Compartment Review. Per the request of the Wildlife Ecologist, this stand will be converted to jack pine through trenching and planting in return for stands 246, 247, and 250 (originally parts of stands 46, 47, and 50 respectively) being maintained as a grass opening complex. The purpose of the change was to create one large contiguous opening complex rather than 2 separate openings on opposite sides of the jack pine plantation while still blocking in and maintaining the same acreage of jack pine. The stand will be trenched and planted in conjunction with the planting of stand 47 and 49 and the scarification of stands 46 and 50. Management Objective: This stand with adjacent stands (46, 47, 49, and 50) will be planted to red pine. This site has a habitat type PArV and is more suited to red pine than Compartment 96, stand 4. This stand with the others listed above will replace C96, St4 which was red pine and will be allowed to regenerate jack pine. The habitat type of C96, St4 is PVE which is more suited to jack pine. C96, St4 is part of the Red Pine Project.
58	4130 - Aspen	Sapling Well	48.1	28	1-50	Sale #002-87-01. Completed June 1988. Nice aspen regeneration. Very thick. Stand beginning to transition to a pole size stand, 10-30 BA in pole size. Good component of maple. Kalkaska sand.
60	4112 - Maple, Beech, Cherry Association	Poletimber Well	14.5	86	111-140	Mix of red and sugar maple. Thick F3 understory and more of an M5 along the eastern edge. Component of aspen, especially near stand edge as well as some white pine. Kalkaska sand.
62	4130 - Aspen	Sapling Well	5.7	28	Immature	Young aspen filling in the opening between two timber sales.
63	4130 - Aspen	Sapling Well	6.8	15	Immature	Sale #028-97-01, "Speckled Aspen". 4 different patches (includes stand 62). Quaking aspen . Nice regeneration. Kalkaska sand.

s t	Newberry	Mgt. Unit		Report 8	– Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
64	4130 - Aspen	Sapling Well	11.4	15	Immature	Sale #028-97-01, "Speckled Aspen". 4 different patches (includes stand 63 - 3 patches). Quaking aspen . Nice regeneration. Kalkaska sand.
65	4112 - Maple, Beech, Cherry Association	Poletimber Well	25.2	86	51-80	Stand cut via selection harvest as "455 Contract Hardwoods", sale #039-07-01. Complete 5/08/09. Regeneration check needed in 2013. Conifer patches were not harvested. Component of large spruce and occasional hemlock.
67	4130 - Aspen	Sapling Well	33.4	25	Immature	Clearcut in 1990. Nice thick regeneration. Quaking aspen with some maple and cherry. Kalkaska sand.
70	42200 - Natural White Pine	Poletimber Well	7.6	84	51-80	Limby white pine, clones of aspen. Some white birch. Kalkaska sand (burned).
71	4311 - Pine, Aspen Mix	Sapling Medium	17.7	21	Immature	Open area filling in with small aspen jack pine with some small open grown white pine and scattered cherry. Pockets of pole size aspen. Semi open stand. Kalkaska sand (burned).
73	4133 - Aspen, Mixed Pine	Poletimber Medium	27.2	26	1-50	Short, low quality aspen. Clones starting to fill in the open areas. Aspen, with white pine, jack pine and some cherry and maple. Pockets of short, pole size aspen throughout. Limby white pine poles. Semi open stand still but beginning to fill in nicely. A4/A3/W4 Kalkaska sand.
75	4133 - Aspen, Mixed Pine	Poletimber Well	9.4	56	81-110	Clones of mature aspen and open areas along a north/south ridge. White pine and jack pine along the edges of the ridge. 110 BA average in the aspen clones. Hold stand for 10 years, aspen is fairly healthy. Kalkaska sand.
78	4130 - Aspen	Sapling Well	6.3	17	Immature	Final harvest in 1999. "Silver Creek Aspen" timbe sale (25-97- 01). 15-20 ft aspen with scattered residual white pine and spruce. Occasional residual red maple poles.
80	4136 - Aspen, Mixed Conifer	Sapling Well	12.9	17	Immature	Cut in 1999, "Silver Creek Aspen" timber sale, #25-97-01. Mainly quaking aspen 15-20 ft tall, some good white pine regeneration. Kalkaska sand.
83	42320 - Upland Spruce	Poletimber Well	31.0	76	51-80	Upland spruce with white pine. Borders the upper portions of the Silver Creek Trout Pond.
84	4130 - Aspen	Sapling Well	13.0	17	Immature	Cut in 1999, "Silver Creek Aspen" sale #25-97-01. Nice quality, thick aspen regeneration 15-20 ft tall. Some residual balsam in pole size. Kalkaska sand.
85	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	8.4	57	141-170	Red pine plantation with high component of aspen. Planted in 1959. Stand has not been managed yet. Good aspen component in areas. Porcupine damage in the red pine along the aspen pockets. Kalkaska sand.
86	4133 - Aspen, Mixed Pine	Poletimber Medium	3.7	31	51-80	Short, low quality, open grown aspen.

S t				Report 8	Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
87	429 - Mixed Upland Conifers	Sawtimber Well	37.8	126	81-110	White pine, hemlock, and spruce along the bank of the Silver Creek and Silver Creek Trout Pond. Steep slope.
88	42110 - Planted Red Pine	Poletimber Well	19.2	57	81-110	Planted in 1959. Semi open red pine stand with aspen. Shorter, limby red pine, 3-4 sticks tall. Fair amount of porcupine damage to pine along stand edge. Kalkaska sands.
89	42120 - Planted Jack Pine	Poletimber Well	55.6	42	81-110	Stand was planted with red pine in 1959 and then replanted with jack pine in 1974. Young Jack pine pole stand now. Still some jack pine below merchantable diameter. Better quality in the south end, larger diameter. A fire on May 24, 2000 entered into the western edge of the stand, 1-2 acres. Control line around the bruned area is now an abandoned road. Red pine throughout the stand from the planting in 1959.
91	42110 - Planted Red Pine	Poletimber Well	107.1	57	111-140	Red pine plantation. Remnants of the rows from the 1959 planting. Thick stand in areas and fairly open in others. BA ranges from 44 to 140. Shorter, limby red pine. Fiar amount of porcupine damage to the pine. Small component of aspen. White pine scattered throughout. Lots of variability in the stand. Kalkaska sand (burned).
92	42201 - Natural White Pine, Mixed Deciduous	Poletimber Well	87.3	78	81-110	Mixed stand, multiple ages of white pine in multiple size classes. large white pine is limby and low quality (weeviled). Lots of smaller, 6-10 inch white pine. Pockets of aspen. Maple poles mixed in. Outer portions of the stand contain more mature aspen clones and clumpy red maple. Center portion of the stand is smaller, thicker white pine. Kalkaska sand (burned).
93	4112 - Maple, Beech, Cherry Association	Poletimber Well	14.8	86	81-110	Stand cut via selection harvest as "455 Contract Hardwoods", sale #039-07-01. Complete 5/08/09. Current BA average 80-90. Some good quality through the stand. Tall red maple. Some maple with tops broken off and dieback in some crowns. Scattered yellow birch and areas of larger diameter red maple. Occasional beech and hemlock. Wallace sands.
95	6124 - Lowland Spruce- Fir	Poletimber Well	6.9	95	81-110	Stand borders the south edge of Silver Creek Trout Pond parking lot and along Silver Creek.
96	6122 - Black Spruce	Poletimber Well	7.0	95	81-110	Mainly black spruce with tamarack, white birch, red maple and white pine. Along Silver Creek. Paquin sand
100	4112 - Maple, Beech, Cherry Association	Poletimber Well	5.9	86	81-110	Stand is an extension of the larger hardwood stand in Compartment 102 (stand 64). Poor quality red maple with scattered hemlock. Beech in the stand has beech scale. Stand was to be treated with adjacent stand to south in Comp 102 but didn't get treated. Small stand. Hold for 10 years. Kalkaska sand.
101	4112 - Maple, Beech, Cherry Association	Poletimber Medium	4.7	71	1-50	Semi open cherry and maple. Scattered merchantable cherry. Aspen and white pine. Kalkaska sand
102	42110 - Planted Red Pine	Poletimber Well	96.8	57	141-170	Planted in 1959. Stand thinned as "Silver Creek Red Pine" sale #42-029-07-01. Completed 6/19/08. 3rd row thinning. Some areas had 2 rows removed where rows were tightly spaced. Red pine is averaging 9-11 inch diameter. Still more of an R6 with areas of R9.

s t				Report 8	Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
103	42110 - Planted Red Pine	Poletimber Well	18.8	57	81-110	Planted in 1959. Stand was thinned as sale #42-029-07-01, Silver Creek Red Pine. Completed 06/19/2008. Open in areas. Larger diameters near the open areas. Stand is more open than stand 102. Larger diameters, more open grown in many areas. BA of 100-120 average. Check for management in 10 years.
104	4133 - Aspen, Mixed Pine	Poletimber Well	4.0	44	81-110	Edge of the adjacent red pine stand. Mix of aspen with red pine and white pine. Kalkaska sand.
108	4130 - Aspen	Sapling Well	22.7	26	1-50	Clearcut in 1990. Nice thick regeneration. Quaking aspen with some maple and cherry. Kalkaska sand.
109	4130 - Aspen	Sapling Well	2.2	15	Immature	Stand was cut as part of sale #036-97-01, "Running Bear Hardwoods". Complete 04-11-00. All aspen, hardwoods and balsam were removed. Young aspen regeneration is thick.
110	4112 - Maple, Beech, Cherry Association	Poletimber Well	57.5	86	111-140	Stand thinned as sale #036-97-01. Hard maple with red maple and small components of cherry, beech, spruce. Occasional hemlock. Good quality in the hard maple 8-10 inch poles. Quality decreases and BA is lower in the northern portion of the stand near county road 455. Scattered large diameter spruce. Beech in the stand is dying out. Good maple regeneration from the previous harvest. Kalkaska sand.
112	42110 - Planted Red Pine	Poletimber Well	14.4	57	141-170	Portion of stand 102 that was not part of the thinning due to proximity to the Silver Creek and the Silver Creek Trout Pond. Planted in 1959. Kalkaska sand.
113	4130 - Aspen	Poletimber Well	5.3	60	81-110	Small pocket of aspen with maple and white pine. Check in 10 years. Kalkaska sand.
114	4130 - Aspen	Sapling Well	136.9	24	Immature	Sale #019-89-01. Completed fall of 1991. Aspen regeneration with maple mixed in. Stand is beginning to transition to a pole size stand, areas of up to 30 BA of pole size aspen. Still predominantly sapling stand. Kalkaska sand (burned).
115	4319 - Mixed Upland Forest	Poletimber Well	7.3	88	81-110	Mainly balsam, spruce and aspen with some red maple. Some tamarack near Silver Creek. Very eastern end is more spruce and balsam along steep slope down to the trout pond. Stand extends down into Comp 102 to the south (stand 13). Paquin sand
117	4110 - Sugar Maple Association	Poletimber Well	5.4	86	111-140	Small patches of hardwoods with young aspen adjacent on all sides. Nice pocket of hard maple, decent quality. A few large aspen. Fair amount of aspen encroachment (edge effect). Kalkaska sand.
118	4130 - Aspen	Sapling Medium	3.4	26	Immature	Pockets/clones of aspen with maple and cherry. Occasional white pine, limby. Hawthorne bushes throughout the area.
119	4130 - Aspen	Sapling Well	19.7	15	Immature	Sale #028-97-01, completed 02-01-01. Nice aspen regeneration with red maple. Kalkaska sand (burned).

S t	Newberr	Newberry Mgt. Unit			- Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
120	4110 - Sugar Maple Association	Poletimber Well	6.6	86	111-140	Small patches of hardwoods with young aspen adjacent on all sides. Nice pocket of hard maple, decent quality. A few large aspen. Some encroachment of young aspen along the edges (understory). Kalkaska sand.
121	4117 - Mixed N. Hardwood - Pine	Poletimber Medium	43.0	73	51-80	Open stand with maple and cherry. Poor quality in sugar maple. Areas with mostly cherry. Kalkaska sand (burned).
126	4130 - Aspen	Poletimber Medium	11.7	28	1-50	Small aspen. Some merchantable with pockets of hardwoods (mainly cherry). Areas in stand are more of a "U" type. Kalkaska sand (burned).
127	4130 - Aspen	Sapling Well	39.7	29	1-50	Thick aspen regeneration. Western portion of the stand has more maple and cherry mixed in. Stand is beginning to transition from a sapling to pole size stand. Areas of 30-40 BA of pole size trees, many areas are still sapling size.
						Old notes (1993): Steep slopes not cut cleanly, scattered hardwood residual left throughout stand. Kalkaska sand.
129	4130 - Aspen	Sapling Well	2.8	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.
						Stand harvested via final harvest as sale #040-07-01, Red's Lake Mix. Completed 05/13/10. Regeneration check needed in 2014.
130	42340 - Upland Spruce/Fir	Poletimber Well	4.8	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 influenced the compsition of this stand. Most of the aspen has been "removed". Remaining stand is all aged with white pine, spruce, balsam, maple and white birch. Liminga-Alcona complex.
132	4130 - Aspen	Poletimber Well	25.5	61	81-110	Aspen stand with areas of short aspen and areas of clones of nice 5 stick aspen, larger diameters. Diameters are smaller near the county road. Some mortality in the aspen, up to 2-3 trees on some plots. Aspen BA ranging from 40 up to 110. Aspen showing some signs of rot. Lots of smaller diameter aspen throughout the stand. Scattered large white pine, and white spruce. Kalkaska sand (burned).
133	4139 - Aspen, Mixed Deciduous	Sawtimber Well	43.7	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.
135	6122 - Black Spruce	Poletimber Well	3.3	84	81-110	Small pocket of black spruce surrounded by aspen. Low ground. Some tamarack and white pine. Liminga-Alcona complex

s t	Newberr	Newberry Mgt. Unit			– Forested	Stands Compartment: 90 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
137	4199 - Other Mixed Upland Deciduous	Poletimber Well	21.3	63	81-110	Aspen with some "wolfy" maple. Scattered mature aspen over younger maple. Areas with more white birch. Nice M3 understory. Areas in the stand that are open. Higher component of balsam mixed in along the private property. Pockets of M5/M6, multiple stem sugar maple Smaller diameters near the county road. Mixed stand with a high maple component.Hold for 10 year for age class diversity. May lose some of the aspen component due to age and condition. Private Land to the east has been cut and is young aspen. Many of the aspen stands in close proximity to this stand are prescribed for harvest or have recently been harvested. Liminga-Alcona loam soil.
139	4139 - Aspen, Mixed Deciduous	Sapling Well	38.6	6	Immature	Stand harvested via final harvest as sale #027-07-01, 455 Aspen. Completed 07/02/10. White birch left as residual, as well as some cherry, low quality maple and white pine. Good aspen and maple regeneration. There are a couple apple trees in the stand along the county road right of way.
141	4130 - Aspen	Sapling Well	19.5	18	Immature	Stand cut as sale #027-97-01, "Three Road Aspen". Aspen regeneration is thick with a mix of red maple. White birch and cherry. Small component of balsam and spruce. Scattered white pine. A few open areas within the stand, filling in. Couple apple trees along western stand edge.
142	4134 - Aspen, Spruce/Fir	Sawtimber Well	23.9	72	111-140	Mature aspen stand that crosses compartment boundary, in both comp 88 and comp 90. Good component of balsam and large white spruce. A few 20+ inch white spruce in the stand, central portion. Aspen is showing decline and rot. Areas with blowdown. South end of the stand has slightly smaller diameters in the aspen and thicker maple sub canopy. Portion of the stand north of the snowmobile trail has less of a conifer component. Portion of the stand along Co Rd 455 with slightly smaller diameters will be retained as a visual buffer. The buffer will be harvested in 10 years.
145	4134 - Aspen, Spruce/Fir	Poletimber Medium	12.9	51	1-50	Open with patches of timber. Aspen with spruce, balsam, and maple, limby white pine. Opening is filling in with merchantable timber. Check in 10 years. Good diversity. Kalkaska sand.
146	4139 - Aspen, Mixed Deciduous	Sapling Well	7.3	6	Immature	Stand harvested via final harvest as sale #027-07-01, 455 Aspen. Completed 07/02/10. Good aspen and maple regeneration. Fair amount of pole size trees retained after harvest. Thick stand. Kalkaska sand.
147	4136 - Aspen, Mixed Conifer	Poletimber Poor	18.1	33	1-50	Opening with large spruce, aspen clones and scattered maple. Stand was a larger "G" type but has filled in with sapling and pole size trees. Kalkaska sand (burned).
148	4130 - Aspen	Poletimber Well	2.0	60	81-110	Small pocket of aspen with maple and white pine. Stand appears to be healthy. Request from wildlife biologist to hold for 10 years for some age and structural diversity. Kalkaska sand.
149	4110 - Sugar Maple Association	Poletimber Well	7.6	86	81-110	Small acreage maple stand. Some good quality sugar maple. Parts of the stand are more open with some aspen. Stand continues across compartment boundary into C. 102. Kalkaska sand.

S t a n d	Newberry Mgt. Unit			Report 8	- Forested	Stands Compartment: 90 Year of Entry: 2017	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	IGAN .
150	4139 - Aspen, Mixed Deciduous	Sapling Well	5.2	6	Immature	Stand harvested via final harvest as sale #027-07-01, 455 Aspen. Completed 07/02/10. Good aspen and maple regeneration. Fair amount of pole size trees retained after harvest. Thick stand. Kalkaska sand. Regeneration check needed in 2014.	
151	4130 - Aspen	Sapling Well	1.6	21	Immature	Young aspen, sale #30-93-01. Completed 1995. Stand was harvested at the same time as stand 4 in compartment 102. Liminga-Alcona soil complex.	
152	4130 - Aspen	Sapling Well	5.4	18	Immature	Stand cut as sale #027-97-01, "Three Road Aspen". Aspen regeneration is thick with a mix of red maple.	1
153	42200 - Natural White Pine	Poletimber Medium	6.2	86	51-80	Opening filling in with white pine, spruce and balsam. Oper grown, limby white pine. Kalkaska sand.	1
154	4199 - Other Mixed Upland Deciduous	Poletimber Well	5.7	66	81-110	.Mixed stand of low quality red maple, aspen and white pine. Clones of aspen, mature. Pockets of stand are more red	

maple.



Stand	Cover Type	Acres	Managed Site	General Comments:
20	3102 - Grass	119.5	Yes	Large opening being maintained by prescribed burns. Weather Station Rx Burn. Forest Treatment Proposal (FTP #) calls for multiple burns over a period of years to successfully kill the encroaching aspen, cherry and white pine, to maintain the opening. Portion of the stand east of Co Rd 453 burned very successfully, knocking back the encroachment. Stump sprouting of cherry and new aspen regeneration is beginning. Another burn is necessary. Portion of the stand west of Co Rd 453 didn't burn as well and has a lot of encroachment stillneeds to be burned again. Old Notes: Large grass opening filling in with small aspen and cherry. Prescribed
				burn to maintain as a large grass opening, reduce the aspen and cherry encroachment. Also reduce the bracken fern and mosses, promoting more grasses and forage. Historically a sharptail grouse area, so try to establish favorable open habitat. Repetitive burning may be needed until the objective is accomplished. Kalkaska sand.
21	3102 - Grass	39.8	No	Grass opening with a high number of open grown, limby white pine. Some areas within the stand could type out as a W4. Separated from stand 66 due to the amount of white pine within the stand. Kalkaska sand.
23	3102 - Grass	1.4	No	
29	3102 - Grass	1.7	No	
33	6225 - Bog	1.3	No	
36	6225 - Bog	10.9	No	Bog with stunted spruce. Pitcher plants. Dawson, Greenwood and Loxley peats
39	6225 - Bog	22.8	No	Bog with beaver activity. Dawson, Greenwood and Loxley peats
40	6225 - Bog	3.2	No	
43	122 - Road/Parking Lot	3.2	No	County Road 415 and cleared Right of Way.
49	3102 - Grass	39.3	No	Large opening with scattered bushy white pine and scattered individual cherry and aspen. Bracken fern and reindeer moss. Kalkaska sand.
50	3102 - Grass	6.9	No	Opening with open grown white pine , jack pine and scattered A2/A3 throughout. Possibly clean up these openings if stand 2 (W6) is shelterwood harvested.
51	3102 - Grass	2.9	No	Liminga-Alcona complex
54	6225 - Bog	3.7	No	Open bog with an edge of spruce poles



Stand	Cover Type	Acres	Managed Site	General Comments:
56	3102 - Grass	69.5	Yes	Large grass opening filling in with small aspen and cherry. Kalkaska sand. Per the request of the Wildlife Ecologist at the 2005 Compartment Review, the portion of this stand east of Co Rd 453 (now designated as stand 57) will now be converted to red pine via planting in return for stands 246, 247, and 250 (originally parts of stands 46, 47, and 50 respectively) being maintained as an opening. See notes on stand 452.
59	6225 - Bog	2.4	No	Small bog with spruce edge surrounded by aspen
61	3102 - Grass	4.8	No	Openings with aspen encroachment. Kalkaska sand.
66	3102 - Grass	41.0	No	Open, rolling hills. Scattered cherry, white pine and aspen. Snowmobile trail runs through stand.
68	122 - Road/Parking Lot	11.1	No	County Road 455 Right-of-Way
69	122 - Road/Parking Lot	2.0	No	County Road 455 Right-of-Way
72	3102 - Grass	13.3	No	Kalkaska sand
74	122 - Road/Parking Lot	4.7	No	County Road 415 and cleared Right of Way
76	3102 - Grass	3.8	No	Opening with small aspen patches and individual limby white pine. Kalkaska sand (burned).
77	3102 - Grass	16.9	No	
79	3102 - Grass	14.9	No	Large grass opening with some old white pie stumps. Rolling hills. Kalkaska sand.
81	6225 - Bog	1.4	No	
82	500 - Water	18.8	No	Silver Creek Trout Pond.
90	3102 - Grass	22.0	No	
94	3102 - Grass	3.4	No	Parking area and grass opening at the Silver Creek Trout Pond dam.
97	622 - Lowland Shrub	14.3	No	Lowland brush corridor around Silver Creek.
99	3102 - Grass	3.2	No	

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
107	3102 - Grass	21.8	No	Opening with pockets of A2/A4. Rolling hills. Kalkaska sand (burned).
111	3102 - Grass	4.6	No	
116	500 - Water	1.3	No	North end of Brockies Trout Pond
125	3102 - Grass	10.4	No	Openings with aspen encroachment. Kalkaska sand.
128	6225 - Bog	19.0	No	Dawson, Greenwood and Loxley peats
131	6225 - Bog	0.9	No	
134	3102 - Grass	48.7	No	Open, pockets of aspen, cherry and some hawthorne.
136	3102 - Grass	3.6	No	
138	3102 - Grass	9.1	No	Open, pockets of aspen, cherry and some hawthorne.
140	3102 - Grass	4.2	No	Opening with large spruce. Kalkaska sand (burned).
143	3102 - Grass	6.9	No	Opening with large spruce. Kalkaska sand (burned).
144	3102 - Grass	5.6	No	Snowmobile trail runs through the stand. Liminga-Alcona soil complex.
155	3102 - Grass	39.9	No	Open grass stand with scattered aspen, cherry and limby white pine. Kalkaska sand (burned).
157	6225 - Bog	1.1	No	