



Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63115

Entry Year 2020

Acreage: 2,058

County Missaukee

Management Area: Manistee River Valley

Revision Date: 2018-06-14

Stand Examiner: Tyler Ritchie

Legal Description:

T23N, R7W, Secs. 4, 5, 7, 8, 9, 18

Identified Planning Goals:

Vegetation management in the Manistee River Valley management area will provide timber products; maintain or enhance wildlife habitat; protect areas of unique character including the Manistee River and its tributaries, a designated natural river; threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year planning period includes continuing aspen management to maintain early successional habitat for hunting and other wildlife-related recreational opportunities; increasing regeneration of oak; focusing on balancing the red pine age class structure through final harvests and re-planting; and on improving red pine quality through partial harvests. Expected trends within this 10-year planning period are increased recreational pressure, especially on the established trails and along the Manistee River and its tributaries; an increased wildland/urban interface and a need to restore barrens communities through prescribed fire; and invasive plant control.

Soil and topography:

Gray calm, Rubicon, Kalkaska, Wexford-Emmet sands. Lupton and Carbondale muck. Rifle peat. Terrain is flat to rolling.

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

Missaukee Industrial Park and Lake City Forge are in section 7. A mix of state and private land in most of the compartment. The snowmobile trail runs east west through the main area of the compartment. Snowmobiling, and dispersed hunting are the main recreation activities. A very short stretch of Hopkins creek runs through section 18.

Unique Natural Features:

None known.

Archeological, Historical, and Cultural Features:

None Listed.

Special Management Designations or Considerations:

Designated Snowmobile trail management.

Watershed and Fisheries Considerations:

Hopkins Creek and several small tributaries to it flow through Compartment 63115. All are Designated Trout Streams, and Hopkins Creek is also under Natural Rivers jurisdiction in the Upper Manistee River Natural Rivers plan. Hopkins Creek in Compartment 63115 was surveyed by Fisheries Division in 2003. The survey showed that in the area, Hopkins Creek supports a population of naturally reproducing brook trout. Here are the field notes from the survey: "This area is currently being ravaged by beavers. We noted multiple beaver dams upstream of where we shocked. The dams are causing the stream to braid out, resulting in warming of the water, erosion and sedimentation, and possibly blocked fish passage." For timber operations near Hopkins Creek, BMPs should be followed with appropriate buffers left to protect this important trout stream.

Wildlife Habitat Considerations:

Featured wildlife species in this Management Area are diverse reflecting the wide range of habitat types present. Featured Species of wildlife include american bittern, american woodcock, beaver, black bear, eastern massasuga rattlesnake, golden-winged warbler, mallard, pileated woodpecker, ruffed grouse, snowshoe hare, white-tailed deer, and wood duck. Most of these species benefit from young forest and open types while some require some old trees for foraging and nest/den sites. Maintaining the opening types and balancing harvests with a diverse assortment of age classes in the timber types will meet the goals for these species.

Mineral Resource and Development Concerns and/or Restrictions

A state-owned sand/gravel pit (Pit 46, Green Road) is located less than one mile to the southwest of the compartment, and there is good sand & gravel potential within the compartment. There is no nearby oil & gas production, but much of the

compartment is currently leased for oil & gas exploration and development. Marathon holds these leases, and they have recently been divesting their interests in the state. There is no known metallic mineral potential in this part of the state.

Vehicle Access:

A forest road access plan is detailed on the compartment map. Identified are county roads, forest roads and trails under the jurisdiction of the DNR.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

Snowmobile Trail 651 travels through the compartment.

Fire Protection:

There are urban interface areas within the compartment. Terrain and roads would allow for good equipment access in most parts. Recreation in the compartment would allow for possible more fire starts. BET 6-4-2018

Additional Compartment Information:

None at this time.

The following reports from the Inventory are attached:

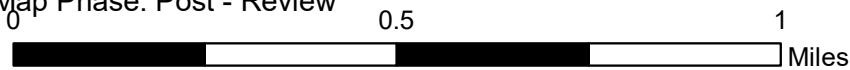
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

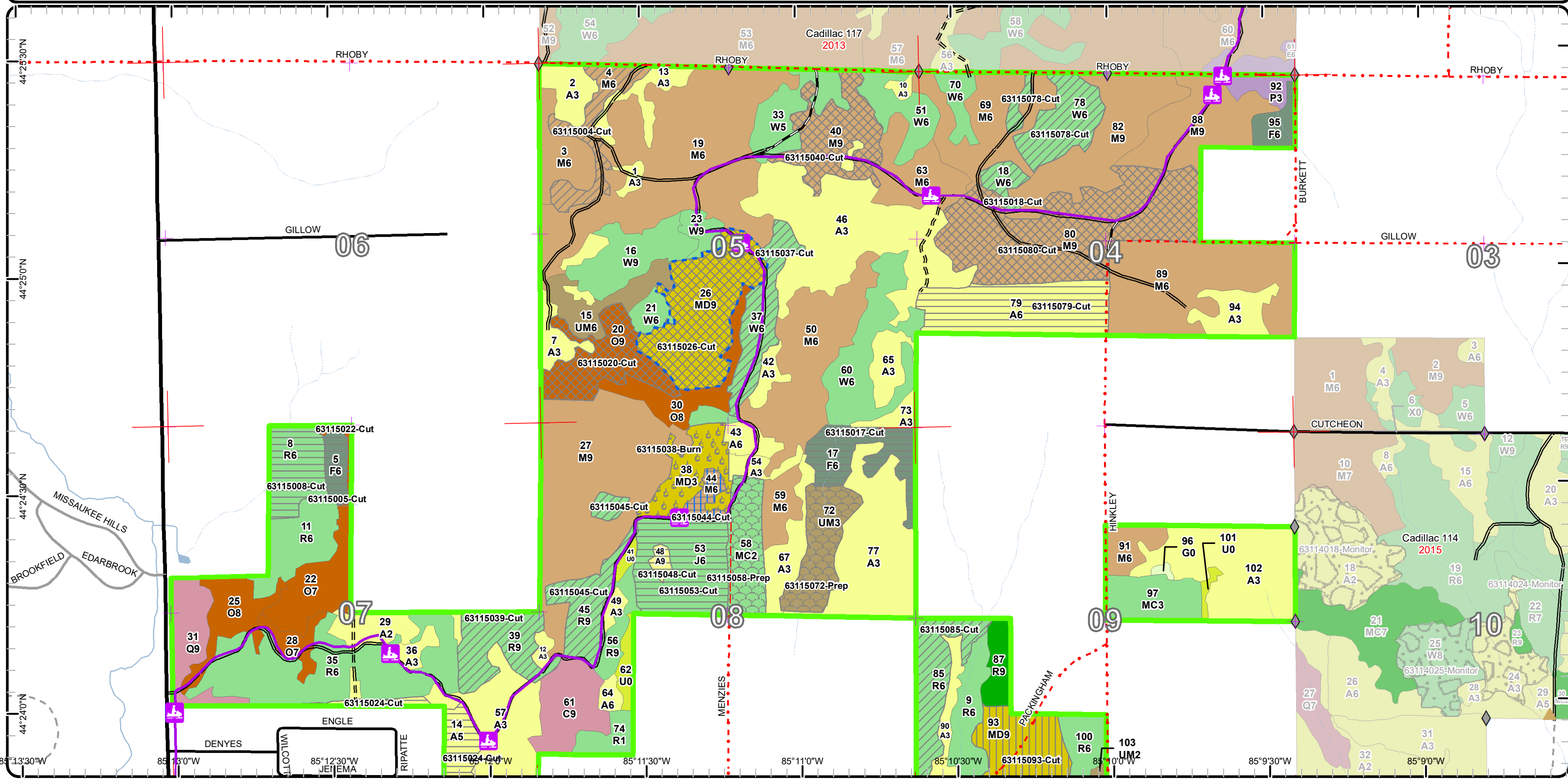
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 115
 T23N - R07W Sec.
 04,05,07,08,09,18
 County: Missaukee
 Unit: Cadillac
 Mgmt Area: Manistee River Valley
 YOE: 2020
 Acres: 2,058 GIS Calculated
 Examiner: Tyler Ritchie
 Map Revised: 10/23/2018
 Map Phase: Post - Review

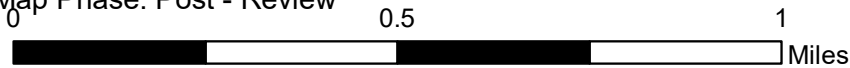


- Miris Corners
- Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- == DNR - Forest Access Route
- Federal / State Highway
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- - - Private - Dirt / Gravel Road
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- Designated Snowmobile Trails
- ▲ Berms
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- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Treatments with Site Conditions
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Prescribed Burn
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Shelter Wood (w/Reserves)
- Site Prep
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- Lakes

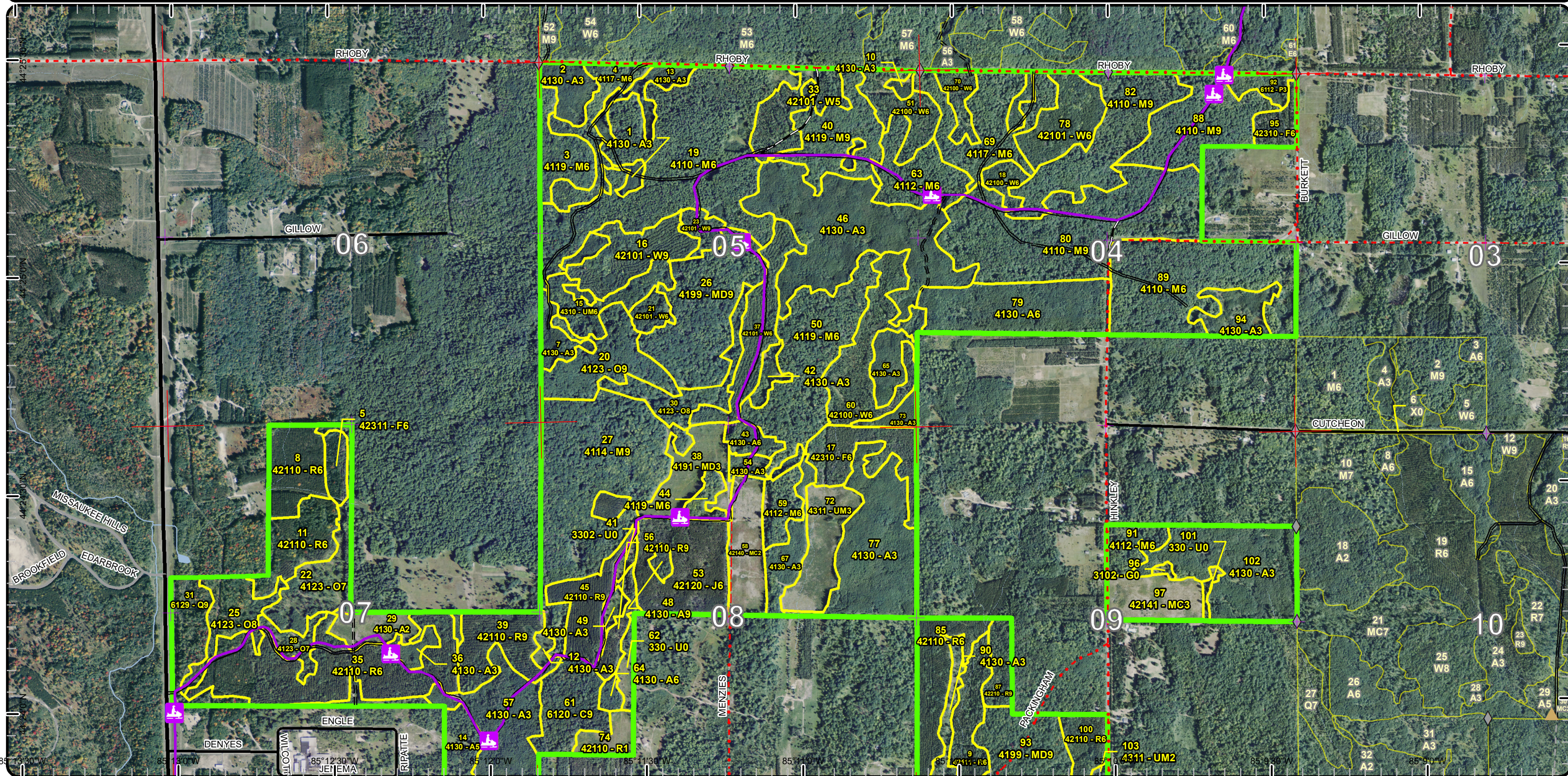


Stand Boundary Map

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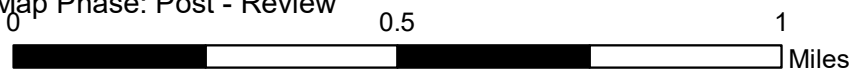


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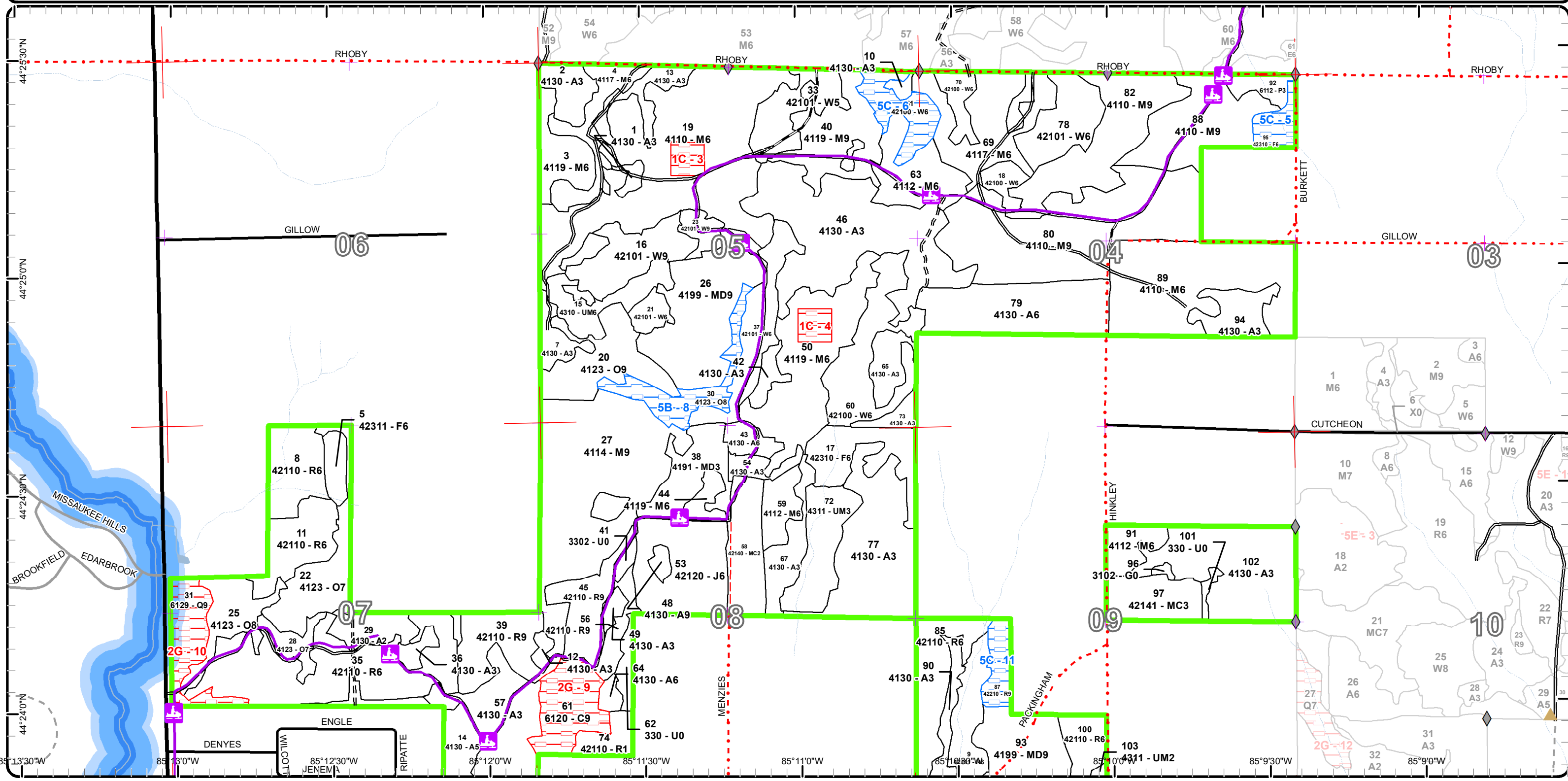


Special Conservation Areas & Site Conditions Map

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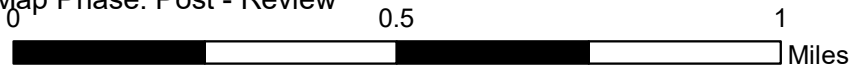


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- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 1C: Other dept or div proc/practices
- 2G: Too wet (sensitive soils, does not include access issues)
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer

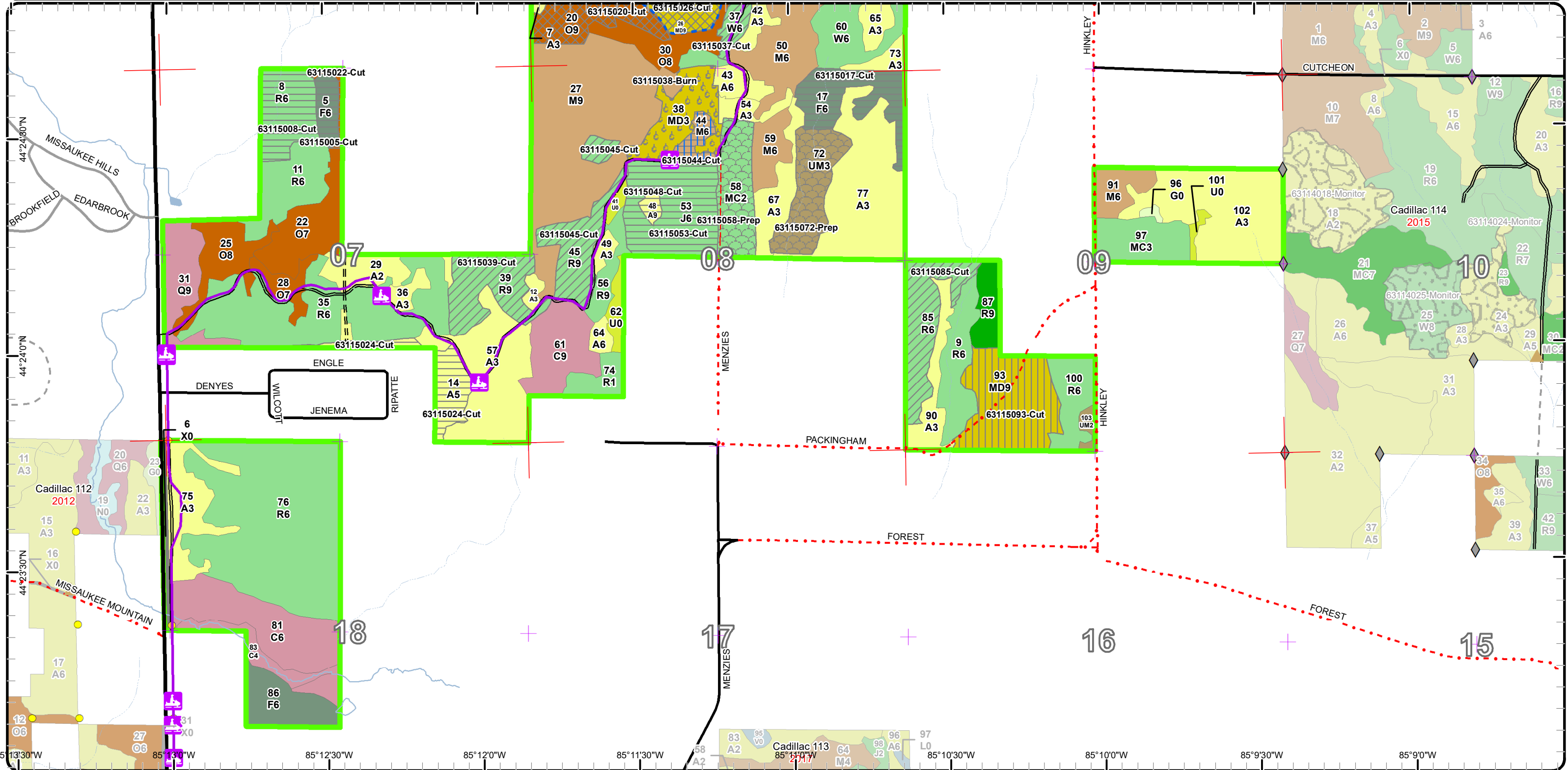


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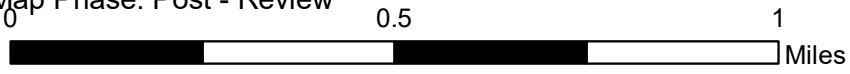


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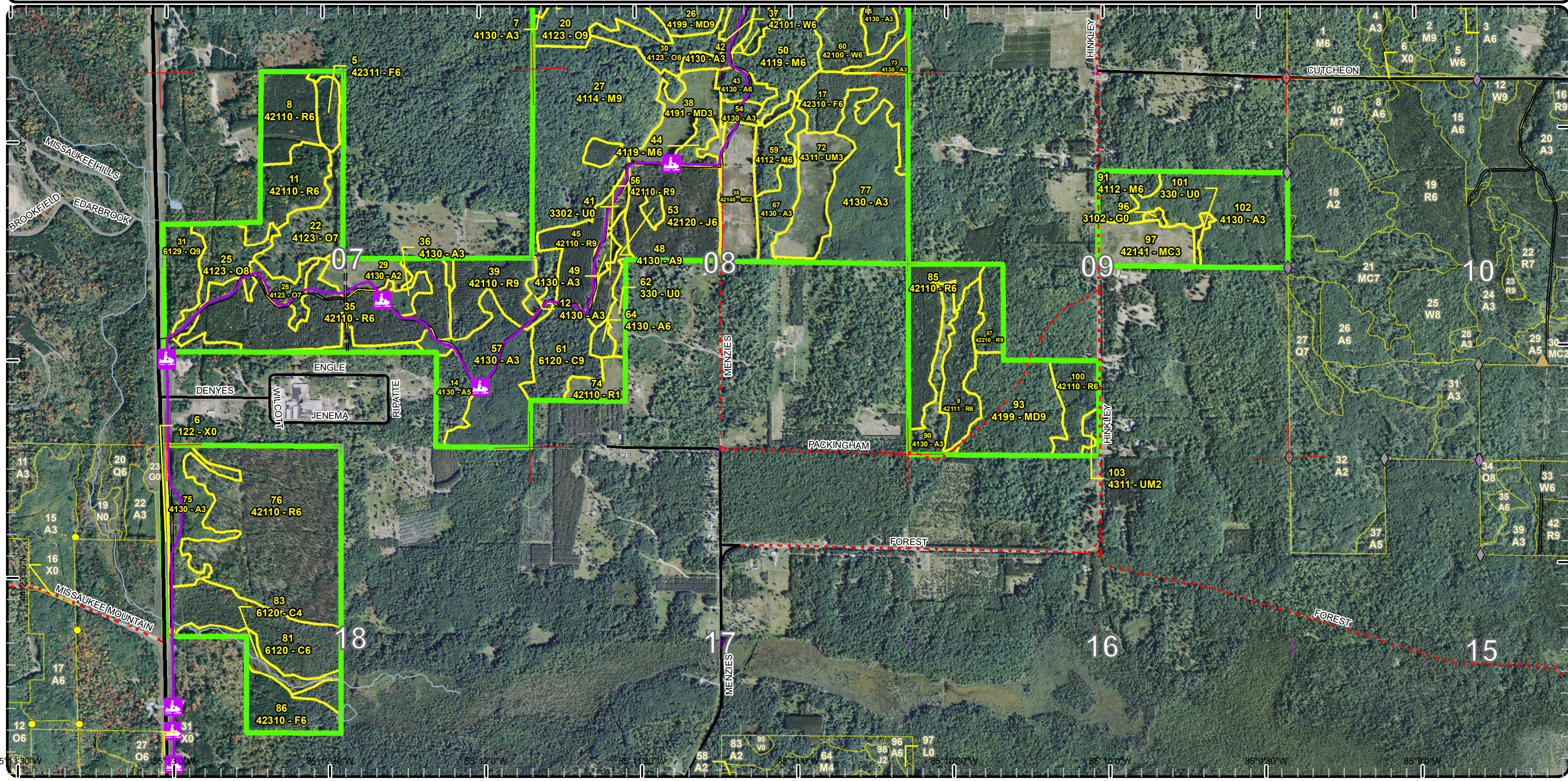


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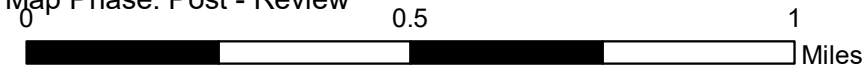


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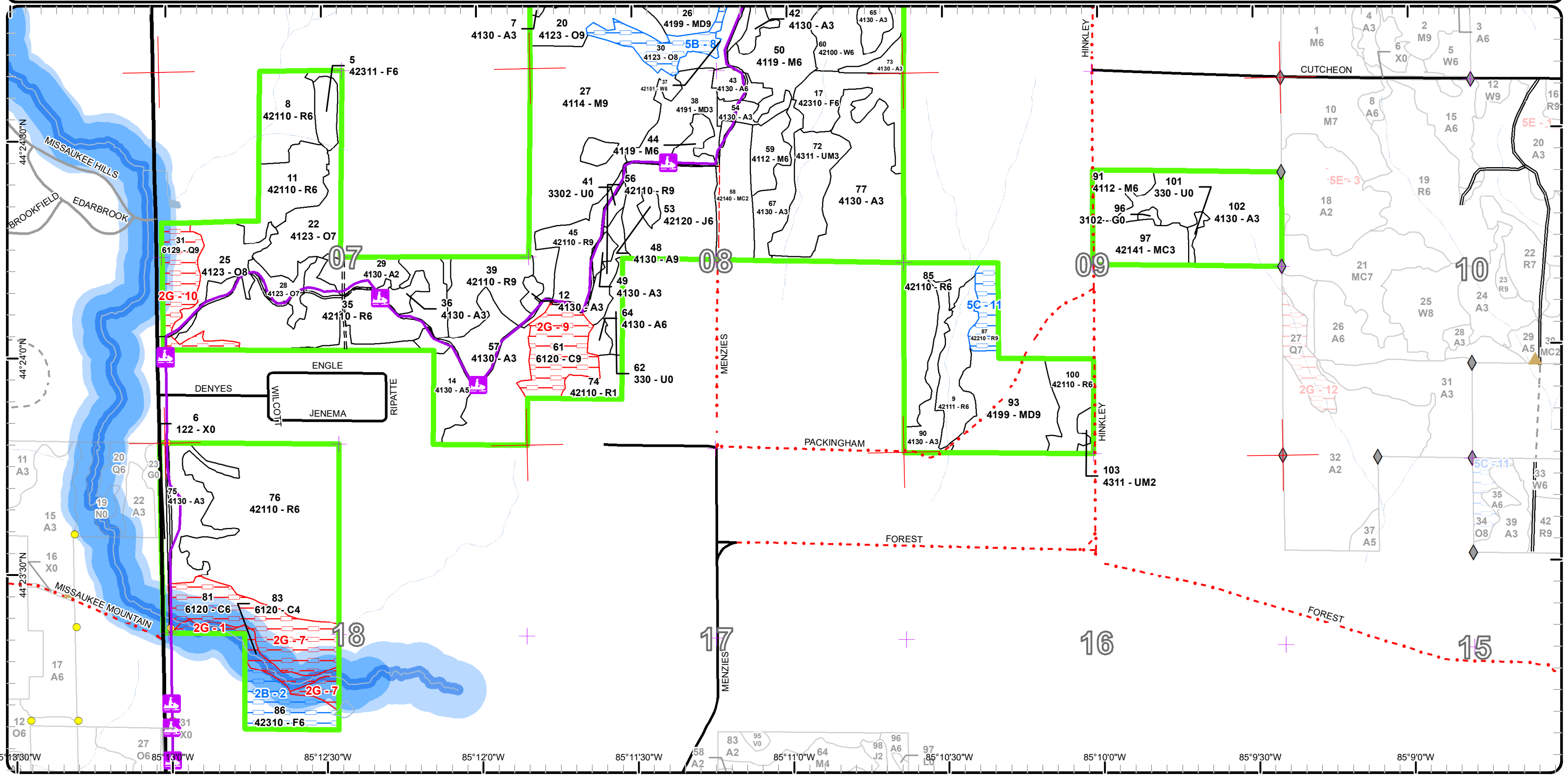


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- 5B: Maintain for regeneration purposes
 5C: Delay treatment for age/size class diversity or exceptional site quality
 2G: Too wet (sensitive soils, does not include access issues)



Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit

Compartment 115 Year of Entry 2020

Tyler Ritchie : Examiner



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	24	73	267	3	49	20	0	0	0	0	0	0	0	0	0	0	0	435
Cedar	0	0	0	0	0	0	0	0	0	0	23	0	48	0	0	0	0	0	71
Herbaceous Openland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Jack Pine	0	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	36
Low-Density Trees	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Aspen/Balsam Poplar	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Conifers	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	19
Mixed Upland Deciduous	0	21	0	0	0	0	0	0	38	49	0	0	0	0	0	0	0	0	108
Northern Hardwood	0	0	0	0	0	0	0	0	35	335	261	0	0	0	0	0	0	0	630
Oak	0	0	0	0	0	0	0	0	50	28	18	0	0	0	0	0	0	0	96
Planted Mixed Pines	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Red Pine	0	8	0	0	0	15	218	85	0	10	0	0	0	0	0	0	0	0	335
Upland Mixed Forest	0	23	3	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	42
Upland Spruce/Fir	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
White Pine	0	0	0	0	0	0	161	6	0	0	0	0	0	0	0	0	0	0	167
Total	15	117	82	267	3	64	506	91	123	441	302	0	48	0	0	0	0	0	2055



Report 2 – Treatment Summary

Cadillac Mgt. Unit

Year of Entry: 2020

Acres of Harvest

Compartment 115

Total Compartment Acres: 2,058

Commercial Harvest - 480
 Harvests with Site Condition - 49
 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	45	0	0	0	0	0	0	0	0	45
Jack Pine	36	0	0	0	0	0	0	0	0	36
Mixed Upland Deciduous	0	49	0	0	38	0	0	0	0	87
Northern Hardwood	0	118	0	6	0	18	0	0	0	142
Oak	3	28	0	0	0	0	0	0	0	31
Red Pine	36	0	0	0	0	70	0	0	0	106
Upland Spruce/Fir	29	0	0	0	0	0	0	0	0	29
White Pine	0	0	0	0	0	53	0	0	0	53
Total	149	195	0	6	38	141	0	0	0	530

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	530	45	0	0	21	0	0	0	0	596
Next Step	0	382	128	0	80	131	557	0	0	1279
Total	530	427	128	0	101	131	557	0	0	1875



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	63115004-Cut	18.1	4117 - Mixed N. Hardwood - Pine	Poletimber Well	87	111- 140	Harvest	Low Thinning	4319 - Mixed Upland Forest	Even-Aged	Approved Proposal

Habitat Cut: No**Site Condition:**

Prescription Thin white pine plantation pockets to 40-60 BA. remove hardwoods as need for trails and operations.

Specs:

Next Step Pesticide, Other - Specify; SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr);

Treatments: Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify

Acceptable mix of northern hardwoods and white pine.

Regen:

Other redraw stand lines after the harvest and add the uncut hardwood areas to stand 3. thin the white pine to release hardwood regeneration and

Comment: promote white pine growth.

Proposed Start Date: 10/1 /2019

5	63115005-Cut	6.7	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	56	111- 140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest and re-plant to red pine.

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Other - Specify; Monitoring, Artificial Regen(1yr);

Treatments: Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify

Acceptable Planted red pine

Regen:OtherComment:

Proposed Start Date: 10/1 /2019

8	63115008-Cut	20.7	42110 - Planted Red Pine	Poletimber Well	61	171- 200	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest and re-plant to red pine.

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr);

Treatments: Pesticide, Other - Specify; SitePrep, Other - Specify

Acceptable Planted red pine

Regen:OtherComment:

Proposed Start Date: 10/1 /2019

17	63115017-Cut	22.6	42310 - Planted Spruce	Poletimber Well	56	111- 140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest, leaving standard retention island. Replant to red pine. Include 2" spec.

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr);

Treatments: SitePrep, Other - Specify; Pesticide, Other - Specify

Acceptable Planted Red Pine

Regen:Other

Consider chip harvest or some other way to reduce slash to facilitate planting.

Comment: Do not replant on west side of the trail. Allow to regenerate to aspen due to competition and steeper terrain.

Proposed Start Date: 10/1 /2019



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
18	63115018-Cut	5.9	42100 - Planted White Pine	Poletimber Well	57	171- 200	Harvest	Systematic Thinning	4210 - Planted White Pine	Even-Aged	Approved Proposal

Habitat Cut: No**Site Condition:**

Prescription Remove approximately half the volume by cutting 2 rows and leaving 2 rows.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Rows are curvy so marking may be necessary.

Comment:

Proposed Start Date: 10/1 /2019

20	63115020-Cut	28.0	4123 - Red Oak	Sawtimber Well	80	111- 140	Harvest	Single Tree Selection	4123 - Red Oak	Two-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Mark stand to a residual BA of 50 - 70, focusing on suppressed, poor formed, and high risk trees. Mark canopy gaps every 3 - 5 acres to promote regeneration.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Red oak, with smaller amounts of other hardwood species.

Regen:

Other Include oak wilt spec.

Comment:

Proposed Start Date: 10/1 /2019

22	63115022-Cut	2.8	4123 - Red Oak	Sawtimber Poor	71	1-50	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest with stands 5 and 8 up to property line. Leave a couple oak trees, that won't interfere with planting operations, for tree stands per unit wildlife biologist request.

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, ; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Pesticide, ;

Treatments: Monitoring, Artificial Regen(3yr)

Acceptable Planted red pine with small amount of hardwood component.

Regen:

Other If current regeneration is too far advanced at time of sale set up for effective planting, treatment may have to be removed.

Comment:

Proposed Start Date: 10/1 /2019

35	63115024-Cut	15.2	42110 - Planted Red Pine	Poletimber Well	61	141- 170	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest. Retention pocket should include a mix of aspen, white pine and oak. Retain all white pine under 4 inches and a 2 inch spec for remaining species.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable mix of aspen, white pine and red oak.

Regen:

Other snowmobile trail spec.

Comment: Grouse spec.

Shrub spec.

Proposed Start Date: 10/1 /2019



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
26	63115026-Cut	49.1	4199 - Other Mixed Upland Deciduous	Sawtimber Well	81	81-110	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Uneven-Aged	Approved Proposal

Habitat Cut: No Site Condition: Other Dept./Div. Processes

Prescription Mark stand to a residual BA of 60 - 80, focusing on suppressed, poor formed, and high risk trees. Mark large canopy gaps every 3 - 5 acres to promote regeneration.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Red oak and sugar maple with smaller amounts of other hardwood species.
Regen:

Other Include oak wilt and snowmobile trail protection specs.
Comment:

Proposed Start Date: 10/1 /2019

37	63115037-Cut	21.8	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	58	141-170	Harvest	Crown Thinning	42101 - Planted White Pine, Mixed Deciduous	Even-Aged	Approved Proposal
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Habitat Cut: No Site Condition:

Prescription Thin white pine to 60 - 80 basal area. Remove all aspen.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Include oak wilt and snowmobile protection specs.
Comment:

Proposed Start Date: 10/1 /2019

38	63115038-Burn	21.1	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	5	Immature	Burn	Opening	412 - Oak Types	Even-Aged	Approved Proposal
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Habitat Cut: No Site Condition:

Prescription burn unit to remove jack pine, cherry, red maple and aspen competition. oak is to be released by burning. if stand fails meet acceptable stocking of oak consider site prep and planting to red pine.

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Other - Specify; Planting, Initial Plant; Monitoring, Artificial Regen(1yr);
Treatments: Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify

Acceptable 400-500 tpa of oak.

Regen: red pine plantation if oak fails to regenerate.

Other Regeneration is already at 3 feet. oak is heavily browsed and will need to be released by fire. if regeneration fails, site prep by herbicide and trenching. Leave islands of oak regeneration if areas exist with enough oak regeneration.

Snow mobile trail spec.

Proposed Start Date: 5 /1 /2019

39	63115039-Cut	23.5	42110 - Planted Red Pine	Sawtimber Well	58	171-200	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No Site Condition:

Prescription Thin to an average target BA of 100 - 120. Focus on removal of poor formed and suppressed trees. Remove all aspen.
Specs:

Next Step
Treatments:

Acceptable mix of hardwood mast species, red pine and white pine.
Regen:

Other Add snowmobile trail protection spec.
Comment: Cut in the summer to reduce hardwood and aspen regeneration.

Proposed Start Date: 10/1 /2019



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
40	63115040-Cut	30.2	4119 - Mixed Northern Hardwoods	Sawtimber Well	84	111-140	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Uneven-Aged	Approved Proposal

Habitat Cut: No **Site Condition:**

Prescription Mark stand to a residual BA of 70 - 90, focusing on suppressed, poor formed, and high risk trees. Mark large canopy gaps every 3 - 5 acres to promote regeneration. Remove all aspen and ironwood.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable A mix of northern hardwood species.
Regen:

Other Include oak wilt and snowmobile trail protection spec.
Comment:

Proposed Start Date: 10/1 /2019

44	63115044-Cut	5.8	4119 - Mixed Northern Hardwoods	Poletimber Well	90	81-110	Harvest	Seed Tree with Retention	412 - Oak Types	Even-Aged	Approved Proposal
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Habitat Cut: No **Site Condition:**

Prescription Final harvest stand and burn to reduce beech regeneration. Leave all oaks to create seed source after burn. retain a small area of oak and cotton wood near the trail intersection.

Next Step ; ; ; ; ; Burn, Understory
Treatments:

Acceptable oak and grass openings.
Regen:

Other Over mature beech stand. Remove over story and burn to limit beech regeneration.
Comment: Snowmobile spec

Proposed Start Date: 10/1 /2018

45	63115045-Cut	22.2	42110 - Planted Red Pine	Sawtimber Well	58	171-200	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No **Site Condition:**

Prescription Thin to an average target BA of 100 - 120. Focus on removal of poor formed and suppressed trees.
Specs: Remove all aspen.

Next Step
Treatments:

Acceptable
Regen:

Other Add snowmobile trail protection spec.
Comment:

Proposed Start Date: 10/1 /2019

48	63115048-Cut	2.6	4130 - Aspen	Sawtimber Well	58	Unspecified	Harvest	Clearcut	413 - Aspen	Even-Aged	Approved Proposal
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Habitat Cut: No **Site Condition:**

Prescription Final harvest with stand 53. No retention due to small acreage and reforestation concerns.
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Aspen with small component of conifer.
Regen:

Other Maintain as aspen pocket within planted pine for wildlife.
Comment:

Proposed Start Date: 10/1 /2018



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
53	63115053-Cut	36.3	42120 - Planted Jack Pine	Poletimber Well	58	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Approved Proposal

Habitat Cut: No**Site Condition:**

Prescription Final harvest with no retention needed due to reforestation concerns. Treat for red pine plantation.

Specs: Treat in fiscal year 2019 with stand 38.

Next Step SitePrep, Trenching; SitePrep, Roller Chopping; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr);

Treatments: Pesticide, Other - Specify; Burn, Slash; SitePrep, Other - Specify

Acceptable planted red pine.

Regen:

Other Cultivate to remove current vegetation and competition for the red pine. Plant after these treatments. Do not plant 2-4 acres of aspen regen

Comment: (stand 48) to red pine. This is for wildlife purposes.

Include snow mobile protection spec.

Proposed Start Date: 10/1 /2018

58	63115058-Prep	21.7	42140 - Planted Mixed Pine	Sapling Medium	6	Immature	SitePrep	Other - Specify	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Manually release red pine from jack pine competition via brush cutting.

Specs:

Next Step Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Red pine

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2018

72	63115072-Prep	23.3	4311 - Pine, Aspen Mix	Sapling Well	6	Immature	SitePrep	Other - Specify	42110 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Contact brush saw release. Remove all trees except planted red and white pine.

Specs:

Next Step Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable red pine

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

78	63115078-Cut	24.9	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	57	171-200	Harvest	Systematic Thinning	4210 - Planted White Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Remove approximately half the volume by cutting 2 rows and leaving 2 rows.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Rows are curvy, so marking may be necessary.

Comment:

Proposed Start Date: 10/1 /2019



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
79	63115079-Cut	42.4	4130 - Aspen	Poletimber Well	48	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Approved Proposal

Habitat Cut: No**Site Condition:**

Prescription Final harvest, with 2" spec, leaving standard island retention. retain small conifer for grouse.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen with a small component of other species.

Regen:

Other Add grouse spec.

Comment:

Proposed Start Date: 10/1 /2019

80	63115080-Cut	88.0	4110 - Sugar Maple Association	Sawtimber Well	93	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Mark stand to a residual BA of 70 - 90, focusing on suppressed, poor formed, and high risk trees. Mark large canopy gaps every 3 - 5 acres to

Specs: promote regeneration.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of northern hardwood species.

Regen:

Other Include snowmobile protection spec.

Comment: Steep topography.

Proposed Start Date: 10/1 /2019

85	63115085-Cut	24.5	42110 - Planted Red Pine	Poletimber Well	56	171- 200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Thin to a 110 - 130 BA. Focus on removing suppressed and poor formed red pine while optimizing crown spacing.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

93	63115093-Cut	38.2	4199 - Other Mixed Upland Deciduous	Sawtimber Well	78	111- 140	Harvest	Shelterwood	412 - Oak Types	Uneven- Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Mark to 40-60 BA. Leave a mix of high quality oak and pine of variable size classes. Remove all aspen and focus on cutting red maple. Leave a

Specs: mix of red and white pine scattered throughout the stand.

Next Step Burn, Understory

Treatments:

Acceptable Mix of oak, aspen and pine. Limit red maple regeneration with a burn treatment.

Regen:

Other Oak Wilt spec.

Comment:

Proposed Start Date: 10/1 /2019

**Total Treatment
Acreage Proposed: 595.6**

Report 4 – Site Conditions

Cadillac Mgt. Unit
Tyler Ritchie : Examiner

Compartment: 115
Year of Entry: 2020

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions				
		With Condition	Not Available		2B	5B	5C	1C	2G
435	435	0	0	Aspen					
72	0	0	72	Cedar					72
1	1	0	0	Herbaceous Openland					
36	36	0	0	Jack Pine					
9	9	0	0	Low-Density Trees					
6	6	0	0	Lowland Aspen/Balsam Poplar					
19	0	0	19	Lowland Conifers					19
108	59	0	49	Mixed Upland Deciduous				49	
631	469	0	162	Northern Hardwood					162
96	78	18	0	Oak		18			
40	40	0	0	Planted Mixed Pines					
335	325	9	0	Red Pine			9		
42	42	0	0	Upland Mixed Forest					
55	29	26	0	Upland Spruce/Fir	18		8		
5	5	0	0	Urban					
168	116	16	35	White Pine			16	35	
2,058	1,652	69	337	Total Forested Acres	18	18	33	246	91
	80%	3%	16%	Relative Percent					

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Located along Hopkins Creek.							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Tyler Ritchie : Examiner

Compartment: 115
Year of Entry: 2020

2	Available	2B: Unknown if access through adjacent landowner(s) is possible	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Unavailable	1C: Other dept or div proc/practices	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: PLEASE DO NOT DELETE!!							
4	Unavailable	1C: Other dept or div proc/practices	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: PLEASE DO NOT DELETE!!							
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comments: Wet ground to the north and utility line make access difficult. Possible access from the south from private land.							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	39	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Tyler Ritchie : Examiner

Compartment: 115
Year of Entry: 2020

8	Available	5B: Maintain for regeneration purposes	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 5 – 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 6 – 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 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.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Sapling Well	2.6	26	Unspecified	Final harvested in 1992. Well stocked aspen stand.
2	4130 - Aspen	Sapling Well	10.8	15	Unspecified	Final Harvested in 2003. Thick aspen regeneration.
3	4119 - Mixed Northern Hardwoods	Poletimber Well	15.6	87	111-140	Smaller diameter hardwood stand of poor quality hardwood. Mix of white pine plantations present but have been over taken by the hardwoods.
4	4117 - Mixed N. Hardwood - Pine	Poletimber Well	18.1	87	111-140	White pine planted in this area in 1962. Includes small diameter hardwood of poor quality that has taken over the white pine. hardwood pockets similar to stand 3
5	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	6.7	56	111-140	Planted spruce that has been treated. Some mortality is taking place. There is a small hardwood draw in the north half of the stand and scattered aspen south of the center. Some minor hills.
7	4130 - Aspen	Sapling Well	12.2	26	Immature	Nice aspen stand.
8	42110 - Planted Red Pine	Poletimber Well	20.7	61	171-200	Planted red pine with very little in the understory. Basal area is on the low end of the range.
9	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	18.7	51	111-140	Planted red pine with a mix of deciduous and scattered legacy red pine. Most of the deciduous component is in the northern portion of the stand, where the red pine has a smaller diameter. It appears part of the stand has been harvested previously. The average basal area of the stand is 133.
10	4130 - Aspen	Sapling Well	1.9	15	Unspecified	Final harvested in 2003. Well stocked aspen regeneration.
11	42110 - Planted Red Pine	Poletimber Well	21.0	58	141-170	Planted red pine with other species scattered throughout. Has a thicker understory than the stand to the north. Pockets of young aspen mixed in. Stand has some topography throughout.
12	4130 - Aspen	Sapling Well	2.3	11	Immature	Treated with sale #63-018-10-01. White pine and Red pine along the southern edge. Few scattered red oak within the stand.
13	4130 - Aspen	Sapling Well	10.1	15	Unspecified	Final harvested in 2003. Well stocked aspen regeneration.
14	4130 - Aspen	Poletimber Medium	16.5	55	Unspecified	Open areas with pockets of mixed aspen, red oak and white pine. this area was not treated with the adjacent stand. Poor formed aspen in the northern portions. Southern area has better quality aspen and low wet areas.
15	4310 - Pine, Oak Mix	Poletimber Well	16.0	58	81-110	Remnants of planted white pine with a good mix of hardwoods.
16	42101 - Planted White Pine, Mixed Deciduous	Sawtimber Well	23.6	56	141-170	Planted white pine with aspen and hardwood inclusions.

Report 7 – Forested Stands

Compartment: 115
Year of Entry: 2020



Stand	Cadillac Mgt. Unit		Acres	Stand Age	BA Range	General Comments:
	Level 4 Cover Type	Size Density				
17	42310 - Planted Spruce	Poletimber Well	22.6	56	111-140	Thick white spruce plantation with little to nothing in the understory. Some of the spruce is starting to fall apart.
18	42100 - Planted White Pine	Poletimber Well	5.9	57	171-200	White pine plantation with curvy rows. Hardwood inclusion on the northern edge.
19	4110 - Sugar Maple Association	Poletimber Well	110.3	85	51-80	Stand was thinned in winter 2011. Sale #63-003-10-01. 115 hardwood sale. Two 2 acre aspen inclusions in the northeast portion of the stand that were harvested in 2003. Beech heavily infested with scale.
20	4123 - Red Oak	Sawtimber Well	28.0	80	111-140	Stand is on the low end of the BA range. Overall a nice looking oak stand with some topography.
21	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	5.6	58	141-170	Remnants of white pine plantation with a mix of hardwoods, typical of the white pine stands in the area.
22	4123 - Red Oak	Sawtimber Poor	24.9	71	1-50	Two age stand of mature red oak with aspen underneath. There's a small pocket of mature aspen in the southern portion of the stand.
23	42101 - Planted White Pine, Mixed Deciduous	Sawtimber Well	6.3	61	141-170	Planted white pine with hardwoods filling in and a small aspen island next to the road. Snowmobile trail runs through the northern portion of the stand.
25	4123 - Red Oak	Sawtimber Medium	17.7	71	1-50	Young aspen stand with larger oak left from a previous harvest. The canopy closure is on the low range of 50%-75%. Utility line runs through the western portion of the stand.
26	4199 - Other Mixed Upland Deciduous	Sawtimber Well	49.1	81	81-110	Mixed hardwood stand with snowmobile trail running through the north. Basal area on the upper end of the range.
27	4114 - Beech, Hemlock	Sawtimber Well	88.8	90	51-80	This was treated last year of entry. Heavy regeneration of beech and maple. High quality hardwood stand with a heavy beech component.
28	4123 - Red Oak	Sawtimber Poor	7.4	78	1-50	Mature oak and maple left after harvest. Aspen and red maple regenerating.
29	4130 - Aspen	Sapling Medium	11.3	6	Immature	Old pine plantation filling in with white pine and scattered deciduous. Treated with sale #63-018-10-01 Trenched in June 2013 Planted to red pine spring 2015. Aspen regeneration throughout the stand is over top of the red pine regeneration.
30	4123 - Red Oak	Sawtimber Medium	17.7	90	51-80	Nice stand of larger oak.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
31	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	19.2	88	171-200	Tag Alder Swamp in the Northern portion. More fir regeneration in the north as well. Areas of blow down and a few wet open areas. Upland white pine and aspen stand makes up the southern foot. Red pine present in this upland area as well. A utility line runs through the stand. Balsam poplar is growing on the road right of way.
33	42101 - Planted White Pine, Mixed Deciduous	Poletimber Medium	19.2	56	111-140	White pine plantation with hardwood mixed in.
35	42110 - Planted Red Pine	Poletimber Well	63.8	61	141-170	Red pine plantation had first thinning last year of entry. A mix of hardwoods also. Scattered oak within stand. Topography in the SW with white pine. Red Pine diameters are larger in the eastern part of the stand. utility line in the western part of the stand.
36	4130 - Aspen	Sapling Well	5.1	26	Unspecified	
37	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	24.8	58	141-170	Planted white pine that was thinned in the 1998 year of entry. Southern 3 acres has not been thinned.
38	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	21.1	5	Immature	Natural jack pine regeneration with heavy beech regeneration as well. Some pockets of aspen. Regeneration is at about 3 feet.
39	42110 - Planted Red Pine	Sawtimber Well	23.5	58	171-200	This was third row thinned last year of entry. Pockets of aspen regeneration within the stand. Low regeneration throughout the rest of the stand. High quality red pine. BA average is just below 200.
40	4119 - Mixed Northern Hardwoods	Sawtimber Well	30.2	84	111-140	Mixed northern hardwood stand with no white pine component.
42	4130 - Aspen	Sapling Well	4.9	15	Unspecified	
43	4130 - Aspen	Poletimber Well	6.4	40	Unspecified	Mixed aspen stand along the snowmobile trail. Conifer is present along the edges.
44	4119 - Mixed Northern Hardwoods	Poletimber Well	5.8	90	81-110	Treated last year of entry. Older oak with a heavy component of beech in the over story. Some aspen on the edge with moderate beech brush in the under story. Pocket of older oaks along snow mobile trail.
45	42110 - Planted Red Pine	Sawtimber Well	22.2	58	171-200	Rows are not even. Take 2 leave 3, 4 and 5. Heavy beech and maple regeneration throughout stand.
46	4130 - Aspen	Sapling Well	78.0	26		Final harvested in 1992. Well stocked aspen regeneration.
48	4130 - Aspen	Sawtimber Well	2.6	58	Unspecified	small aspen stand inside of jack pine plantation.
49	4130 - Aspen	Sapling Well	2.9	11	Immature	Treated with sale #63-018-10-01. Red oak super canopy scattered.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	4119 - Mixed Northern Hardwoods	Poletimber Well	51.3	85	51-80	Some scattered saw log size oak.
51	42100 - Planted White Pine	Poletimber Well	15.7	56	171-200	Planted white pine with a hardwood mix. Part of the stand has been harvested.
53	42120 - Planted Jack Pine	Poletimber Well	36.3	58	111-140	Planted the same time as stand 38, not as much hardwood mixed in here.
54	4130 - Aspen	Sapling Well	5.5	15		Clear cut last year of entry, came back thick. Reserved areas of mature jack pine and red maple.
56	42110 - Planted Red Pine	Sawtimber Well	7.9	58	141-170	Southern part of the stand was treated with a take 2 leave 2 harvest around 2010. Northern third of stand was not treated. Higher BA in the untreated area, 180 avg. Scotch pine pocket present on southern edge.
57	4130 - Aspen	Sapling Well	41.5	26	Unspecified	This was cut in 1992 with stand 36. Southern area is wet with thick fir regeneration and scattered cedar. Some tag alder pockets are present as well. Northern area has higher ground and better growing aspen with red pine log trees mixed in.
58	42140 - Planted Mixed Pine	Sapling Medium	21.7	6	Immature	<p>Site was planted in 2014 and sprayed in 2015 by skidder. regeneration check shows 650 TPA of red pine and 970 TPA on non target. replanted in 2016. Natural jack pine regeneration currently out competing red pine in most of the stand.</p> <p>10/16/2018- 3 year check. Red pine is at 95% survival of the planted stock. No forest health issues. Jack pine competition is making the planted stock not free to grow. Brush saw hand release would be ideal treatment to eliminate competition species.</p>
59	4112 - Maple, Beech, Cherry Association	Poletimber Well	10.6	85	51-80	Mixed stand but good quality hardwoods. Treated last year of entry. Sugar maple is high quality.
60	42100 - Planted White Pine	Poletimber Well	33.9	57	81-110	White pine plantation with aspen mixed in. Canopy closure closer to 75%.
61	6120 - Lowland Cedar	Sawtimber Well	23.1	90	141-170	Wet, deer yarding area. Remnants of a spruce plantation and a red pine plantation in the southern area. Mostly a Cedar swamp with blow down along the edges.
63	4112 - Maple, Beech, Cherry Association	Poletimber Well	22.8	86	51-80	Mixed hardwood stand with no white pine component. Stand was thinned in winter 2011. Sale #63-003-10-01. 115 hardwood sale.
64	4130 - Aspen	Poletimber Well	3.0	35	Unspecified	Well stocked aspen stand with mix of pine and fir in the over story. White pine regen along the edge and fir regen throughout.
65	4130 - Aspen	Sapling Well	9.9	26	Unspecified	Nice aspen stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
67	4130 - Aspen	Sapling Well	13.6	24	Unspecified	Final harvested in 1994. Some hilly topography. Southern area is a ridge with larger pole and log sized aspen and mixed hardwood.
69	4117 - Mixed N. Hardwood - Pine	Poletimber Well	35.3	79	51-80	This whole area was planted to white pine in the 60's. Mixed hardwoods have over topped the pine in many areas. Treated with sale #63-011-10-01
70	42100 - Planted White Pine	Poletimber Well	7.7	56	81-110	White pine plantation with hardwoods.
72	4311 - Pine, Aspen Mix	Sapling Well	23.3	6	Immature	T. Ritchie:Trenched in 2013, planted in 2014, herbicide in 2015 and replanted in 2016. Herbicide was partially effective and removed about half of the aspen. BT: 10/16/2018- Red pine has about 85% survival from to planted stock (initial and replant). No forest health concerns at this time. HOWEVER, red pine is not 80% free to grow. Aspen is main competition at his point. Competition should be controlled.
73	4130 - Aspen	Sapling Well	4.6	26	Unspecified	Nice aspen stand with white spruce seeding in from the south.
74	42110 - Planted Red Pine	Sapling Poor	8.1	6	1-50	Scotch pine plantation Treated with sale #630181001 Trenched in June 2013. Planted in 2015. 1yr check completed 583 TPA red pine, 1058 TPA of Non-target species. Aspen clone in western half of stand over top of the red pine regeneration. Natural white pine regeneration scattered between rows. Remnant scotch pine buffer strip along the southern edge of the stand.
75	4130 - Aspen	Sapling Well	21.4	13	Immature	Aspen stand with a mix of conifer. Red pine pockets left within the stand. Red pine is similar to adjacent stand. A few white oak present as well.
76	42110 - Planted Red Pine	Poletimber Well	100.2	58	111-140	Very large area of planted red pine with mixed deciduous. Treated with sale #63-025-10-01. Red oak regeneration throughout the stand. Open areas and skid trails are full of aspen regeneration. Southern edge is a transition area with red pine, oak and fir on the high part of the ridge. Transitions into a cedar swamp with fir and cherry on the lower edges. Large open area in the north is older aspen with a mix of red oak and hybrid oak that is also about 60 years old. The over story aspen is beginning to fall out. Aspen and oak are regenerating in this area as well.
77	4130 - Aspen	Sapling Well	50.1	24	Unspecified	Nice aspen stand with spruce seeding in from adjacent stand. Small pocket of remnant pine stand in the south.
78	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	24.9	57	171-200	White pine plantation with curvy rows. Hardwood inclusions in northern part of the stand. Hardwoods have been thinned before current BA in the hardwoods is 120-140. BA in the White Pine is 200+.
79	4130 - Aspen	Poletimber Well	42.4	48	Unspecified	Mature high quality aspen stand. Some conifer is present in the sub canopy.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
80	4110 - Sugar Maple Association	Sawtimber Well	88.0	93	111-140	Higher quality hardwood stand with steep topography. Snow mobile trail runs through the stand.
81	6120 - Lowland Cedar	Poletimber Well	39.4	110	51-80	Wet Cedar swamp with a higher transition ridge on the northern edge. Transition area has oak, red pine, fir and old aspen.
82	4110 - Sugar Maple Association	Sawtimber Well	42.1	90	81-110	Mixed hardwood stand. Stand was thinned in winter 2011. Sale #63-003-10-01. 115 hardwood sale.
83	6120 - Lowland Cedar	Poletimber Poor	9.1	110	1-50	Low brushy with scattered open grown trees. Floods occasionally. Flowing stream.
85	42110 - Planted Red Pine	Poletimber Well	24.5	56	171-200	Planted red pine with a small amount of deciduous scattered throughout. In hilly areas, the stand was harvested across rows to avoid side slopes. There is a small valley in the northern portion of the stand.
86	42310 - Planted Spruce	Poletimber Well	17.8	58	171-200	Spruce plantation. The only access is through private so this is a limiting factor.
87	42210 - Natural Red Pine	Sawtimber Well	9.5	82	81-110	Multi-level red pine stand with aspen pockets and other deciduous scattered. Basal area is on the high end of the range.
88	4110 - Sugar Maple Association	Sawtimber Well	36.3	90	81-110	Heavy sugar maple stand. Snowmobile trail runs through the stand.
89	4110 - Sugar Maple Association	Poletimber Well	65.4	89	81-110	This hardwood stand had a select cut in it 20 years ago. Similar quality to stand 80 but smaller diameter. Less topography and higher regeneration present.
90	4130 - Aspen	Sapling Well	13.0	5	Immature	Young aspen stand with residual red oak left over. Stand is a ridge top that slopes down between two red pine stands. The southeast portion of the stand has a small pocket of larger aspen that was retained from the previous harvest.
91	4112 - Maple, Beech, Cherry Association	Poletimber Well	10.2	86	81-110	Northern hardwoods but low quality with a lot of beech. Treated last year of entry.
92	6112 - Lowland Aspen	Sapling Well	6.3	15	Unspecified	Low and wet but regenerating well. Apple trees along roadside.
93	4199 - Other Mixed Upland Deciduous	Sawtimber Well	38.2	78	111-140	More Red Oak is present on the higher areas and ridges. Variable sized and high quality oak present. Red maple and aspen in the lower areas. Aspen is in pockets and falling apart. Stand is more open north of the road and has some topography.
94	4130 - Aspen	Sapling Well	13.4	15	Unspecified	Final harvested last YOE. Mixed aspen regeneration and some open areas.
95	42310 - Planted Spruce	Poletimber Well	8.1	56	171-200	Utility line running north/south through stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
97	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Well	18.5	6	Immature	Treated last year of entry. Planted Red Pine. Natural jack pine has currently dominated the stand. Mix of oak and beech regeneration present as well.
100	42110 - Planted Red Pine	Poletimber Well	14.9	48	141-170	Previously thinned. Aspen regeneration pocket in the North. Smaller diameter red pine stand at 150 BA average.
102	4130 - Aspen	Sapling Well	49.0	27	Unspecified	This was a final harvest in 1991. Thick regeneration. White pine component in the eastern half.
103	4311 - Pine, Aspen Mix	Sapling Medium	2.6	15	Immature	White pine and red pine super canopy trees over top of aspen and pine regeneration. The white pine and red pine regeneration is concentrated in the northern portion. The southern foot has a higher area with mostly red oak regeneration and some small white pine.



Stand	Cover Type	Acres	Managed Site	General Comments:
6	122 - Road/Parking Lot	5.1	No	M-66 and Right-of-Way.
41	3302 - Low Density Conifer Trees	2.1	No	
62	330 - Low-Density Trees	5.2	No	
96	3102 - Grass	1.0	No	
101	330 - Low-Density Trees	1.8	No	