



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61138

Entry Year 2028

Acreage: 1,903

County: Kalkaska

Management Area: High Sand Plains

Stand Examiner: Paul Roell

Legal Description:

T25N R5W, Sections 7, 8, & 9

Identified Planning Goals:

This compartment is part of the High Sand Plains management area (MA). Management will provide timber products; maintain or enhance wildlife habitat; 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; and focusing on balancing the red pine age class structure through final harvests and re-planting. Expected trends within this 10-year planning period are increased wildland/urban interface and a need to restore barrens communities through prescribed fire; and invasive plant control.

Soil and topography:

The topography in this compartment ranges from flat to slightly rolling. Poor, excessively drained, sandy soils are found in much of this part of Kalkaska County.

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

The entire compartment and much of the surrounding compartments are contiguous state forest land. There are oil and gas facilities within this compartment and it also has been leased to the military for training.

Unique Natural Features:

Archeological, Historical, and Cultural Features:

none

Special Management Designations or Considerations:

This compartment is part of a 20-year lease that has been negotiated with the Department of Military Affairs for use of the area by the Michigan National Guard for troop training. All land management decisions regarding this land base are made by DNR. Information regarding our land management activity is exchanged with the military, so that training conflicts do not arise.

Watershed and Fisheries Considerations:

No water bodies in the compartment.

Wildlife Habitat Considerations:

Nearly all of Compartment 138 is irregular ice-contact ridges with few kettle lakes and excessively drained loamy sand soils. The landscape is steep and irregular with the greatest relief being in the northwest corner where this LTA meets a broad, flat outwash plain. Large stands of pole and mature oak are found throughout this area, with small aspen inclusions being common. Aspen and northern hardwood types are secondary with small scattered stands of pines. Non-forested openings dominated by grasses, forbs, shrubs, and poorly stocked trees are also found here and are important features for wildlife.

Wildlife priorities include regenerating oak in mature stands, increasing the aspen component in oak stands, promoting age diversity in aspen stands, and maintaining openings where removing woody encroachment manually, mechanically, or through prescribed burning would be beneficial. A mix of mature oak, multi-aged aspen, northern hardwoods, forest openings, and pine types benefits a variety of wildlife species. Oaks, beech, and other mast producing species produce high quality food for white-tailed deer, black bear, tree squirrels, raccoon, wild turkey, ruffed grouse, and a variety of song birds and small mammals. Special concern should be given to maintaining these important mast producers. Augmenting mast production with a variety of native shrubs and trees should be considered as well. Regenerating oak stands while promoting aspen inclusions will increase species diversity in a compartment dominated by mature oak, and assure the eventual replacement of the current mast producing trees. Occasional gaps in regenerating stands should be acceptable for providing plant diversity, an edge component, and mimicking a fire driven landscape. Assuring a diversity of age classes

among adjacent aspen stands will increase age and structural diversity, and promote species diversity throughout the compartment.

Mineral Resource and Development Concerns and/or Restrictions

There is no known potential for the occurrence of economic deposits of metallic minerals in this part of the state. No active sand/gravel operations are known to occur in the area. There may be potential for development of sand & gravel within the compartment on the uplands, but approval would be required from the DMVA. A portion of the Garfield 8 Field is located in the compartment. The field has produced oil & gas from the Devonian Richfield and Antrim formations as well as the Ordovician St. Peter Sandstone. All State-owned mineral rights in the compartment are currently leased. The compartment falls within the Camp Grayling reservation area, and a long-term lease to the DMVA is in place covering all parcels. Terms of the lease require that mineral lessees obtain surface use permission from the DMVA prior to any mineral development.

Vehicle Access:

Adequate vehicular access appears to be available with the road system that is already in place. Roads are heavily used in the summer by the military during maneuvers in this compartment. New roads developed for timber harvests will be closed upon completion of the sales.

Survey Needs:

Lands surrounding the compartment are all state owned and it appears that all the necessary survey corners are already in place.

Recreational Facilities and Opportunities:

There are no designated trails in this compartment (T.N. 1/26/16).

Fire Protection:

The greatest difficulty with fire control in this compartment is with the response time. Heavy equipment is about 45 minutes away. Fortunately, there is a lack of volatile pine fuels in the area of this compartment so a catastrophic fire is unlikely. The terrain may cause the suppression crews some difficulty.

Additional Compartment Information:

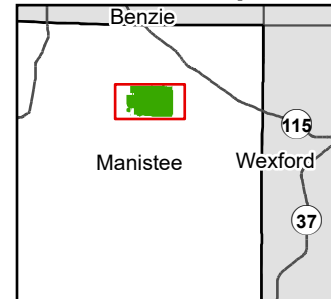
The following reports from the Inventory are attached:

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

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

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

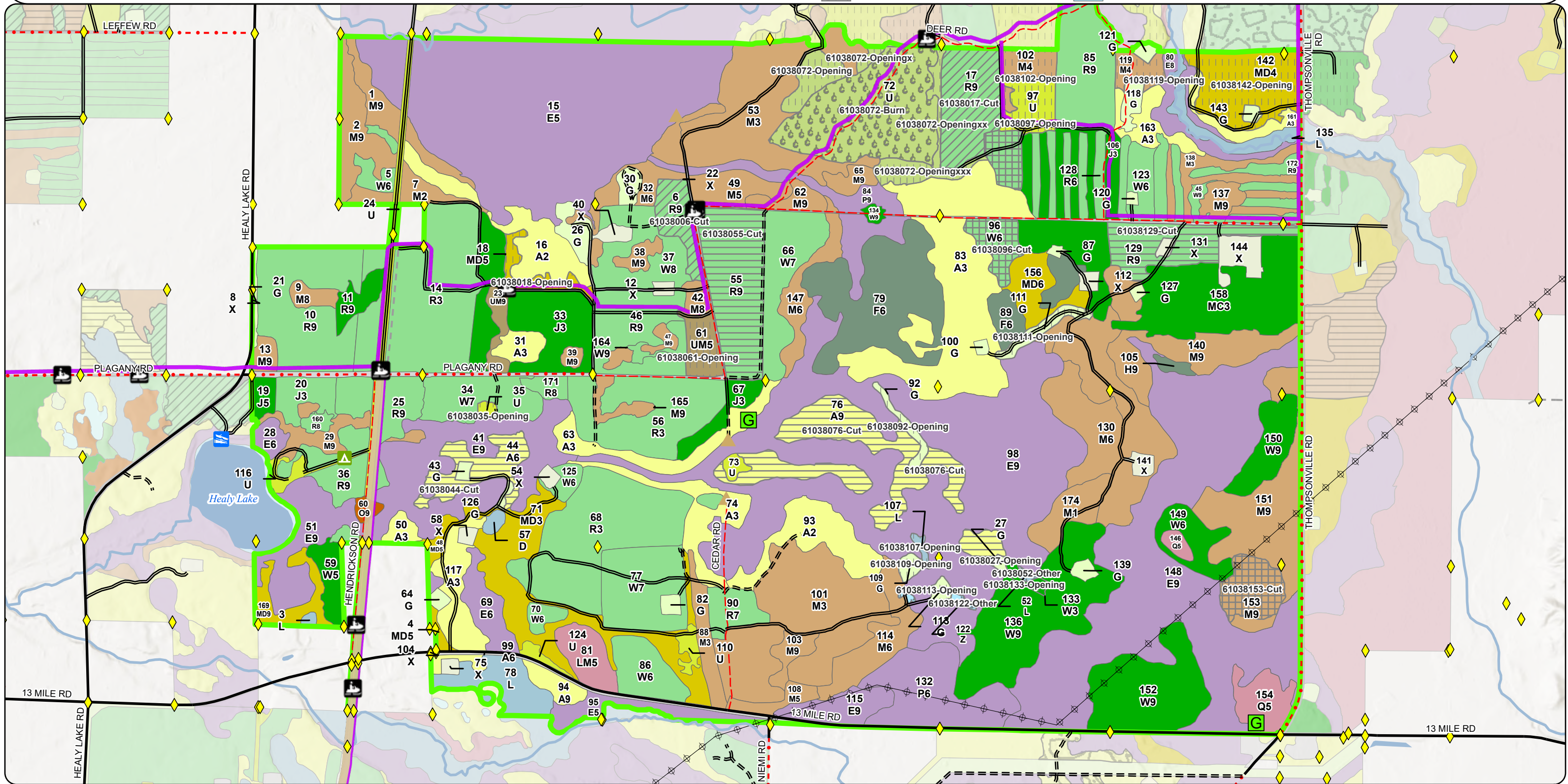
Cover Type & Treatments Map



Compartment: 61038
T24N R14W 25-27, 34-36
County: Manistee
Unit: Traverse City
Mgmt. Area: Grand Traverse Moraine
YOE: 2028
Acres: 3,636 GIS Calculated
Examiner: Joe Ventimiglia
Date Exported: 06/29/2026
Map Phase: Web Post

0 0.5 1 Miles

- | | | | |
|---------------------------------------|-------------------------------|---------------------------------|-------------------------------------|
| Survey Grade Corners | County - Gravel Road | Openings Mgmt. | 611 - Lowland Deciduous Forest |
| Boating Access Site | County - Dirt Road (Seasonal) | Other Treatments - See Comments | 612 - Lowland Coniferous Forest |
| State Forest Campground | Private - Dirt / Gravel Road | 411 - Northern Hardwood | 613 - Lowland Mixed Forest |
| Berm | Streams | 412 - Oak Types | 110 - Low Intensity Urban |
| Gate | Lakes and Rivers | 413 - Aspen | 310 - Herbaceous Openland |
| Designated Snowmobile | Electric | 419 - Mixed Upland Deciduous | 320 - Upland Shrub |
| Railtrail | Compartment Boundary | 421 - Planted Pines | 330 - Low Density Trees |
| DNR - Secondary Forest Road | Clearcut | 422 - Natural Pines | 622 - Lowland Shrub |
| DNR - Forest Access Route | Seed Tree | 423 - Other Upland Conifers | 790 - Other Bare/Sparsely Vegetated |
| Federal / State / County - Paved Road | Thinning | 430 - Upland Mixed Forest | |
| | Prescribed Burn | 500 - Water | |



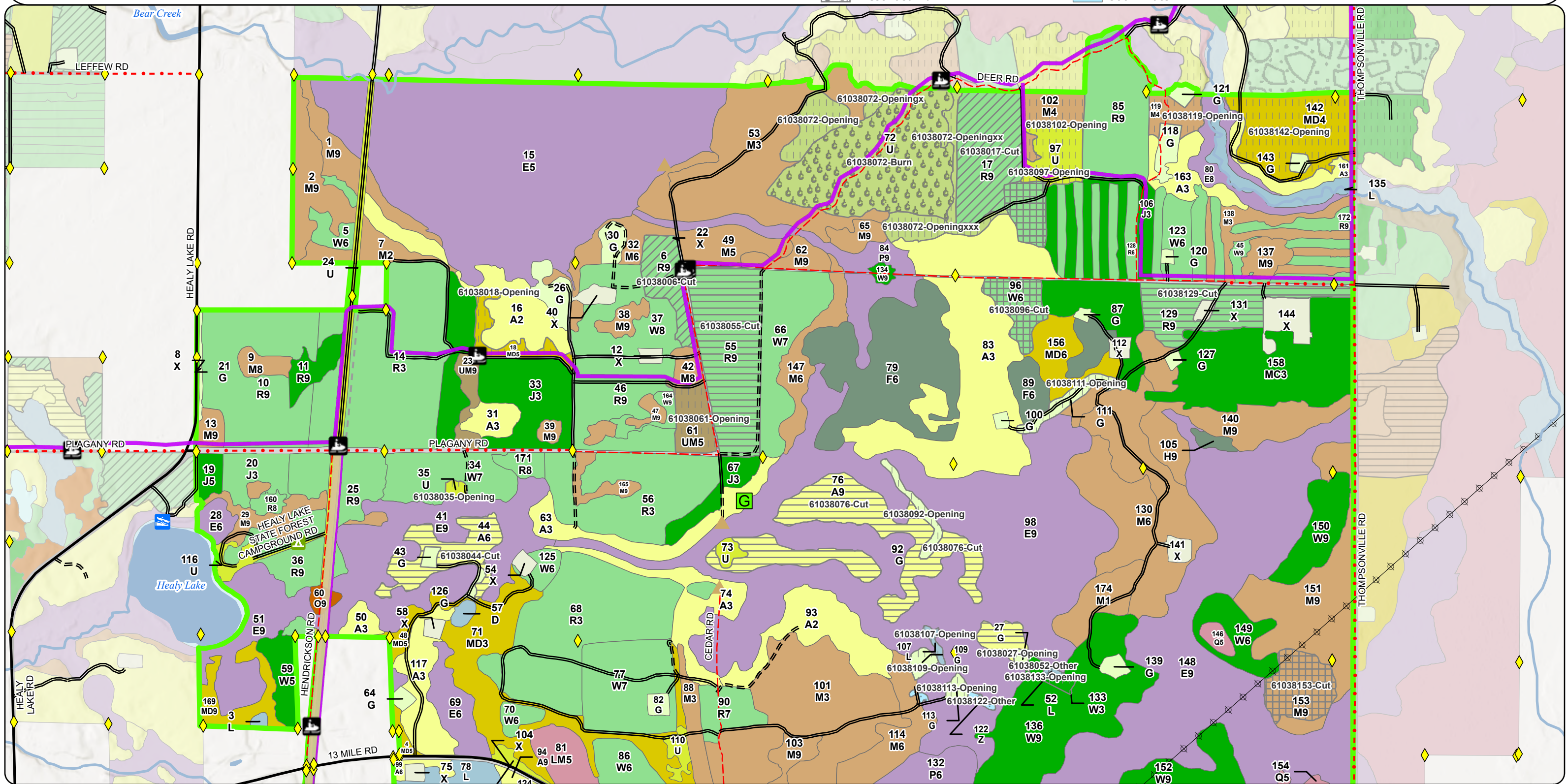
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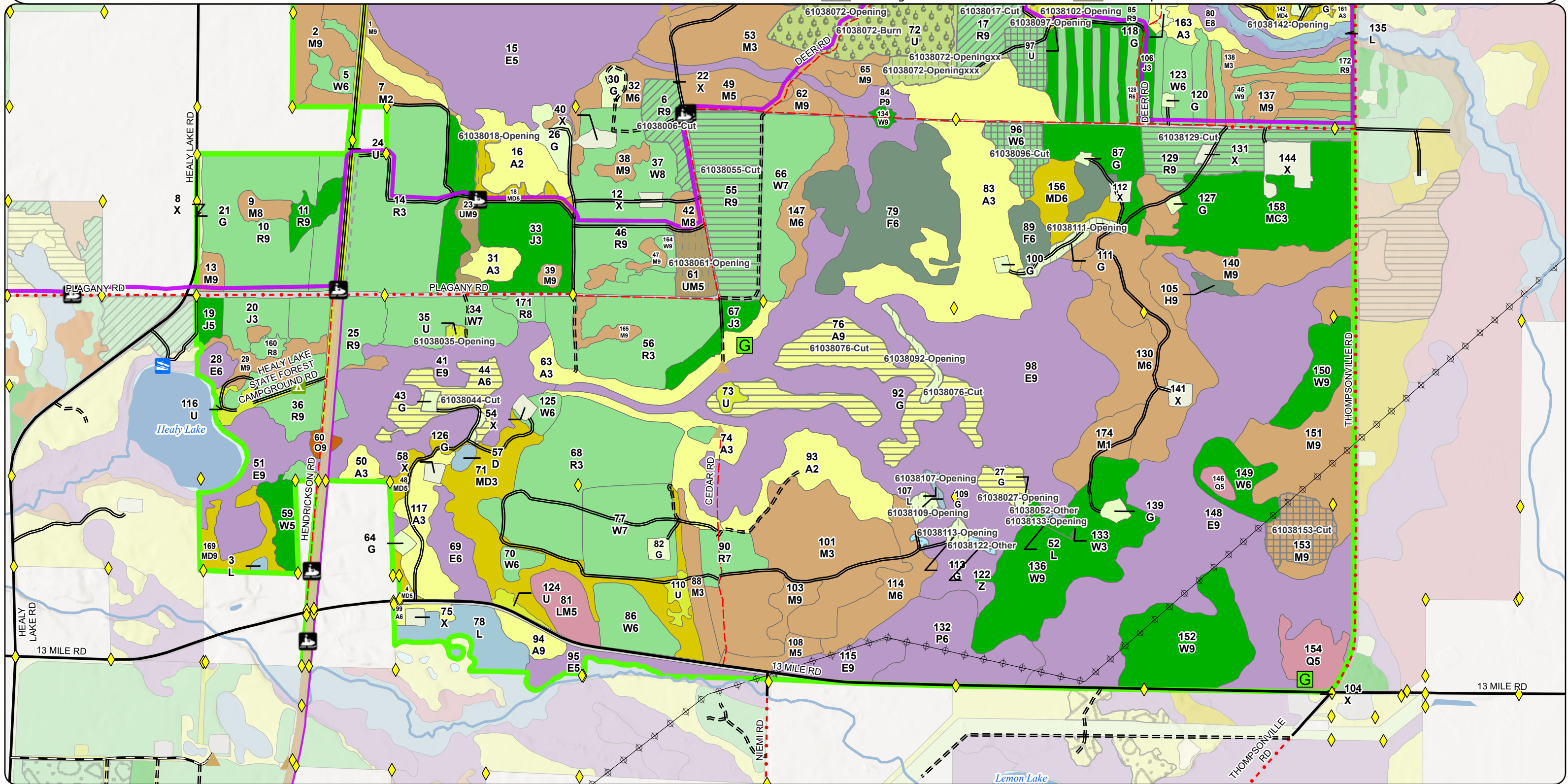
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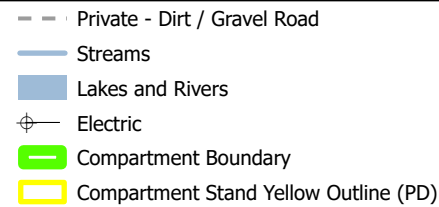


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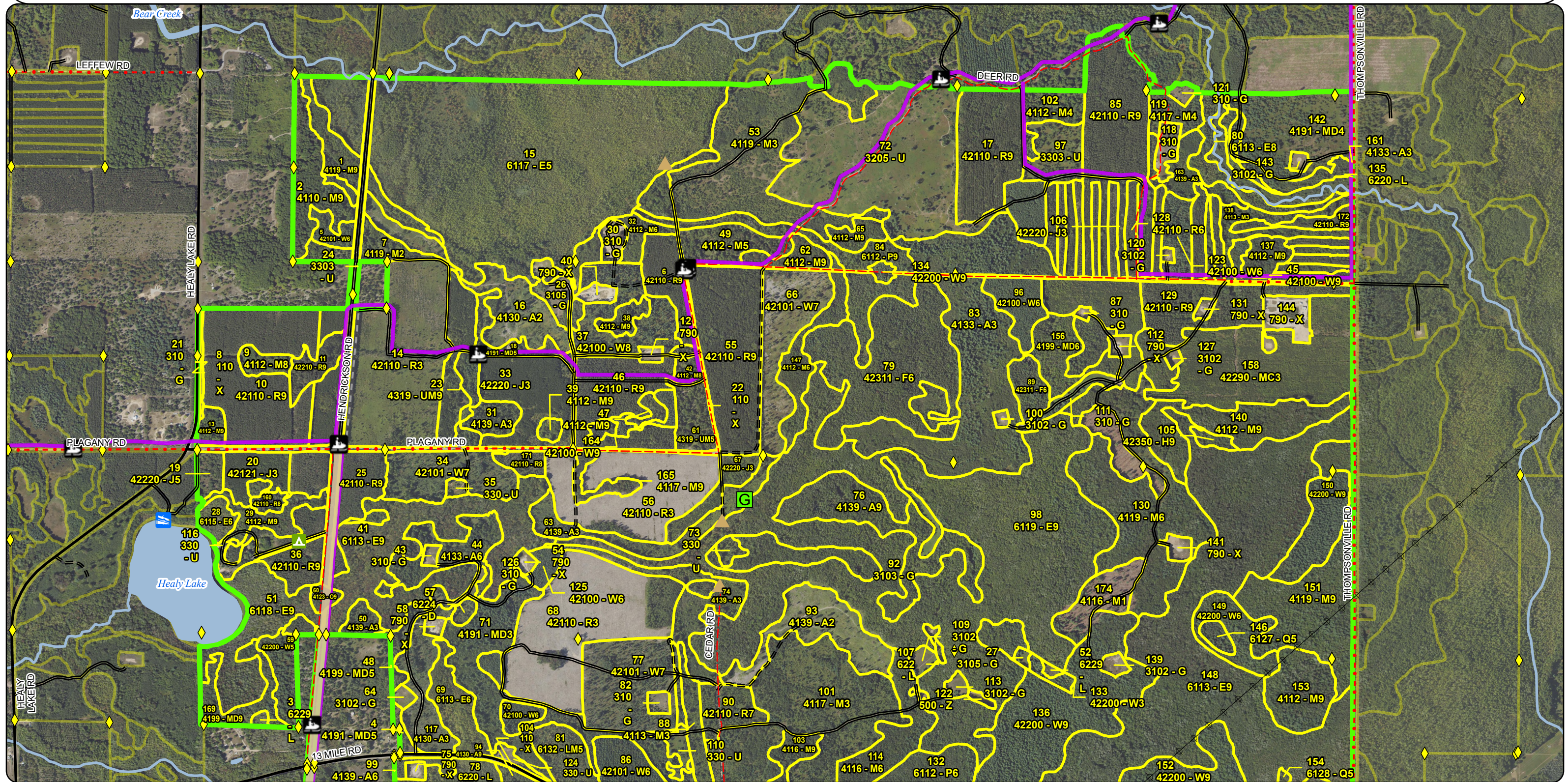
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|--|---|---|--|
| <ul style="list-style-type: none">Survey Grade CornersBoating Access SiteState Forest CampgroundBermGateDesignated SnowmobileRailtrailDNR - Primary Forest RoadDNR - Secondary Forest RoadDNR - Forest Access Route | <ul style="list-style-type: none">Federal / State / County - Paved RoadCounty - Gravel RoadCounty - Dirt Road (Seasonal)Private - Dirt / Gravel RoadStreamsLakes and RiversElectricCompartiment BoundaryClearcutSeed TreeThinning | <ul style="list-style-type: none">Prescribed BurnOpenings Mgmt.Other Treatments - See Comments411 - Northern Hardwood412 - Oak Types413 - Aspen419 - Mixed Upland Deciduous421 - Planted Pines422 - Natural Pines423 - Other Upland Conifers430 - Upland Mixed Forest | <ul style="list-style-type: none">500 - Water611 - Lowland Deciduous Forest612 - Lowland Coniferous Forest613 - Lowland Mixed Forest110 - Low Intensity Urban310 - Herbaceous Openland320 - Upland Shrub330 - Low Density Trees622 - Lowland Shrub790 - Other Bare/Sparsely Vegetated |
|--|---|---|--|



A map of Manistee County, Michigan, showing the location of the Manistee River. The river is highlighted in green and labeled 'Manistee River'. The map also shows the towns of Benzie, Manistee, and Wexford, and the road 115.



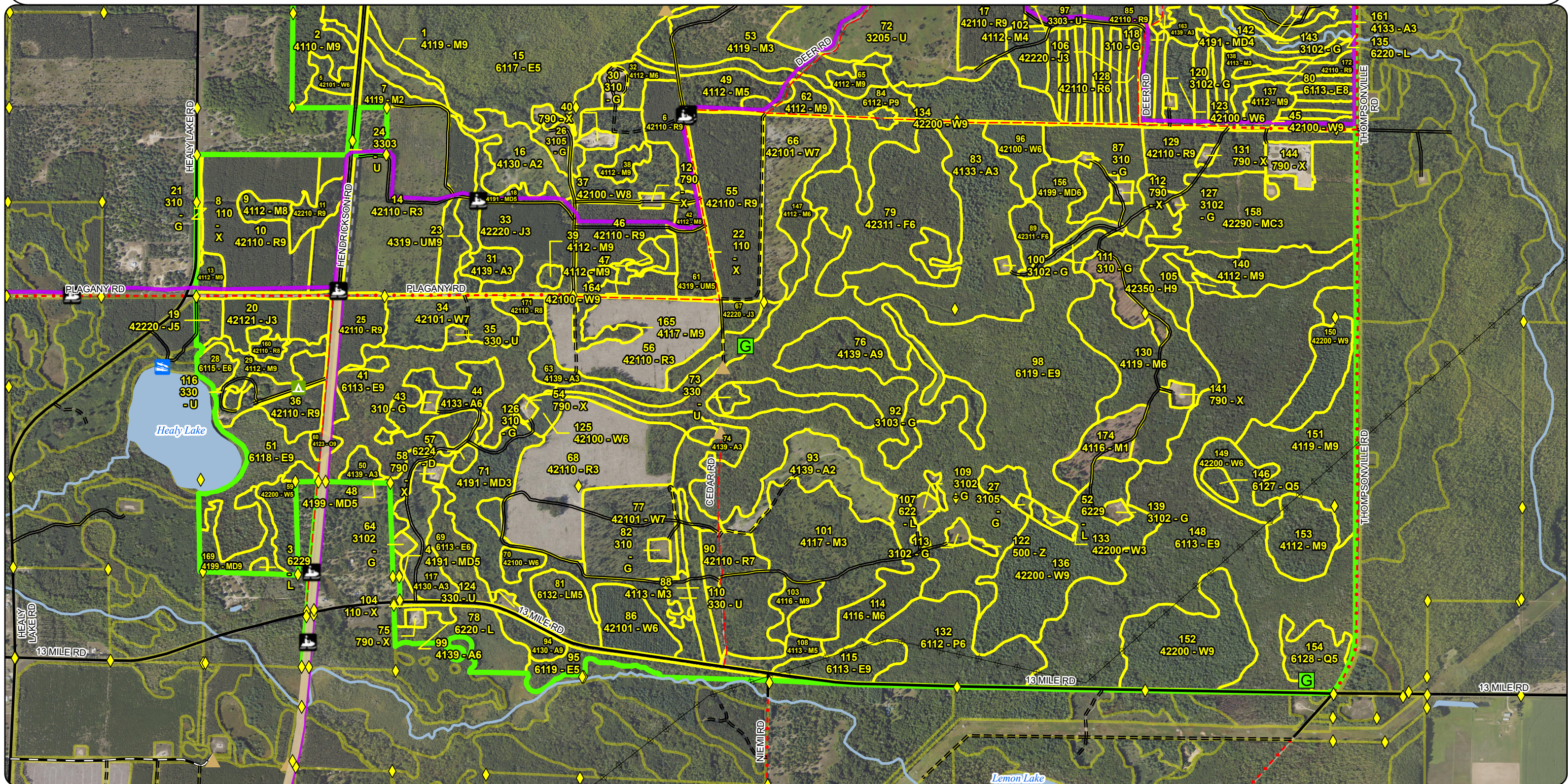
430 - Upland Mixed Forest	430 - Upland Mixed Forest
500 - Water	500 - Water
611 - Lowland Deciduous Forest	611 - Lowland Deciduous Forest
612 - Lowland Coniferous Forest	612 - Lowland Coniferous Forest
613 - Lowland Mixed Forest	613 - Lowland Mixed Forest
110 - Low Intensity Urban	110 - Low Intensity Urban
310 - Herbaceous Openland	310 - Herbaceous Openland
320 - Upland Shrub	320 - Upland Shrub
330 - Low Density Trees	330 - Low Density Trees
622 - Lowland Shrub	622 - Lowland Shrub
790 - Other Bare/Sparsely Vegetated	790 - Other Bare/Sparsely Vegetated



A map showing the location of the study area. The map includes labels for 'Manistee' and 'Wexford' counties. A green rectangle highlights the study area, which is located in the northern part of Manistee County. Highway markers for 115 and 37 are also visible.

A horizontal scale bar with a black segment on the left and a white segment on the right. The number '1' is centered above the bar, and the word 'Miles' is at the right end.

- | | |
|------------------------------|----|
| 411 - Northern Hardwood | 41 |
| 412 - Oak Types | 41 |
| 413 - Aspen | 41 |
| 419 - Mixed Upland Deciduous | 41 |
| 421 - Planted Pines | 42 |
| 422 - Natural Pines | 42 |



Special Conservation Areas & Site Conditions Map

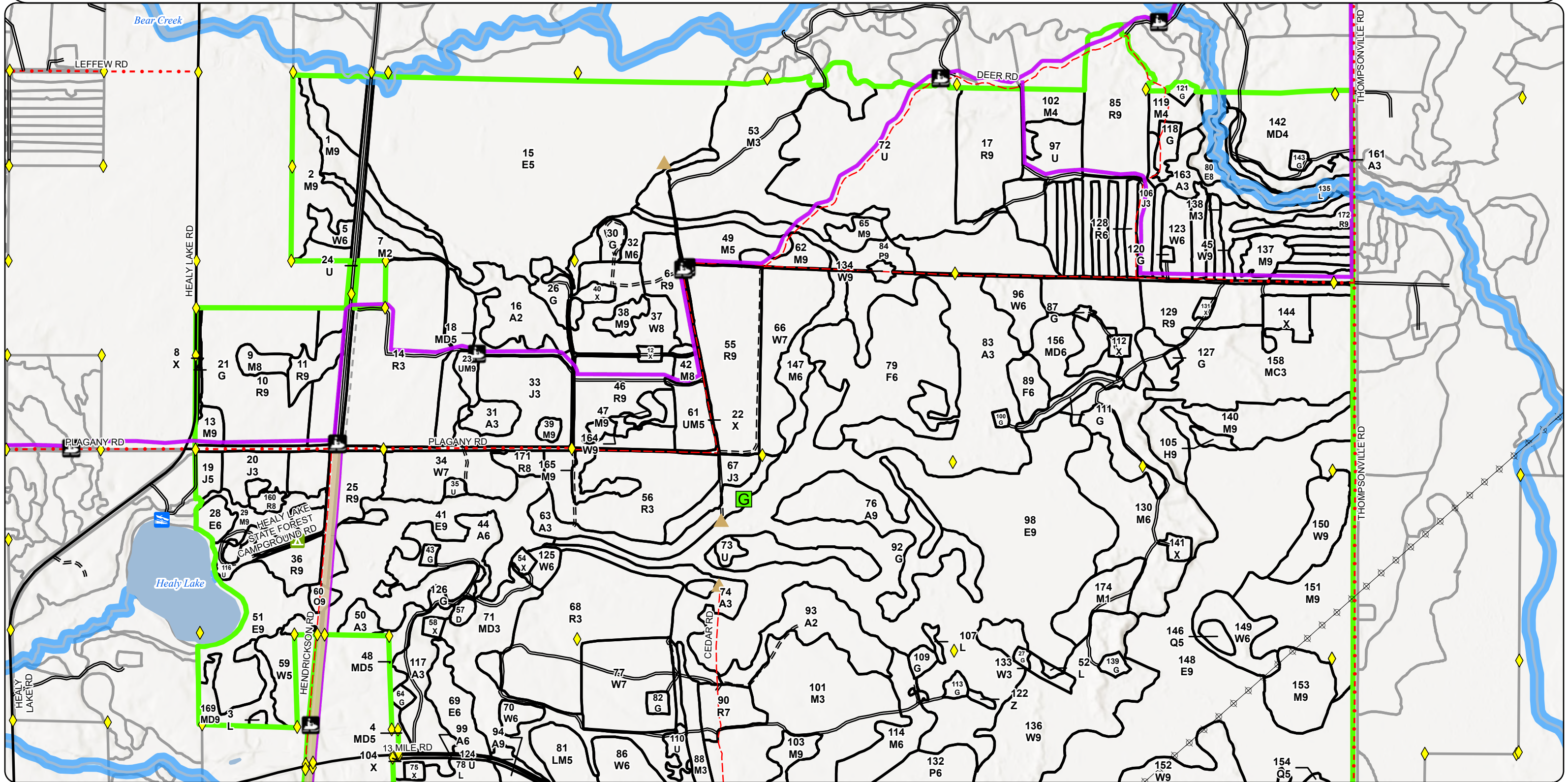
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- Streams
- Lakes and Rivers
- Electric
- Compartment Boundary
- Cold Water Streams
- High Priority Trout Stream Buffer



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Survey Grade Corners

Boating Access Site

State Forest Campground

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Gate

Designated Snowmobile

Railtrail

DNR - Primary Forest Road

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DNR - Forest Access Route

Federal / State / County - Paved Road

County - Gravel Road

County - Dirt Road (Seasonal)

Private - Dirt / Gravel Road

Streams

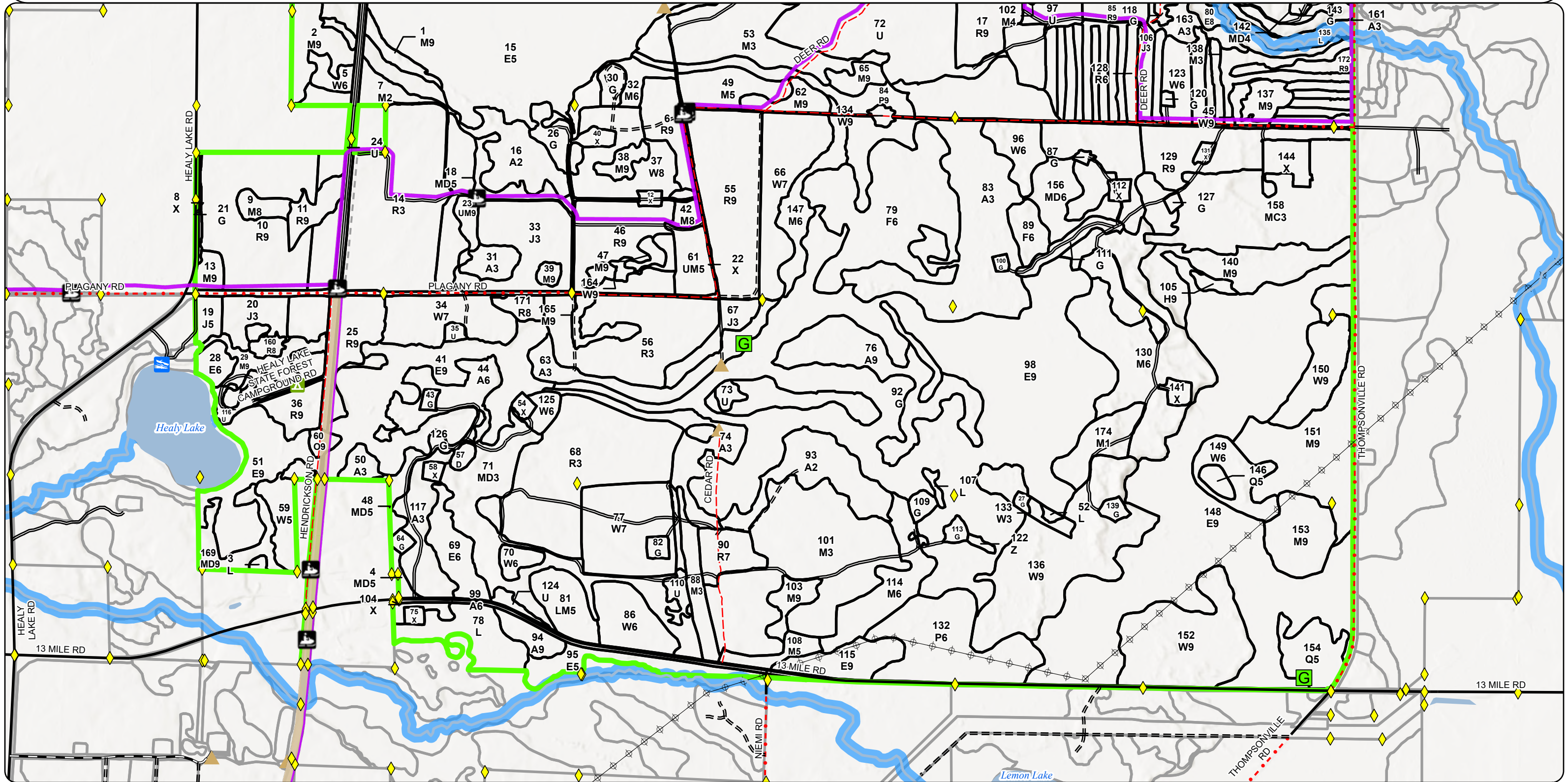
Lakes and Rivers

Electric

Compartment Boundary

Cold Water Streams

High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	0	54	110	88	75	0	0	0	0	0	0	0	0	0	0	0	327
Herbaceous Openland	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Low-Density Trees	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Mixed Upland Deciduous	0	286	176	265	78	0	0	0	0	0	0	70	0	0	0	0	0	0	875
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	8	5	0	0	0	0	2	15
Oak	0	0	0	0	0	0	0	0	0	0	5	71	201	0	0	0	0	0	276
Red Pine	0	155	0	0	0	0	0	12	0	19	111	0	0	0	0	0	0	0	297
Upland Mixed Forest	0	19	24	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	45
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Urban	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Total	69	460	200	319	188	88	75	12	0	19	116	151	206	0	0	0	0	2	1904



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2028

Acres of Harvest

Compartment 138
Total Compartment Acres: 1,903

Commercial Harvest - 268
Harvests with Site Condition - 0
Next Step Harvest - 34
Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overshoot Removal	Salvage	Other	Total Acres
Aspen	43	0	0	0	0	0	0	0	0	43
Mixed Upland Deciduous	34	0	0	0	0	0	0	0	0	34
Natural Mixed Pines	0	0	0	0	0	8	0	0	0	8
Oak	0	0	0	0	0	0	45	0	0	45
Red Pine	0	0	0	0	0	0	61	0	0	61
Total	77	0	0	0	0	8	106	0	0	190

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	190	0	0	0	0	0	0	0	0	210
Next Step	34	0	0	0	0	0	43	0	0	77
Total	224	0	0	0	0	0	43	0	0	287



Standard

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Proposed Treatments:

8	61138008-Cut	10.5	42110 - Planted Red Pine	9	87	81-110	Harvest	Overstory Removal	4122 - Oak, Pine	Planting Record	No
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Prescription Cut all trees 6 inches in diameter and larger; release established oak and pine understory. Require oak wilt specs and protect any legacy trees. Area retention has been removed from the treatment.

Next Step
Treatments:

Acceptable white oak, jack pine, with a mix of red maple, white pine and red pine.

Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/01/2027

13	61138013-Cut	7.8	42260 - Natural Pine, Mixed Deciduous	6	102	111-140	Harvest	Thinning	42260 - Natural Pine, Mixed Deciduous	Planting Record	No
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Prescription Mark stand to a residual BA of 90-100 square feet per acre. Target lesser quality red pine for removal.

Specs:

Next Step
Treatments:

Acceptable

Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/01/2027

14	61138014-Cut	50.8	42110 - Planted Red Pine	9	92	81-110	Harvest	Overstory Removal	4122 - Oak, Pine	Planting Record	No
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Prescription Cut all trees 6 inches in diameter and larger; release established oak and pine understory. Require oak wilt specs and protect any legacy trees

Next Step
Treatments:

Acceptable White oak and jack pine with a mix of red maple, aspen, red pine and white pine.

Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/01/2027



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	Habitat Cut
23	61138023-Cut	44.6	4126 - White, Black, N. Pin Oak	9	110	81-110	Harvest	Overstory Removal	4310 - Pine, Oak Mix	Planting Record	No
<u>Prescription</u> Cut all trees 6 inches in diameter and larger; release established oak and pine understory. Require oak wilt specs and protect any legacy <u>Specs:</u> trees. Leave + -3% area retention. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> White pine with a mix of oak, aspen, red maple and red pine. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027											
27	61138027- Opening	11.4	330 - Low-Density Trees	99			Openings Mgmt.	Openings Mgmt.	320 - Upland Shrub	Previous Inventory	No
<u>Prescription</u> Brush hog (or hand fell) around select leave trees and/or patches . Leave scattered mast producing trees and shrubs and/or conifers for <u>Specs:</u> wildlife food and cover. Leave XL log oak and pine treesMaintain as needed with mowing, seeding of native grasses and <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire <u>Comment:</u> cages or tubex. <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027											
38	61138038-Cut	34.0	4199 - Other Mixed Upland Deciduous	6	100	111- 140	Harvest	Clearcut	4131 - Aspen, Oak	Planting Record	No
<u>Prescription</u> Final harvest stand. Cut all trees 2 inches and larger in diameter. Leave all white pine and white oak. Require oak wilt and grouse specs. <u>Specs:</u> Apply minimal area retention. <u>Next Step</u> Harvest, Clearcut with Retention <u>Treatments:</u> <u>Acceptable</u> Aspen, oak and red maple <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027											
40	61138040- Opening	2.4	320 - Upland Shrub	99			Openings Mgmt.	Openings Mgmt.	320 - Upland Shrub	Previous Inventory	No
<u>Prescription</u> Brush hog around select leave trees and/or islands where large masting oak (white pine, witch hazel) are present. Leave scattered mast <u>Specs:</u> producing trees and shrubs and/or conifers for wildlife food and cover. Maintain as needed with mowing, seeding of nat <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire <u>Comment:</u> cages or tubex. <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027											



Standard

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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42	61138042-Cut	42.7	4130 - Aspen	6	54	81-110	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Cut all trees 2 inches and larger in diameter. Leave all white oak and white pine. Leave around 3 percent area retention. Include grouse spec
Specs:

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

Acceptable Aspen, red maple, oak and mixed pine
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/01/2027

50	61138050-Opening	1.1	3104 - Degraded	99			Openings Mgmt.	Openings Mgmt.	310 - Herbaceous Openland	Previous Inventory	No
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Prescription Rehab site with planting native fruiting shrubs and native herbaceous grass and forbes mix. Retain white pine saplings along edge as a
Specs: feathered edge as wildlife cover. Remove woody encroachment when necessary. BD

Next Step
Treatments:

Acceptable
Regen:

Other 2026 (BD): Add buffer along northern edge from timber sale. Keep berm in place. Preferred not to use as timber landing. Seed with wildlife
Comment: seed mix and rehab. Limit equipment rutting and impact when rehabbing. Include specs for invasive decontamination. K

Site Condition:

Proposed Start Date: 10/01/2027

59	61138059-Opening	4.5	330 - Low-Density Trees	99			Openings Mgmt.	Openings Mgmt.	320 - Upland Shrub	Previous Inventory	No
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Prescription Brush hog (or hand fell) around select leave trees and/or patches . Leave scattered mast producing trees and shrubs and/or conifers for
Specs: wildlife food and cover. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning,

Next Step
Treatments:

Acceptable
Regen:

Other Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire
Comment: cages or tubex.

Site Condition:

Proposed Start Date: 10/01/2027

Total Treatment 209.8
Acreage Proposed:



Availability for Management

Total	Acres	Acres Avail	Acres
Acres	Available	With Condition	Not Available

Dominant Site Conditions

5E

326	326	0	0	Aspen	
32	32	0	0	Herbaceous Openland	
16	16	0	0	Low-Density Trees	
874	874	0	0	Mixed Upland Deciduous	
15	10	0	5	Natural Mixed Pines	5
274	247	0	27	Oak	27
286	284	0	3	Red Pine	3
45	44	0	1	Upland Mixed Forest	1
2	2	0	0	Upland Shrub	
19	19	0	0	Urban	
1,890	1,853		36	Total Forested Acres	36
	98%		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.*

Site No.	Dominant Site Cond	Dominant Site Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	5E: Long-Term Retention	7	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retention for stand 3								
2	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments:								
5	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments:								

Report 4 – Site Conditions



10	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	5E: Long-Term Retention	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	5E: Long-Term Retention	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	5E: Long-Term Retention	5	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



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																
1	4130 - Aspen	Poletimber Well	87.5	46	51-80	N/A	This stand was clearcut in 1980.																																																
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Bigtooth Aspen</td><td>60</td><td>Pole</td><td>7</td><td>46</td></tr><tr><td>Black/Red (Hybrid) Oak</td><td>10</td><td>Pole/Sapling</td><td>6</td><td></td></tr><tr><td>White Oak</td><td>5</td><td>Sapling/Pole</td><td>4</td><td></td></tr><tr><td>Red Maple</td><td>20</td><td>Pole</td><td>5</td><td></td></tr><tr><td>White Pine</td><td>5</td><td>Pole</td><td>8</td><td></td></tr></table>			Canopy Species	% Cover	Size Class	DBH	Age	Bigtooth Aspen	60	Pole	7	46	Black/Red (Hybrid) Oak	10	Pole/Sapling	6		White Oak	5	Sapling/Pole	4		Red Maple	20	Pole	5		White Pine	5	Pole	8		<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>Red Maple</td><td>Low</td><td>10 - 20 feet</td><td>10 - 20 feet</td></tr><tr><td>White Pine</td><td>Low</td><td>5 - 10 feet</td><td>5 - 10 feet</td></tr></table>				Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Low	10 - 20 feet	10 - 20 feet	White Pine	Low	5 - 10 feet	5 - 10 feet							
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2	4125 - Black, N. Pin Oak	Sawtimber Poor	6.6	118	1-50	N/A	retention from an overstory removal harvest in the winter of 2021																																																
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3	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	79.5	10	Immature	N/A	Stand was harvested as an overstory removal 02/01/2020																																																
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4	4131 - Aspen, Oak	Sapling Well	12.7	26	Immature	N/A	This stand was clearcut in 2000.																																																
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Bigtooth Aspen</td><td>55</td><td>Sapling/Pole</td><td>4</td><td>26</td></tr><tr><td>Black/Red (Hybrid) Oak</td><td>25</td><td>Sapling</td><td>3</td><td></td></tr><tr><td>Red Maple</td><td>20</td><td>Sapling</td><td>3</td><td></td></tr></table>			Canopy Species	% Cover	Size Class	DBH	Age	Bigtooth Aspen	55	Sapling/Pole	4	26	Black/Red (Hybrid) Oak	25	Sapling	3		Red Maple	20	Sapling	3																																		
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																								
21	42110 - Planted Red Pine	Sapling Well	155.0	7	Immature	N/A	Planted may 2019 red pine release sprayed September 2020																																																								
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22	4126 - White, Black, N. Pin Oak	Sawtimber Well	108.8	110	111-140	N/A	Terrain is rolling.																																																								
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23	4126 - White, Black, N. Pin Oak	Sawtimber Well	44.6	110	81-110	N/A	Very dense understory of white pine																																																								
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24	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	42.6	25	Immature	N/A	Stand was clearcut in 2001. There are a few widely scattered Red Pine sawlog size trees remaining as residual from the 2001 cut. Some scattered residual oak was left during the harvest . Terrain is rolling.																																																								
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
25	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	46.3	24	Immature	N/A	Stand was harvested as an overstory removal 02/01/2020

Canopy Species	% Cover	Size Class	DBH	Age
Black/Red (Hybrid) Oak	15	Sapling	1	10
White Oak	20	Sapling	1	10
White Pine	35	Pole/Sapling	6	24
Bigtooth Aspen	15	Sapling	1	7
Red Maple	15	Sapling	1	7

26	4125 - Black, N. Pin Oak	Sawtimber Well	1.9	101	111-140	N/A
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Canopy Species	% Cover	Size Class	DBH	Age
Black/Red (Hybrid) Oak	80	Log/Pole	10	101
White Oak	10	Pole/Log	8	
Red Maple	5	Pole/Log	8	
Bigtooth Aspen	5	Log	12	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Low	5 - 10 feet	5 - 10 feet

27	330 - Low-Density Trees	None	11.4	Yes
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Sub-Canopy Species	Density	Avg. Height	Size
Big Bluestem	Medium	Not Applicable	Not Applicable
Black Cherry	Trace	>20 feet	>20 feet
Jack Pine	Trace	>20 feet	>20 feet
Cladonia (Reindeer moss)	Low	Not Applicable	Not Applicable
Poverty Grass	High	Not Applicable	Not Applicable
White Pine	Low	Variable	Variable
Red Maple	Trace	>20 feet	>20 feet
Red Oak	Low	>20 feet	>20 feet
Blueberry/Bilberry/Cranberry	Medium	< 5 feet	< 5 feet
Black Cherry	Medium	>20 feet	>20 feet
White Pine	Trace	>20 feet	>20 feet
Jack Pine	Low	Variable	Variable
Wintergreen	Low	< 5 feet	< 5 feet
Bracken Fern	Medium	Not Applicable	Not Applicable
Red Pine	Trace	Variable	Variable
Red Pine	Trace	>20 feet	>20 feet
Sweet Fern	Low	5 - 10 feet	5 - 10 feet

Open stand jack pine starting to fill in the southern portion of it. Some cherry, oak, aspen, red maple and white pine present within the stand. Bracken fern and sweet fern mostly found on northern side of the road cutting through the middle. Some XL Red oak and white pine logs. (BD)



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
28	4126 - White, Black, N. Pin Oak	Sawtimber Well	46.9	104	111-140	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black/Red (Hybrid) Oak		45	Log/Pole	10	104	Oak (spp.)	Trace	5 - 10 feet	5 - 10 feet
White Oak		25	Pole/Log	8		White Pine	Low	Variable	Variable
White Pine		10	Pole/Log	8		Jack Pine	Trace	5 - 10 feet	5 - 10 feet
Red Pine		5	Pole/Log	8		Red Pine	Low	5 - 10 feet	5 - 10 feet
Red Maple		10	Pole	6					
Bigtooth Aspen		5	Pole	8					
29	4131 - Aspen, Oak	Sapling Well	25.8	36	1-50	N/A	Stand was clearcut in 1990.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen		60	Sapling/Pole	4	36	Oak (spp.)	Trace	5 - 10 feet	5 - 10 feet
Black Cherry		10	Sapling	3		Serviceberry (Juneberry)	Trace	5 - 10 feet	5 - 10 feet
Black/Red (Hybrid) Oak		15	Sapling/Pole	3		Cherry (spp.)	Low	5 - 10 feet	5 - 10 feet
Red Maple		10	Sapling/Pole	4		Red Maple	Low	5 - 10 feet	5 - 10 feet
White Oak		5	Sapling/Pole	4					
30	4126 - White, Black, N. Pin Oak	Sawtimber Medium	7.9	110	1-50	N/A	Stand had a shelter wood harvest done in 2011 10 Point Maple Sale #61-019-08. Much of the oak is experiencing top dieback and some of the oak has died. There is fully stocked stand of regenerated red maple, oak, and aspen from the previous harvest. Retention for the harvest on stand 37		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black/Red (Hybrid) Oak		50	Log/Pole	12	110	Bigtooth Aspen	Medium	5 - 10 feet	5 - 10 feet
Red Oak		20	Log/Pole	12		Red Maple	High	5 - 10 feet	5 - 10 feet
White Oak		30	Pole/Log	8		Oak (spp.)	Low	5 - 10 feet	5 - 10 feet
31	4199 - Other Mixed Upland Deciduous	Sapling Poor	23.8	36	51-80	N/A	Traces of white pine and jack pine.		
Canopy Species		% Cover	Size Class	DBH	Age				
Black/Red (Hybrid) Oak		30	Sapling/Pole	4	36				
Red Maple		35	Sapling/Pole	4	36				
Bigtooth Aspen		20	Sapling/Pole	4					
Black Cherry		5	Sapling/Pole	4					
White Oak		10	Sapling/Pole	3					
32	4199 - Other Mixed Upland Deciduous	Sapling Well	105.2	9	Immature	N/A			
Canopy Species		% Cover	Size Class	DBH	Age				
Red Maple		30	Sapling	2	9				
Red Oak		25	Sapling	1	9				
Bigtooth Aspen		30	Sapling	2	9				
White Pine		5	Sapling	1	9				
White Oak		10	Sapling	1	9				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																								
33	4131 - Aspen, Oak	Sapling Well	11.4	25	Immature	N/A	Sale #021-99-01, "Eight Point Sale." Cutting occurred in September of 2000.																																								
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34	42210 - Natural Red Pine	Poletimber Well	11.5	61	51-80	N/A																																									
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36	4199 - Other Mixed Upland Deciduous	Poletimber Well	53.8	36	1-50	N/A	Stand clearcut in 1990. Regeneration in the form of stump sprouted red maple and oak make up the bulk of the stand. The terrain is slightly rolling.																																								
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37	4199 - Other Mixed Upland Deciduous	Sapling Well	181.0	9	Immature	N/A	Stand had a shelter wood harvest done in 2011 10 Point Maple Sale #61-019-08. Much of the oak is experiencing top dieback and some of the oak has died. There is fully stocked stand of regenerated red maple, oak, and aspen from the previous harvest.																																								
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38	4199 - Other Mixed Upland Deciduous	Poletimber Well	70.3	100	111-140	N/A	Two permanent Gypsy Moth plots (John Witter) are located within this stand with numbered trees.																																								
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MICHIGAN

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
39	4130 - Aspen	Poletimber Well	83.7	38	81-110	N/A	Stand was clearcut in 1988. Stand is healthy, dense and needs no treatment at this time. It is just converting from sapling to pole sized one stick trees. There are a few log sized red oak trees within the stand and a trace of regenerating paper birch. Terrain is flat and upland.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	70	Pole	7	38	Red Pine	Trace		5 - 10 feet	5 - 10 feet
Red Maple	15	Pole/Sapling	5		White Pine	Trace		5 - 10 feet	5 - 10 feet
Black/Red (Hybrid) Oak	10	Pole/Sapling	5						
White Oak	3	Sapling	3						
Black Cherry	2	Sapling	3						
40	320 - Upland Shrub	None	2.4		No		lots of deer activity such as bedding and pawing for acorns.		



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MICHIGAN

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments					
48	3104 - Degraded	None	1.4				BREITBURN OPERATING LIMITED PARTNERSHIP temporarily abandoned mullein (trace)					
				Sub-Canopy Species	Density	Avg. Height		Size				
				Spotted Knapweed	Low	Not Applicable		Not Applicable				
				Little Bluestem	Medium	Not Applicable		Not Applicable				
				Bracken Fern	Low	Not Applicable		Not Applicable				
				Aspen (spp.)	Trace	5 - 10 feet		5 - 10 feet				
				Red Pine	Trace	5 - 10 feet		5 - 10 feet				
49	310 - Herbaceous Openland	None	1.3				BREITBURN OPERATING LIMITED PARTNERSHIP Well number D2-9 DEQ site says Temporarily abandoned					
50	3104 - Degraded	None	1.1				2026: no longer seems to be active, no leftover equipment. Has been bermed with trees to avoid ORV. Coyote seen in opening. Has good white pine growth along perimeter for wildlife cover. Has rehab potential for wildlife. [BREITBURN OPERATING LIMITED PARTNERSHIP active well well number D1-9]					
				Sub-Canopy Species	Density	Avg. Height		Size				
				White Pine	Low	10 - 20 feet		10 - 20 feet				
51	3104 - Degraded	None	1.2				BREITBURN OPERATING LIMITED PARTNERSHIP temporarily abandoned oil well					
52	3104 - Degraded	None	1.6				Active well site					
				Sub-Canopy Species	Density	Avg. Height		Size				
				Little Bluestem	Low	Not Applicable		Not Applicable				
				Spotted Knapweed	High	Not Applicable		Not Applicable				
				Jack Pine	Trace	5 - 10 feet		5 - 10 feet				
				Red Pine	Trace	< 5 feet		< 5 feet				
53	4310 - Pine, Oak Mix	Poletimber Medium	1.5	101	51-80	N/A	retention island from an overstory removal harvest.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Black/Red (Hybrid) Oak	40	Pole/Log	8	101
								White Pine	35	Pole/Log/Sap	6	
								White Oak	15	Pole/Log	8	
								Red Pine	10	Pole/Log	8	
55	3104 - Degraded	None	1.2				rehabbed old well site. Evaluate on next cycle for wildlife opening maintenance					
				Sub-Canopy Species	Density	Avg. Height		Size				
				Red Maple	Medium	5 - 10 feet		5 - 10 feet				
				Bigtooth Aspen	Low	5 - 10 feet		5 - 10 feet				
				Black/Red (Hybrid) Oak	Medium	5 - 10 feet		5 - 10 feet				
				White Pine	Medium	5 - 10 feet		5 - 10 feet				
56	3104 - Degraded	None	1.5				Active well site					





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																	
62	42250 - Pine, Oak	Sawtimber Poor	5.4	115	1-50	N/A	retention for stand 12																																																	
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63	4124 - Red with White Oak	Sawtimber Well	24.2	113	81-110	N/A	Stand thinned in winter/spring of 2002. Part of the Sunset Trail sale #157-98-01.																																																	
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200	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	96.2	17	Immature	N/A																																																		
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401	310 - Herbaceous Openland	None	3.8			No	some military activity within the opening. ORV hill climb. Jack pine encroachment, but no need for treatment yet, reevaluate 2036.																																																	
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402	110 - Low Intensity Urban	None	8.0			No	Open area that is being used as a facility relative to gas/oil operation in the area. Several processing devices and buildings on the site. Pipelines lead to the site from several directions.																																																	
403	3104 - Degraded	None	1.7				Active well site																																																	
404	3104 - Degraded	None	0.9				Active well site																																																	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
405	3104 - Degraded	None	1.2				Active oil/gas well. Knapweed present.
406	3104 - Degraded	None	1.5				Active Oil facility
407	110 - Low Intensity Urban	None	7.6				Open area that is being used as a facility relative to gas/oil operation in the area. Several processing devices and buildings on the site. Pipelines lead to the site from several directions. Knappweed and sweetfern occupy portions of the site.
408	110 - Low Intensity Urban	None	3.3				Open area that contains an oil facility
409	3104 - Degraded	None	0.7				Oil/gas facility.
410	3104 - Degraded	None	1.2				Active well site
411	3104 - Degraded	None	1.4				Active well site
412	3104 - Degraded	None	2.2				Temporarily abandoned oil or gas facility.