



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61137

Entry Year 2021

Acreage: 2,454

County Kalkaska

Management Area: High Sand Plains

Stand Examiner: Paul Roell

Legal Description:

T25N R6W, Sections 12,13,14 &15

Identified Planning Goals:

This compartment is part of the Kirtland's Warbler Management Area and is managed to create habitat for the federally endangered Kirtland's Warbler (KW). Management is guided by the KW Breeding Range Conservation Plan and the Operational Plan for KW Habitat Management on Michigan State Forests. Some of the stands in this management area have been identified as essential habitat for the KW. Management on the stands that are not identified as essential habitat is guided by the Regional State Forest Management Plan and will emphasize balancing the age classes of aspen and red pine and regenerating the aging oak resource. Management activities may be constrained or modified based on the management recommendations described in the Conservation Plan. Expected challenges within this 10-year planning period include introduced pests and diseases and ensuring adequate jack pine regeneration on KW sites.

Soil and topography:

Mostly Grayling, Saugatuck, and Rubicon Sands. Mostly flat ground with some hills and ridges and wet areas along the Big Devil Creek corridor.

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

Solid state ownership except for a 120 acres in Section 13. There is a 40 acre parcel that was acquired in Section 12 which has a cabin to dispose of. The entire perimeter of this compartment is bounded by other state owned land. The state land on the south, east and north sides is under a 20 year lease to the Military at Camp Grayling.

Unique Natural Features:

Headwaters of the Big Devil Creek and Kirtland's Warbler MA.

Archeological, Historical, and Cultural Features:

There are some archeological sites identified within the compartment.

Special Management Designations or Considerations:

Kirtland's Warbler

Watershed and Fisheries Considerations:

Big Devil Creek flows through the compartment and it is a tributary of the Manistee River. It is protected by the Manistee River Natural River Designation.

Wildlife Habitat Considerations:

This compartment falls within the Sharon Kirtland's Warbler Management Unit. The Kirtland's Warbler Management Plan outlines harvest and planting regimes for KW habitat. However, forest treatments should maintain a variety of successional stages of pine-oak-aspen forest and grass-shrub openings, with some mid to late successional forest in places, which is typical of a fire driven landscape. Big Devil Creek begins in this compartment and several scattered lowland communities can be found within this compartment.

Aspen harvests should be designed to mimic wildfires of various intensities. This creates a mosaic of age classes and increases structural diversity within an area. The creation of dead and downed logs should be incorporated into timber prescriptions to provide habitat for various wildlife species. Standing dead timber is usually left during harvest operations unless deemed a safety hazard. Species associated with pine, oak and aspen mixed upland forests and openland habitats, such as deer, badger, wild turkey, scarlet tanager, hog-nosed snake, ruffed grouse, Cooper's hawk, red-backed salamander, Kirtland's warbler, and gray squirrel will benefit from management here.

Compartment 137 falls within the Kirtland's Warbler Management Area of the Regional State Forest Management Plan. Featured wildlife species for this MA include KW, pileated woodpecker, ruffed grouse, snowshoe hare, turkey, and deer.

Mineral Resource and Development Concerns and/or Restrictions

The nearest active sand/gravel production is occurring roughly 2.5 miles to the south. There appears to be some sand potential within the compartment, but the water table is shallow here on the outwash plain, which could limit development. There is some active oil & gas production occurring within the compartment, from multiple formations. Most of the state mineral rights are currently leased and held by production; some of the parcels are included in the State Garfield Unitized Area. Oil & gas potential is considered high. There is no known metallic mineral potential in this part of the state. The state does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

Good access in most areas.

Survey Needs:

Around the private in Section 12.

Recreational Facilities and Opportunities:

This compartment is primarily used for hunting and ORV's. Cranberry Lake Snowmobile Trail is located in Sections 12 and 14 it uses Devil Creek road and Township road which are county roads.

Fire Protection:

Fire protection in this compartment is provided by Garfield Township and the DNR Kalkaska Field Office. The compartment is within Zone 5, meaning additional resources will be dispatched from nearby offices for fires on High and above days.

Additional Compartment Information:

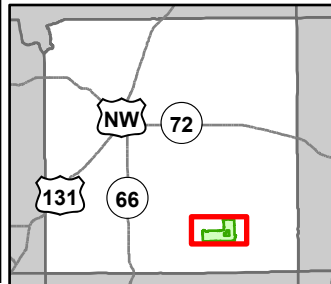
The following reports from the Inventory are attached:

- 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**

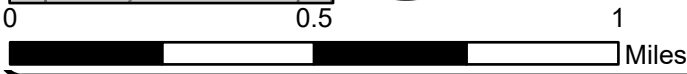
The following information is displayed, where pertinent, on the attached compartment maps:

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

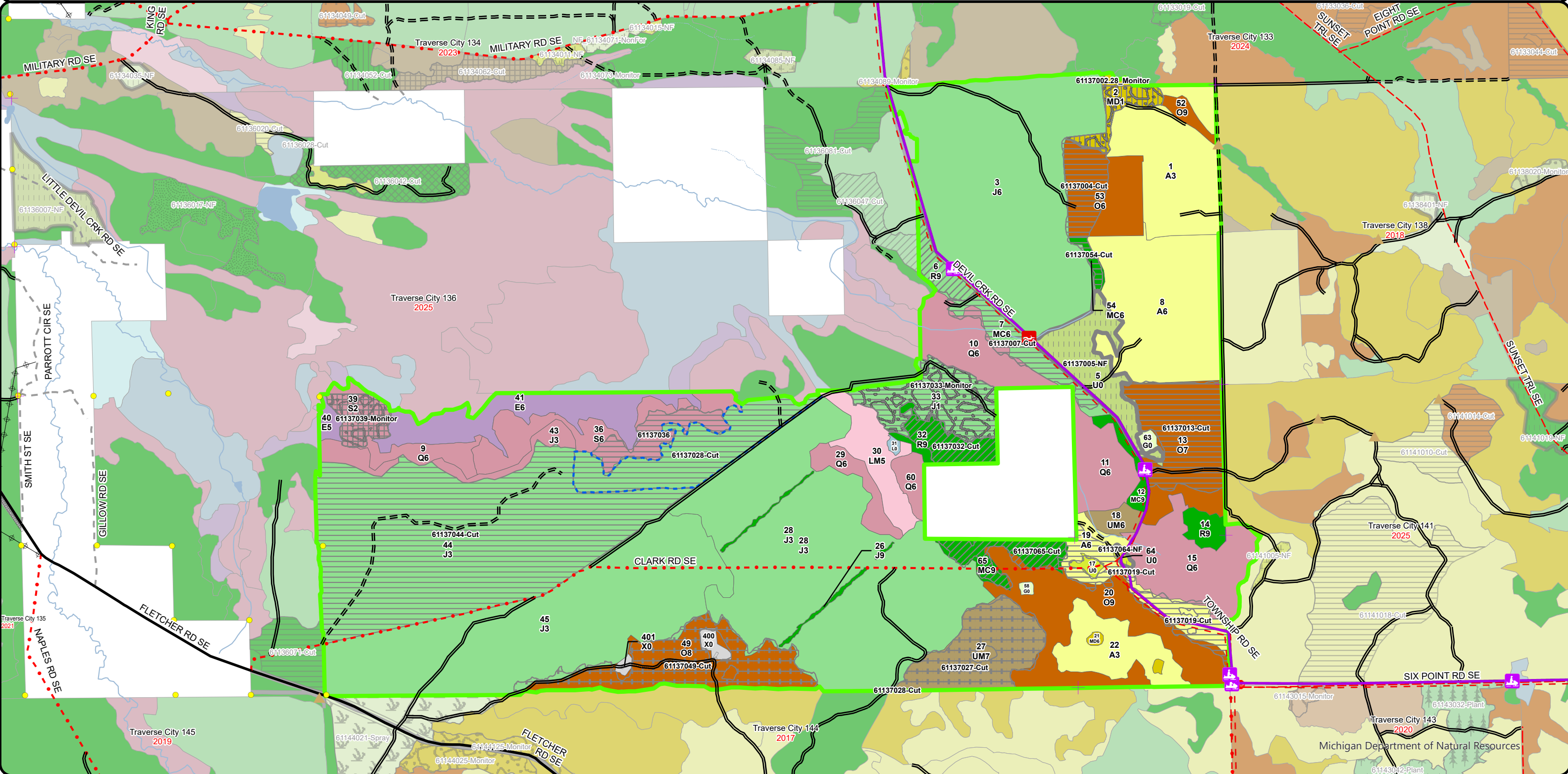
Cover Type & Treatments Map



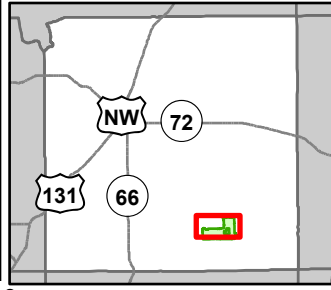
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 T25N-R06W Sec. 12-15
 County: Kalkaska
 Unit: Traverse City
 Mgmt Area: High Sand Plains
 YOE: 2021
 Acres: 2453.7 GIS Calculated
 Examiner: Paul Roell
 Map Revised: 7/5/2024
 Map Phase: Web Post



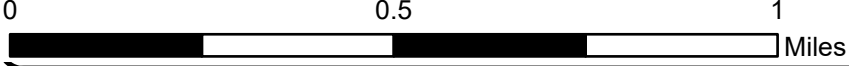
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|---|------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------|
| ▲ Berms | --- County - Dirt Road (Seasonal) | ▨ Treatments with Site Conditions | ▨ Thinning (Crown, Low, Systematic) | ■ 612 - Lowland Coniferous Forest |
| ● Sign | - - - Private - Dirt / Gravel Road | ▨ Clearcut (w/Reserves) | ▨ Harvest, Overstory Removal | ■ 613 - Lowland Mixed Forest |
| ● Survey Grade Corners | ~ Intermittent Stream | ▨ Harvest, Overstory Removal | ▨ Regeneration Survey | ■ 110 - Low Intensity Urban |
| ⊕ Remonumented Section Corners | — Lake/Pond | ▨ Thinning (Crown, Low, Systematic) | ■ 412 - Oak Types | ■ 310 - Herbaceous Openland |
| 🚗 ORV Routes | — Perennial River | ▨ Regeneration Survey | ■ 413 - Aspen Types | ■ 320 - Upland Shrub |
| 🛷 Snowmobile Trails | — Lakes and Rivers | ▨ Opening Maintenance | ■ 419 - Mixed Upland Deciduous | ■ 330 - Low Density Trees |
| — DNR - Secondary Forest Road | — Pipeline | ▨ Clearcut (w/Reserves) | ■ 421 - Planted Pines | ■ 622 - Lowland Shrub |
| == DNR - Forest Access Route | ⚡ Powerline | ▨ Clearcut (w/Reserves) | ■ 422 - Natural Pines | ■ 421 - Planted Pines |
| — Federal / State / County - Paved Road | ▭ Compartment Boundary | ▨ Seed Tree (w/Reserves) | ■ 430 - Upland Mixed Forest | --- Designated ORV Routes |
| - - - County - Gravel Road | ▭ Counties | ▨ Shelter Wood (w/Reserves) | ■ 611 - Lowland Deciduous Forest | |



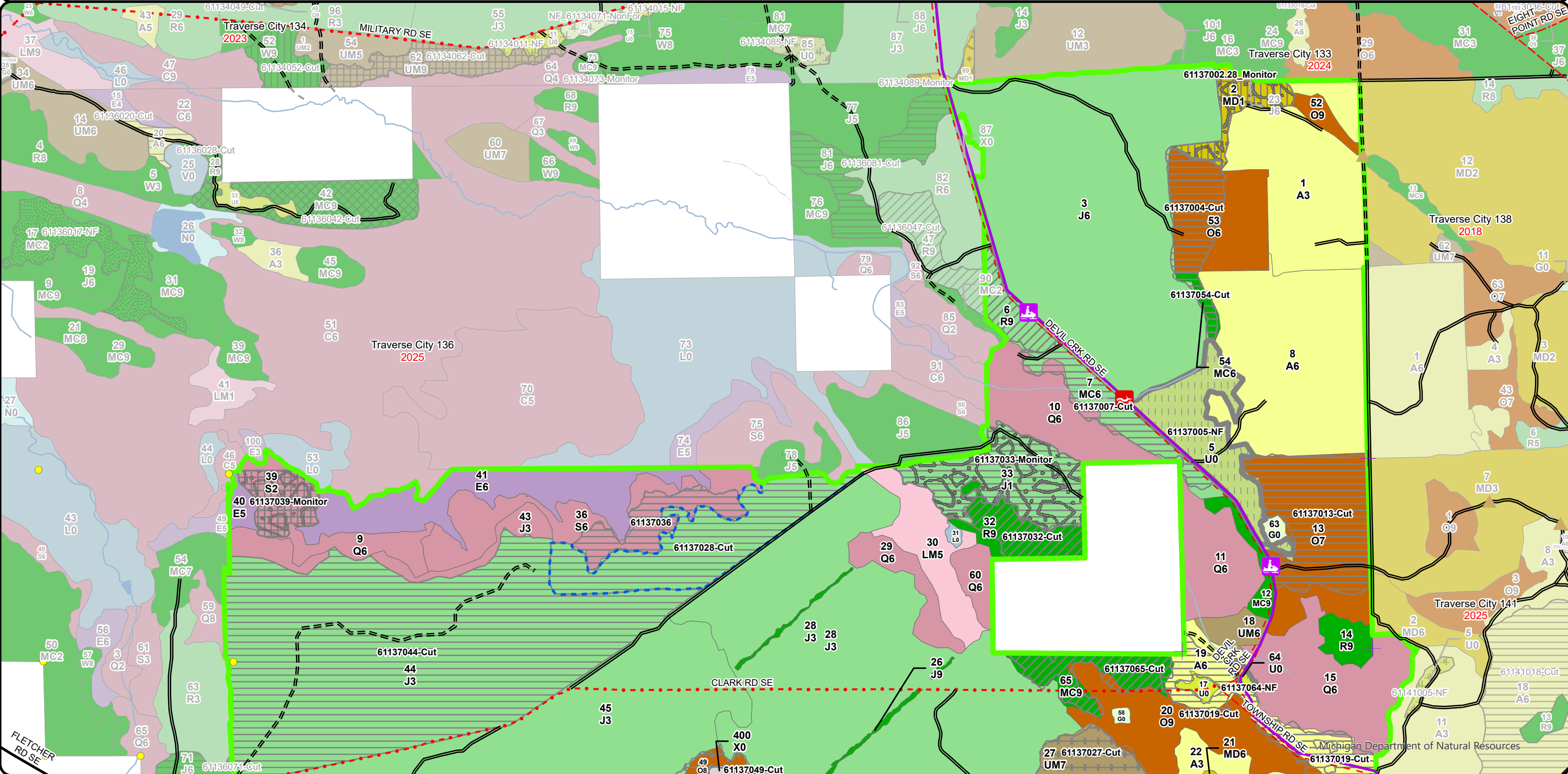
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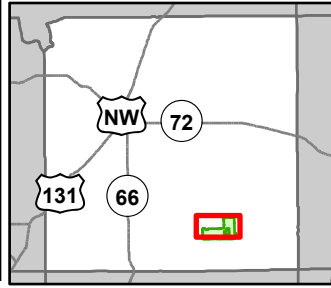
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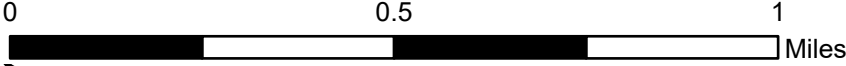
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Stand Boundary Map

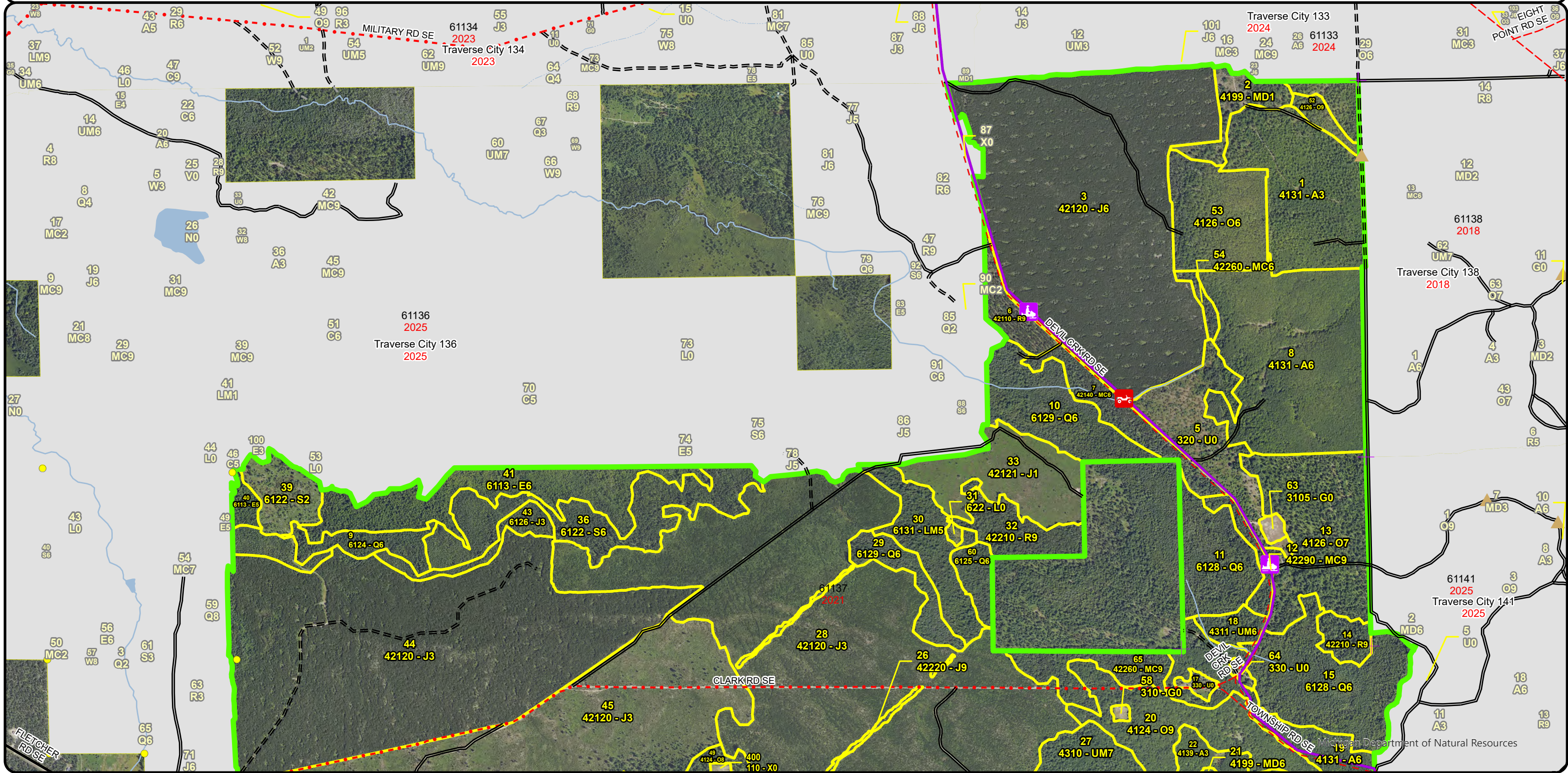


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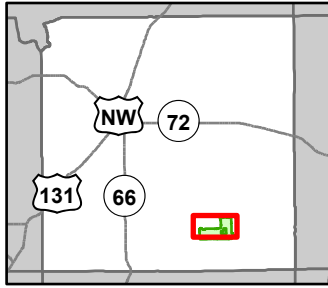
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**Special Conservation Areas
& Site Conditions Map**

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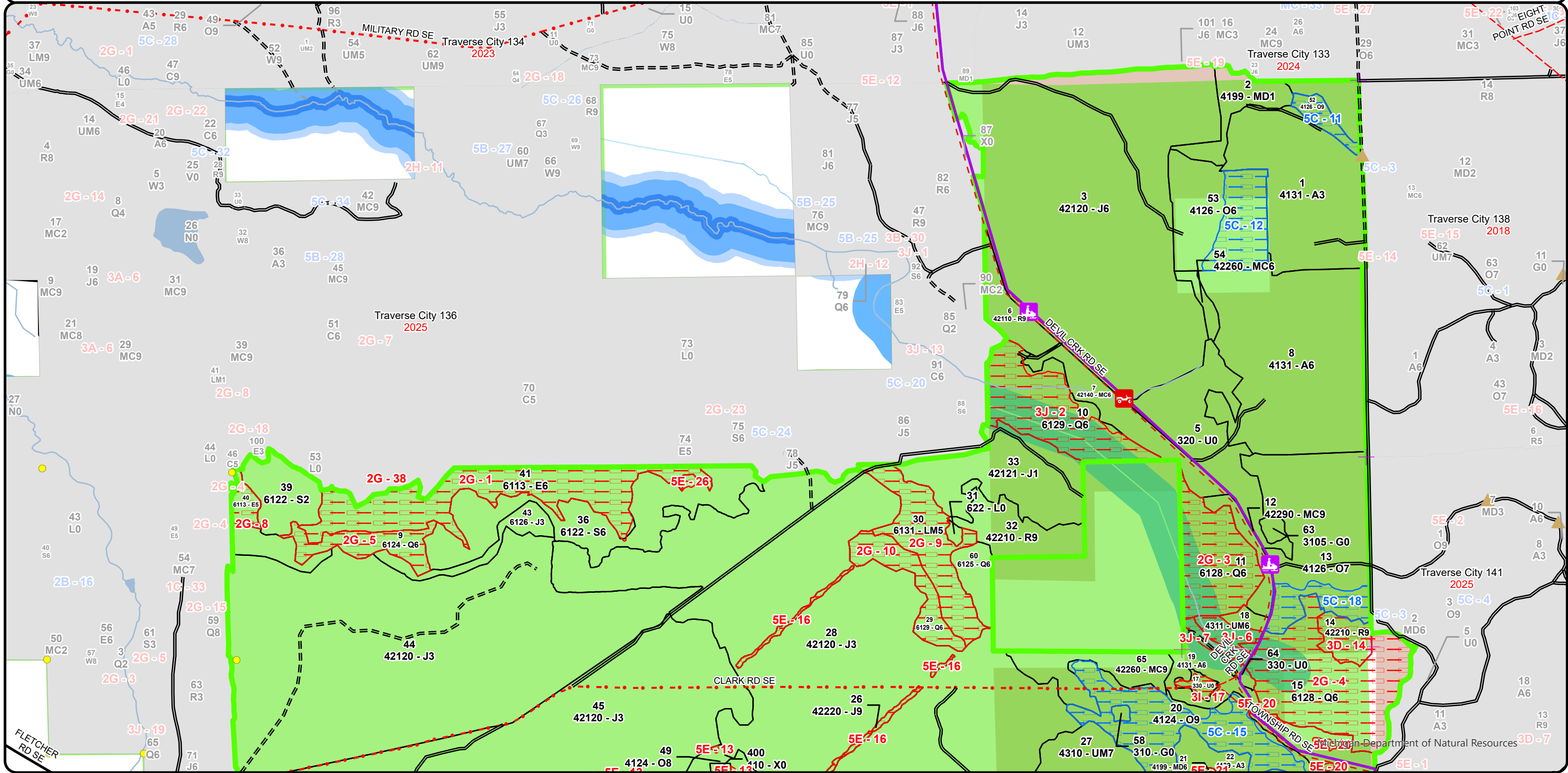
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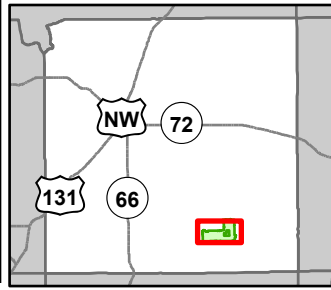
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- SCA
- Available w/ Constraints
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- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
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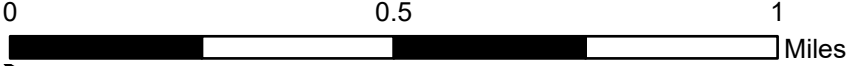
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 3D: Recreational / Scenic values



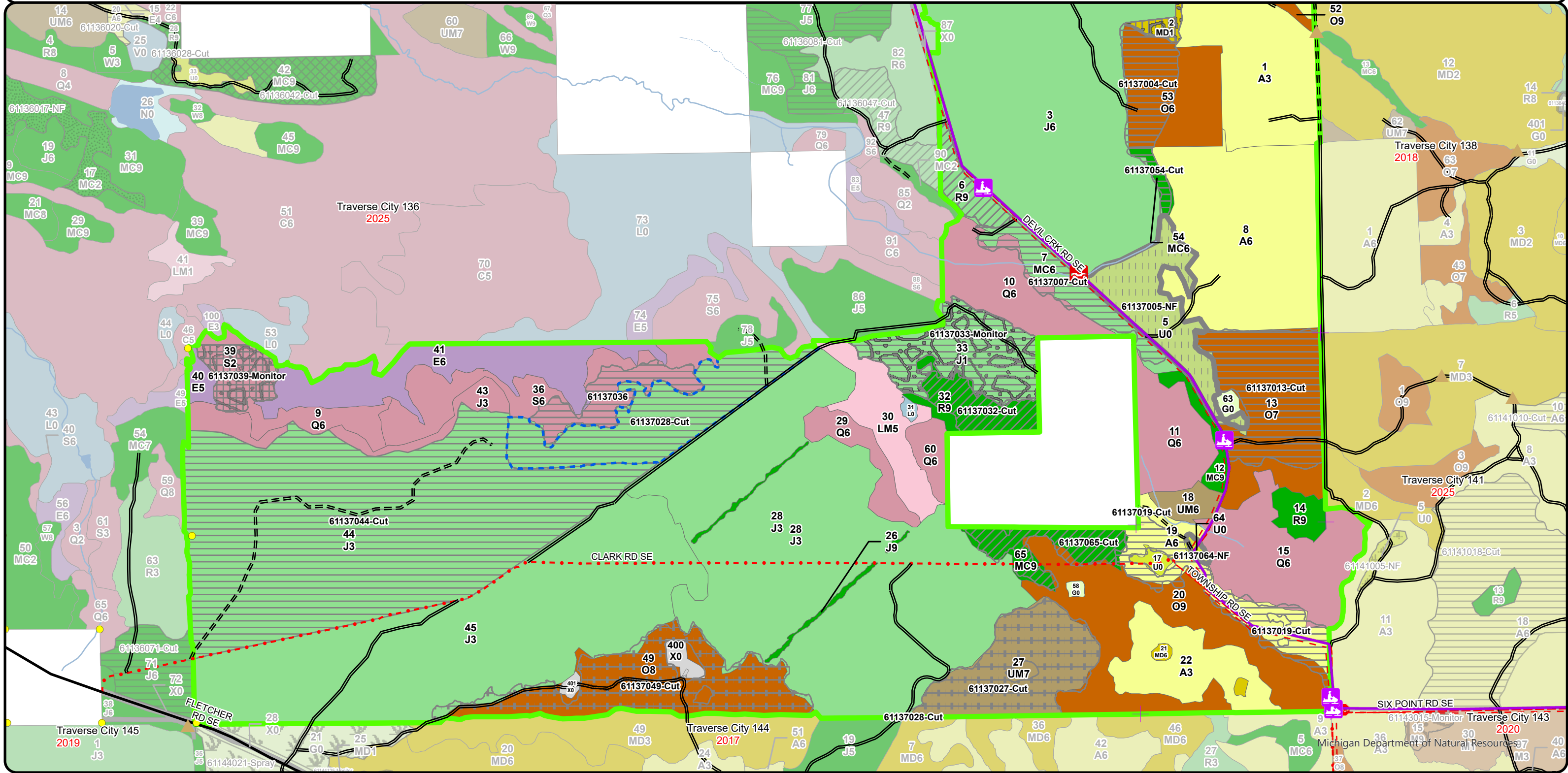
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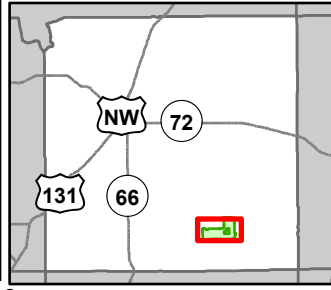
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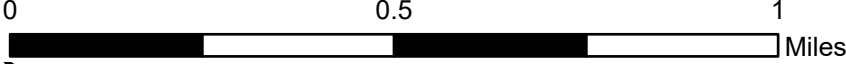
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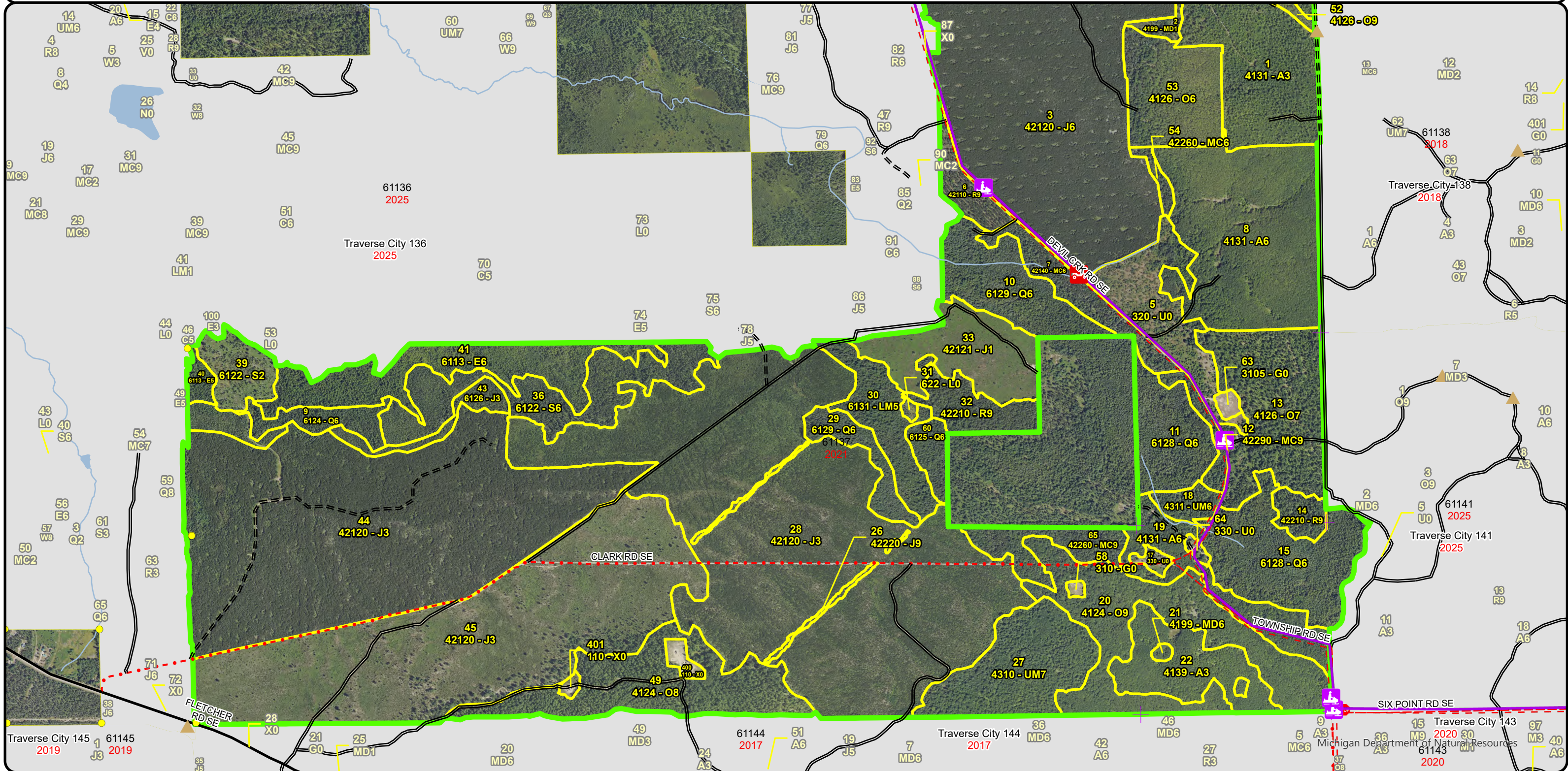
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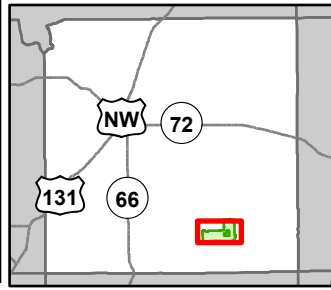
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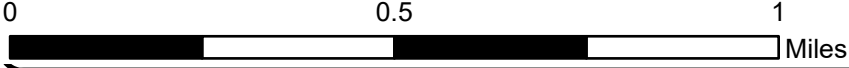
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Special Conservation Areas & Site Conditions Map



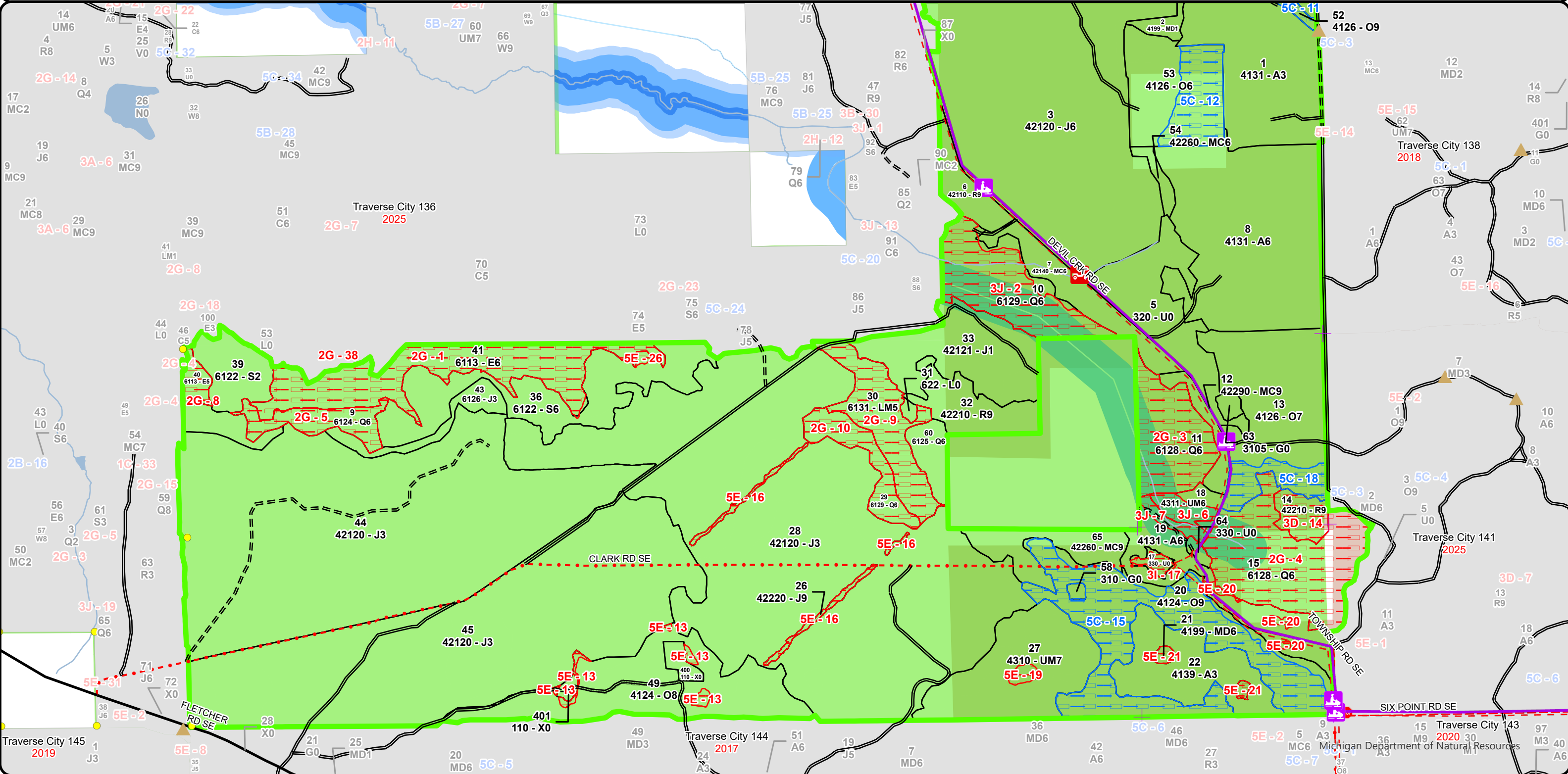
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Report 1 – Total Acres by Cover Type and Age Class



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	123	0	118	0	36	0	0	0	0	0	0	0	0	0	0	277
Herbaceous Openland	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Jack Pine	0	0	694	0	573	21	0	0	5	0	0	0	0	0	0	0	0	0	1293
Low-Density Trees	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Lowland Conifers	0	0	0	0	0	0	0	15	10	0	80	0	0	0	78	0	0	0	183
Lowland Deciduous	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64
Lowland Mixed Forest	0	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	32
Lowland Shrub	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Spruce/Fir	0	0	0	20	0	0	0	0	0	58	0	0	0	0	0	0	0	0	78
Mixed Upland Deciduous	0	16	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	18
Natural Mixed Pines	0	0	0	0	0	0	4	0	0	22	8	0	0	0	0	0	0	0	34
Oak	0	0	0	0	0	0	0	0	0	0	95	70	73	46	0	0	0	0	284
Planted Mixed Pines	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	23
Red Pine	0	0	0	0	0	0	0	14	0	0	0	22	10	0	0	0	0	0	46
Upland Mixed Forest	0	0	0	0	0	0	9	0	0	0	57	0	0	0	0	0	0	0	65
Upland Shrub	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Urban	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	58	16	694	143	573	139	13	88	47	144	242	92	83	46	78	0	0	0	2454



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2021

Acres of Harvest

Compartment 137
Total Compartment Acres: 2,454

Commercial Harvest - 710
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	35	0	0	0	0	0	0	0	0	35
Jack Pine	371	0	0	0	0	0	0	0	0	371
Lowland Spruce/Fir	22	0	0	0	0	0	0	0	0	22
Natural Mixed Pines	4	0	0	0	0	21	0	0	0	26
Oak	84	0	0	0	0	0	73	0	0	157
Planted Mixed Pines	25	0	0	0	0	0	0	0	0	25
Red Pine	0	0	0	0	0	18	0	0	0	18
Upland Mixed Forest	0	0	0	0	0	0	56	0	0	56
Total	542	0	0	0	0	40	129	0	0	710

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	710	0	0	0	0	68	0	43	0	820
Next Step	0	490	490	0	0	60	972	0	0	2012
Total	710	490	490	0	0	60	1040	0	43	2832



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

Proposed Treatments:

28	61137028-Cut	64.4	42120 - Planted Jack Pine	Sapling Well	19	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Cut all trees 2 inches and larger. Require chipping and low stumps to facilitate planting operations.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Planted jack pine KW management</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2027</p>											

Approved Treatments:

2	61137002.28_Monitor	1.9	4199 - Other Mixed Upland Deciduous	Sapling Poor	8	Immature	Monitoring	Natural Regen (Re-Inventory)	4122 - Oak, Pine	Two-Aged	No
<p><u>Prescription</u></p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> oak and pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Percent to Treat = 100%</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 12/21/2016</p>											
53	61137004-Cut	24.4	4126 - White, Black, N. Pin Oak	Poetimber Well	123	111-140	Harvest	Clearcut with Retention	4121 - Oak, Aspen	Even-Aged	No
<p><u>Prescription</u> Cut all trees 2 inches in larger in diameter in addition only cut the red and white pine 6 inches and larger in diameter. Mark some scattered white oak to leave. Retention is a small portion of the parent stand.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Oak, aspen, red maple, jack pine and a minor component of red and white pine.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>											



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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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5	61137005-NF	41.0	320 - Upland Shrub	Nonstocked	50	Unspec ified	NonForestMgt	Brush Cutting	3205 - Mixed Upland Shrub	Even-Aged	No
----------	--------------------	------	--------------------	------------	----	--------------	--------------	---------------	---------------------------	-----------	----

Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex.

Specs:

Next Step

Treatments:

Acceptable Regen:

Other Comment: Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Site Condition

Proposed Start Date: 10/1 /2020

7	61137007-Cut	25.1	42140 - Planted Mixed Pine	Poletimber Well	63	51-80	Harvest	Clearcut	4222 - Natural Jack Pine	Even-Aged	No
----------	---------------------	------	----------------------------	-----------------	----	-------	---------	----------	--------------------------	-----------	----

Prescription Cut all trees two inches and larger. No retention because of small stand size and spruce bud worm.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Jack pine, aspen, balsam, spruce and red maple.

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020

13	61137013-Cut	59.8	4126 - White, Black, N. Pin Oak	Sawtimber Poor	113	1-50	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
-----------	---------------------	------	---------------------------------	----------------	-----	------	---------	-------------------------	-------------------------	-----------	----

Prescription Harvest all trees two inches and larger. Low stumps and chip tops to facilitate planting operations. Protect snowmobile trail during harvest.

Specs: Retention will be a portion of the uncut stand south of the two track.

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

Treatments: Monitoring, Artificial Regen(3yr); Planting, Replant

Acceptable Regen: Fully stocked stand of red pine

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020

19	61137019-Cut	35.3	4131 - Aspen, Oak	Poletimber Well	61	81-110	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	No
-----------	---------------------	------	-------------------	-----------------	----	--------	---------	-------------------------	-------------------	-----------	----

Prescription Cut all trees two inches and larger in diameter. Leave minimal area retention. Mark a few white oak to leave.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Aspen, oak, red maple and some mixed conifer.

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020



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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27	61137027-Cut	55.8	4310 - Pine, Oak Mix	Sawtimber Poor	95	51-80	Harvest	Overstory Removal	4130 - Aspen	Even-Aged	No
-----------	---------------------	------	----------------------	----------------	----	-------	---------	-------------------	--------------	-----------	----

Prescription Cut all trees 4 inches in larger in diameter in addition only cut the pine 6 inches and larger in diameter Leave minimal area retention and mark some scattered white oak and white pine to leave.

Next Step
Treatments:

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

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2020

32	61137032-Cut	18.2	42210 - Natural Red Pine	Sawtimber Well	102	171-200	Harvest	Crown Thinning	4221 - Natural Red Pine	Even-Aged	No
-----------	---------------------	------	--------------------------	----------------	-----	---------	---------	----------------	-------------------------	-----------	----

Prescription mark stand to a residual of 100-120 sqft by removing mature and poor quality trees.

Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2020

33	61137033-Monitor	48.4	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Poor	10	Immature	Monitoring	Artificial Regen(3yr)	4212 - Planted Jack Pine	Even-Aged	No
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Prescription Monitor regen

Specs:

Next Step
Treatments:

Acceptable Jack Pine with some red pine aspen and red maple
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2020

36	61137036	22.2	6122 - Black Spruce	Poletimber Well	81	51-80	Harvest	Clearcut with Retention	6122 - Black Spruce	Even-Aged	No
-----------	-----------------	------	---------------------	-----------------	----	-------	---------	-------------------------	---------------------	-----------	----

Prescription Cut all tree two inches in diameter. Retention is a portion of the stand 36 that wasn't harvested.

Specs:

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

Acceptable moderately to fully stocked stand of spruce, balsam red maple and mixed pine.
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2020



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Treatment ID	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
39	61137039-Monitor	17.4	6122 - Black Spruce	Sapling Medium	22	Immature	Monitoring	Natural Regen (Re-Inventory)	6125 - Lowland Black Spruce, Jack Pine	Even-Aged	No
<p><u>Prescription</u></p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Black spruce, red maple, balsam fir and jack pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Percent to Treat = 100%</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2018</p>											
44	61137044-Cut	306.1	42120 - Planted Jack Pine	Sapling Well	34	Immature	Harvest	Clearcut with Retention	4212 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Cut all trees 2 inches and larger. Require chipping and low stumps to facilitate planting operations.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Trenching; Planting, Initial Plant</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Jack Pine stocked to met KW requirements.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2027</p>											
49	61137049-Cut	72.8	4124 - Red with White Oak	Sawtimber Medium	103	51-80	Harvest	Overstory Removal	412 - Oak Types	Even-Aged	No
<p><u>Prescription</u> Cut all trees 4 inches in larger in diameter in addition only cut the pine 6 inches and larger in diameter Leave minimal area retention and</p> <p><u>Specs:</u> mark some scattered white oak and white pine to leave.</p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Oak, aspen, red maple and mixed pine.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>											
54	61137054-Cut	4.2	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	54	81-110	Harvest	Clearcut	4222 - Natural Jack Pine	Even-Aged	No
<p><u>Prescription</u> Cut all trees two inches and larger. No retention because of small stand size.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Jack pine, oak and aspen.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>											



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
64 61137064-NF	1.5	330 - Low-Density Trees	Nonstocked		Immature	NonForestMgt	Brush Cutting	3205 - Mixed Upland Shrub		No
<p><u>Prescription</u> Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u> Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>										
65 61137065-Cut	21.4	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	84	141-170	Harvest	Crown Thinning	4221 - Natural Red Pine	Even-Aged	No
<p><u>Prescription</u> mark stand to a residual of 100-120 sqft by removing the poorest quality trees.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>										

Total Treatment 819.9
Acres Proposed:

Report 4 – Site Conditions

Traverse City Mgt. Unit
Paul Roell : Examiner

Compartment: 137
Year of Entry: 2021

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions					
		With Condition	Not Available		5C	2G	3D	3I	3J	5E
277	272	0	6	Aspen	0			0	4	2
4	4	0	0	Herbaceous Openland						
1292	1287	0	5	Jack Pine						5
5	3	0	2	Low-Density Trees				2		
183	14	0	168	Lowland Conifers		129			39	
64	0	0	64	Lowland Deciduous		64				
32	0	0	32	Lowland Mixed Forest		32				
1	1	0	0	Lowland Shrub						
78	77	0	1	Lowland Spruce/Fir		0				1
18	16	0	2	Mixed Upland Deciduous						2
35	35	0	0	Natural Mixed Pines	0					
284	159	122	3	Oak	122					3
23	23	0	0	Planted Mixed Pines					0	
46	36	0	10	Red Pine			10			
66	58	0	8	Upland Mixed Forest					6	2
42	42	0	0	Upland Shrub						
6	6	0	0	Urban						0
2,454	2,032	122	300	Total Forested Acres	122	225	10	2	48	15
	83%	5%	12%	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)	59	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 137

Year of Entry: 2021

2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	39	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	34	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	63	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 137

Year of Entry: 2021

8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 137

Year of Entry: 2021

14	Unavailable	3D: Recreational / Scenic values	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	80	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	(Inactive)3I: Historical / archeological (add locked comments)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit
Paul Roell : Examiner

Compartment: 137
Year of Entry: 2021

20	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
26	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
38	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	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 Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
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	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																						
1	4131 - Aspen, Oak	Sapling Well	82.4	20	Immature	N/A	Stand was cut in Summer of 2003. Sale #054-01-1 Bear Bones Oak. Stand was not marked - leave trees were to be spaced at 50 feet. Less than 10 sqft of over story oak left																																																						
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Oak</td> <td>20</td> <td>Sapling/Pole/Log</td> <td>3</td> <td>20</td> </tr> <tr> <td>White Pine</td> <td>10</td> <td>Pole/Sapling</td> <td>6</td> <td></td> </tr> <tr> <td>White Oak</td> <td>10</td> <td>Sapling/Pole</td> <td>3</td> <td></td> </tr> <tr> <td>Bigtooth Aspen</td> <td>40</td> <td>Sapling</td> <td>4</td> <td>20</td> </tr> <tr> <td>Red Maple</td> <td>20</td> <td>Sapling</td> <td>3</td> <td></td> </tr> </tbody> </table>								Canopy Species	% Cover	Size Class	DBH	Age	Red Oak	20	Sapling/Pole/Log	3	20	White Pine	10	Pole/Sapling	6		White Oak	10	Sapling/Pole	3		Bigtooth Aspen	40	Sapling	4	20	Red Maple	20	Sapling	3																									
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2	4199 - Other Mixed Upland Deciduous	Sapling Poor	15.6	8	Immature	N/A	data from 11/14/2018.																																																						
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White Oak	20	Pole/Sap/Log	6																																																										
3	42120 - Planted Jack Pine	Poletimber Well	266.8	35	51-80	N/A	Kirtland's Warbler Habitat. Clear-cut in 1985 (Sale #46-84) and replanted with 2-0 Jack Pine in 1991 in the KW weave pattern of 1200 trees per acre.																																																						
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>98</td> <td>Pole/Sapling</td> <td>5</td> <td>35</td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>2</td> <td>Sapling</td> <td>4</td> <td></td> </tr> </tbody> </table>								Canopy Species	% Cover	Size Class	DBH	Age	Jack Pine	98	Pole/Sapling	5	35	Black/Red (Hybrid) Oak	2	Sapling	4																																								
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Black/Red (Hybrid) Oak	2	Sapling	4																																																										
5	320 - Upland Shrub	Nonstocked	42.0	50	Unspecified	No	Burned in the past. Ground cover is grass and blueberry. Stand is regenerating from stump sprouts. Mostly cherry with a few scattered maple, oak, white pine and aspen.																																																						
6	42110 - Planted Red Pine	Sawtimber Well	13.8	63	81-110	N/A	OPIC - Stand planted in 1963, 6 acres, 7.5'x7.5' spacing. Stand was row thinned in 2015 61-051-11-01.																																																						
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>98</td> <td>Log/Pole</td> <td>10</td> <td>63</td> <td>Pin Cherry</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>2</td> <td>Pole/Log</td> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	Red Pine	98	Log/Pole	10	63	Pin Cherry	Low	Variable	Sapling	Red Maple	2	Pole/Log	8																																
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Red Pine	98	Log/Pole	10	63	Pin Cherry	Low	Variable	Sapling																																																					
Red Maple	2	Pole/Log	8																																																										
7	42140 - Planted Mixed Pine	Poletimber Well	23.1	63	51-80	N/A	OPIC - Stand was planted in 1963, 7.6 acres of spruce. A lot of variability occurs with a wide mixture of species. The one constant is the Spruce component. The South end has some big White Pine and a couple of wet pockets. The north end is more upland with small conifers. Some areas heavy to jack pine.																																																						
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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8 4131 - Aspen, Oak Poletimber Well 118.3 44 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	50	Pole/Log	8	44
Black/Red (Hybrid) Oak	15	Pole	6	
White Pine	5	Pole	6	
Red Maple	20	Pole	6	
Red Pine	5	Pole/Log	8	
White Oak	5	Pole	6	

9 6124 - Lowland Spruce-Fir Poletimber Well 15.4 64 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	15	Pole	6		Balsam Fir	Medium	10 - 20 feet	Sapling
White Pine	20	Pole	6					
Black Spruce	35	Pole/Log	8	64				
Balsam Fir	30	Pole	6					

10 6129 - Mixed Coniferous Lowland Forest Poletimber Well 43.1 132 141-170 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	5	Log/Pole	12		Balsam Fir	Low	Variable	Sapling
White Pine	10	Log/Pole/XLog	12		Tag Alder	Low	5 - 10 feet	Tall Shrub
Black Spruce	35	Pole	8					
Northern White Cedar	35	Pole/Log	8	132				
Balsam Fir	10	Pole	6					
Red Maple	5	Pole	8					

OPIC - Stream bisects the stand. Typical cedar stand with wet soils and small areas of windthrow. Very little hardwood component. More spruce in the northwest part of stand.

11 6128 - Lowland Coniferous, Mixed Deciduous Poletimber Well 34.4 132 171-200 N/A

Soil is wet but not as saturated as is commonly found in cedar areas.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	10	Log/XLog/Pole	12		Tag Alder	Low	5 - 10 feet	Tall Shrub
Quaking Aspen	5	Log/Pole	10		Balsam Fir	Low	5 - 10 feet	Sapling
Balsam Fir	5	Pole/Log	8					
Red Pine	5	Log/Pole/XLog	12					
Black Spruce	25	Pole	6					
Paper Birch	5	Pole/Log	8					
Red Maple	5	Pole	8					
Northern White Cedar	40	Pole/Log	8	132				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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12	42290 - Natural Mixed Pine	Sawtimber Well	8.4	95	81-110	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	5	Pole	6		White Pine	Low	5 - 10 feet	Sapling
Balsam Fir	5	Pole	6		White Spruce	Low	10 - 20 feet	Sapling
Red Pine	15	Log/Pole	10		Balsam Fir	Low	Variable	Sapling
White Pine	40	Log/Pole	12	95				
Jack Pine	10	Pole	8					
Red Maple	15	Pole	8					
Bigtooth Aspen	10	Log/Pole	10					

13	4126 - White, Black, N. Pin Oak	Sawtimber Poor	73.2	113	1-50	N/A	2011 - DAH - Sale # 81-05 was completed in 8/10.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	60	Log/Pole	10	113	Northern Pin Oak	Medium	10 - 20 feet	Sapling
White Pine	20	Pole/Log	8		Red Maple	Medium	5 - 10 feet	Sapling
White Oak	20	Pole/Log	9		Bigtooth Aspen	Low	5 - 10 feet	Sapling

14	42210 - Natural Red Pine	Sawtimber Well	9.6	111	51-80	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	30	Log/Pole	10		White Pine	Medium	Variable	Sapling
Red Pine	60	Log/Pole	12	111				
Northern Pin Oak	10	Log/Pole	12					

15	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	63.1	91	81-110	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	5	Log/Pole	10		Balsam Fir	Medium	Variable	Sapling
Balsam Fir	20	Pole	5					
White Pine	25	Log/Pole	10					
Red Maple	20	Pole	6					
Northern White Cedar	30	Pole	6	91				

17	330 - Low-Density Trees	Nonstocked	2.9		Immature	No	
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OPIC - FMD: Stand is pretty well dominated by quaking aspen regeneration. May have been a cut here in the past or a fire. A lot of other species mixed in, much of it is merchantable now. Various pockets of timber such as hardwood, jack pine, oak, red maple all sizes and concentrations. Wait for aspen to mature and deal with other species at that time. A fair amount of white pine gives the stand some diversity and provides escape cover for wildlife. Stand is mostly upland and rolling terrain. Some good white oak mast producers and some red pine sawlog size trees.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																											
18	4311 - Pine, Aspen Mix	Poletimber Well	8.5	59	81-110	N/A																																																												
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19	4131 - Aspen, Oak	Poletimber Well	36.3	61	81-110	N/A	A vernal pond is located in the stand just northeast of the center of the SE1/4 of the section. An old railroad grade is located in the south part of the stand.																																																											
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20	4124 - Red with White Oak	Sawtimber Well	88.8	93	81-110	N/A																																																												
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21	4199 - Other Mixed Upland Deciduous	Poletimber Well	2.2	95	111-140	N/A	Residual islands left within a clearcut before retention was required.																																																											
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22	4139 - Aspen, Mixed Deciduous	Sapling Well	40.3	21	Immature	N/A	Stand was clearcut in the summer of 2002. Sale #047-01-1, 43 acres.																																																											
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
26	42220 - Natural Jack Pine	Sawtimber Well	5.1	70	51-80	N/A	retention for stand 28
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Jack Pine		80	Log/Pole	10	70	White Pine	
White Pine		5	Log/Pole	12		Low	
Red Pine		10	Log/Pole	12		5 - 10 feet	
Red Oak		5	Log/Pole	10		Sapling	
27	4310 - Pine, Oak Mix	Sawtimber Poor	57.3	95	51-80	N/A	Stand was cut in winter of 2002-2003. Sale #61-01 - Headache Oak. Harvest was accomplished without marking the stand. Shelterwood cut to 40-50% crown cover.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Oak		40	Log/Pole	10	95	Red Maple	
White Oak		10	Pole/Log	8		Medium	
Red Pine		15	Pole/Log	8		10 - 20 feet	
White Pine		35	Log/Pole	10		Sapling	
						Bigtooth Aspen	
						Medium	
						10 - 20 feet	
						Sapling	
						Red Oak	
						Low	
						10 - 20 feet	
						Sapling	
						White Pine	
						Medium	
						Variable	
						Sapling	
28	42120 - Planted Jack Pine	Sapling Well	396.8	19	Immature	N/A	Stand has been planted to jack pine. Stand was clearcut/harvested in winter of 2004 as part of sale # 046-01-01, Clark Road Warbler. KIRKLAND WARBLER MANAGEMENT BLOCK.
Canopy Species		% Cover	Size Class	DBH	Age		
Jack Pine		91	Sapling	3	19		
Red Oak		5	Sapling	2			
Pin Cherry		2	Sapling	2			
Red Maple		2	Sapling	2			
29	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	16.5	94	81-110	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		15	Pole	8			
White Oak		2	Pole/Log	8			
Red Pine		15	Log/Pole/XLog	14			
White Pine		20	Log/XLog/Pole	14			
Balsam Fir		10	Pole	6			
Black Spruce		28	Pole	6	94		
Jack Pine		10	Pole/Log	8			
30	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Medium	31.6	74	81-110	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Tamarack		5	Pole	6		White Pine	
Black Spruce		15	Pole	6		Medium	
White Pine		30	Log/XLog/Pole	14		Variable	
Red Pine		5	Log/Pole	10		Sapling	
Red Maple		45	Pole/Log	8	74	High	
						Variable	
						Sapling	
						Tag Alder	
						Low	
						5 - 10 feet	
						Tall Shrub	
31	622 - Lowland Shrub	Nonstocked	1.3			No	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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32 42210 - Natural Red Pine Sawtimber Well 22.3 102 171-200 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	10	Pole	6		Balsam Fir	Low	Variable	Sapling
Red Oak	5	Log/Pole	10		White Pine	Medium	5 - 10 feet	Sapling
Bigtooth Aspen	10	Log/Pole	10					
Red Pine	60	Log/Pole/XLog	12	102				
White Pine	15	Log/Pole	10					

33 42121 - Planted Jack Pine, Mixed Sapling Poor 49.1 10 Immature N/A FTP C62-837. Planted 3-0 jack pine 5/8/2016.

Canopy Species	% Cover	Size Class	DBH	Age
Jack Pine	70	Sapling	1	10
Red Pine	10	Sapling	1	
Red Maple	15	Sapling	1	
Pin Cherry	5	Sapling	1	

36 6122 - Black Spruce Poletimber Well 57.9 81 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Spruce	60	Pole	6	81	Black Spruce	Medium	Variable	Sapling
Red Maple	20	Pole	6		Tag Alder	Low	5 - 10 feet	Tall Shrub
Jack Pine	10	Pole	8					
Red Pine	5	Log/Pole	10					
White Pine	5	Log/Pole	10					

39 6122 - Black Spruce Sapling Medium 19.9 22 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age
Black Spruce	70	Sapling	2	22
Balsam Fir	20	Sapling	2	
Red Maple	10	Sapling	2	

Stand was harvested in the fall of 2017 'Bear Tracks mix' 61-125-15-01. Stand was a seed tree cut leaving some larger spruce for seed and leaving all spruce and fir less than 4". Ground was scarified very well so hopefully it will seed in. The ridge had a lot of jack pine on it and hopefully it will regenerate.

40 6113 - Lowland Maple Poletimber Medium 5.2 82 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	60	Pole	6	82	White Pine	Low	5 - 10 feet	Sapling
Black Spruce	15	Pole	8		Red Maple	Medium	Variable	Sapling
White Pine	5	Log/XLog	13					
Balsam Fir	10	Pole	6					
Jack Pine	10	Pole	8					



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41	6113 - Lowland Maple	Poletimber Well	58.8	87	51-80	N/A																																																	
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43	6126 - Lowland Jack Pine	Sapling Well	20.7	44	51-80	N/A																																																	
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Jack Pine	75	Sapling/Pole	3	44																																																			
44	42120 - Planted Jack Pine	Sapling Well	306.1	34	Immature	N/A	Kirtland's Warbler Habitat. Stand was clearcut in 1986 as part of a 367 acre timber sale. The site was then roller chopped at some point shortly thereafter. Jack Pine planted by Wildlife Division - no FTP was completed regarding the planting. The North edges of the stand contain lots of leatherleaf where soil is more wet than other parts of the stand.																																																
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45	42120 - Planted Jack Pine	Sapling Well	247.8	12	Immature	N/A	Windswept Jack #005-2011 KIRTLAND WARBLER HABITAT.																																																
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49	4124 - Red with White Oak	Sawtimber Medium	70.2	103	51-80	N/A	Stand was cut in winter of 2002 (Sale # 056-01-1 Connector Oak).																																																
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54	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	4.1	54	81-110	N/A																																														
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58	310 - Herbaceous Openland	Nonstocked	1.2	0		No	OPIC - FMD: Generally poor quality oak logs with some white pine understory. Most of the oak logs have serious defects. Some scattered pine logs and poles. Some small dbh aspen coming into a few areas.																																													
60	6125 - Lowland Black Spruce, Jack Pine	Poletimber Well	10.2	73	141-170	N/A																																														
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63	3105 - Mixed Upland Herbaceous	Nonstocked	2.5	49	Unspecified	Managed Opening	OPIC - FMD: Semi open in places. Burned in the past. Ground cover is grass and blueberry. Stand is regenerating from stump sprouts. Mostly cherry with a few scattered maple, oak and aspen. Site Index is from old inventory information.																																													
64	330 - Low-Density Trees	Nonstocked	1.8		Immature	No																																														



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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65 42260 - Natural Pine, Mixed Deciduous Sawtimber Well 22.2 84 141-170 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	55	Log/Pole/XLog	14	84	White Pine	Low	5 - 10 feet	Sapling
Red Oak	15	Log/Pole	12		Red Maple	Low	5 - 10 feet	Sapling
Red Maple	10	Pole/Log	8					
Bigtooth Aspen	5	Log/Pole	10	74				
White Pine	15	Log/Pole	10					

400 110 - Low Intensity Urban Nonstocked 4.0 103 No Well site.

401 110 - Low Intensity Urban Nonstocked 1.6 103 No Well site.