



Compartment Review Presentation

Gladwin Forest Management Unit

Compartment 73013

Entry Year 2026

Acreage: 2,125

County Clare

Management Area: High Sand Plains

Stand Examiner: Casey Ownes

Legal Description:

T19N - R06W Sections 1 - 3 & 9 -16

Identified Planning Goals:

Follow guidelines set forth in the Regional State Forest Management Plan for the Upper Muskegon Management Area. Monitor and address forest health concerns and issues, balance timber age classes, manage for forest sustainability, provide wildlife habitat and provide forest based recreation. Protect archeological concerns, protect threaten and endangered species.

Soil and topography:

The area varies from well drained sands in the jack pine plains to medium drained soils as you move out of the jack pine plains. The terrain is mostly flat with a few rolling hills as you move out of the flat plains. Green Creek is in a valley and there are areas of step banks leading down into the river valley. The major soil types are Rubicon-Crowell-AuGres associations and Menominee – Iosco – Kawkawlin associations.

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

The state land in this compartment is spread out over 11 sections. The state and private lands are intermixed resulting in miles of private property lines. Private holdings are mostly comprised of large forested single holdings with absentee landowners. Some areas of state owned land within the compartment have limited access due to both ownership patterns and topography. Many of the private land owners access their land via state two track roads none of which have easements.

Unique Natural Features:

This area has a variety of rare species that could be or are present including; red shouldered hawk, black sandshell, eastern box turtle, wood turtle, goshawk, eagle, great blue heron, loon, wood turtle, eastern massasauga, kirtland's warbler and blanding's turtle. Also potential for floodplain forest, secretive locust in bogs, beak grass, ginseng, and largetoothwort.

Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

Continue to manage aspen and jack pine stands to maintain a variety of age classes to enhance deer and grouse habitat.

Watershed and Fisheries Considerations:

Green Creek and numerous unnamed creeks flow into the Muskegon River. Green Creek is known to hold some trout and should be treated as a cold water fishery. Green Creek is in a valley and has a natural buffer of lowland brush and marsh directly adjacent to its banks. The Muskegon River has a natural corridor (floodplain) of lowland swamp hardwood along most of the water course and should be considered a sensitive area for timber harvest purposes. Upland/High bank areas along the river should also be considered sensitive. There are also many scattered low areas that are seasonally flooded and support populations of waterfowl, great blue herons and many non-game species.

Wildlife Habitat Considerations:

This compartment contains a variety of habitat types suitable for many wildlife species. The compartment includes the Green Creek drainage and adjacent lowland complexes. These lowlands support various waterfowl, reptiles, amphibians, and their predators including raccoon, bobcat, mink, and great blue heron. Furbearers including beaver, mink, muskrat, black bear, bobcat, and coyote use the lowlands as corridors as well as year-round habitat. Many bird species stand to benefit from the juxtaposition of lowland and upland habitats present in the compartment. These include common yellowthroat, yellow-rumped warbler, gray catbird, redbellied vireo, white-throated sparrow, hermit thrush, red-breasted nuthatch, ruffed grouse, and american woodcock. The compartment is easily accessible to hunters via Lake Station Ave.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and coarse-textured till. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Jurassic Red Beds and the Pennsylvanian

Saginaw and Grand River Formations. The Saginaw Formation is used for clay/shale in other areas of the State. The nearest gravel pit is located just to the south and there should be potential. Winterfield Field is located in the Compartment. It is a gas storage field and also is in secondary oil recovery operations. Most of the compartment is under lease for gas storage operations.

Vehicle Access:

Access to most of the compartment is good via the county road system and state forest two tracks that are in place. There are access concerns in sections 11, 12 and 14 due to both ownership patterns and topography. There are numerous service roads that lead to Consumers Energy injection wells, oil wells and pipelines within the compartment.

Survey Needs:

None needed.

Recreational Facilities and Opportunities:

No Designated Trails are present within the compartment. However dispersed recreation is likely popular throughout the compartment from the access to water resources and varying cover types. No official facilities. The area receives moderate hunting pressure most of which is deer hunters. Light fishing pressure occurs on Green Creek and the Muskegon River. Moderate dispersed camping occurs mainly during the firearm deer hunting season. Canoe traffic on the Muskegon River can be heavy on weekends during the summer. A private campground and canoe livery is located within the compartment boundaries along the Muskegon River on the north side of M-61.

Fire Protection:

Some potential for fire occurrence exists due to red pine and jack pine timber types. There are many fire breaks both natural and man made to assist in the control efforts of wildfire. (Example of fuel breaks include; rivers, low areas, roads and pipelines). Michigan Natural Gas Company operates a gas storage field (Cranberry Field) within the compartment which presents safety concerns.

Additional Compartment Information:

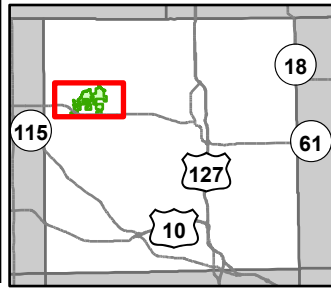
The following reports from the Inventory are attached:

- 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:

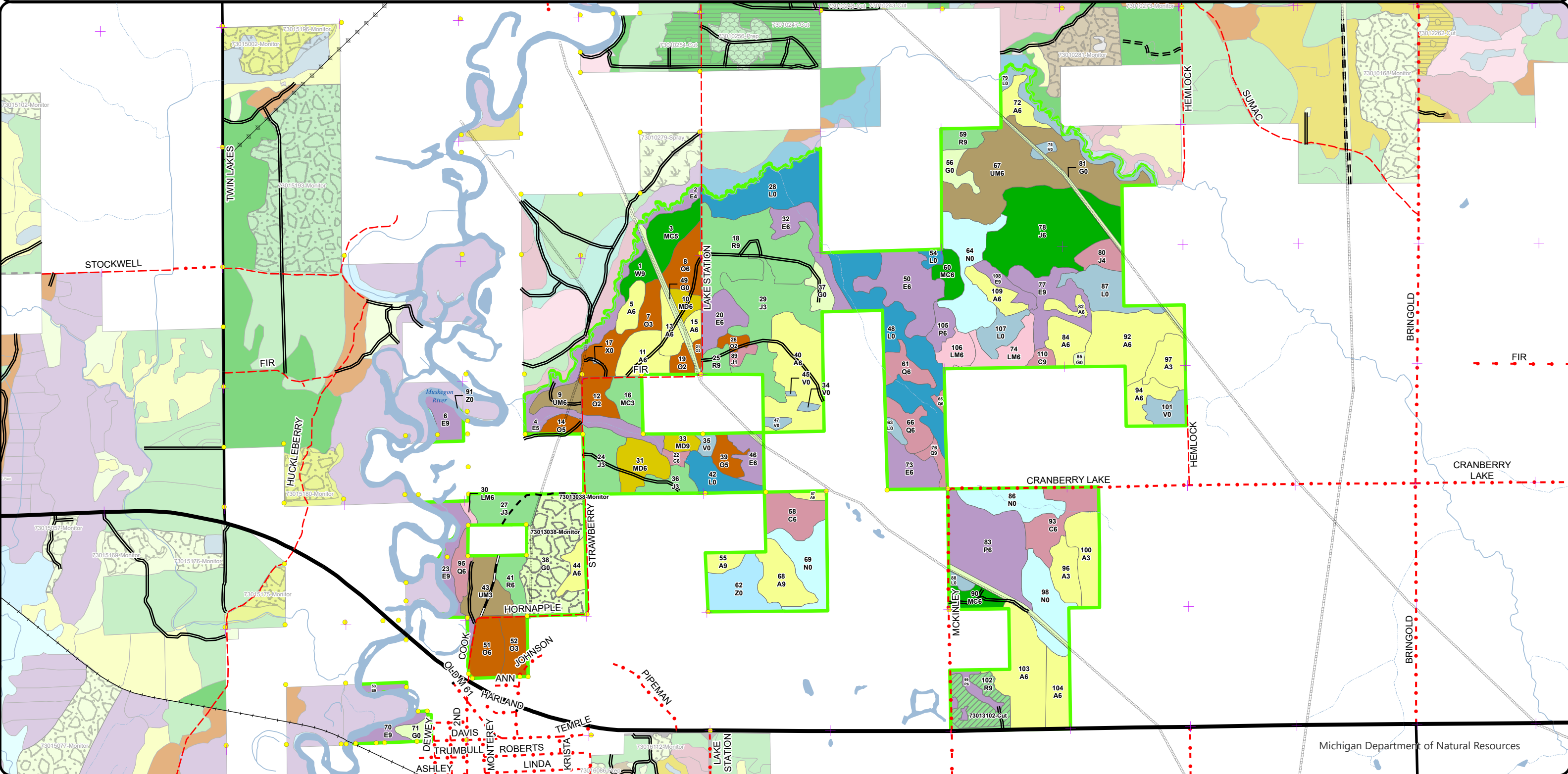
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

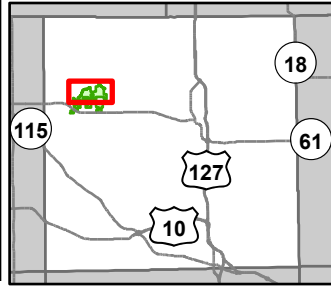


Compartment: 73013
 T19N, R6W, Sec: 1-3, 9-16
 County: Clare
 Unit: Gladwin
 Mgmt Area: High Sand Plains
 YOE: 2026
 Acres: 2125.3 GIS Calculated
 Examiner: Casey Ownes
 Map Revised: 6/6/2024
 Map Phase: Web Post

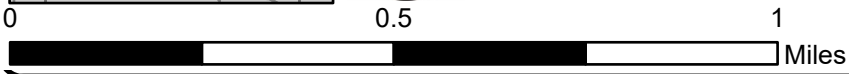
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|---|--|-------------------------------------|-----------------------------------|------------------------------------|
| ▲ Berms | --- Federal / State - Dirt / Gravel Road | — Perennial River | ■ 412 - Oak Types | ■ 613 - Lowland Mixed Forest |
| ● Survey Grade Corners | - - - County - Gravel Road | ■ Lakes and Rivers | ■ 413 - Aspen Types | ■ 110 - Low Intensity Urban |
| ⊕ Remonumented Section Corners | - - - County - Dirt Road (Seasonal) | — Pipeline | ■ 419 - Mixed Upland Deciduous | ■ 310 - Herbaceous Openland |
| — DNR - Primary Forest Road | - - - Private - Dirt / Gravel Road | ⚡ Powerline | ■ 421 - Planted Pines | ■ 500 - Water |
| — DNR - Secondary Forest Road | — Active Railroads | ▭ Compartment Boundary | ■ 422 - Natural Pines | ■ 622 - Lowland Shrub |
| — DNR - Forest Access Route | — Intermittent Stream | ▭ Counties | ■ 430 - Upland Mixed Forest | ■ 623 - Emergent Wetland |
| — Federal / State Highway | — Island in Lake or River | ▨ Thinning (Crown, Low, Systematic) | ■ 611 - Lowland Deciduous Forest | ■ 629 - Mixed Non-forested Wetland |
| — Federal / State / County - Paved Road | — Lake/Pond | ▨ Regeneration Survey | ■ 612 - Lowland Coniferous Forest | |



Cover Type & Treatments Map

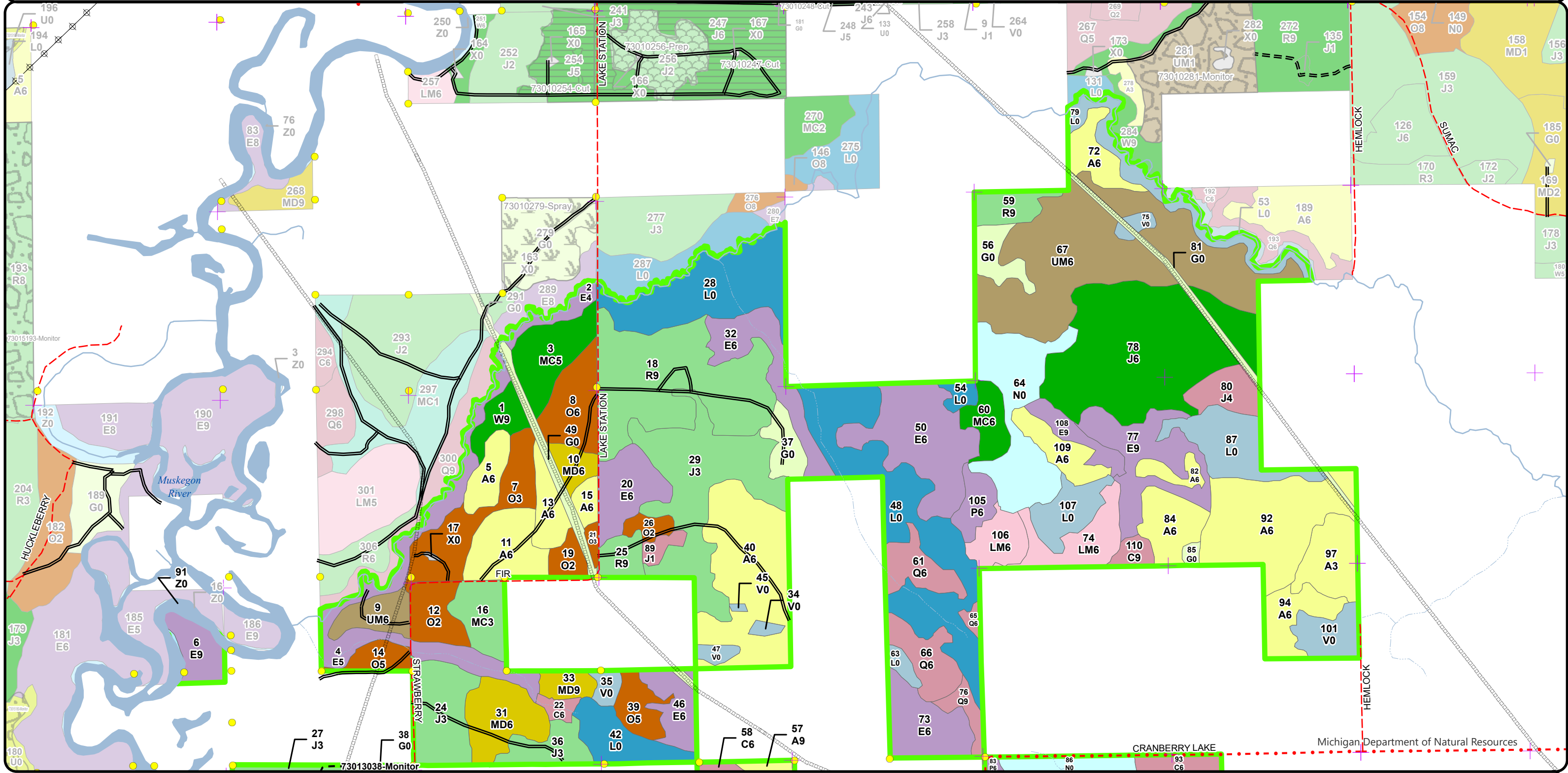


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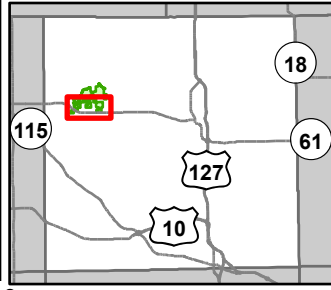


- Survey Grade Corners
- + Remonumented Section Corners
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- Powerline
- Compartment Boundary
- Counties

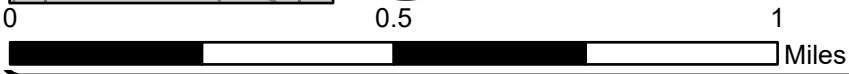
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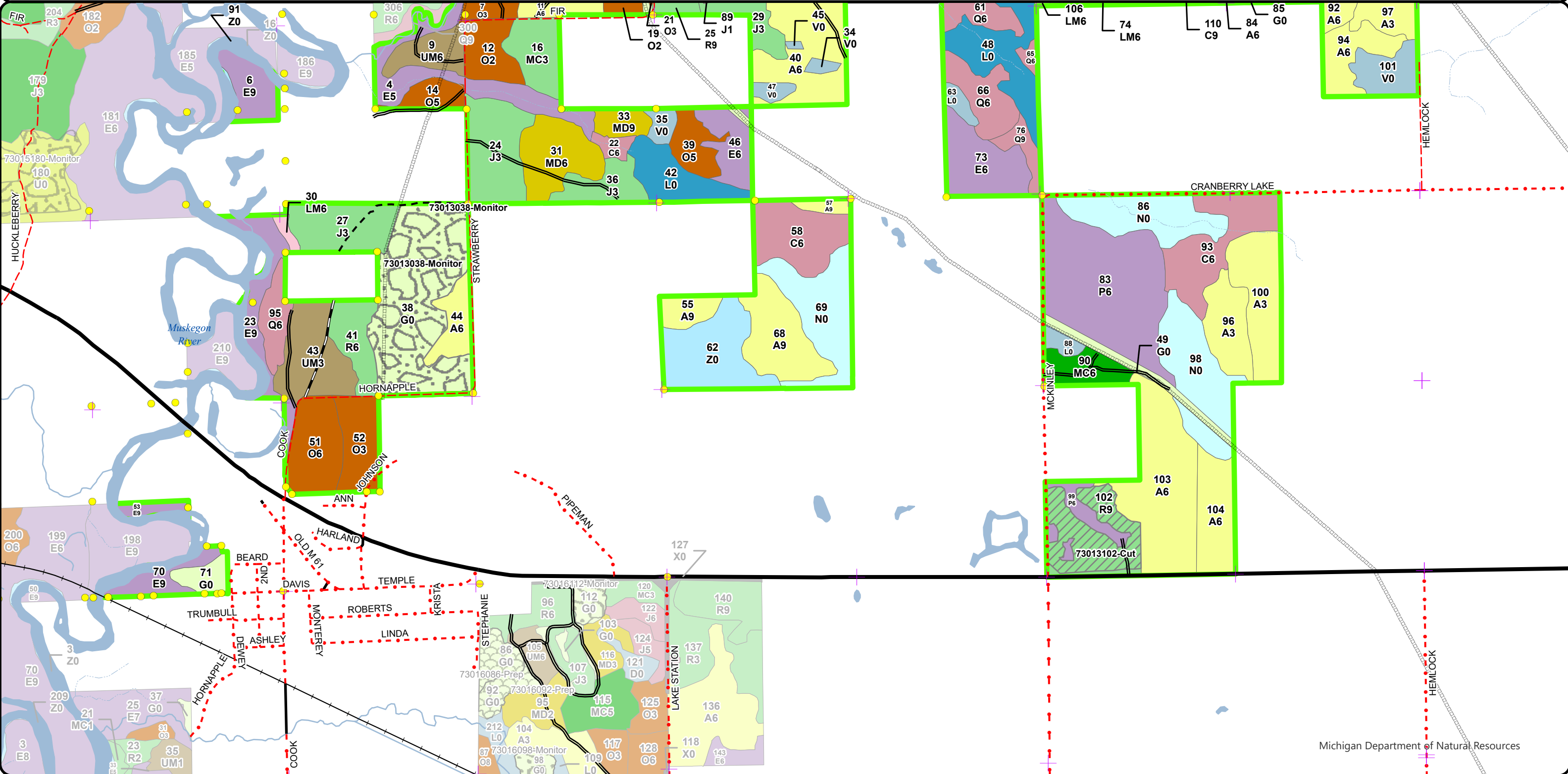
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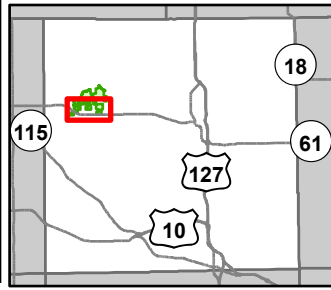
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**Special Conservation Areas
& Site Conditions Map**

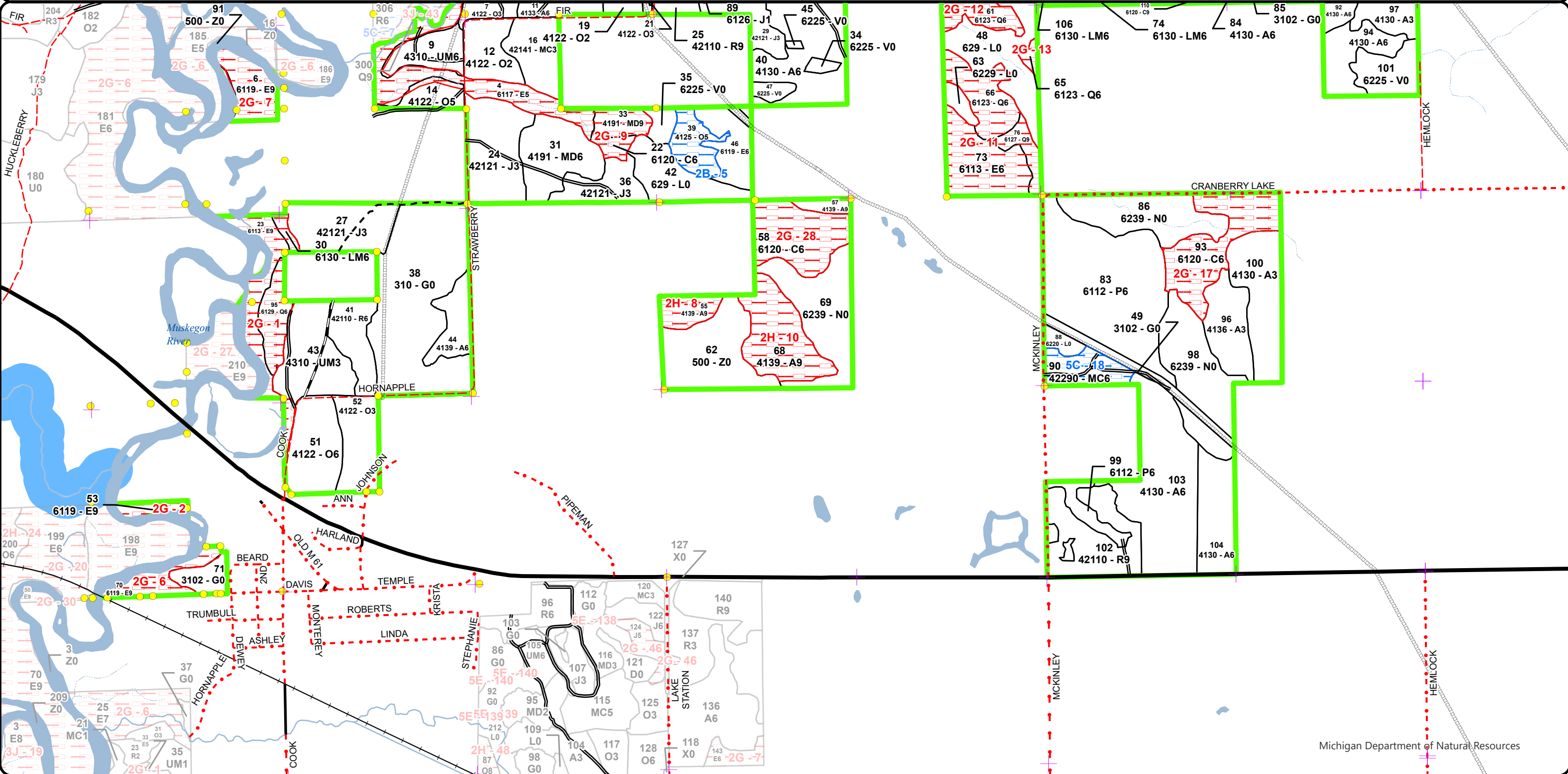
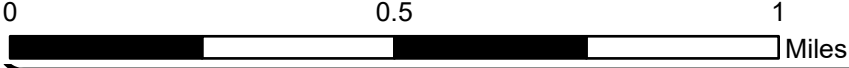


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- County - Gravel Road
- County - Dirt Road (Seasonal)

- Active Railroads
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Pipeline
- Compartment Boundary
- Counties
- Available w/ Constraints

- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- Stand Boundaries
- Cold Water Streams
- High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class

Gladwin Mgt. Unit

Compartment 13

Year of Entry 2026

Casey Ownes : Examiner



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	45	129	186	0	0	0	0	0	0	36	0	0	0	0	0	0	396
Bog	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Cedar	0	0	0	0	0	0	0	0	0	0	5	0	28	28	0	0	0	0	61
Herbaceous Openland	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120
Jack Pine	0	0	22	102	107	0	0	0	0	0	0	0	0	0	0	0	0	0	231
Lowland Aspen/Balsam Poplar	0	0	0	0	82	0	0	0	0	0	0	0	0	0	0	0	0	0	82
Lowland Conifers	0	0	0	0	0	0	0	15	0	0	21	10	0	0	0	0	0	0	46
Lowland Deciduous	0	0	0	0	0	23	0	14	0	0	127	50	46	0	0	0	0	0	259
Lowland Mixed Forest	0	0	0	0	31	0	0	0	0	0	0	2	0	0	0	0	0	0	33
Lowland Shrub	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204
Marsh	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128
Mixed Upland Deciduous	0	0	0	0	0	22	7	0	0	0	0	0	7	0	0	0	0	0	36
Natural Mixed Pines	0	0	0	21	0	0	0	0	12	0	0	12	0	0	0	0	0	0	45
Oak	0	0	53	25	20	21	0	0	0	0	0	10	0	0	0	0	0	0	129
Planted Mixed Pines	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Red Pine	0	0	0	0	0	0	0	14	121	0	0	0	0	0	0	0	0	0	135
Upland Mixed Forest	0	0	25	0	0	104	0	12	0	0	0	0	0	0	0	0	0	0	141
Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
White Pine	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9
Total	510	0	145	292	426	170	7	55	133	9	153	120	81	28	0	0	0	0	2128



Report 2 – Treatment Summary

Gladwin Mgt. Unit

Year of Entry: 2026

Acres of Harvest

Compartment 13

Total Compartment Acres: 2,125

Commercial Harvest - 25
 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
Red Pine		0	0	0	0	25	0	0	0		25
	Total	0	0	0	0	25	0	0	0		25

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		25	0	0	0	0	66	0	0		91
Next Step		0	0	0	0	66	0	0	0		66
	Total	25	0	0	0	66	66	0	0		156



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
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Proposed Treatments:

102	73013102-Cut	25.0	42110 - Planted Red Pine	Sawtimber Well	70	171- 200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Thin pine plantation from above down to a 120 BA. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2025</p>											

Approved Treatments:

38	73013038- Monitor	65.6	310 - Herbaceous Openland	Nonstocked	0		Monitoring	Artificial Regen(3yr)	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> <u>Specs:</u> <u>Next Step</u> Pesticide, Skidder - Site Prep <u>Treatments:</u> <u>Acceptable</u> Planted Red Pine <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2023</p>											

Total Treatment 90.6
Acreage Proposed:

Report 4 – Site Conditions

Gladwin Mgt. Unit
Casey Ownes : Examiner

Compartment: 13
Year of Entry: 2026

Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available	Dominant Site Conditions	Dominant Site Conditions						
		With Condition				2B	2E	5B	5C	2G	2H	3J
396	363	0		33	Aspen					0	33	
25	25	0		0	Bog							
60	5	0		55	Cedar					55		
120	119	0		0	Herbaceous Openland					0		0
231	231	0		0	Jack Pine					0		
82	82	0		0	Lowland Aspen/Balsam Poplar					0		
47	0	0		47	Lowland Conifers					47		
259	16	0		242	Lowland Deciduous					242		0
33	31	0		2	Lowland Mixed Forest					2		
204	204	0		0	Lowland Shrub					0		
128	128	0		0	Marsh							
36	23	7		6	Mixed Upland Deciduous			7		6		
44	21	12		12	Natural Mixed Pines				12	1	11	
130	118	10		1	Oak	10				1		
15	15	0		0	Planted Mixed Pines							
135	124	10		0	Red Pine		10			0		
140	140	0		1	Upland Mixed Forest					1		
0	0	0		0	Urban							
33	33	0		0	Water					0		
9	8	0		1	White Pine					1		
2,125	1,685	39		401	Total Forested Acres	10	10	7	12	357	44	0
	79%	2%		19%	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)	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gladwin Mgt. Unit
Casey Ownes : Examiner

Compartment: 13
Year of Entry: 2026

2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Available	2E: Road needed	10	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comments: Far from Hemlock Ave, a road will be needed to punch through to the closed road through state land. Or the purchaser could acquire permission from the neighbors to the north.							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Available	2B: Unknown if access through adjacent landowner(s) is possible	10	2E: Road needed	Unspecified	Unspecified	Unspecified
Comments: I could not reach stand due to lowlands of stands to the west.							
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Muskegon River flood plain. Lowland flood plain forest.							

Report 4 – Site Conditions

Gladwin Mgt. Unit
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Compartment: 13
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7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments: Muskegon River flood plain. Lowland flood plain forest.							
8	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	8	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comments: It appears online that the stand is surrounded by lowlands on private.							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	58	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Surrounded by open waters and marshs							
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	44	Unspecified	Unspecified	Unspecified	Unspecified
Comments: All of these stands are saturated soils, I recommend not trying to treat.							

Report 4 – Site Conditions

Gladwin Mgt. Unit
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Compartment: 13
Year of Entry: 2026

12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Surrounded on all sides by wetlands and open water.							
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	40	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Available	5B: Maintain for regeneration purposes	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	28	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

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18	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low wet site. Dense hardwood/balsam understory some tag alder.							
20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Too wet for commercial harvest. Creek bi-sects stand, areas of marsh grass and tag alder.							
21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	45	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Access concerns due to both terrain and ownership. Pockets of very low ground, aspen all but gone. Overall stand is low and wet.							
28	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	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	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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																				
1	42200 - Natural White Pine	Sawtimber Well	9.0	81	111-140	N/A	14 & 24 - Parts of stand are on steep slope leading down to the Green Creek flood plain. Adjacent stand to the east is much higher (elevation) than this stand.																																				
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2	6113 - Lowland Maple	Poletimber Poor	6.8	116	1-50	N/A	14 & 24 - Green Creek flood plain. Stand is influenced by beaver activity.																																				
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3	42260 - Natural Pine, Mixed Deciduous	Poletimber Medium	21.2	27	1-50	N/A	Casey Owens 24 - Jack pine, mixed with oak, and white pine. Open areas of just herbaceous cover, no sign of 2007 planting. 14 - Final harvest 1997 Green Creek 73-046-96. Decent, patchy natural jack pine regeneration. FTP # C73-651 - replanted / fill in planting to jack pine 5/16/2007.																																				
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4	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	39.2	116	1-50	N/A	14 & 24 - Green Creek flood plain. Stand is influenced by beaver activity.																																				
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6	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	13.1	106	1-50	N/A	In Muskegon River flood plain.																																				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
7	4122 - Oak, Pine	Sapling Well	27.4	16	51-80	N/A	Casey Owens 11/2023 Clearcut 2008 Strawberry Station 73-015-06, - All White Pine left, oak seedlings and stump sprouts are growing well, They are tall for 15 years of growth.																																													
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8	4125 - Black, N. Pin Oak	Poletimber Well	19.8	37	141-170	N/A	Clearcut 1987 Fir Road Six 73-026-87.																																													
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9	4310 - Pine, Oak Mix	Poletimber Well	11.5	61	81-110	N/A	14 & 24 - Stand is converting to white pine. Dense white pine growing around standing dead oak. Inclusion of 4 ac aspen clone at west tip of stand that is 25 yrs old.																																													
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10	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	6.8	57	111-140	N/A	14 & 24 - Thinned 1987 Fir Road Six 73-026-87.																																													
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15	4130 - Aspen	Poletimber Well	4.5	27	111-140	N/A	Casey Owens 23 Overstory removal in 2008, Strawberry Station 73-015-06 14 - All aspen, red maple, jack pine and dead oak removed in 1997. Decent mix of regeneration has resulted from harvest.																									
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16	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Well	15.2	22	51-80	N/A	14 & 24 - Clearcut 1997 Strawberry Oak 73-019-97. Trenched and hand planted to red pine, May 2002.																									
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White Pine	10	Sapling	3																													
Red Pine	50	Sapling	2	22																												
Northern Pin Oak	30	Sapling	2	22																												
17	110 - Low Intensity Urban	Nonstocked	0.4	0			Consumers Energy gas well pad.																									



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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18	42110 - Planted Red Pine	Sawtimber Well	75.0	70	141-170	N/A	Casey Owens 2023 Third row thinned in 1997. Nice manageable plantation, straight workable rows, good established landing sites. Thinned to 120 BA Fall of 2017. Twin Silo Pine 73-002-16.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	90	Log/Pole	10	70
Jack Pine	5	Pole	7	
Northern Pin Oak	5	XLog	21	

19	4122 - Oak, Pine	Sapling Medium	6.0	16	51-80	N/A	Casey Owens 11/2023 Clearcut 2008 Strawberry Station 73-015-06. To release understory. All white pine were left. Filling in well, with multiple openings 1/20 to 1/15 of an acre in size.
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Canopy Species	% Cover	Size Class	DBH	Age
White Oak	15	Sapling/Pole	3	16
Jack Pine	10	Sapling	2	16
Northern Pin Oak	50	Sapling/Pole	3	16
Red Maple	5	Sapling	2	16
Red Pine	5	Sapling	2	16
White Pine	15	Sapling	2	16

20	6113 - Lowland Maple	Poletimber Well	19.6	94	81-110	N/A	24 - Low wet site. Dense hardwood/balsam understory some tag alder.
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Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	10	Pole	7	
Paper Birch	10	Pole	6	
Balsam Poplar	5	Pole	7	
Balsam Fir	15	Pole/Sapling	5	
Red Maple	60	Pole	7	94

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	10 - 20 feet	Sapling
Tag Alder	Low	5 - 10 feet	Tall Shrub
Red Maple	Medium	Variable	Sapling

21	4122 - Oak, Pine	Sapling Well	2.0	16	Immature	N/A	Clearcut 2008 Strawberry Station 73-015-06. To release understory. All white pine was left.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	5	Sapling	2	16
White Oak	10	Sapling	2	16
Quaking Aspen	5	Sapling	2	16
White Pine	20	Pole/Sapling	5	
Jack Pine	10	Sapling	2	16
Northern Pin Oak	50	Sapling	2	16

22	6120 - Lowland Cedar	Poletimber Well	3.3	117	81-110	N/A	14 & 24 - Creek bisects stand. Some hardwood mixed in.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Pole	8	
Paper Birch	7	Pole	7	
Northern White Cedar	63	Pole	8	117
White Pine	5	Pole	8	
Balsam Fir	15	Pole/Sapling	6	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Low	Variable	Sapling
Balsam Fir	Low	Variable	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																														
23	6113 - Lowland Maple	Sawtimber Well	20.3	106	81-110	N/A	Casey Owens 2023 The Muskegon River flood plain.																														
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Bur Oak	10	XLog	20																																		
Beech	6	Pole	6																																		
24	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	26.2	22	111-140	N/A	14 & 24 - Clearcut 1997 Strawberry Oak 73-019-19. Trenched and hand planted to jack pine in 2002.																														
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White Pine	5	Sapling	2	27																																	
Jack Pine	75	Sapling	4	22																																	
25	42110 - Planted Red Pine	Sawtimber Well	8.1	70	111-140	N/A	Thinned 2008 Strawberry Station 73-015-06. All mixed oak was left. BA at this time is not high enough to warrant thinning.																														
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Northern Pin Oak	10	Pole/Log	8		Red Pine	Low	Variable	Sapling																													
26	4125 - Black, N. Pin Oak	Sapling Medium	4.5	16	51-80	N/A	14 & 24 - Clear cut 2008 Strawberry Station, 73-015-06. To release oak and white pine understory.																														
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Jack Pine	10	Sapling	2	16																																	
Northern Pin Oak	55	Sapling	2	16																																	
27	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	22.2	14	111-140	N/A	Casey Owens 2023 Clear cut 2008 Strawberry Station 73-015-06. FTP for replanting to jack pine. Planted to jack pine 5/2010, FTP C73-853.																														
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Northern Pin Oak	20	Sapling	3	16																																	
Jack Pine	70	Sapling	4	14																																	
White Pine	10	Sapling	3	16																																	
28	629 - Mixed non-forested wetland	Nonstocked	47.8			No	14 & 24 - Areas of standing dead timber, marshgrass, tag alder etc.. Stand is influenced by beaver. Green Creek flood plain.																														
29	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	59.8	22	51-80	N/A	14 & 24 - Clear cut 2002 Jack Pine Complex 73-040-96. Trenched and seeded to jack pine Oct. 2002.																														
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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30	6130 - Fir, Aspen, Maple	Poletimber Well	2.0	106	141-170	N/A	Casey Owens 2023 Steep hillside leading to the Muskegon River flood plain.
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Canopy Species	% Cover	Size Class	DBH	Age
Hemlock	10	Pole/Sapling	6	
Bigtooth Aspen	20	Log	11	
Red Maple	20	Pole	8	106
Northern White Cedar	15	Sapling	4	
Balsam Fir	25	Pole	6	106
Black/Red (Hybrid) Oak	10	Sapling	4	

31	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	22.3	40	1-50	N/A	Casey Owens 24 A lot of old overstory oak decline. Rest of stand in good condition.
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Canopy Species	% Cover	Size Class	DBH	Age
Northern Pin Oak	25	Pole	5	35
White Pine	15	Pole	5	
Red Pine	5	Sapling/Pole	4	
Jack Pine	10	Pole	5	
Red Maple	25	Pole	5	40
Quaking Aspen	15	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Medium	5 - 10 feet	Sapling
Black/Red (Hybrid) Oak	Low	5 - 10 feet	Sapling
White Pine	Low	Variable	Sapling

2014 - Overstory oak has been on the decline for at least 15 yrs.. Advanced oak, red maple and aspen regeneration up to 25' tall. Harvesting the sparse poor quality oak would destroy the decent regeneration that is place. Drainage within stand which contains dense ash and red maple whips.

32	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	23.5	94	51-80	N/A	14 & 24 - Low wet site, creek bisects stand.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	55	Pole/Log	8	94
Paper Birch	10	Pole	6	
Quaking Aspen	8	Pole	6	
Balsam Fir	10	Pole/Sapling	5	
Northern Pin Oak	5	Pole/Log	8	94
Northern White Cedar	7	Pole	6	
White Pine	5	Pole/Log	8	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Low	Variable	Sapling
Balsam Fir	Low	Variable	Sapling
Tag Alder	Low	5 - 10 feet	Tall Shrub

33	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	6.8	115	81-110	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	15	Pole/Log	9	
Red Maple	25	Pole	8	
White Oak	5	Log	16	
White Pine	30	Log	11	115
Black/Red (Hybrid) Oak	25	Log	16	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	Variable	Sapling
Red Maple	Low	Variable	Sapling

34	6225 - Bog	Nonstocked	1.7			No	
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																																	
35	6225 - Bog	Nonstocked	3.9			No																																																																																		
36	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	12.4	22	Immature	N/A	14 & 24 - Clear cut 1997 Strawberry Oak 73-019-97. Trenched and hand planted to jack pine in 2002.																																																																																	
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37	310 - Herbaceous Openland	Nonstocked	9.4	0	Immature	No	14 & 24 - Cut Fall 2017 Twin Silo Pine 73-002-16. Scattered Oak left for retention.																																																																																	
38	310 - Herbaceous Openland	Nonstocked	66.3	0		No	Clear cut spring 2019 Twin Silo Pine 73-002-16. Scattered large oaks left as retention. Stand was trenched in the spring of 2020. Stand sprayed with helicopter in summer of 2021. Stand planted May 2022, 928 TPA of red pine. Year 1 regen survey conducted September 2022. Data shows 864 TPA of red pine & 94% FTG.																																																																																	
39	4125 - Black, N. Pin Oak	Poletimber Medium	10.4	102	81-110	N/A	14 & 24 - Stand varies. Access is limited from all directions.																																																																																	
40	4130 - Aspen	Poletimber Well	58.1	37	81-110	N/A	14 & 24 - Clear cut 1987 Fir Road Six 73-026-87. Several scattered wet marshy areas. Growth and sizes vary throughout the stand.																																																																																	
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41	42110 - Planted Red Pine	Poletimber Well	13.8	65	81-110	N/A	Casey Owens 24 Short pine of variable size, and BA. Last harvest all white pine and some oak left.																																																																																	
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42	629 - Mixed non-forested wetland	Nonstocked	17.5			No	14 - Red pine planted in understory in 1959. Red pine is reaching pole size. Cut Spring of 2019. Twin Silo Pines 73-002-16. Thinned to 50 BA.																																																																																	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
43	4310 - Pine, Oak Mix	Sapling Well	24.7	16	81-110	N/A	Casey Owens 2023 Oak is dense as well as jack pine, growth is going well for 15 years old.																																													
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44	4139 - Aspen, Mixed Deciduous	Poletimber Well	10.7	35	81-110	N/A	Casey Owens 2023 Clear cut 1989 Fir Road Six 73-026-87.																																													
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45	6225 - Bog	Nonstocked	0.5			No																																														
46	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	13.5	69	111-140	N/A	14 - Low and wet scattered aspen pockets most of this aspen is very poor. Stand has some upland pockets with oak, birch, aspen and cherry. Access issues.																																													
47	6225 - Bog	Nonstocked	3.1			No																																														
48	629 - Mixed non-forested wetland	Nonstocked	69.3			No	14 & 24 - Areas of standing water, standing dead timber. Beaver have impact on this ever changing stand. Un-named creek bisects stand.																																													
49	3102 - Grass	Nonstocked	18.4		Immature	No																																														



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																
50	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	43.4	99	81-110	N/A	Casey 24 - Access concerns due to both terrain and ownership. Pockets of very low ground, aspen all but gone. Overall stand is low and wet.																																																
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51	4122 - Oak, Pine	Poletimber Well	21.4	47	81-110	N/A	14 & 24 - Clear cut 1977.																																																
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52	4122 - Oak, Pine	Sapling Well	16.9	27	Immature	N/A	14 & 24 - Clear cut 1997 Johbson Road 73-047-96. Good oak stump sprouts.																																																
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53	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	4.9	106	51-80	N/A	14 & 24 - In the Muskegon River flood plain. Lowland flood plain forest.																																																
54	629 - Mixed non-forested wetland	Nonstocked	3.8		Immature	No																																																	
55	4139 - Aspen, Mixed Deciduous	Sawtimber Well	7.5	109		N/A	14 & 24 - Access concerns. Island of timber surrounded by private ownership and low wet ground.																																																
56	3102 - Grass	Nonstocked	9.5			No	14 & 24 - Jack, and red pine along with Aspen filling in stand manage with neighboring stands.																																																
57	4139 - Aspen, Mixed Deciduous	Sawtimber Well	3.3	109		N/A	14 & 24 - Access concerns. Island of timber surrounded by private ownership and low wet ground.																																																
58	6120 - Lowland Cedar	Poletimber Well	24.2	117		N/A	14 & 24 - Surrounded by private ownership and low wet ground.																																																



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
59	42110 - Planted Red Pine	Sawtimber Well	10.1	70	171-200	N/A	Casey Owens 2023 Small crowns, suppressed, dense, and dying off in some areas.																																													
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Red Pine	100	Log/Pole	10	70																																																
60	42290 - Natural Mixed Pine	Poletimber Well	11.5	79	141-170	N/A	Surrounded by low wet ground. Natural mixed pine stand.																																													
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61	6123 - Lowland Fir	Poletimber Well	13.2	60	81-110	N/A	14 & 24 - Access is limited due to both ownership and terrain. Low wet site.																																													
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62	500 - Water	Nonstocked	29.8			No																																														
63	6229 - Mixed lowland shrub	Nonstocked	3.3			No																																														
64	6239 - Mixed Emergent Wetland	Nonstocked	41.0			No																																														
65	6123 - Lowland Fir	Poletimber Well	2.1	60	81-110	N/A	14 & 24 - Access is limited due to both private ownership and terrain, low wet soil																																													
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66	6123 - Lowland Fir	Poletimber Well	15.1	96	81-110	N/A	14 & 24 - Lowland hardwood. Good wildlife stand. Stand is fairly wet and access is difficult. Stand is surrounded by marsh, lowland timber types and private land.																																													
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67	4311 - Pine, Aspen Mix	Poletimber Well	104.0	49	111-140	N/A	Casey Owens 2023 Upland stand with some lowland areas. Natural red, white, and jack pine areas. Clear cut 1975. Stand is variable scattered pockets of R6/W6/J6. Most of stand is upland.																																																											
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68	4139 - Aspen, Mixed Deciduous	Sawtimber Well	25.5	109		N/A	14 & 24 - Access concerns. Island of timber surrounded by private ownership and low wet ground.																																																											
69	6239 - Mixed Emergent Wetland	Nonstocked	29.8			No																																																												
70	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	11.6	106	51-80	N/A	14 & 24 - In the Muskegon River flood plain. Lowland flood plain forest.																																																											
71	3102 - Grass	Nonstocked	6.6			No																																																												
72	4131 - Aspen, Oak	Poletimber Well	12.2	36	81-110	N/A	Casey Owens 2023 Dense to the northern half and pine to the northwest and slightly higher aspen to the south. Clear cut 1988, Green Creek																																																											
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73	6113 - Lowland Maple	Poletimber Well	22.5	40	81-110	N/A	14 & 24 - Variable stand. Mostly low wet ground with small narrow ridges of semi upland ground. Access is a concern. Scattered white pine and red pine sawogs, scattered aspen clones, red maple poles, oak regen is also present from saps to poles. I do not believe the stand would regenerate well if clear cut, pretty wet soils and aspen clones are too few and too small. No treatment lots of good things happening within the stand with no treatment.																																																											
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74	6130 - Fir, Aspen, Maple	Poletimber Well	18.7	36	111-140	N/A	Casey 24 - Clearcut 1988 73-025-88. Low saturated soils with a small 2-acre area of upland																																																		
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75	6225 - Bog	Nonstocked	2.9			No																																																			
76	6127 - Lowland Pine	Sawtimber Well	6.0	90	81-110	N/A	Casey Owens 24 Low land stand with hard access with private on the East, West, and South. Small mixed pine stand. Low wet site. Access is a concern. Aspen and red maple mixed in. Natural stand with some larger diameter red pine.																																																		
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77	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	31.1	92	81-110	N/A	Casey 24 - True swamp hardwood stand, areas of standing water. Stand is a drainage. Wet mucky soils.																																																		
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78	42220 - Natural Jack Pine	Poletimber Well	95.1	34	51-80	N/A	Casey Owens 2023Dense Jack pine, with pockets of aspen, and red maplesClear cut 1990, Pipeline Pine. Excellent mix of natural regeneration. Areas of aspen, red maple, oak and white pine regeneration.																																																		
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79	6229 - Mixed lowland shrub	Nonstocked	20.4			No	14 & 24 - Green Creek flood plain. Creek bi-sects stand. Beaver have big influence on this stand. Very wet ground. Stand is in a valley with areas of steep slopes. Several beaver dams within stand. Areas of marsh grass and standing water.																																																		



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80	6126 - Lowland Jack Pine	Poletimber Poor	11.7	34	1-50	N/A	Casey Owens 2023 Jack pine lowland																																																															
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81	3102 - Grass	Nonstocked	7.9			No																																																																
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83	6112 - Lowland Aspen	Poletimber Well	65.0	37	51-80	N/A	Casey Owens 24good stand many areas are low full of tag alder and paper birch. With some upland pockets. Clear cut 1987. Excellent regeneration. Mix of aspen, red maple, oak and white pine. Several small scattered lowland brush pockets.																																																															
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84	4130 - Aspen	Poletimber Well	16.7	29	81-110	N/A	Clear cut 1995.																																																															
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85	3102 - Grass	Nonstocked	1.6			No	14 - natural grassy opening																																																															
86	6239 - Mixed Emergent Wetland	Nonstocked	25.7			No																																																																
87	6229 - Mixed lowland shrub	Nonstocked	23.9			No																																																																



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
88	6220 - Alder/willow	Nonstocked	3.3			No			
89	6126 - Lowland Jack Pine	Sapling Poor	3.7	22		N/A	Casey Owens 24Jackpine bog		
Canopy Species		% Cover	Size Class	DBH	Age				
Jack Pine		100	Sapling/Pole	4	22				
90	42290 - Natural Mixed Pine	Poletimber Well	11.7	100	141-170	N/A	24 - Some large timber mixed with smaller timber, with a good pine understory.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak		10	XLog	20		White Pine	Medium	Variable	Sapling
Red Pine		10	Log	17		Red Pine	Medium	Variable	Sapling
Jack Pine		30	Pole	8		Jack Pine	Low	Variable	Sapling
Red Maple		10	Log	13		Red Maple	Low	Variable	Sapling
White Pine		40	Log	15	100				
91	500 - Water	Nonstocked	3.1	0		No	MUSKEGON RIVER		
92	4130 - Aspen	Poletimber Well	52.2	36	141-170	N/A	Clear cut 1988.		
Canopy Species		% Cover	Size Class	DBH	Age				
Northern Pin Oak		5	Sapling	4	36				
Bigtooth Aspen		60	Pole	7	36				
White Pine		5	Sapling	4	36				
Quaking Aspen		20	Pole	7	36				
Jack Pine		5	Sapling	4	36				
Red Maple		5	Pole	5	36				
93	6120 - Lowland Cedar	Poletimber Well	28.1	124		N/A	14 & 24 - Stand varies pockets of hardwood, balsam fir, and dead standing timber. Some blow-down mainly along edges. Mucky soil, standing water.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir		30	Pole/Sapling	5		Tag Alder	Low	5 - 10 feet	Tall Shrub
Northern White Cedar		70	Pole	7	124	Red Maple	Low	Variable	Sapling
						Balsam Fir	Low	Variable	Sapling
94	4130 - Aspen	Poletimber Well	15.0	29	111-140	N/A	Clear cut 1995.		
Canopy Species		% Cover	Size Class	DBH	Age				
Bigtooth Aspen		60	Pole	5	29				
Red Maple		10	Sapling	4	29				
White Pine		5	Sapling	4	29				
Northern Pin Oak		5	Sapling	4	29				
Quaking Aspen		20	Pole	5	29				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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95	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	10.2	106	141-170	N/A	Casey Owens 2023 Steep hillside, saturated soils, along the Muskegon River flood plain.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Maple		8	Pole/Log	8	106	Hemlock		Low	5 - 10 feet	Sapling
Balsam Fir		40	Pole	7	106	Balsam Fir		Medium	Variable	Sapling
White Pine		29	XLog	18		Northern White Cedar		Low	5 - 10 feet	Sapling
Northern White Cedar		15	Pole	7		White Pine		Trace	Variable	Sapling
Hemlock		8	Pole	6						

96	4136 - Aspen, Mixed Conifer	Sapling Well	17.0	27	Immature	N/A	14 & 24 - Clear cut 1997. Balsam fir at north end.			
Canopy Species		% Cover	Size Class	DBH	Age					
Balsam Fir		15	Sapling	4	27					
White Pine		5	Sapling	4	27					
Bigtooth Aspen		50	Sapling	4	27					
Northern Pin Oak		5	Sapling	4	27					
Quaking Aspen		20	Sapling	4	27					
Red Maple		5	Sapling	4	27					

97	4130 - Aspen	Sapling Well	18.6	16	Immature	N/A	Clear cut 2008.			
Canopy Species		% Cover	Size Class	DBH	Age					
Quaking Aspen		20	Sapling	3	16					
Northern Pin Oak		5	Sapling	2	16					
White Pine		5	Sapling	2	16					
Bigtooth Aspen		60	Sapling	3	16					
Red Maple		10	Sapling	3	16					

98	6239 - Mixed Emergent Wetland	Nonstocked	31.0			No	
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99	6112 - Lowland Aspen	Poletimber Well	7.9	36	81-110	N/A	Casey Owens Lowland stand with some standing water. Clear cut 1988 during McKinney- 61 Plantation 73-028-87			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Paper Birch		8	Pole	7		Northern Pin Oak		Low	Variable	Sapling
Red Maple		12	Pole	6	36	Tag Alder		Medium	5 - 10 feet	Tall Shrub
Quaking Aspen		72	Pole	8	36					
Northern Pin Oak		2	Pole	6	36					
Black Cherry		6	Pole	8	36					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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100 4130 - Aspen Sapling Well 26.1 16 Immature N/A 24 - Clear cut 2008 Take It Easy Aspen 73-013-06

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Sapling	2	16
Bigtooth Aspen	60	Sapling	2	16
Quaking Aspen	20	Sapling	2	16
Northern Pin Oak	5	Sapling	1	16
White Pine	5	Sapling	1	16

101 6225 - Bog Nonstocked 12.6 Immature No

102 42110 - Planted Red Pine Sawtimber Well 27.6 70 171-200 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	94	Log	13	70
White Pine	1	Log	16	
Quaking Aspen	5	Log	13	

Sub-Canopy Species	Density	Avg. Height	Size
Black Cherry	Low	Variable	Sapling
Red Maple	Medium	Variable	Sapling
Black/Red (Hybrid) Oak	Low	Variable	Sapling
White Pine	Low	Variable	Sapling
Beech	Trace	>20 feet	Sapling

14 & 24 - First thinning 1987, MacKinley - 61 Plantation 73-028-87, second thinning 1997, MacKinley Red Pine 73-055-96, and third thinning 2008, Summit Red Pine 73-012-06. Good workable rows, highly visible from M-61, up on a hill. High quality poles.

103 4130 - Aspen Poletimber Well 49.4 26 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Sapling	3	26
Bigtooth Aspen	54	Pole	5	26
Northern Pin Oak	5	Sapling	4	26
Jack Pine	1	Sapling	4	26
Red Pine	2	Pole	7	
Quaking Aspen	22	Sapling	4	26
Red Oak	2	Sapling	4	
Balsam Fir	4	Pole	5	

Sub-Canopy Species	Density	Avg. Height	Size
Black/Red (Hybrid) Oak	Medium	Variable	Sapling
Tag Alder	Low	5 - 10 feet	Tall Shrub
Red Pine	Low	Variable	Sapling
White Pine	Low	Variable	Sapling

Casey Owens Upland with low pockets very humoky. Clear cut 1998, McKinley Avenue, 033-96-013

104 4130 - Aspen Poletimber Well 20.0 38 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	5	Pole	7	
Northern Pin Oak	10	Pole	5	38
Quaking Aspen	15	Pole	6	38
Bigtooth Aspen	60	Pole	6	38
Red Maple	10	Pole	5	38

Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	Low	Variable	Sapling
Black/Red (Hybrid) Oak	Low	Variable	Sapling
Black Cherry	Medium	Variable	Sapling
Autumn Olive	Low	5 - 10 feet	Tall Shrub
Balsam Fir	Low	Variable	Sapling

Casey Owens Stand is humoky with lowland areas.

Clear cut 1986, MacKinley Avenue Break-up, 056-86-013



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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105 6112 - Lowland Aspen Poletimber Well 9.2 36 111-140 N/A Casey 24 - Clearcut 1988 73-025-88. Scattered low wet areas.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	15	Pole/Sapling	5	36	Balsam Fir	Medium	Variable	Sapling
Quaking Aspen	18	Pole	7	36				
Bigtooth Aspen	35	Pole	7	36				
Balsam Fir	32	Pole	6					

106 6130 - Fir, Aspen, Maple Poletimber Well 11.9 36 111-140 N/A Casey 24 - Clearcut 1988 73-025-88. Low saturated soils.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	30	Pole/Sapling	5	36	Balsam Fir	Medium	Variable	Sapling
Quaking Aspen	18	Pole	7	36				
White Pine	10	Sapling/Pole	4	36				
Jack Pine	2	Sapling/Pole	4	36				
Balsam Fir	40	Pole	6	36				

107 6229 - Mixed lowland shrub Nonstocked 14.6 No

108 6113 - Lowland Maple Sawtimber Well 9.0 92 81-110 N/A Casey 24 - Lowland with standing water in areas

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Silver Maple	15	Log/Pole/Sap	10		Red Maple	Medium	Variable	Sapling
Red Maple	55	Log/Pole	10	92	Balsam Fir	Low	Variable	Sapling
Paper Birch	10	Pole	7		Tag Alder	Low	5 - 10 feet	Tall Shrub
Balsam Fir	20	Pole	5		White Pine	Low	Variable	Sapling

109 4134 - Aspen, Spruce/Fir Poletimber Well 12.4 36 111-140 N/A Casey 24 - Clearcut 1988 73-025-88.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	15	Pole/Sapling	5	36
Bigtooth Aspen	35	Pole	7	36
Balsam Fir	20	Pole	6	
White Pine	10	Sapling/Pole	4	36
Quaking Aspen	20	Pole	7	36

110 6120 - Lowland Cedar Sawtimber Well 4.8 92 81-110 N/A Casey 24 - Cedar and fir lowland.

Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	70	Pole	8	92
Balsam Fir	30	Pole	6	