



Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63148

Entry Year 2017

Acreage: 1,946

County Wexford

Management Area: Manistee River Valley

Revision Date: 2015-06-12

Stand Examiner: Joe Ventimiglia

Legal Description:

T24N, R9W, Sections 17-20, 29, 30

Identified Planning Goals:

Manage compartment for a mix of timber, wildlife, recreational and ecological concerns. Management plan and practiced silviculture methods will be implemented with all management activities.

Soil and topography:

This compartment falls within landtype association (LTA) 1111 of sub-subsection VII.2.1 and 5211 of sub-subsection VII.2.2. LTA 1111, which occurs in the southern half of section 30, is characterized by steep, broken moraine ridges, few kettle lakes, and excessively drained sand. LTA 5211, which occurs in the remainder of the compartment, is a pitted outwash plain with excessively drained sand.

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

All sections contain some private land with the exception of section 19. Desirable acquisitions would be the NW qtr and the East half of the NE qtr of section 18, the NW and the NE and the SE of the NE of section 30 and the South half of the SE qtr of section 20. No lands are identified for disposal.

Unique Natural Features:

This compartment contains a few mixed hemlock/ cedar/ white pine stands that are representative of pre-settlement conditions in this general area along the Manistee River. Manton Creek in Section 20. Potential for red-shouldered hawk, northern goshawk, eastern massasauga, wood turtle, spotted turtle. The bog habitat harbors potential for Blanding's turtle, ebony boghaunter, spotted turtle, and secretive locust. Eastern box turtle could occur throughout the compartment.

Archeological, Historical, and Cultural Features:

None noted.

Special Management Designations or Considerations:

Continue to create a variety of cover types and age classes. Several stands in this compartment are remnants of old strip (Red pine / Jack pine alternating strips) plantations. The Jack pine was either cut out last YOY or is being cut this YOY. Major cultivation and site prep will be needed to maintain red pine plantations within the compartment. Aspen will continue to be managed on a 50 to 60 year rotation, work should be done to break up large blocks of aspen into different age classes in future YOY. (Specifically stand 53 be broken up)

Watershed and Fisheries Considerations:

Manton Creek flows northerly through the east portion of the compartment, while a branch of Buttermilk Creek flows north and west through the southwest (Section 30) portion of the compartment. While the state natural river designation ends at the Missaukee/Wexford County line, Fisheries, Forest Management, and Wildlife Divisions entered into an agreement to adopt and utilize the Upper Manistee River state natural river zoning ordinance. Manton Creek and Buttermilk Creeks, are both designated trout streams with excellent self-sustaining brown trout populations. On both of these streams, the vegetative buffer would be 100 feet on 0-10% slopes, 115 feet on 11-20% slopes, 135 feet on 21-32% slopes, and 155 feet on 33+% slopes, unless the proposed treatment meets one of the eight exceptions (page 41 of the Upper Manistee River Natural River Plan).

Wildlife Habitat Considerations:

This compartment is a large deer wintering complex. The habitat objectives are to continue to maintain species diversity and age-class diversity across the compartment. Featured species of special interest include deer, ruffed grouse, woodcock, golden-winged warbler, and bear. Timber sale specifications to benefit wildlife (where applicable) will include brush pile creation along lowland edges, protection of mast-bearing wildlife shrubs and ironwood, protection of standing dead snags, and creation of drumming logs (1-2 per acre) and woody debris (tops or whole trees) in aspen cuts. (E. Victory

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan Formation is quarried for gypsum in other areas of the state. Gravel pits are located in Section 33 about two miles to the southeast, and potential is considered to be good. This area is located seven miles south of the prolific Silurian Niagaran reef trend. There appears to be limited potential for oil and gas development in the compartment, and none of the State lands are leased for oil and gas exploration and development. Active leases are located to the north and east.

Vehicle Access:

A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR.
Good road access through out compartment.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

There are no designated trails within this compartment. Dispersed camping and hunting occur within this compartment. (T.M.N. 12/17/14).

Fire Protection:

Limited potential for large fires, although potential for some urban interface concerns where homes and cabins exist along the perimeter of the compartment.

Additional Compartment Information:

The following reports from the Inventory are attached:

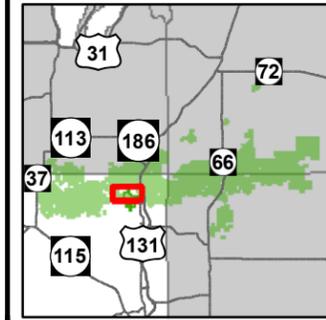
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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**

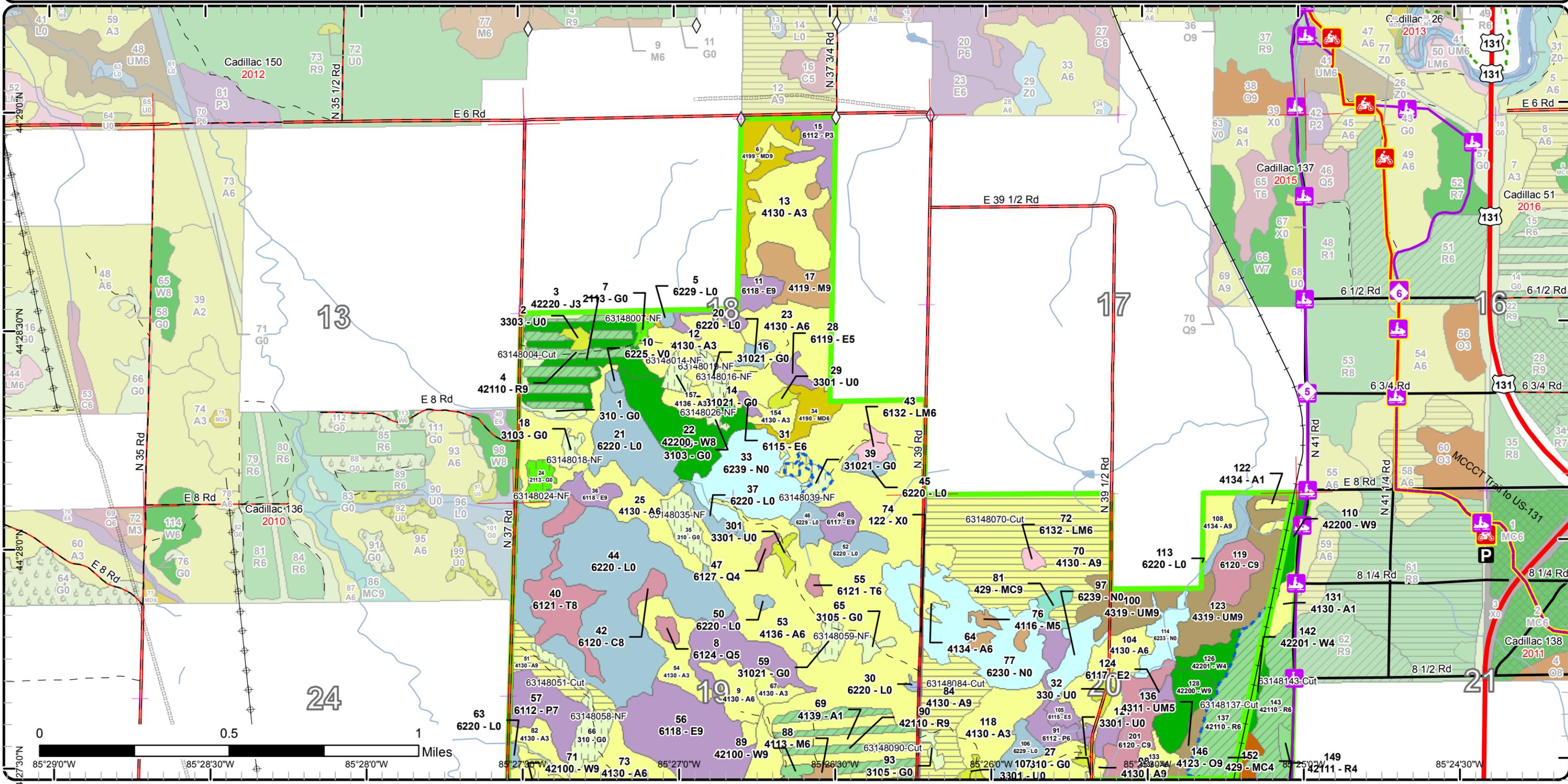
Cover Type & Treatments

Compartment: 148
 T24N, R09W Sec. 18-20, 29-30
 County: Wexford
 Unit: Cadillac
 Mgmt Area: Manistee River Valley
 YOE: 2017
 Acres: 1946 GIS Calculated
 Examiner: Joe Ventimiglia
 Map Revised: 6/22/2015
 Map Phase: Pre-Review



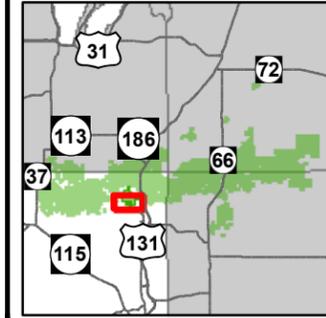
- Remonumented Section Corners
- Field Grade GPS Corners
- Miris Corners
- Highway
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Parking Lot
- MCCCT Trails
- ORV Trails
- Snowmobile Trails
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- Lakes
- Pipeline
- Powerline
- Treatments with Site Conditions
- Clearcut (w/Reserves)
- Opening Maintenance
- Thinning (Crown, Low, Systematic)

- ### Forest Covertype
- 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 429 - Mixed Upland Conifers
 - 430 - Upland Mixed Fores
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- ### Non-Forest Covertype
- 211 - Cropland
 - 310 - Herbaceous Openland
 - 330 - Low Density Trees
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 122 - Roads/Parking Lot

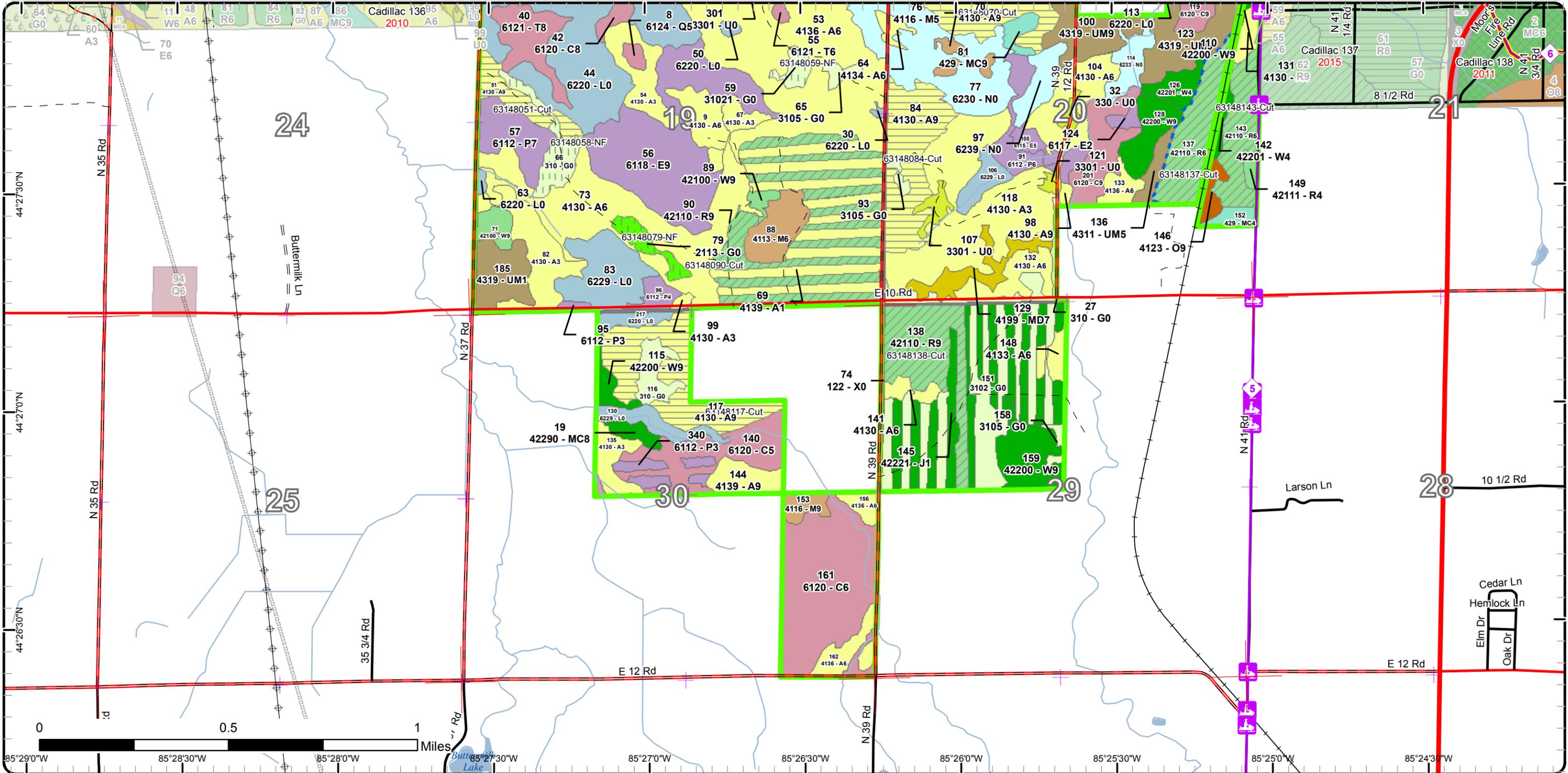


Cover Type & Treatments

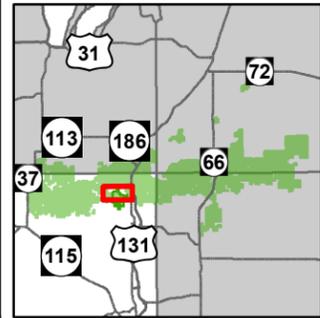
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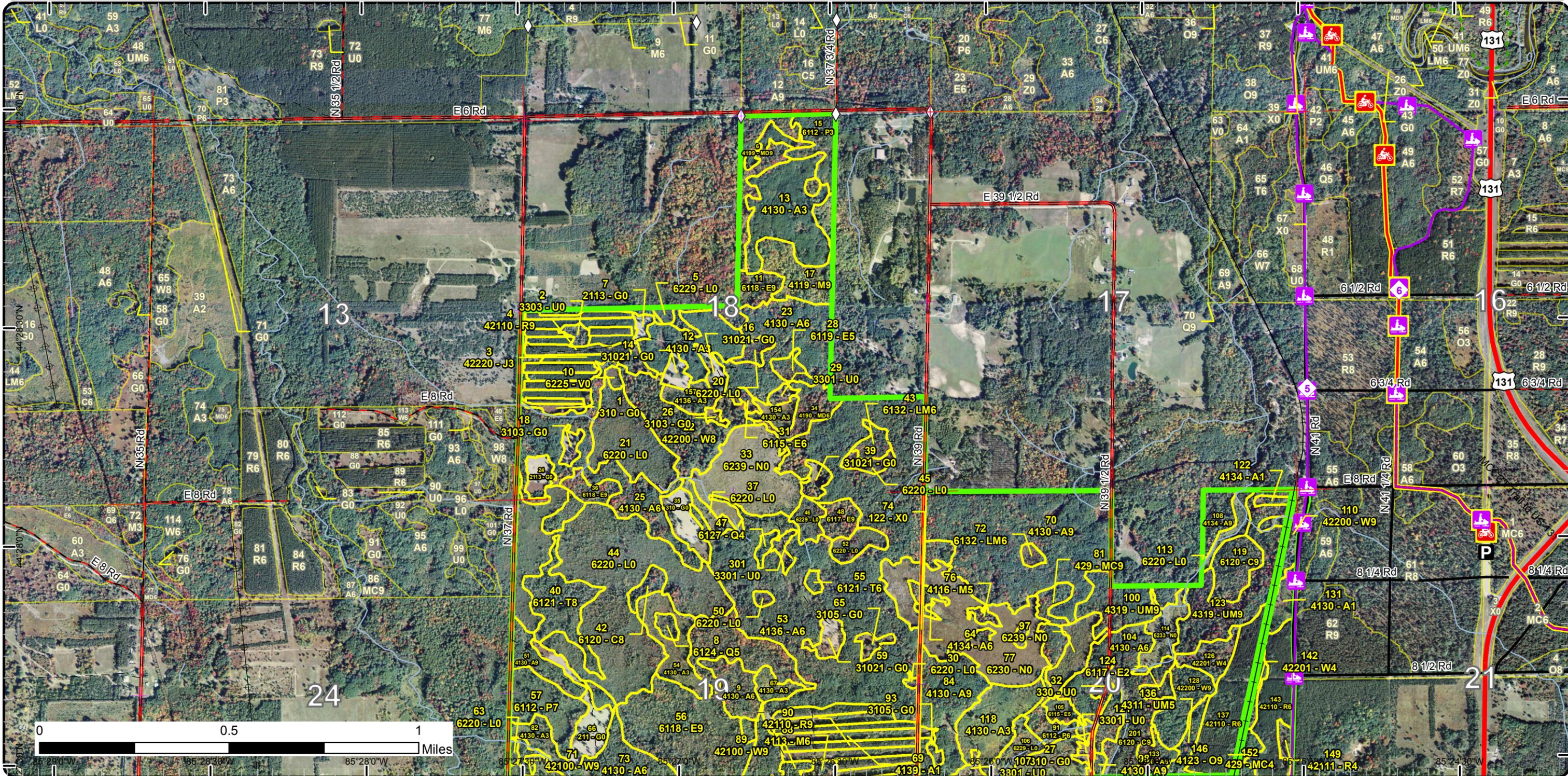


Stand Boundary Map



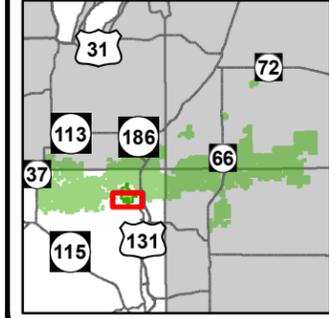
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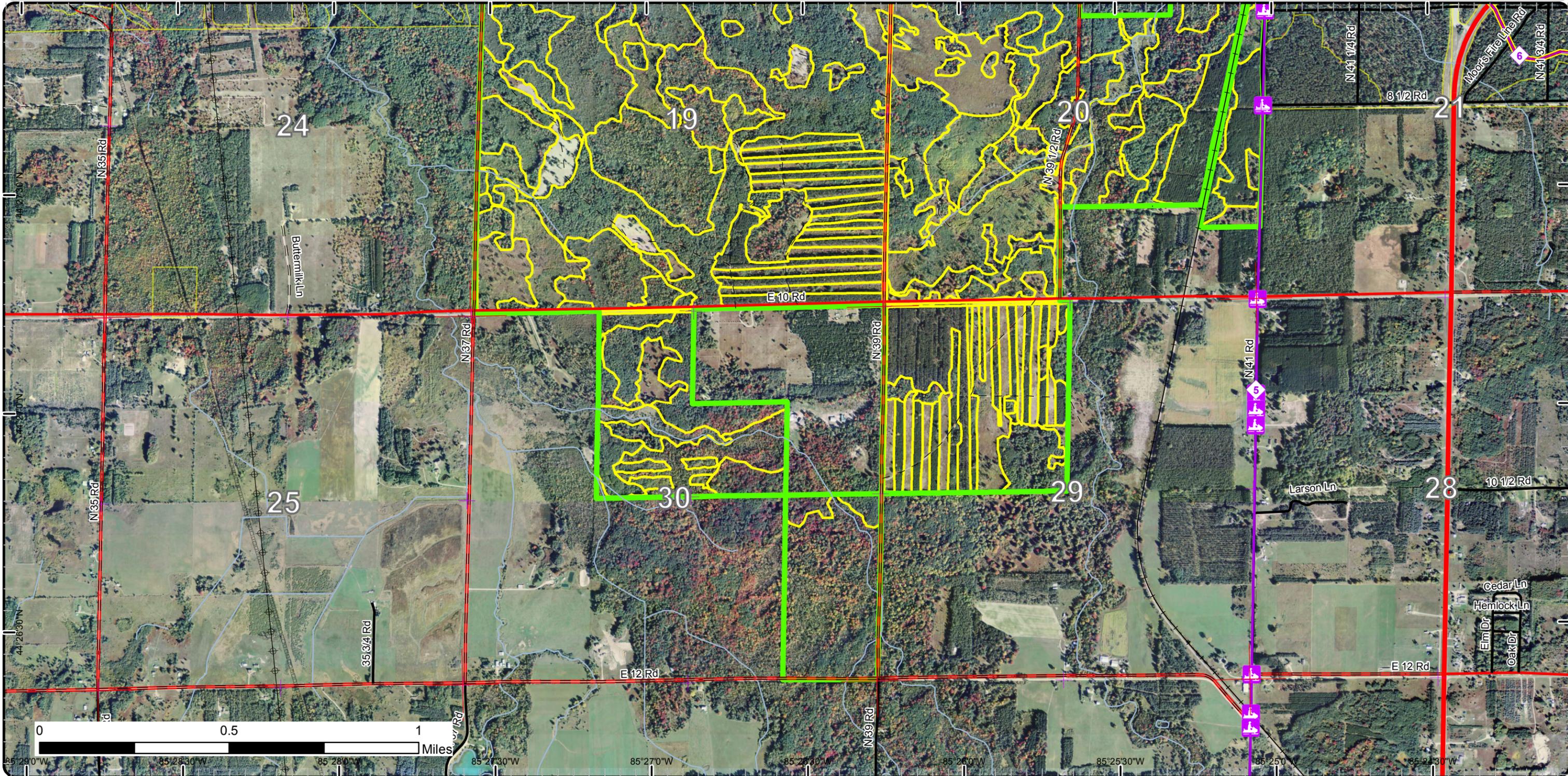


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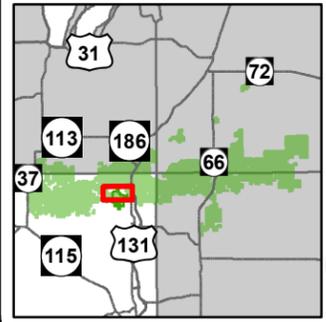


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Special Conservation Areas & Site Conditions Map

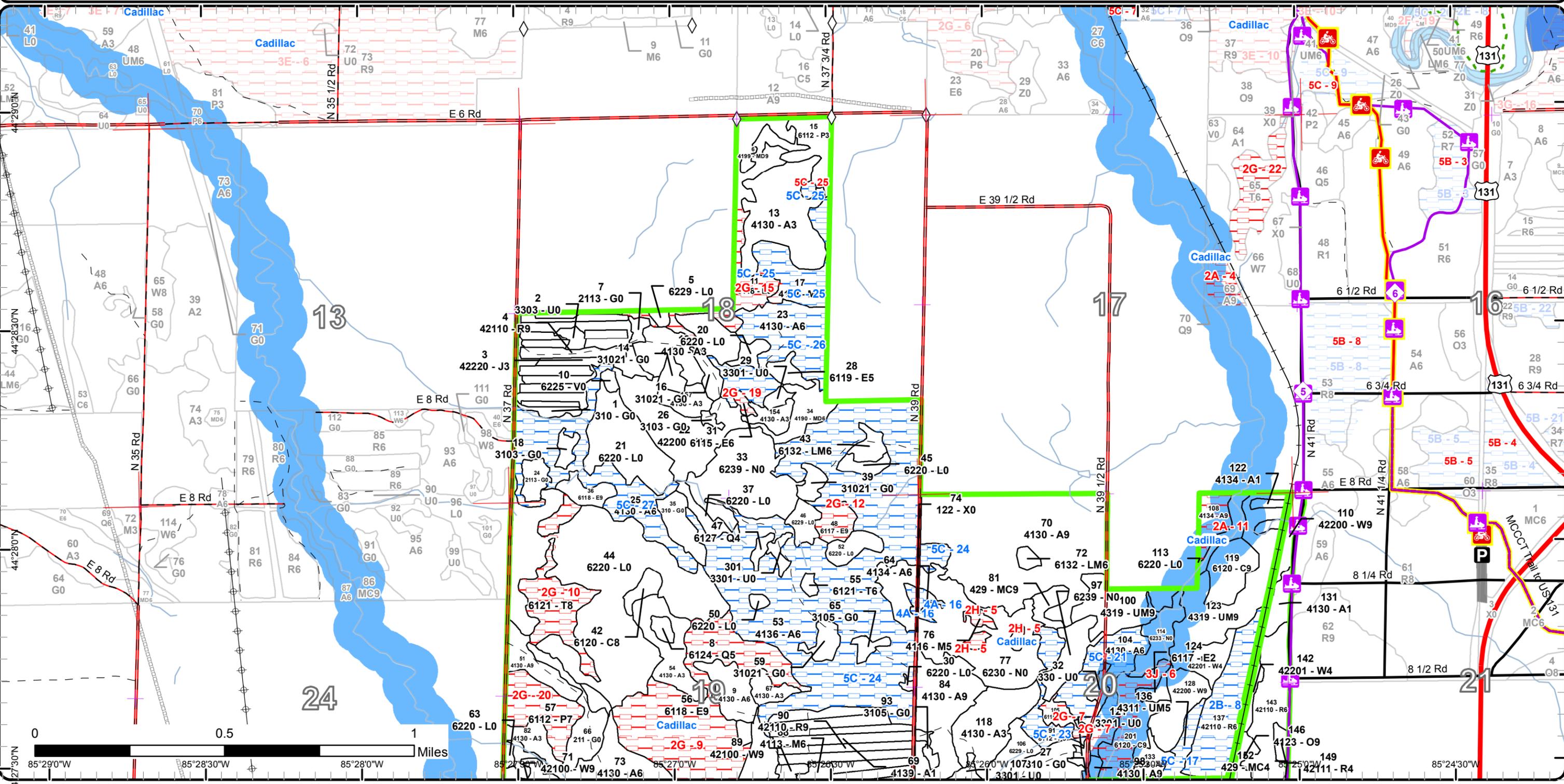
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- Stand Boundaries
- Site Condition
- Available w/ Constraints
- Unavailable

- ### Available Factors W/ Constraints
- 2B: Unknown if access through adjacent landowner(s) is possible
 - 2E: Road needed
 - 4A: No Markets Available for these Forest Products
 - 5B: Maintain for regeneration purposes
 - 5C: Delay treatment for age/size class diversity or exceptional site quality
- ### Unavailable Factors
- 2A: Adjacent landowner denied access
 - 2F: Too steep
 - 2G: Too wet (sensitive soils, does not include access issues)

- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
 - 3E: Easement / lease, non-military (e.g. Consumers Power red pine, etc)
 - 3G: Other Influence zones - See comments
 - 3J: Water quality / BMPs (stream, river, or lake)
- ### Special Conservation Areas
- █ Cold Water Streams
 - █ Cold Water Lakes
 - █ High Priority Trout Stream Buffer
 - █ Boat Access Site
 - █ Trail Head



Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit

Compartment 148 Year of Entry 2017

Joe Ventimiglia : 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	161	70	0	5	267	236	16	0	0	0	0	0	0	0	0	0	10	765
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	28	11	17	0	0	0	3	0	0	61	120
Cropland	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Herbaceous Openland	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101
Jack Pine	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Low-Density Trees	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Lowland Aspen/Balsam Poplar	0	0	17	0	0	0	10	5	16	0	0	0	0	0	0	0	0	0	48
Lowland Conifers	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	4
Lowland Deciduous	0	0	2	0	0	0	4	5	7	1	6	0	10	0	0	0	0	65	100
Lowland Mixed Forest	0	0	0	0	0	2	0	0	0	0	0	0	4	0	0	0	0	0	6
Lowland Shrub	187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187
Marsh	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93
Mixed Upland Deciduous	0	0	0	0	0	0	11	0	23	0	0	0	0	0	0	0	0	0	34
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Northern Hardwood	0	0	0	0	0	0	0	4	18	17	0	0	0	0	0	0	0	0	39
Oak	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Red Pine	0	0	0	0	0	45	52	52	0	0	0	0	0	0	0	0	0	0	149
Tamarack	0	0	0	0	0	0	0	1	0	0	0	0	21	0	0	0	0	0	22
Upland Conifers	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	8
Upland Mixed Forest	0	15	0	0	0	0	44	5	0	0	0	0	0	0	0	0	0	0	64
Urban	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
White Pine	0	0	0	0	0	0	2	7	30	26	9	0	0	0	0	0	0	7	81
Total	436	176	151	0	5	314	365	99	122	63	32	0	35	0	3	0	0	145	1946



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
4	63148004-Cut	17.6	42110 - Planted Red Pine	Sawtimber Well	59	111- 140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: No

Site Condition:

Prescription Thin stand one final time to maximize potential for larger logs and poles. Leave residual BA in 90 to 110 range. Mark for quality, leaving best
Specs: quality stems to maximize potential of stand.

Next Step
Treatments:

Acceptable
Regen:

Other Thinning one final time will also allow the old jack pine strips another 10 years to mature at which time the both red and jack strips could be final
Comment: harvested and planted back to all re Old next step comments:

Proposed Start Date: 10/1 /2016

7	63148007-NF	1.7	2113 - Forage Crops	Nonstocked			Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland	Proposal
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Habitat Cut: Yes

Site Condition:

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

14	63148014-NF	3.2	31021 - Cool Season Grass	Nonstocked			Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland	Proposal
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Habitat Cut: Yes

Site Condition:

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

16	63148016-NF	3.5	31021 - Cool Season Grass	Nonstocked			Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland	Proposal
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Habitat Cut: Yes

Site Condition:

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
18	63148018-NF	2.5	3103 - Rubus-Fern	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Proposal

Habitat Cut: Yes**Site Condition:**

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

24	63148024-NF	4.2	2113 - Forage Crops	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

26	63148026-NF	1.0	3103 - Rubus-Fern	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

35	63148035-NF	7.6	310 - Herbaceous Openland	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 8 /1 /2015



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
39	63148039-NF	4.3	31021 - Cool Season Grass	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Proposal

Habitat Cut: Yes **Site Condition: Age-Class or Site Quality**

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

51	63148051-Cut	10.2	4130 - Aspen	Sawtimber Well	51	81-110	Harvest	Clearcut	4130 - Aspen	Even-Aged	Proposal
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Habitat Cut: No **Site Condition:**

Prescription Final harvest leave all pine.
Specs:

Next Step
Treatments:

Acceptable Aspen and mixed pine. Will be mostly aspen.
Regen:

Other No aspen retention due to smaller size. Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

59	63148059-NF	4.2	31021 - Cool Season Grass	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Proposal
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Habitat Cut: Yes **Site Condition:**

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other
Specs: mast/cover species.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

66	63148066-NF	10.4	211 - Cropland	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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Treatments:

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Regen:

Other Old next step comments:
Comment:

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69	63148069- Prep	44.4	4139 - Aspen, Mixed Deciduous	Sapling Poor	5	Immatur re	SitePrep	Roller Chopping	4211 - Planted Red Pine	Even-Aged	Proposal
Habitat Cut: Yes			Site Condition:								
<u>Prescription</u> Roller chop and then trench and plant red pine. Herbicide to release if needed.											
<u>Specs:</u>											
<u>Next Step</u> SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Red Pine.											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2015											
70	63148070-Cut	78.0	4130 - Aspen	Sawtimber Well	55	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Final Harvest. Leave two green ringed islands in northeast. Islands should go around the two vernal ponds at this location.(Refer to 1998 imagery											
<u>Specs:</u> for exact location) As well leave all white pine, hemlock, cedar, and oak. Exclude stand 72 with red paint.											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen with mixed conifer component wanted and accepted.											
<u>Regen:</u>											
<u>Other</u> Recommend winter or drier condition cut. Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
79	63148079-NF	6.0	2113 - Forage Crops	Nonstocked			Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland	Proposal
Habitat Cut: Yes			Site Condition:								
<u>Prescription</u> Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other											
<u>Specs:</u> mast/cover species.											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
84	63148084-Cut	32.1	4130 - Aspen	Sawtimber Well	55	81-110	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Final Harvest, leave all oak and conifer. As well leave one retention island 3 to 10 percent of acreage. Put vernal pond in north within retention											
<u>Specs:</u> island.											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen with hardwood and conifer. Will be mostly aspen.											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
90	63148090-Cut	51.7	42110 - Planted Red Pine	Sawtimber Well	61	111- 140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Final Harvest. No retention to facilitate planting.											
<u>Specs:</u>											
<u>Next Step</u> SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Red Pine											
<u>Regen:</u>											
<u>Other</u> Stand was chosen as plan of work needed more red pine restart acres and it was thought a better time to attempt to avoid the strip plantation											
<u>Comment:</u> and create one age class. Berm road that goes through stand to "party spot". Evaluate at time of harvest best was to minimize road network. Maintain main road to east. Old next step comments:											
<u>Proposed Start Date:</u> 10/1 /2015											
117	63148117-Cut	34.7	4130 - Aspen	Sawtimber Well	52	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Final Harvest leave all pine and one retention island. To access off state a logging road would have to be built off 10 road, otherwise use private											
<u>Specs:</u> road to east if allowed.											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen, with mixed conifer and other hardwood accepted as well.											
<u>Regen:</u>											
<u>Other</u> Verbal permission off Private has been granted from landowner.(Jay Robbins 616 302 0601) Cell # Also avoid vernal pond in east end of stand											
<u>Comment:</u> with green paint. All corners are in and were flagged. Old next step comments:											
<u>Proposed Start Date:</u> 10/1 /2016											
137	63148137-Cut	24.4	42110 - Planted Red Pine	Poetimber Well	40	111- 140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
Habitat Cut: No			Site Condition: Unknown Access								
<u>Prescription</u> Second thin pine planation. Take out poor form and suppressed stems. Take into account access to middle row by equipment. Unusual stand in											
<u>Specs:</u> that stand was 4th row thinned last time so there are three rows left, making the middle row difficult to access.											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Not regeneration cut.											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
138	63148138-Cut	31.9	42110 - Planted Red Pine	Sawtimber Well	56	141- 170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Third thin stand. Again mark for quality opening up more space for best quality stems. Leave residual BA no lower then 120. Refer to red pine											
<u>Specs:</u> management guidelines if needed.											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Not regeneration harvest											
<u>Regen:</u>											
<u>Other</u> Allow red pine to south to as least get going before last remaining mature red pine are final harvested in the portion of the compartment. Old											
<u>Comment:</u> next step comments:											
<u>Proposed Start Date:</u> 10/1 /2016											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
143	63148143-Cut	20.5	42110 - Planted Red Pine	Poletimber Well	45	141- 170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: No

Site Condition:

Prescription Third row thin stand. Good access and places for landing.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

**Total Treatment
Acreage Proposed: 394.4**

Report 5 – Site Conditions

Cadillac Mgt. Unit

Joe Ventimiglia : Examiner

Compartment: 148

Year of Entry: 2017

Availability for Management

Total Acres	Acres		Dominant Site Conditions	Dominant Site Conditions						
	Available	Not Available		2A	2B	2G	2H	3J	4A	5C
765	481	284	Aspen	7			10		3	265
1	1	0	Bog							
120	18	101	Cedar			61		41		
22	22	0	Cropland							
101	101	0	Herbaceous Openland							
62	62	0	Jack Pine							
14	14	0	Low-Density Trees							
48	17	31	Lowland Aspen/Balsam Poplar			21				10
4	4	0	Lowland Conifers							
99	11	89	Lowland Deciduous			89				
6	6	0	Lowland Mixed Forest							
187	187	0	Lowland Shrub			0				
93	93	0	Marsh							
35	31	4	Mixed Upland Deciduous			4				
4	4	0	Natural Mixed Pines							
39	13	26	Northern Hardwood			1	9			16
4	4	0	Oak							
148	124	24	Red Pine		24					
22	1	21	Tamarack			21				
8	8	0	Upland Conifers							
65	59	5	Upland Mixed Forest							5
18	18	0	Urban							
81	81	0	White Pine							
1,946	1,361	585	Total Forested Acres	7	24	196	18	41	3	296
	70%	30%	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	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Cadillac Mgt. Unit

Compartment: 148

Joe Ventimiglia : Examiner

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Not worth all the work with temp bridge to access. Access from private would require temp bridge on private as well as permission. Not worth pursuing in my judgment, if stand was much larger may be worth the effort to cross streams to get I there.							
2	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Similar to stand to north and west, major effort with temp bridge and crossing major stream will be needed. In my judgment not worth going to that length for less then 5 acres.							
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	28	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified	Unspecified
Comments: Steams run through stand, as well as not being able to regenerate cedar with deer numbers. Not to mention need for temp bridge.							
4	Unavailable	2A: Adjacent landowner denied access	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stage 1 data adequate. Likely a final harvest will be proposed. Access is questionable due to Railroad access and Pvt. land.							
5	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	13	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments: Cedar stand buffering Manton Creek. Too wet as well.							

Report 5 – Site Conditions

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Joe Ventimiglia : Examiner

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7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Standing water, plus no market. Mostly dead ash.							
8	Available	2B: Unknown if access through adjacent landowner(s) is possible	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Logger will need to secure access with landowner.							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	65	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	2A: Adjacent landowner denied access	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

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13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	61	3J: Water quality / BMPs (stream, river, or lake)	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified
Comments: Not suitable for commercial management between regeneration concerns with cedar, streams and general wet nature.							
14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Available	4A: No Markets Available for these Forest Products	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small marginal aspen, may allow stand to slowly convert or cut next YOE.							

Report 5 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia : Examiner

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Year of Entry: 2017

19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hold till next YOE will be log stand at that time.							
22	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Portions may be too wet as well. Evaluate next YOE.							
24	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	168	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Leave large aspen complex and split in two sections next YOE. Break up age class over next 20 years.							

Report 5 – Site Conditions

Cadillac Mgt. Unit

Joe Ventimiglia : Examiner

Compartment: 148

Year of Entry: 2017

25	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand can go another 10 years before it is thinned again.							
26	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	31	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Another 10 years and will be prime.							
27	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	36	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	42220 - Natural Jack Pine	Sapling Well	18.7	19	Immature	Old jack pine strips final harvested in 1996. Attempted to be planted to red pine, but was taken over by jack pine natural regen. Planted (RP), but JP is dominant. Plantation= No
4	42110 - Planted Red Pine	Sawtimber Well	17.6	59	111-140	Stand was third row thinned in 1996 and marked second thinning in 2010. Good quality red pine, with easy access off county road.
6	4199 - Other Mixed Upland Deciduous	Sawtimber Well	14.7	72	81-110	Lots of LWD & snags. Very sp. rich stand. Possible home in trespass on north west line, may need to refer to survey.
8	6124 - Lowland Spruce- Fir	Poletimber Medium	2.0	55	1-50	Small pocket avoided during timber sale. Lowland conifer bog with spruce, fir, tamarack around the edge with leather leaf bog and tag in the middle.
9	4130 - Aspen	Poletimber Well	9.8	45	51-80	Less then 10 acre pocket of aspen mixed with some hardwood and cedar in pockets. Very hummocky ground with some lowland character although not a lowland stand overall.
11	6118 - Lowland Deciduous with Cedar	Sawtimber Well	9.9	110	Unspecified	Skinny stand which pushes up against private on all sides.
12	4130 - Aspen	Sapling Well	18.8	18	Immature	Stand was final harvested in 1997, oak and conifer were left. Some low edges came back to grass, but overall well stocked regeneration. Mostly upland with a few wet pockets.
13	4130 - Aspen	Sapling Well	32.6	18	Immature	
15	6112 - Lowland Aspen	Sapling Well	9.4	17	Immature	Wet with some upland portions, appears to have been largely cedar before and has come back thick the mostly aspen. Lots of windthrown cedar and slash
17	4119 - Mixed Northern Hardwoods	Sawtimber Well	17.2	82	111-140	Hardwood concentrated on east edge of stand, northeast portions of stand were thinned in 1997. Multiple distinct ages present Vernal Pond and Spring/seep, see imagery
19	42290 - Natural Mixed Pine	Sawtimber Medium	3.9	85	1-50	Small natural red and white pine stand. Semi open stand with open grown natural pine.
22	42200 - Natural White Pine	Sawtimber Medium	25.6	85	51-80	Pine was thinned in 2008, with all balsam fir and aspen cut as well. Where pine was opened up there is a good flush of aspen and white pine regeneration. In other spots where over story pine is thicker there is limited understory. Some potential future legacy pine in scattered in stand.
23	4130 - Aspen	Poletimber Well	30.5	51	Unspecified	Aspen stand, some lowland character on the edges to the on the west side of stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4130 - Aspen	Poletimber Well	36.1	51	51-80	Aspen dominated stand, with pine concentrated to the west border. Rough two track access through most of stand, with a few mud holes and wet areas as road goes to east.
28	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	3.6	50	Unspecified	
31	6115 - Lowland Ash	Poletimber Well	1.3	85	Unspecified	
34	4190 - Mixed Upland Deciduous with Cedar	Poletimber Well	8.7	77	51-80	High susceptibility to windthrow if residual (cedar) left following a final harvest
36	6118 - Lowland Deciduous with Cedar	Sawtimber Well	5.0	65	51-80	Smaller stand of maple, cedar and aspen. Mostly lowland with cedar overtopped with aspen and red maple.
40	6121 - Tamarack	Sawtimber Medium	20.9	116	1-50	Isolated band of tamarack, surrounded by lowland tag alder.
42	6120 - Lowland Cedar	Sawtimber Medium	3.5	135	51-80	Small wet stand. Old paint from possible wildlife cut plans that never got completed?
43	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	3.8	111	Unspecified	
47	6127 - Lowland Pine	Poletimber Poor	1.7	50	1-50	Lowland gradually filling in to a forested area.
48	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	5.7	95	51-80	Hummocky but mostly lowland.
51	4130 - Aspen	Sawtimber Well	10.2	51	81-110	Log natural white pine and a few red pine along road edge, otherwise a upland aspen stand.
53	4136 - Aspen, Mixed Conifer	Poletimber Well	168.3	48	51-80	Very large aspen stand with considerable variability in quality and size. Some pockets near the road are better quality and size with quality and size much less to the west. Approximately 10-20% of stand is lowland, but non-contiguous and unmappable. Scattered lowlands and vernal ponds throughout (see DOQ for dark shaded areas). Quaking aspen is much poorer quality in low areas, lots of hypoxylon. Bigtooth exists on some higher ground, mostly in the north part of the stand.
54	4130 - Aspen	Sapling Well	13.6	7	Immature	Stand was final harvested in 2008, all oak, cherry and white pine were left where present. Came back well to mostly aspen.
55	6121 - Tamarack	Poletimber Well	1.2	60	51-80	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	6118 - Lowland Deciduous with Cedar	Sawtimber Well	64.9	114	51-80	Large lowland complex of cedar mixed with pockets of wet aspen and maple. Variable stand with some pockets of just cedar with others that are just flooded out aspen. Blow down is heavy in pockets, with some pockets of just flooded timber and tag alder.
57	6112 - Lowland Aspen	Sawtimber Poor	16.0	70	1-50	Very wet aspen stand with has full alder coverage in the understory. Aspen is gradually falling out of stand, standing water in many spots.
64	4134 - Aspen, Spruce/Fir	Poletimber Well	2.6	55	51-80	Island in middle of non-forested wetland with 39 rd passing through middle. Semi upland mix of aspen and spruce/fir.
67	4130 - Aspen	Sapling Well	5.7	13	Immature	Stand was final harvested in 2002. Lowland hardwood was management objective. Mixed regeneration from timber sale and habitat cut. Small northern portion of northern piece was not able to be done commercially so was completed in 2004 with Baldwin Wildlife crew. (Trees dropped and left) Regenerated to mostly aspen with some mixed hardwood and balsam fir. Wet in spots.
69	4139 - Aspen, Mixed Deciduous	Sapling Poor	44.4	5	Immature	Final harvested jack pine strips in 2010. Regen to a mix of pine, aspen and maple. Stand has not been planted as a result of the failure to have planted red pine seedlings compete in old cut jack pine strips. Some small jack pine seedlings under the aspen and hardwood in spots.
70	4130 - Aspen	Sawtimber Well	78.0	55	51-80	Mostly upland aspen with pockets of more lowland on the edges, includes vernal ponds as well. Some variability in diameter but overall a log stand. Slight rolling terrain with some hummocky ground.
71	42100 - Planted White Pine	Sawtimber Well	5.0	64	51-80	Pine was thinned in 2008 with all aspen and maple cut as well. Over story white pine appears more of a natural stand, rows no longer defined. Aspen and maple coverage in the understory.
72	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	1.7	43	1-50	Wet pocket in the middle of mostly upland aspen.
73	4130 - Aspen	Poletimber Well	57.2	45	51-80	Old pine stumps throughout. Lots of hypoxylon on poor quality aspen. Rough looking aspen, not the best site for aspen. Trace of cedar & log aspen in transitions on wet edges.
76	4116 - Mixed N. Hardwood - Aspen	Poletimber Medium	4.1	60	51-80	Small upland island in the middle of cattail marsh.
81	429 - Mixed Upland Conifers	Sawtimber Well	4.0	89	51-80	two-aged. wp supercanopy, cedar, and hemlock all same age. Burned stumps present. Aspen benches cut around 1960.
82	4130 - Aspen	Sapling Well	26.6	7	Immature	Stand was final harvested in 2008, all white pine, oak and cherry were left as retention. Areas of lowland mixed in along east line. Most of the mature white pine is scattered along 10 rd.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
84	4130 - Aspen	Sawtimber Well	32.1	55	81-110	Decent quality aspen stand, with some red maple mixed in. One small vernal pond in north end of stand.
88	4113 - R.Maple, Conifer	Poletimber Well	13.4	77	1-50	Stand was thinned in 2010, all cherry and white pine were left. Thick aspen and maple regeneration following thinning.
89	42100 - Planted White Pine	Sawtimber Well	2.3	66	81-110	Stand was row thinned in 1996 and marked thinned in 2010.
90	42110 - Planted Red Pine	Sawtimber Well	51.7	61	111-140	Stand was first thinned in 1996 and marked second thinning in 2010. Good quality stand.
91	6112 - Lowland Aspen	Poletimber Well	10.0	55	51-80	
95	6112 - Lowland Aspen	Sapling Well	1.4	15	Immature	Habitat cut in winter 2000 - 2001. Came back to mix of alder and lowland aspen. A few white pine mixed in.
96	6112 - Lowland Aspen	Poletimber Poor	4.6	62	1-50	Scattered flooded out aspen, with full alder stand under story. Very wet stand.
98	4130 - Aspen	Sawtimber Well	1.1	55	51-80	Small stand. Too small for commercial timber sale.
99	4130 - Aspen	Sapling Well	1.1	19	Immature	Small habitat cut, which has come back well to aspen. Mostly upland but gets wet to the west.
100	4319 - Mixed Upland Forest	Sawtimber Well	15.9	52	81-110	Complex of aspen mixed with more lowland swales of hemlock, cedar and lowland conifer. Rough even mix of aspen and conifer component. Too mixed to distinguish with different stands. Road and telephone line transect stand. Couple legacy pine scattered in stand.
104	4130 - Aspen	Poletimber Well	18.8	48	51-80	Mostly decent quality pole aspen with thick white pine and fir understory. Southeast corner transitions to more of a white pine and red maple mix. Scattered legacy pine in stand.
105	6115 - Lowland Ash	Poletimber Medium	6.9	70	1-50	Flooded back ash, standing water at times. Most of ash is dead, either from wet conditions or EAB. Seasonal drainage runs through stand.
108	4134 - Aspen, Spruce/Fir	Sawtimber Well	6.8	60	51-80	
110	42200 - Natural White Pine	Sawtimber Well	5.2	94	51-80	Stand was treated in 2008, all white pine was left. Created two aged stand. Some scattered "legacy white pine"
115	42200 - Natural White Pine	Sawtimber Well	4.4	91	81-110	Nice log white pine stand with a few aspen and maple mixed in. A few legacy white pine mixed in stand. Bear sign in stand. Hummocky ground.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
117	4130 - Aspen	Sawtimber Well	34.7	52	81-110	Good quality aspen which is beginning to show signs of age. Log stand overall with sections which are more pole size. Vernal ponds in east end of stand.
118	4130 - Aspen	Sapling Well	61.2	5	Immature	Stand was final harvested in 2010 with all oak left as retention. Came back well to aspen.
119	6120 - Lowland Cedar	Sawtimber Well	10.6	82	81-110	Borders Manton Creek on west side.
122	4134 - Aspen, Spruce/Fir	Sapling Poor	2.6	17	Immature	Habitat cuts performed in 1999. All Hemlock was left.
123	4319 - Mixed Upland Forest	Sawtimber Well	27.8	55	51-80	Diverse complex of aspen, cedar, fir, hemlock and red maple. Wet in pockets with defendant lowland character.
124	6117 - Lowland Deciduous, Mixed Coniferous	Sapling Medium	2.3	19	Immature	Habitat cut. Came back to a mix, lowland character.
126	42201 - Natural White Pine, Mixed Deciduous	Poletimber Poor	7.0	45	1-50	opening near lowland area that is closing in. Typical old field succession to wp with various recruitment cohorts. Mostly sweet fern and bracken ground cover, but some blueberry present. Old opening filling in with mostly white pine.
128	42200 - Natural White Pine	Sawtimber Well	11.6	75	51-80	Pine was thinned in 2008 with all aspen and red maple cut as well. Access is from private or RR easement. Scattered super canopy legacy white pine.
129	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	11.4	56	1-50	Variable open stand of red maple, oak, cherry and aspen. Some spots are open while others are more forested. Creates a good edge type from the recent clear-cut to the north.
131	4130 - Aspen	Sapling Poor	5.2	7	Immature	Stand was final harvested in 2008. All oak was left. Aspen regenerated well. Railroad track to west.
132	4130 - Aspen	Poletimber Well	10.9	55	1-50	Very rough looking aspen, which get a little better in northeast corner otherwise offsite quaking aspen with cankers.
133	4136 - Aspen, Mixed Conifer	Poletimber Well	5.5	46	51-80	Small 5 acre stand of aspen, mixed with maple, fir and white pine.
135	4130 - Aspen	Sapling Well	8.7	18	Immature	Stand was final harvested in 1997. Access was through private to the south. Came back well to aspen dominated mix. Will be small pole stand next YOE.
136	4311 - Pine, Aspen Mix	Poletimber Medium	5.4	65	1-50	Open mixed stand. Transition from plantation to the natural stands to the east.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
137	42110 - Planted Red Pine	Poletimber Well	24.4	40	111-140	Stand thinned by Lutke Forest Products in 2009. light thinning... every fourth row. Access through private. (Magnum Kennels) Scattered log red pine and white pine super canopy trees.
138	42110 - Planted Red Pine	Sawtimber Well	31.9	56	141-170	Stand third row thinned in 1996 and marked second thinning in 2010. Good quality stand.
140	6120 - Lowland Cedar	Poletimber Medium	27.6	79	Unspecified	Lowland cedar with some lowland hardwood mixed in. Streams run through most of stand. Good buffer for streams. Represents what stand 340 likely looked like before they were habitat cut.
141	4130 - Aspen	Poletimber Well	3.8	45	51-80	Small 3.5 acre piece of rough looking aspen, with some pine mixed in.
142	42201 - Natural White Pine, Mixed Deciduous	Poletimber Poor	2.3	55	1-50	bushy white pine and sparse cherry. Sweet fern abundant. Trash dumping site.
143	42110 - Planted Red Pine	Poletimber Well	20.5	45	141-170	Decent quality red pine plantation. Stand has never been thinned, ready for first thinning. Fairly clear rows, should not be very difficult to follow for producer.
144	4139 - Aspen, Mixed Deciduous	Sawtimber Well	9.6	65	51-80	Small ridge of aspen and red maple, nice quality stand. Surrounded by private and swamp to north.
145	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Poor	43.4	19	Immature	Old Jack pine strips which were final harvested in 1996. Attempt was made to plant to red pine, but jack pine beat out the red and is has fallen out. Some pockets where red pine still hanging in a little but overall failure.
146	4123 - Red Oak	Sawtimber Well	4.1	62	51-80	northern part of the stand has a component of larger oak that is older. Subcanopy oak are on the south side beneath aspen mixed with pine. Various ages of oak and pine. Small stand along the RR tracks. White pine concentrated on south side.
148	4133 - Aspen, Mixed Pine	Poletimber Well	5.4	37	51-80	Sliver of aspen, hardwood and white pine along private. Stand slopes down on east end with scattered log size aspen and hardwood. Off the bluff. Mostly a immature pole stand with scattered log white pine.
149	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Poor	2.2	55	1-50	Failed area of the red pine, scattered open grown stubby red pine. Potential good area for future landing if needed.
152	429 - Mixed Upland Conifers	Poletimber Poor	4.1	55	1-50	Small open grown stand of planted tamarack, and scattered natural white pine. Close to being non forested stand, may be a good spot for future landing of pine to north.
153	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	4.7	78	51-80	Small isolated upland ridge of aspen, maple and some fir-pine.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
154	4130 - Aspen	Sapling Well	4.3	7	Immature	Stand was final harvested in 2008. Came back well to aspen. A few areas are more open and flooded out but overall came back to aspen.
156	4136 - Aspen, Mixed Conifer	Poletimber Well	4.0	47	81-110	Small ridge of aspen along with some conifer. Pole size stand approaching log, aspen in good shape. Small cedar and hemlock pocket in stand.
157	4136 - Aspen, Mixed Conifer	Sapling Well	5.5	7	Immature	Stand was final harvested in 2008 with all white pine left. Scattered pole white pine with a solid flush of aspen filling in. Will be a aspen stand with scattered log white pine in the future.
159	42200 - Natural White Pine	Sawtimber Well	17.8	75	51-80	Stand was marked thinning in 2010, all aspen and maple was cut as well. Sale covered most of current stand, although there are two pole aspen clones that were not picked up in sale. Too small to be mapped on there own. Aspen clones will be included when stand in treated in future YOY. Variable stand with thick aspen regeneration in pockets and others with little as a result of heavier pine over story.
161	6120 - Lowland Cedar	Poletimber Well	60.8	82	51-80	Large cedar dominated lowland swamp, with a creek running through portions of the stand. Some flooded pockets with almost all dead ash and others of solid cedar with no understory. Variable stand which likely provides good wildlife thermal cover.
162	4136 - Aspen, Mixed Conifer	Poletimber Well	8.9	46	51-80	Small ridge of mostly aspen with scattered log white pine. Upland stand for the most part but surrounded by swamp and creek borders stand. Aspen approaching log overall.
185	4319 - Mixed Upland Forest	Sapling Poor	15.4	4	Immature	Stand was final harvested in 2008 and then planted to red pine and white pine. Scattered over story left from harvest. Stand was trenched in 2010 and then planted in 2011 with 2-0 seedlings. Red pine about 1ft tall with cherry and jack pine filling in naturally. Will be a mix of planted pine, cherry, and jack pine.
201	6120 - Lowland Cedar	Sawtimber Well	17.1	91	51-80	Manton Creek corridor. Nice lowland conifer complex. Mostly cedar but some pockets are heavier to hemlock.
340	6112 - Lowland Aspen	Sapling Well	6.4	12	Immature	Habitat cut in winter of 2003. Came back thick to aspen, maple and some paper birch. Was mostly cedar before habitat cut.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	310 - Herbaceous Openland	5.4	No	Unmanaged opening filling in with natural pine along the edges.
2	3303 - Mixed Low Density Trees	2.0	Yes	Small opening in the middle of pine plantation. Some apple trees.
5	6229 - Mixed lowland shrub	1.2	No	
7	2113 - Forage Crops	1.7	Yes	Managed opening recently planted to rye in 2014. Scattered trees.
10	6225 - Bog	1.3	No	
14	31021 - Cool Season Grass	3.2	Yes	Managed wildlife opening.
16	31021 - Cool Season Grass	3.5	Yes	Managed wildlife opening.
18	3103 - Rubus-Fern	2.5	No	Good young aspen coming in around the edges - nice transition area for wildlife.
20	6220 - Alder/willow	2.9	No	Lowland shrub, with scattered lowland trees attempting to get started along the edges. Too wet to support forested stand.
21	6220 - Alder/willow	23.0	No	Alder lowland with a few trees scattered along northern edge.
24	2113 - Forage Crops	4.2	Yes	Gated opening which was tilled and planted to rye in fall 2014 by wildlife division. Opening had not been planted prior. Also used as a tire dump site by the Manton Field Office. Appears to be old well site?
26	3103 - Rubus-Fern	1.0	No	Small opening.
27	310 - Herbaceous Openland	8.8	No	Grass opening along the right of way of the road. Few scattered maple and cherry.
29	3301 - Low Density Deciduous Tree	1.8	No	
30	6220 - Alder/willow	0.6	No	
32	330 - Low-Density Trees	2.5	No	Semi open area filled in with white pine, aspen and maple. Power line and road run through stand.
33	6239 - Mixed Emergent Wetland	31.0	No	Water standing in western 1/4. The rest is emergent wetland. Lots of old snags.



Stand	Cover Type	Acres	Managed Site	General Comments:
35	310 - Herbaceous Openland	7.6	Yes	Managed opening, although some of the edges appear to have been missed by plow.
37	6220 - Alder/willow	4.0	No	North finger is an upland portion.
39	31021 - Cool Season Grass	3.2	Yes	Managed wildlife opening.
44	6220 - Alder/willow	93.0	No	Large lowland alder stand, with scattered tamarack, cedar, aspen and fir.... All too scattered to constitute a forested stand.
45	6220 - Alder/willow	3.2	No	
46	6229 - Mixed lowland shrub	4.6	No	
50	6220 - Alder/willow	1.1	No	
52	6220 - Alder/willow	5.3	No	
59	31021 - Cool Season Grass	4.2	Yes	Managed wildlife opening. (Rye)
63	6220 - Alder/willow	0.9	No	Alder with a few scattered flooded out aspen.
65	3105 - Mixed Upland Herbaceous	2.2	No	Small opening, not actively managed by wildlife.
66	211 - Cropland	10.4	Yes	Recently plowed rye field. Road access and scattered trees.
74	122 - Road/Parking Lot	17.6	No	
77	6230 - Cattail	44.1	No	
79	2113 - Forage Crops	6.0	Yes	Managed wildlife opening.
83	6229 - Mixed lowland shrub	22.9	No	Flooded out alder stand for the most part, some flooded out maple, ash, cedar and tamarack in center of stand. Will not make it as forested stand, make it to small poles and stagnant.
93	3105 - Mixed Upland Herbaceous	1.8	No	Unmanaged opening. Some evidence of dumping.



Stand	Cover Type	Acres	Managed Site	General Comments:
97	6239 - Mixed Emergent Wetland	9.3	No	
106	6229 - Mixed lowland shrub	6.9	No	Stand was final harvested in 2000 or 2002? was a commercial cedar sale. Wildlife cedar final harvest, which largely flooded out to cattails. Some balsam fir and lowland hardwood scattered regeneration. Overall wet cattails now. Perimeter was left for some reason, mix of log aspen, maple, fir and white pine.
107	3301 - Low Density Deciduous Tree	3.6	No	Small opening with scattered aspen, maple and white pine.
113	6220 - Alder/willow	4.8	No	
114	6233 - Wet Meadow	8.9	No	Beaver meadow
116	310 - Herbaceous Openland	8.2	No	Old wildlife opening which had not been maintained in some years. Filling in with some white and red pine. Autumn Olive planted around the edges.
121	3301 - Low Density Deciduous Tree	1.6	No	
130	6229 - Mixed lowland shrub	8.6	No	Lowland shrub and marsh surrounding creek.
151	3102 - Grass	47.5		Red pine which was final harvested in 2010. Trenched in 2011 and planted to red pine in 2012 and replanted again in 2014. . Bare root seedlings. Only around a foot tall or less in fall 2014. Seedling appear they will make it this time.
158	3105 - Mixed Upland Herbaceous	1.9	No	Natural opening on the edge of private.
217	6220 - Alder/willow	4.6	No	Habitat cut in 2000-2001. Was cedar, which following cut flooded out and is now mostly alder and willow. Some remnant cedar on the southern perimeter still stand.
301	3301 - Low Density Deciduous Tree	2.1	No	Good blueberries