



Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63045

Entry Year 2020

Acreage: 1,249

County Osceola

Management Area: Upper Muskegon

Revision Date: 2018-07-03

Stand Examiner: Cheryl Nelson

Legal Description:

T20N R07W Sections 2, 3, 14, 19, and 21

Identified Planning Goals:

Vegetation management in the Upper Muskegon management area will provide forest products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year period will focus on harvesting older jack pine and balancing age class distributions of oak, aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation. Expected trends within this 10-year planning period are the need to manage exotic species (especially Phragmites and glossy buckthorn), the need to continue to manage cover types for a balanced age-class distribution and an expected increase in recreation pressure.

Soil and topography:

Nester-Kawkawlin-Sims Association. Well-drained to very poorly drained loamy soils on level to undulating slopes.

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

The parcels are scattered and surrounded by farmland, recreational land, and the village of Marion. Residences are scattered.

Unique Natural Features:

The Michigan Natural Features Inventory lists the Short-eared owl, Dickcissel, and Slippershell Mussel as having occurred in this compartment. This compartment has the potential for the Short-eared Owl, Northern Harrier, Henslow's Sparrow, Grasshopper Sparrow, Dickcissel, Blanding's Turtle, and Great Blue Heron rookeries.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

Grass lies along the east side of M-66. Any burning that is done for grass maintenance will have to follow a smoke plan to prevent problems on the road. The integrity of the river and the access sites will be maintained.

Watershed and Fisheries Considerations:

Much of this compartment is located adjacent the Middle Branch River or the Clam River. Both of these streams are high quality coldwater streams. For all clear cuts adjacent these streams I recommend the minimum buffer strip of 100 ft, increasing in size with land slope as indicated in Table 1 (page 9) of the Michigan Department of Natural Resources, Water Quality Management Practices on Forest Land. In addition, all buffers should contain a 35 ft buffer that is untouched with no harvest or mechanical disturbance as indicated by Fisheries and Wildlife Guidelines.

Wildlife Habitat Considerations:

While this compartment is part of the Upper Muskegon Management Area, it is unique as it is made up largely of grass and shrub types and is managed very differently from the rest of the state forest. The species of interest in this compartment are American woodcock, Canada goose, mallard, ruffed grouse, white-tailed deer, wild turkey, and a host of grassland bird species including Henslow's sparrow. The Osceola-Missaukee Grasslands State Game Area management plan, published in 2017, provides an in-depth look at the area and management direction.

Mineral Resource and Development Concerns and/or Restrictions

Sand/gravel pits are not located in this area, and sand & gravel potential within the compartment is minimal. Surface sediments are predominantly clay. The compartment is located a short distance from the Winterfield and Riverside underground gas storage fields. An active oil & gas lease is in Section 2 and is part of an active drilling unit for a Prairie du Chien (St. Peter) gas well just northeast of the compartment. There may be additional potential from this formation beneath the compartment. There is no known metallic mineral potential in this part of the state. The state does not own all of the

mineral rights within Sec 14. Private mineral rights owners must be provided reasonable access to the land should they choose to explore and/or develop the minerals.

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.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

Access provided to Middle Branch River

Fire Protection:

These areas of state land are within in mostly private lands. Most of the fuels, which are grasses would hamper fire spread during most of the year. Recreational use is heavy, which could lead to more human caused fire startts. Access to these sites are fairly good except early in the spring due to wet ground.

Additional Compartment Information:

None at this time.

The following reports from the Inventory are attached:

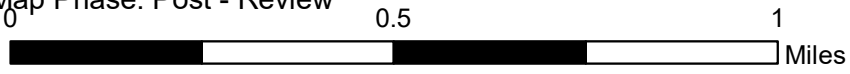
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

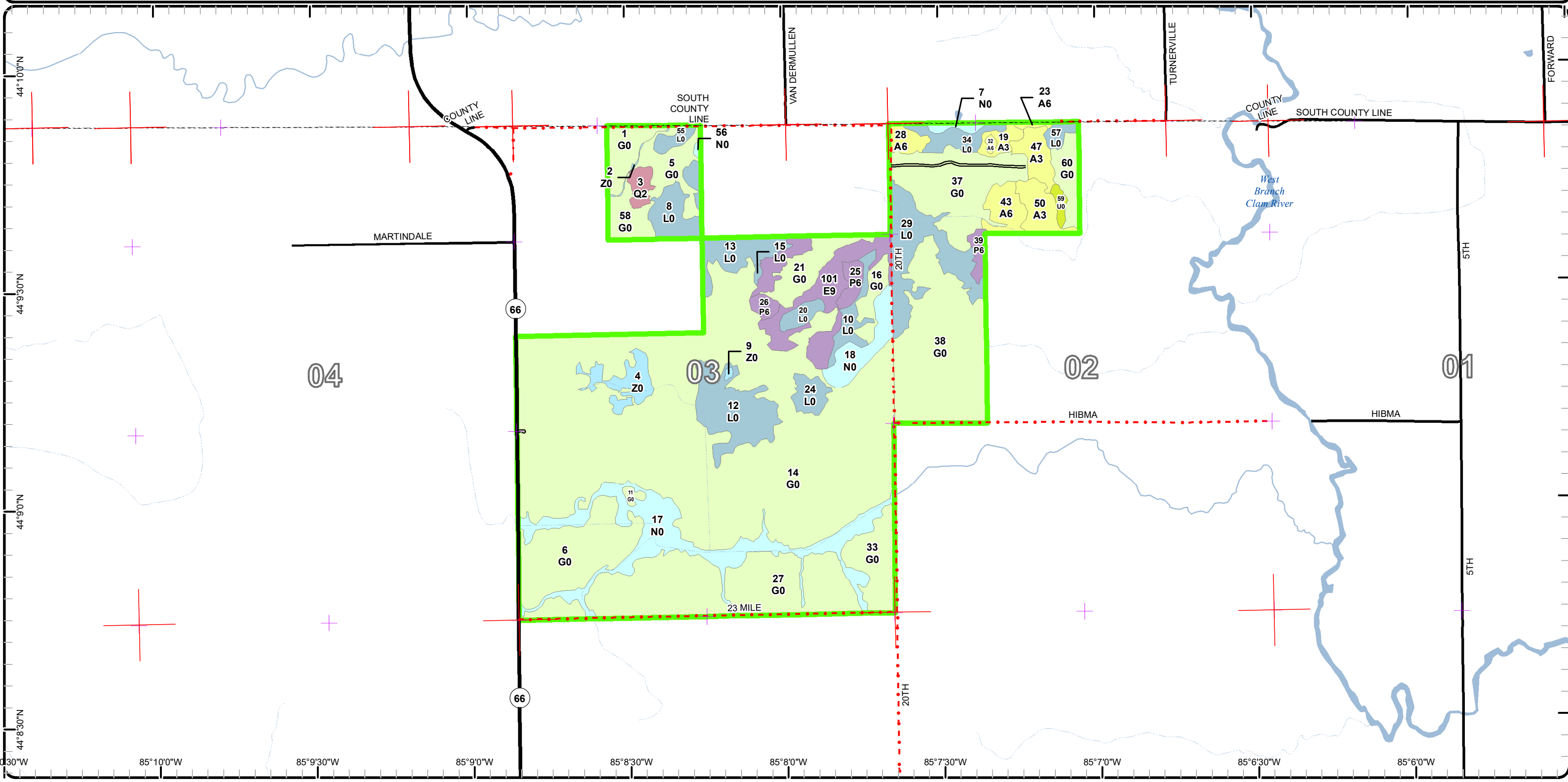
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 45
 T20N - R07W Sec.
 02,03,14,19,21
 County: Osceola
 Unit: Cadillac
 Mgmt Area: Upper Muskegon
 YOE: 2020
 Acres: 1,249 GIS Calculated
 Examiner: Cheryl Nelson
 Map Revised: 10/23/2018
 Map Phase: Post - Review

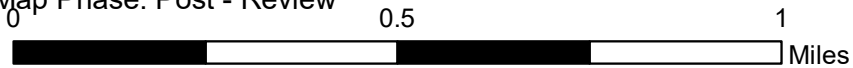
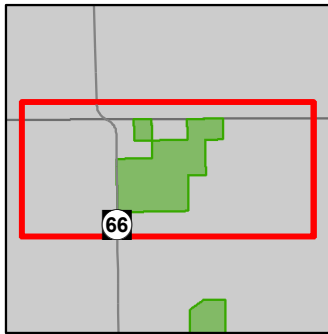


- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- Federal / State Highway
- Federal / State / County - Paved Road
- County - Gravel Road
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- 413 - Aspen
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes

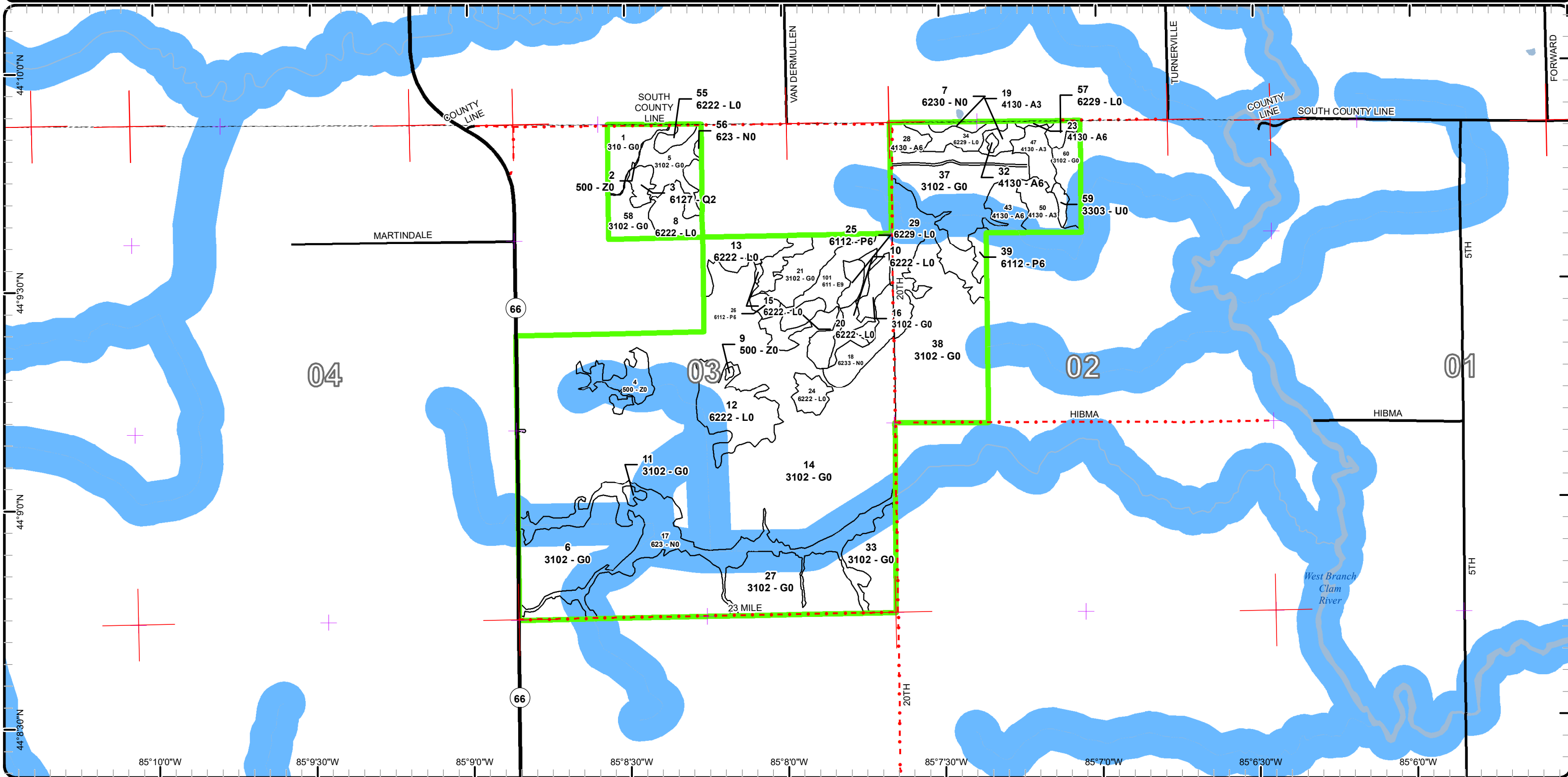


Special Conservation Areas & Site Conditions Map

Compartment: 45
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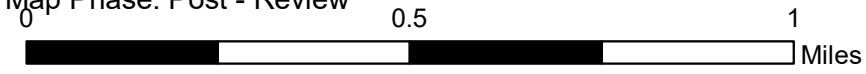
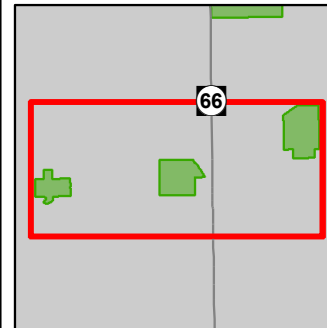


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- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Stand Boundaries
- High Priority Trout Stream Buffer

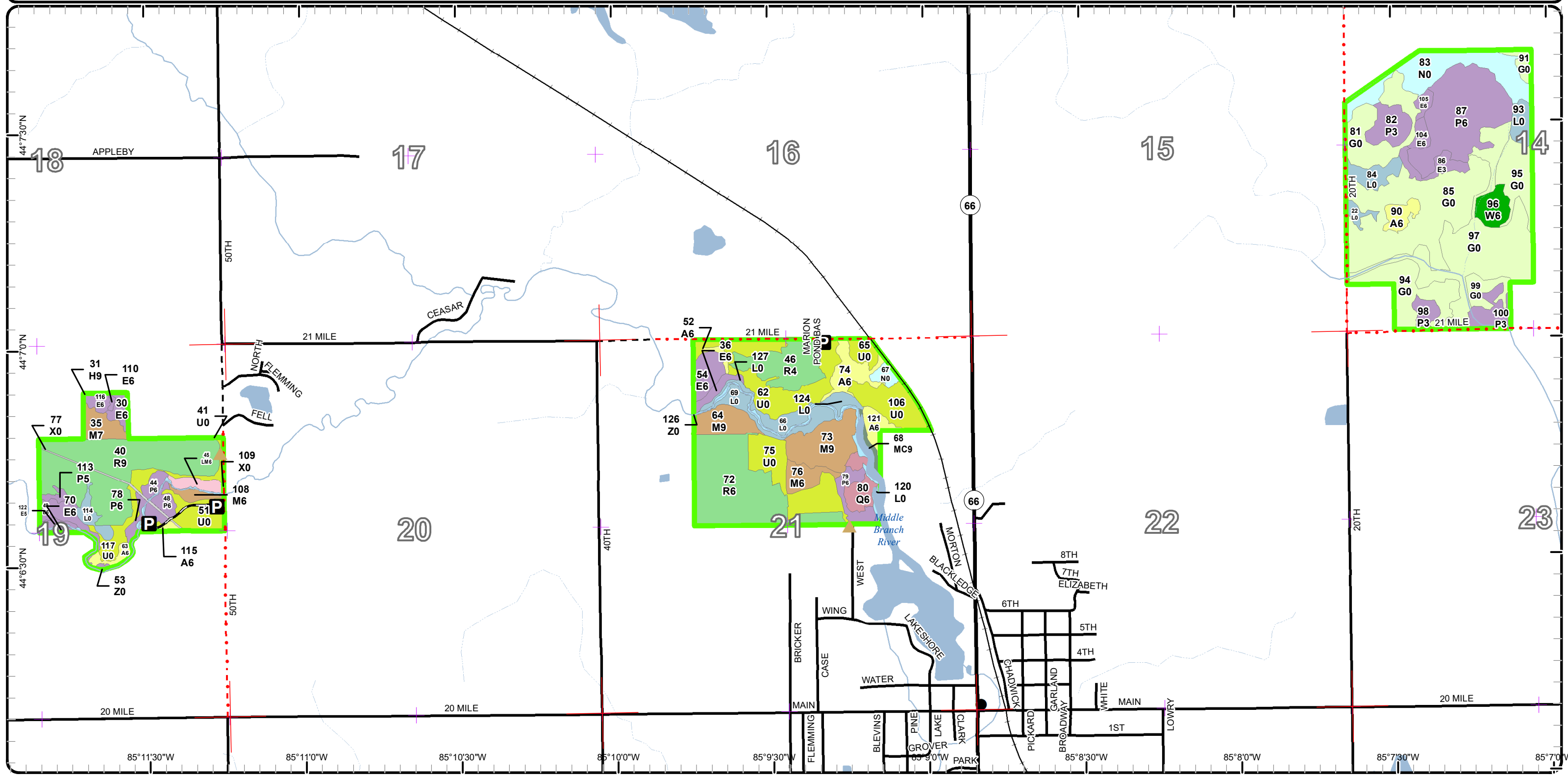


Cover Type & Treatments Map

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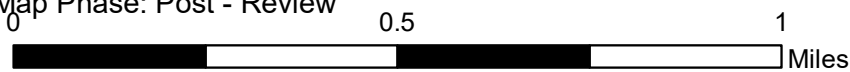
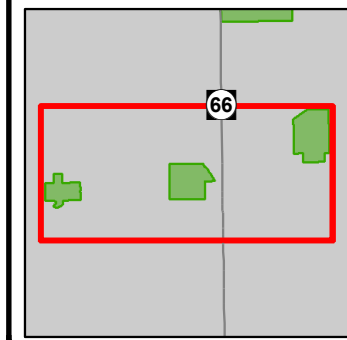


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- Counties
- DNR - Primary Forest Road
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- Federal / State Highway
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Active Railroads
- ▲ Berms
- City
- P Parking Lot
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- 411 - Northern Hardwood
- 413 - Aspen
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 110 - Low Intensity Urban
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes

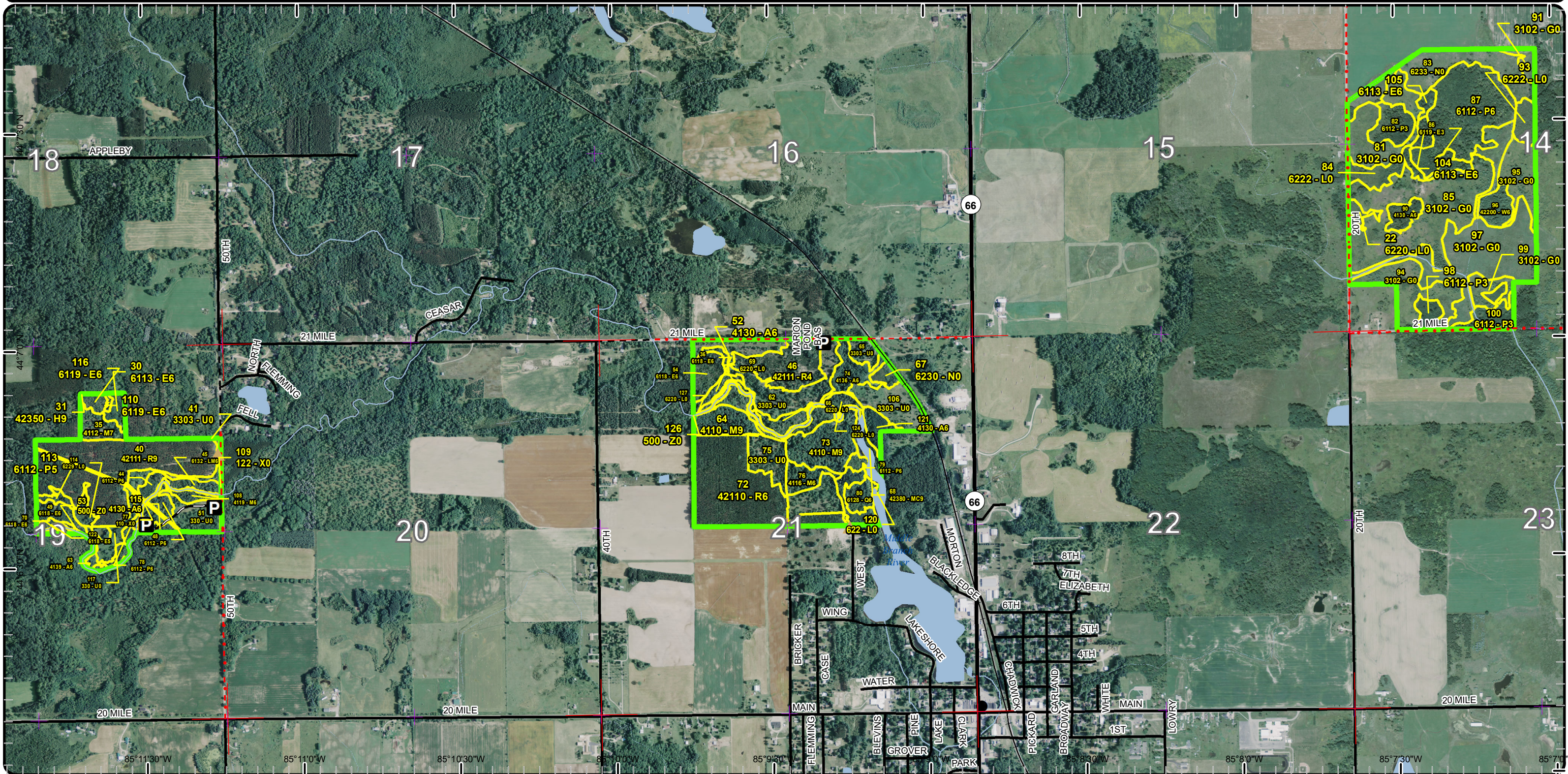


Stand Boundary Map

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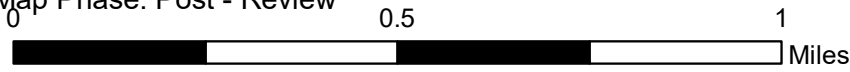


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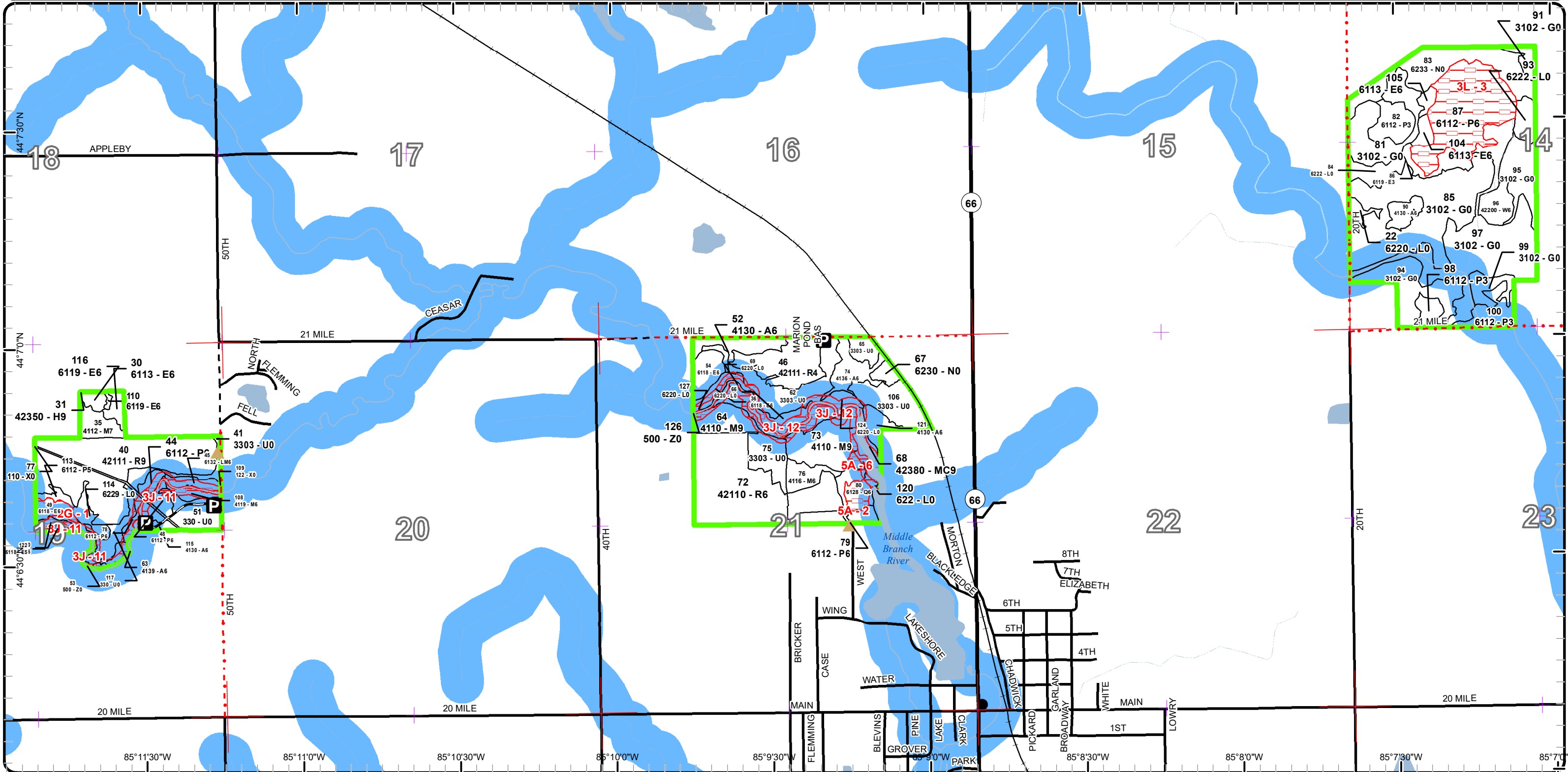


Special Conservation Areas & Site Conditions Map

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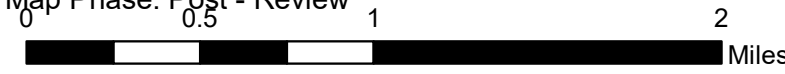
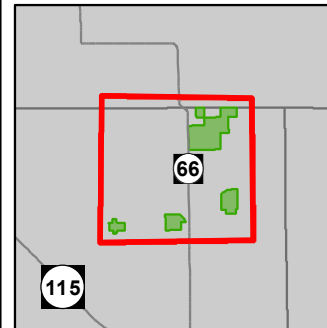


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- Compartment Boundary
- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- 3L: Other wildlife concerns
- 5A: Not able to obtain desirable regeneration
- Stand Boundaries
- Cold Water Streams
- High Priority Trout Stream Buffer

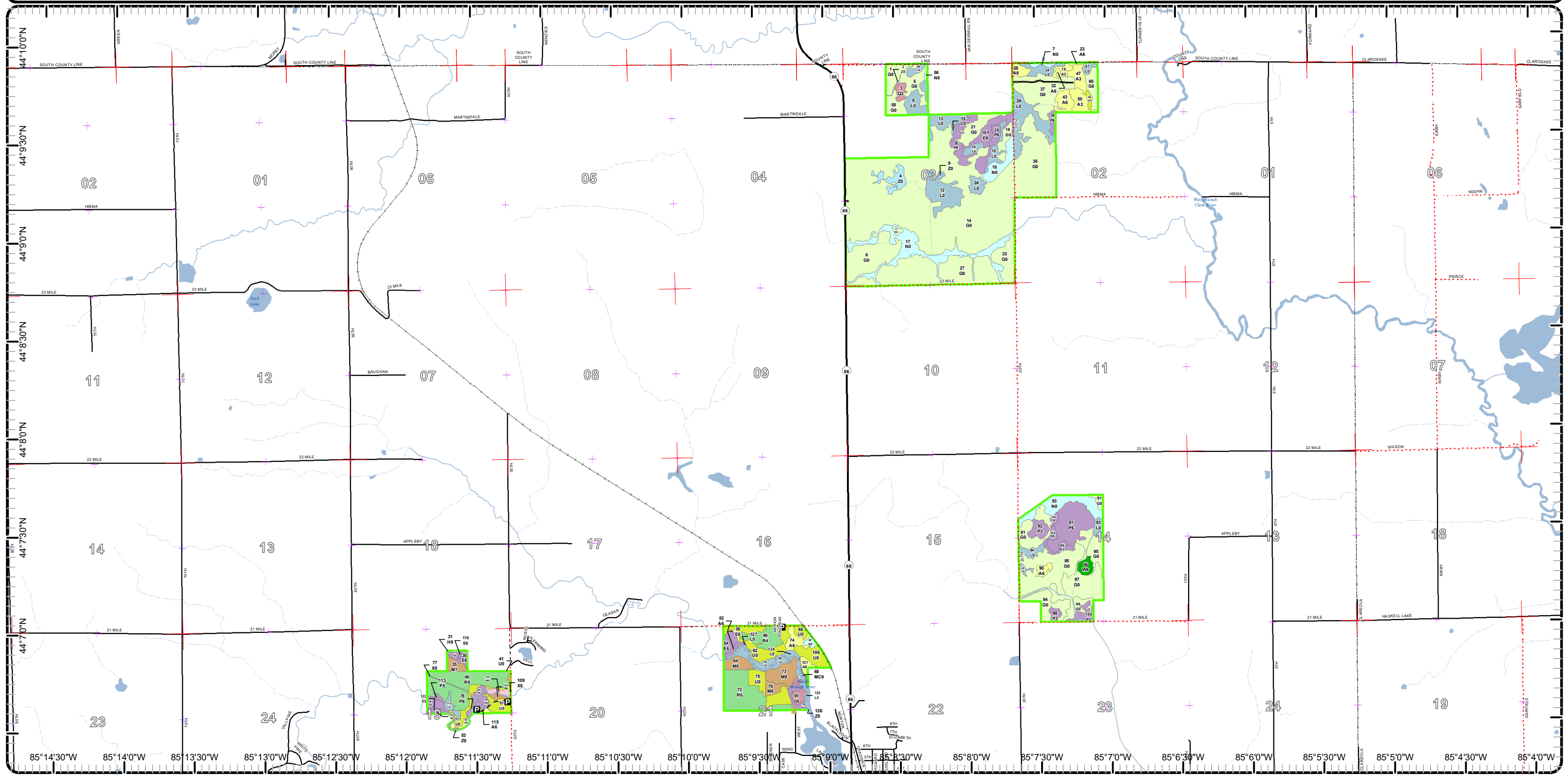


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Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit

Compartment 45

Year of Entry 2020

Cheryl Nelson : 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	12	7	18	0	0	8	5	0	0	0	0	0	0	0	0	0	0	49
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herbaceous Openland	672	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	672
Low-Density Trees	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Lowland Aspen/Balsam Poplar	0	0	9	13	0	6	5	34	0	0	0	0	0	0	0	0	0	0	67
Lowland Conifers	0	0	0	4	0	0	0	0	0	5	0	0	0	0	0	0	0	0	9
Lowland Deciduous	0	0	4	0	0	0	16	0	0	5	0	0	0	0	0	0	0	25	50
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
Lowland Shrub	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119
Marsh	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77
Northern Hardwood	0	0	0	0	0	2	5	4	0	0	0	13	7	0	0	0	0	0	31
Red Pine	0	0	13	0	0	0	74	0	0	0	0	0	0	0	0	0	0	0	87
Upland Conifers	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Water	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
White Pine	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	949	12	33	35	5	8	108	43	0	0	16	13	7	0	0	0	0	25	1252



Report 2 – Treatment Summary

Cadillac Mgt. Unit

Year of Entry: 2020

Acres of Harvest

Compartment 45

Total Compartment Acres: 1,249

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

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	0	0	0	0	0	0	0	0	811	811
Next Step	0	0	0	0	29	0	0	0	0	29
Total	0	0	0	0	29	0	0	0	811	840



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
5	63045001-NF	29.2	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal

Habitat Cut: No**Site Condition:**

Prescription Set back pine. Treat reed canary grass. Mechanical, chemical, and possibly burning.

Specs:

Next Step Burn, Opening

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 1 /2 /2019

28	63045028-NF	2.7	4130 - Aspen	Poletimber Well	52	1-50	NonForestMgt	Brushpile/Woody Debris Creation	4130 - Aspen	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Habitat cut. Clear cut leaving some desirable trees. Replicate windthrow with some brush piles or piled tops.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

60	63045060-NF	8.3	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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Habitat Cut: No**Site Condition:**

Prescription Brush and trees to be cut, invasive species may be treated with chemical and/or mechanical means. Planting mast producing shrubs may occur as well.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

14	Burn unit 1	157.9	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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Habitat Cut: No**Site Condition:**

Prescription A portion of this area to be burned yearly on a rotational basis in keeping with the Management Plan published in 2018. Chemical treatments as well as mechanical treatments will be used to control invasive species and woody growth. Single trees and clumps of trees in otherwise open areas will be treated to maintain the open quality while trees in wooded areas will be allowed to remain. Burns will be conducted through wooded areas and open areas alike.

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 5 /30/2018



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
14	Burn unit 3	118.1	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal

Habitat Cut: No

Site Condition:

Prescription A portion of this area to be burned yearly on a rotational basis in keeping with the Management Plan published in 2018. Chemical treatments as well as mechanical treatments will be used to control invasive species and woody growth. Single trees and clumps of trees in otherwise open areas will be treated to maintain the open quality while trees in wooded areas will be allowed to remain. Burns will be conducted through wooded areas and open areas alike.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 5 /30/2018

6	Burn unit 4	98.0	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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Habitat Cut: No

Site Condition:

Prescription A portion of this area to be burned yearly on a rotational basis in keeping with the Management Plan published in 2018. Chemical treatments as well as mechanical treatments will be used to control invasive species and woody growth. Single trees and clumps of trees in otherwise open areas will be treated to maintain the open quality while trees in wooded areas will be allowed to remain. Burns will be conducted through wooded areas and open areas alike.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 5 /30/2018

14	Burn unit 5	105.0	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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Habitat Cut: No

Site Condition:

Prescription A portion of this area to be burned yearly on a rotational basis in keeping with the Management Plan published in 2018. Chemical treatments as well as mechanical treatments will be used to control invasive species and woody growth. Single trees and clumps of trees in otherwise open areas will be treated to maintain the open quality while trees in wooded areas will be allowed to remain. Burns will be conducted through wooded areas and open areas alike.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 9 /3 /2018



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
38	Burn unit 6	116.9	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal

Habitat Cut: No**Site Condition:**

Prescription A portion of this area to be burned yearly on a rotational basis in keeping with the Management Plan published in 2018. Chemical treatments as well as mechanical treatments will be used to control invasive species and woody growth. Single trees and clumps of trees in otherwise open areas will be treated to maintain the open quality while trees in wooded areas will be allowed to remain. Burns will be conducted through wooded areas and open areas alike.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 5 /30/2018

14	Burn unit 6 part 2	69.1	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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Habitat Cut: No**Site Condition:**

Prescription A portion of this area to be burned yearly on a rotational basis in keeping with the Management Plan published in 2018. Chemical treatments as well as mechanical treatments will be used to control invasive species and woody growth. Single trees and clumps of trees in otherwise open areas will be treated to maintain the open quality while trees in wooded areas will be allowed to remain. Burns will be conducted through wooded areas and open areas alike.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 5 /30/2018

85	Opening x	105.4	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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Habitat Cut: No**Site Condition:**

Prescription Open areas to be kept open with focus on quality on grassland and edge habitat. Trees and shrubs will be cut, mowing and burning may occur, chemical and mechanical treatments for invasive species is expected. Mast producing shrubs may be planted by partner groups.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/1 /2019

**Total Treatment
Acreage Proposed: 810.6**

Report 4 – Site Conditions

Cadillac Mgt. Unit
Cheryl Nelson : Examiner

Compartment: 45
Year of Entry: 2020

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions			
		With Condition	Not Available		2G	3J	3L	5A
49	47	0	2	Aspen		2		
0	0	0	0	Hemlock				
671	671	0	0	Herbaceous Openland				
62	59	0	3	Low-Density Trees		3		
66	33	0	33	Lowland Aspen/Balsam Poplar		3	29	0
8	4	0	4	Lowland Conifers		1		4
50	43	0	8	Lowland Deciduous	3	5		
3	1	0	2	Lowland Mixed Forest		2		
119	111	0	8	Lowland Shrub		8		
77	77	0	0	Marsh				
31	26	0	4	Northern Hardwood		4		0
87	87	0	0	Red Pine				
2	0	0	2	Upland Conifers		2		
2	2	0	0	Urban		0		
17	16	0	0	Water		0		
5	5	0	0	White Pine				
1,249	1,183		66	Total Forested Acres	3	30	29	4
	95%		5%	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)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Too wet to cut commercially.							
2	Unavailable	5A: Not able to obtain desirable regeneration	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Cheryl Nelson : Examiner

Compartment: 45
Year of Entry: 2020

3	Unavailable	3L: Other wildlife concerns	29	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	5A: Not able to obtain desirable regeneration	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Water quality / BMPs for the Middle Branch River.							
12	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Water quality / BMPs for the Middle Branch River.							

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
Comments				



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

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

Report 7 – Forested Stands

Compartment: 45
Year of Entry: 2020



Stand	Cadillac Mgt. Unit		Acres	Stand Age	BA Range	General Comments:
	Level 4 Cover Type	Size Density				
3	6127 - Lowland Pine	Sapling Medium	3.5	26	Immature	
19	4130 - Aspen	Sapling Well	3.4	4	Immature	
23	4130 - Aspen	Poletimber Well	0.9	64	1-50	
25	6112 - Lowland Aspen	Poletimber Well	3.6	46	1-50	
26	6112 - Lowland Aspen	Poletimber Well	2.4	46	1-50	
28	4130 - Aspen	Poletimber Well	4.1	52	1-50	
30	6113 - Lowland Maple	Poletimber Well	2.3	55	81-110	Dead and dying ash.
31	42350 - Upland Hemlock	Sawtimber Well	0.0	110	81-110	
32	4130 - Aspen	Poletimber Well	0.7	64	1-50	
35	4112 - Maple, Beech, Cherry Association	Sawtimber Poor	4.8	55	1-50	Occasional white birch, scotch pine, and oak.
36	6118 - Lowland Deciduous with Cedar	Poletimber Well	2.1	58	81-110	Dead and dying ash. Conifer component drops out to the south of stand.
39	6112 - Lowland Aspen	Poletimber Well	3.0	29	1-50	
40	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	40.7	55	111-140	Stand treated timber sale #63-057-10-01, "Pine Branch". Stand treated 2000-2001, sale #630050101, "Marion Red Pine". Third row thin. Rows are straight, small amount of red maple on the northern edge.
43	4130 - Aspen	Poletimber Well	7.5	29	1-50	
44	6112 - Lowland Aspen	Poletimber Well	1.8	25	51-80	Habitat cut 1993.
45	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	2.6	90	51-80	
46	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Poor	13.0	15	1-50	Occasional scotch pine, spruce, white pine, red pine, oak, sugar maple, and upland grasses. Very small pocket of lowland aspen, tag alder, red-osier dogwood, and black cherry in the northeast of stand. Planted to red pine and autumn olive cannot find FTP.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	4130 - Aspen	Sapling Well	7.0	12	Unspecified	Regenerating wildlife habitat cut. Small amount of tag alder and a few log size aspen and black cherry along edge of stand.
48	6112 - Lowland Aspen	Poletimber Well	3.5	50	81-110	Scattered apple trees. Lowland grasses.
49	6118 - Lowland Deciduous with Cedar	Poletimber Well	4.6	90	111-140	Occasional grapevines, balsam fir, black ash. Dead and dying ash. Some wetland grasses in low areas.
50	4130 - Aspen	Sapling Well	8.1	8	Immature	Habitat cut in last cycle.
52	4130 - Aspen	Poletimber Well	0.9	26	81-110	Commercially treated habitat cut. All aspen and red maple were harvested per timber sale #63-003-92-01.
54	6118 - Lowland Deciduous with Cedar	Poletimber Well	5.1	58	81-110	Dead and dying ash. Conifer component drops out to the south of stand.
63	4139 - Aspen, Mixed Deciduous	Poletimber Well	1.8	60	81-110	Dead and dying ash.
64	4110 - Sugar Maple Association	Sawtimber Well	6.8	110	81-110	Stand slopes to lower area in north of stand. Dead and dying ash. This lower area was unable to be treated last entry due to soil moisture during harvest period. Stand treated timber sale #63-049-10-01, "Marion Mix".
68	42380 - Non Pine Upland Conifer, Mixed Deciduous	Sawtimber Well	2.5	90	51-80	Slopes to tag alder.
70	6118 - Lowland Deciduous with Cedar	Poletimber Well	0.7	90	111-140	Cannot access stand due to the Middle Branch River. Appears to be the same type of stand as 49.
72	42110 - Planted Red Pine	Poletimber Well	33.4	54	81-110	Occasional oak, elm, ash. Stand treated timber sale #63-049-10-01, "Marion Mix". Red pine planted 1964. First row thin preformed 2001-2002, sale #630050101.
73	4110 - Sugar Maple Association	Sawtimber Well	12.9	100	51-80	Drainage runs through stand. Dead and dying ash. Very northeast corner drops off to lowland. Stand treated timber sale #63-049-10-01, "Marion Mix".
74	4136 - Aspen, Mixed Conifer	Poletimber Well	6.3	26	1-50	Intermittent stream runs through stand. Occasional yellow birch, white birch, sugar maple, and pin oak. Commercial habitat cut to remove all aspen and northern hardwoods per timber sale #63-003-921.
76	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	4.4	60	81-110	Stand is a mix of species, diameters, and densities
78	6112 - Lowland Aspen	Poletimber Well	1.6	25	51-80	Lowland grasses. Habitat cut 1993.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
79	6112 - Lowland Aspen	Poletimber Well	4.3	65	171-200	Stand is a mix of species, densities, and lowland/upland topography. Dead and dying ash.
80	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	4.8	95	111-140	Stand mainly lowland hemlock/cedar zone. Dead and dying ash. East side has small area of upland aspen, oak.
82	6112 - Lowland Aspen	Sapling Well	6.3	29	Unspecified	Habitat cut 1989. Willow zones, scattered gray dogwood.
86	6119 - Mixed Lowland Deciduous Forest	Sapling Well	3.8	15	Unspecified	Habitat cut winter 2002-2003.
87	6112 - Lowland Aspen	Poletimber Well	29.3	64	Unspecified	
90	4130 - Aspen	Poletimber Well	3.4	58	51-80	
96	42200 - Natural White Pine	Poletimber Well	4.9	35	1-50	
98	6112 - Lowland Aspen	Sapling Well	2.9	15	Unspecified	Habitat cut winter 2002/2003.
100	6112 - Lowland Aspen	Sapling Well	6.1	15	Unspecified	Habitat cut winter 2002-2003.
101	611 - Lowland Deciduous Forest	Sawtimber Well	25.1	80	Unspecified	
104	6113 - Lowland Maple	Poletimber Well	2.0	50	81-110	
105	6113 - Lowland Maple	Poletimber Well	1.5	50	81-110	
108	4119 - Mixed Northern Hardwoods	Poletimber Well	1.8	45	51-80	Occasional black cherry, white birch, scotch pine, and red pine.
110	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	0.4	55	51-80	Drainage. Good amount of grapevines in stand. Dead and dying ash.
113	6112 - Lowland Aspen	Poletimber Medium	1.4	50	81-110	Wetland grasses, small amount tag alder. Dead and dying ash.
115	4130 - Aspen	Poletimber Well	1.1	65	51-80	
116	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	1.8	55	81-110	Dead and dying ash.
121	4130 - Aspen	Poletimber Well	3.5	26	1-50	Portion of stand harvested sale #63-003-92-01

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Cadillac Mgt. Unit

Report 7 – Forested Stands

Compartment: 45
Year of Entry: 2020



S t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
122	6118 - Lowland Deciduous with Cedar	Poletimber Medium	1.0	55	111-140	



Stand	Cover Type	Acres	Managed Site	General Comments:
1	310 - Herbaceous Openland	9.4	Yes	Reed canary grass, other grasses. Small amount of willow, aspen, and tag alders. young white pine filing in some areas.
2	500 - Water	0.3	No	Drainage ditch.
4	500 - Water	8.4	No	Wildlife mitigation ponds.
5	3102 - Grass	11.4	Yes	
6	3102 - Grass	70.8	Yes	Reed canary grass and other grasses. Filling in with willow, aspen and white pine.
7	6230 - Cattail	2.0	No	Marsh grasses with tag alder on edges.
8	6222 - Shrub-Carr	11.1	No	Leatherleaf bog with tag alder, willow edges. Occassional aspen.
9	500 - Water	0.4	Yes	Small pond
10	6222 - Shrub-Carr	5.9	No	Tag alder with scattered aspen.
11	3102 - Grass	1.2	Yes	
12	6222 - Shrub-Carr	21.0	Yes	Willow with some tag alder. Generally wet in the spring.
13	6222 - Shrub-Carr	10.9	Yes	
14	3102 - Grass	281.0	Yes	
15	6222 - Shrub-Carr	0.5	Yes	
16	3102 - Grass	6.1	Yes	
17	623 - Emergent Wetland	41.3	Yes	Ditch lines and surrounding low ground. Seasonally very wet.
18	6233 - Wet Meadow	10.6	Yes	
20	6222 - Shrub-Carr	3.4	No	Tag alder and marsh grasses.



Stand	Cover Type	Acres	Managed Site	General Comments:
21	3102 - Grass	11.9	Yes	Brome
22	6220 - Alder/willow	1.6	No	
24	6222 - Shrub-Carr	5.1	No	Tag alder.
27	3102 - Grass	31.9	Yes	
29	6229 - Mixed lowland shrub	23.6	No	Tag alder.
33	3102 - Grass	15.8	Yes	
34	6229 - Mixed lowland shrub	6.7	No	Tag alders.
37	3102 - Grass	34.6	Yes	Grassland filling in with willow zones.
38	3102 - Grass	58.4	Yes	
41	3303 - Mixed Low Density Trees	1.6	No	Small amount of aspen, black cherry, red maple.
51	330 - Low-Density Trees	7.3	No	Large opening with herbaceous plants, shrubs, and some trees.
53	500 - Water	2.0	No	Middle Branch River
55	6222 - Shrub-Carr	2.9	No	
56	623 - Emergent Wetland	0.5	No	Part of a pond grading up to grass.
57	6229 - Mixed lowland shrub	2.6	No	Tag alder.
58	3102 - Grass	8.2	Yes	
59	3303 - Mixed Low Density Trees	1.7	No	
60	3102 - Grass	8.3	No	Grassland filling in with tag alder.



Stand	Cover Type	Acres	Managed Site	General Comments:
62	3303 - Mixed Low Density Trees	18.2	No	Stand is a mix of low density trees with planted and naturally occurring shrubs. Very diverse in species types. Stand includes a few scotch pine and spruce. Low, wet area consists of a few quaking and big tooth aspen, paper birch, black cherry, oak, pine, red-osier dogwood, musclewood, and tag alder.
65	3303 - Mixed Low Density Trees	3.0	No	Scattered black cherry, white pine, jack pine, aspen, autumn olive, common barberry, and blackberry.
66	6220 - Alder/willow	3.4	No	
67	6230 - Cattail	2.9	No	Small amount of tag alder.
69	6220 - Alder/willow	5.5	No	Occasional quaking aspen, ash, hemlock, northern white cedar, and white pine.
71	3303 - Mixed Low Density Trees	0.0		Planted to red pine since last entry. Cannot find FTP. Red pine with scattered sugar maple, basswood, white ash, musclewood, and ironwood.
75	3303 - Mixed Low Density Trees	14.2	No	
77	110 - Low Intensity Urban	1.3	No	Overhead electric line
81	3102 - Grass	14.3	Yes	Few scattered aspen, red maple, white pine, ash.
83	6233 - Wet Meadow	19.5	Yes	Cattail marsh and reed canary grass zones.
84	6222 - Shrub-Carr	4.7	No	Tag alder, grassy marsh, cattails. Scattered aspen, viburnum, gray dogwood, ash, black cherry, white pine, and cedar.
85	3102 - Grass	40.6	Yes	Large opening complex
91	3102 - Grass	2.5	Yes	
93	6222 - Shrub-Carr	3.8	No	Tag alder, holly, willows, marsh grasses.
94	3102 - Grass	14.7	Yes	Grassland with spirea. Perched water tables, surrounded by zones of willows and gray dogwood. Scattered pockets of sapling aspen.
95	3102 - Grass	9.6	Yes	Grass, spirea, willows coming in. Scattered aspen, red maple, and individual white pine.
97	3102 - Grass	36.5	No	Old beaver flooding.



Stand	Cover Type	Acres	Managed Site	General Comments:
99	3102 - Grass	4.3	Yes	
106	3303 - Mixed Low Density Trees	10.1	No	Small pockets of B.T. Aspen left over from old timber sale. Occasional scattered pin oak, red maple, black cherry, beech, scotch pine, white pine, staghorn sumac, autumn olive, common barberry.
107	3303 - Mixed Low Density Trees	0.0		Planted to red pine since last entry. Cannot find FTP. Red pine with scattered sugar maple, basswood, white ash, musclewood, and ironwood.
109	122 - Road/Parking Lot	0.7	No	50th Ave.
114	6229 - Mixed lowland shrub	3.0	No	Tag alder, small amount of red-osier dogwood. Autumn olive along edge.
117	330 - Low-Density Trees	5.9	No	Small area with old foundation to north of stand. Scattered black cherry, red maple, sugar maple and beech. Occasional pine, oak.
120	622 - Lowland Shrub	0.3	No	
124	6220 - Alder/willow	2.0	No	Portion of stand harvested commercial habitat harvest per timber sale #63-003-92-01. Few quaking aspen.
126	500 - Water	5.7	No	Middle Branch River
127	6220 - Alder/willow	1.0	No	