



# Compartment Review Presentation

## Cadillac Forest Management Unit

Compartment 24

Entry Year 2016

Acreage: 1,854

County Lake

Management Area: Lake County Moraines

**Revision Date:** 06/02/2014

**Stand Examiner:** Cheryl Nelson

### Legal Description:

T18N R12W Sections 13, 14, 23-26

### Identified Planning Goals:

Vegetation management in the Lake County Outwash 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 planning period will focus on harvesting older jack pine and balancing the age-class distribution of aspen. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation; maintaining soft and hard mast sources including oak; and preserving related recreational opportunity.

Expected trends within this 10-year planning period are the need to minimize jack pine budworm damage by reducing the amount of more susceptible older jack pine; the need to regenerate oak and red pine; the need to target some accessible aspen in older age-classes for harvest; and increased recreational pressure.

### Soil and topography:

Predominantly Rubicon-Roselawn sands and Graycalm-Montcalm sands. The terrain is rolling to hilly.

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

There is private ownership surrounding and within the compartment.

### Unique Natural Features:

Great blue heron rookery to the northeast, box turtle to the west and south, E. massasauga to west, Hill's thistle to west of section 26. Potential for box turtle, red-shouldered hawk and goshawk. Potential for wood turtle and E. massasauga along Sanborn Creek. Potential for pine tree cricket in white pine stands.

### Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

### Special Management Designations or Considerations:

### Watershed and Fisheries Considerations:

Sanborn Creek flows through Compartment 24. It is a Designated Trout Stream. It flows into the Baldwin River in the Pere Marquette River watershed. Sanborn Creek supports brook trout, brown trout, rainbow trout (steelhead), coho salmon, and chinook salmon. BMPs should be followed for treatments near the Creek.

### Wildlife Habitat Considerations:

This compartment contains one alfalfa or rye wildlife opening. This opening should be buffered from treatments in adjacent stands, and any adjacent treatments should prevent expansion of autumn olive. Generally, wildlife cover type goals are no net loss in aspen or oak acres, to protect mast bearing shrubs, to create brush piles adjacent to wetlands, to preferably leave retention in the form of islands or corridors, and to provide coarse woody debris. Promote a mix of cover types by seeking opportunities to manage for non-forested openings or barrens habitat, older age classes and mixed age stands where possible and appropriate. Featured species of special interest are grouse, woodcock, turkey, snowshoe hare and deer. (E. Victory 7/17/14)

### Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of coarse-textured till. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Pennsylvanian Saginaw Formation and the Mississippian Bayport Limestone. The Saginaw is quarried for clay/shale products and the Bayport for limestone in other areas of the State. A gravel pit is located in Section 26 and potential is considered good. The nearest production is at Reed City Field located six miles to the east. Reed City Field produces from several formations. The

Reed City Formation has produced over 42 million (M) BO, the Traverse Limestone over 3.7 MBO, the Stray Sandstone nearly 8 Bcf gas and the PdC over 20 Bcf gas. The compartment is not currently leased for oil and gas exploration.

**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. Also indicated are forest roads and trails under the jurisdiction of the DNR that are proposed for abandonment. These roads were determined to be in excess of the access needs in the area, are a threat to the resources, or are a concern environmentally.

**Survey Needs:**

Survey corners needed for the SWNW of section 14 and SENE of section 26.

**Recreational Facilities and Opportunities:**

There are no developed recreational facilities within this compartment. Dispersed camping occurs within the compartment (T.M.N. 3/14)

**Fire Protection:**

Access for fire suppression equipment is good in most of the compartment. Some pockets of conifers can cause some suppression issues. Dispersed camping can cause some wildfires. (BERT 5-14)

**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**

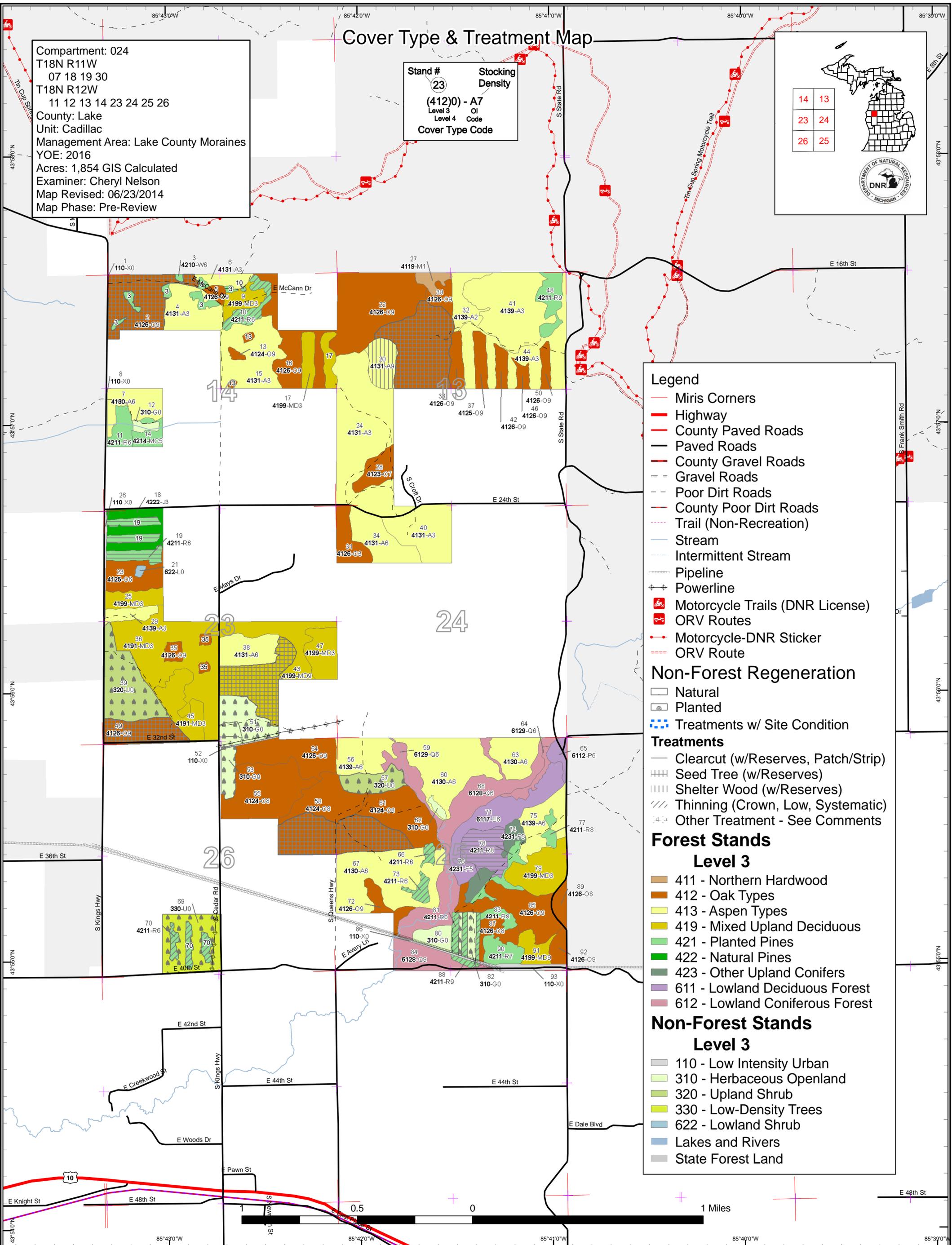
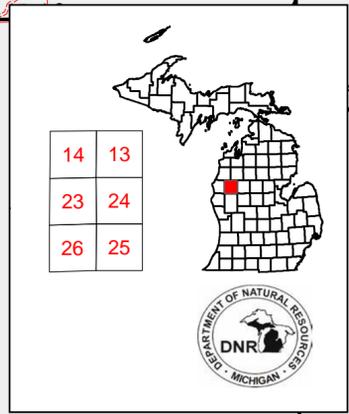
**The following information is displayed, where pertinent, on the attached compartment maps:**

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

# Cover Type & Treatment Map

Compartment: 024  
 T18N R11W  
 07 18 19 30  
 T18N R12W  
 11 12 13 14 23 24 25 26  
 County: Lake  
 Unit: Cadillac  
 Management Area: Lake County Moraines  
 YOE: 2016  
 Acres: 1,854 GIS Calculated  
 Examiner: Cheryl Nelson  
 Map Revised: 06/23/2014  
 Map Phase: Pre-Review

**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



**Legend**

- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Stream
- Intermittent Stream
- Pipeline
- Powerline
- Motorcycle Trails (DNR License)
- ORV Routes
- Motorcycle-DNR Sticker
- ORV Route

**Non-Forest Regeneration**

- Natural
- Planted
- Treatments w/ Site Condition

**Treatments**

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Other Treatment - See Comments

**Forest Stands**

**Level 3**

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

**Non-Forest Stands**

**Level 3**

- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- Lakes and Rivers
- State Forest Land





Report 1 – Total Acres by Cover Type and Age Class



	Age Class													Total	
	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 +		Uneven Age
Aspen	88	150	175	145	0	0	0	0	0	0	15	0	0	0	574
Herbaceous Openland	54	0	0	0	0	0	0	0	0	0	0	0	0	0	54
Jack Pine	18	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Low-Density Trees	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Lowland Aspen/Balsam Poplar	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Conifers	0	0	0	0	0	0	0	74	0	20	0	0	0	0	94
Lowland Deciduous	0	0	57	0	0	0	0	0	0	0	0	0	0	0	57
Lowland Shrub	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Mixed Upland Deciduous	49	132	0	0	0	0	0	0	9	62	0	0	0	0	252
Northern Hardwood	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Oak	0	15	19	0	0	0	0	0	0	153	374	0	0	0	560
Planted Mixed Pines	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7
Red Pine	0	0	0	0	0	102	0	0	0	0	0	0	0	0	102
Upland Shrub	54	0	0	0	0	0	0	0	0	0	0	0	0	0	54
Upland Spruce/Fir	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11
Urban	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
White Pine	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9
<b>Total</b>	<b>317</b>	<b>297</b>	<b>257</b>	<b>156</b>	<b>0</b>	<b>118</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>162</b>	<b>471</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1854</b>



## Report 2 – Proposed Treatment Summaries

**Cadillac Mgt. Unit**  
**Year of Entry 2016**

**Compartment 024**  
**Total Compartment Acres: 1,854**

### Acres by Treatment Type

Commercial Harvest - 271    Tree Planting - 17    Other - 0  
 Habitat Cut - 20    Opening Maintenance - 5

### Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
<b>(Habitat Cut)Lowland Deciduous Forest</b>	20	0	0	0	0	0	0	20
<b>Aspen Types</b>	0	0	0	15	0	0	0	15
<b>Mixed Upland Deciduous</b>	0	0	35	0	0	0	0	35
<b>Oak Types</b>	0	0	166	0	0	0	0	166
<b>Planted Pines</b>	17	0	0	0	37	0	0	54
<b>Total</b>	<b>38</b>	<b>0</b>	<b>202</b>	<b>15</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>291</b>



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	63024002-Cut	38.6	4126 - White, Black, N. Pin Oak	High Density Log	95	51-80	Harvest	Seed Tree with Reserves	4129 - Mixed Oak	Cmpt. Review Proposal
<u>Prescription</u> Cut all trees except mark a mix of species to leave averaging 20-30 BA. Do not cut oak 6" DBH and under. Use understory shrub protection and <u>Specs:</u> grouse Spec. 5.2.4.4 - Leave one, 8" diameter or larger log-length (8 foot minimum) piece on the ground for every 2 acres, also leave at least six (6) large tops in a single pile and at least one pile per acre in timber sale. Focus retention along Kings Highway. Acceptable regen is a mix of upland deciduous species.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
10	63024010-Cut	10.1	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	55	200+	Harvest	Systematic Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Third row thin in red pine. Mark other species as necessary to remove for equipment access.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
19	63024019-Cut	17.3	42110 - Planted Red Pine	High Density Pole	52	81-110	Harvest	Clearcut with Reserves	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut. Plant to jack pine. Focus retention along Kings Highway.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Plant to jack pine.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
20	63024020-Cut	15.2	4131 - Aspen, Oak	High Density Log	105	141-170	Harvest	Shelterwood	4131 - Aspen, Oak	Cmpt. Review Proposal
<u>Prescription</u> Cut all aspen. Mark to cut remaining species to an average of 50-60 BA. Use Grouse Spec. 5.2.4.4 - Leave one, 8" diameter or larger log-length <u>Specs:</u> (8 foot minimum) piece on the ground for every 2 acres, also leave at least six (6) large tops in a single pile and at least one pile per acre. Retention: Residual BA. Acceptable regen is a mix of aspen mixed upland species.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
22 63024022-Cut	54.7	4126 - White, Black, N. Pin Oak	High Density Log	105	81-110	Harvest	Seed Tree with Reserves	4129 - Mixed Oak	Cmpt. Review Proposal

Prescription Cut all trees. Mark a mix of species to leave averaging 10-20 BA. Use understory shrub protection and Grouse Spec. 5.2.4.4 - Leave one, 8" diameter or larger log-length (8 foot minimum) piece on the ground for every 2 acres, also leave at least six (6) large tops in a single pile and at least one pile per acre. Focus retention along ridgetops. Acceptable regen is a mix of upland deciduous species.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015

43 63024043-Cut	35.4	4199 - Other Mixed Upland Deciduous	High Density Log	105	111-140	Harvest	Seed Tree with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal
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Prescription Cut all aspen. Retain a mix of species to average 20-30 BA. Use understory shrub protection and grouse Spec. 5.2.4.4 - Leave one, 8" diameter or larger log-length (8 foot minimum) piece on the ground for every 2 acres, also leave at least six (6) large tops in a single pile and at least one pile per acre in timber sale. Acceptable regen is a mix of upland deciduous species. Focus retention along Cedar Road and ridgetops.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015

49 63024049-Cut	22.2	4126 - White, Black, N. Pin Oak	High Density Log	90	81-110	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
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Prescription Cut all trees. Do not cut any oak or white pine 5" DBH and under. Mark to leave a mix of species to average 20-30 BA. Use understory shrub protection and grouse Spec. 5.2.4.4 - Leave one, 8" diameter or larger log-length (8 foot minimum) piece on the ground for every 2 acres, also leave at least six (6) large tops in a single pile and at least one pile per acre in timber sale. Acceptable regen is a mix of upland deciduous and coniferous species. Focus retention along Kings Highway.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015

58 63024058-Cut	25.4	4124 - Red with White Oak	Medium Density Log	105	81-110	Harvest	Seed Tree with Reserves	412 - Oak	Cmpt. Review Proposal
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Prescription Cut all trees except oak to a 2" DBH. Do not cut oak under 4" DBH. Mark a mix of species to leave averaging 20-30 BA. Use understory shrub protection and grouse Spec. 5.2.4.4 - Leave one, 8" diameter or larger log-length (8 foot minimum) piece on the ground for every 2 acres, also leave at least six (6) large tops in a single pile and at least one pile per acre in timber sale. Focus retention along Queens Highway. Acceptable regen is a mix of upland deciduous species.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
61	63024061-Cut	25.4	4124 - Red with White Oak	Medium Density Log	105	51-80	Harvest	Seed Tree with Reserves	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Cut all trees except oak to a 2" DBH. Do not cut oak under 4" DBH. Mark a mix of species to leave averaging 10-20 BA. Use understory shrub protection and grouse Spec. 5.2.4.4 - Leave one, 8" diameter or larger log-length (8 foot minimum) piece on the ground for every 2 acres, also leave at least six (6) large tops in a single pile and at least one pile per acre in timber sale. Focus retention along Queens Highway. Acceptable regen is a mix of upland deciduous species. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
66	63024066-Cut	2.5	42110 - Planted Red Pine	High Density Pole	57	111-140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Third row thin. <u>Specs:</u> <u>Other</u> Fisheries Division has approved treatment within the 150' buffer of Sanborn Creek. <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
70	63024070-Cut	9.0	42110 - Planted Red Pine	High Density Pole	51	200+	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Mark to cut approximately 1/3 of BA. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
71	63024071-Cut	20.4	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	26	51-80	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<u>Prescription</u> Cut all aspen, red maple, and black ash. Do not cut any conifer species. Harvest boundary may vary due to access and terrain. <u>Specs:</u> <u>Other</u> Commercial or habitat cut. <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73	63024073-Cut	4.5	42110 - Planted Red Pine	High Density Pole	57	171-200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Third row thin.

Specs:

Other Fisheries Division has approved treatment within the 150' buffer of Sanborn Creek.

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2015

81	63024081-Cut	8.7	42110 - Planted Red Pine	Medium Density Log	57	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Mark to remove approximately 1/3 of BA.

Specs:

Other Fisheries Division has approved treatment within the 150' buffer of Sanborn Creek.

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2015

88	63024088-Cut	1.8	42110 - Planted Red Pine	High Density Log	57	111-140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Third row thin red pine. Cut all jack pine.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2015

12	NF_63024012- NonFor	2.8	3102 - Grass				Non-Forest Management	Other - Specify	3102 - Grass	Cmpt. Review Decision - Incomplete
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Prescription "General habitat manipulation for non-forested, herbaceous type. Treatments may include manual or mechanical removal/manipulation of woody plants, prescribed fire, use of herbicides, tillage, and planting herbaceous and or mast producing plants." If not I will have to get these in after today's deadline.

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified



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	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62	NF_63024062-NonFor	2.0	3102 - Grass				Non-Forest Management	Other - Specify	3102 - Grass	Cmpt. Review Decision - Incomplete

Prescription: "General habitat manipulation for non-forested, herbaceous type. Treatments may include manual or mechanical removal/manipulation of woody plants, prescribed fire, use of herbicides, tillage, and planting herbaceous and or mast producing plants." If not I will have to get these in after today's deadline.

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

**Total Treatment Acreage Proposed: 296.1**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Type! #Type!

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Type!

Limiting Factor

**Total Treatment**  
**Acreage Proposed: 0.0**

## Report 5 – Site Conditions

Cadillac Mgt. Unit  
Cheryl Nelson : Examiner

Compartment 024  
Year of Entry 2016

### Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	5C	2G
	Available	Not Available				
572	572	0	<b>Aspen</b>	571	0	0
18	18		<b>Jack Pine</b>	18		
6	6		<b>Lowland Aspen/Balsam Poplar</b>	6		
93	38	55	<b>Lowland Conifers</b>		38	55
57	57	0	<b>Lowland Deciduous</b>	57		0
251	251		<b>Mixed Upland Deciduous</b>	224	27	
6	6		<b>Northern Hardwood</b>	6		
559	559		<b>Oak</b>	217	342	
7	7		<b>Planted Mixed Pines</b>	7		
102	102		<b>Red Pine</b>	102		
11	11		<b>Upland Spruce/Fir</b>	11		
9	9		<b>White Pine</b>	9		
1,690	1,634	56	Total Forested Acres	1,228	407	56
	97%	3%	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 Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
007	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	92				
<b>Comments:</b>							
008	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7				
<b>Comments:</b>							

Report 5 – Site Conditions

Cadillac Mgt. Unit  
Cheryl Nelson : Examiner

Compartment 024  
Year of Entry 2016

009	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	
Comments:				
010	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	
Comments:				
011	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	
Comments:				
012	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	
Comments:				
013	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	
Comments:				
014	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	27	
Comments:				

**Report 5 – Site Conditions**

Cadillac Mgt. Unit  
Cheryl Nelson : Examiner

Compartment 024  
Year of Entry 2016

017	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	106
Comments:			
018	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	34
Comments:			
020	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13
Comments:			
021	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6
Comments:			
022	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3
Comments:			
025	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12
Comments:			

Report 5 – Site Conditions

Cadillac Mgt. Unit  
Cheryl Nelson : Examiner

Compartment 024  
Year of Entry 2016

026	Not Available	2G: Too wet (sensitive soils, does not include access issues)	57
Comments:			
028	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	35
Comments:			
029	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5
Comments:			
030	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9
Comments:			
031	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20
Comments:			



### 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
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**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	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.

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## Cadillac Mgt. Unit

## Report 8 – Forested Stands

Compartment: 024  
Year of Entry: 2016

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4126 - White, Black, N. Pin Oak	High Density Log	38.6	95	51-80	Species densities vary throughout stand. Good amount of oak seedlings.
3	42101 - Planted White Pine, Mixed Deciduous	High Density Pole	9.0	55	111-140	Stand planted FTP #46 (July, 1959).
4	4131 - Aspen, Oak	High Density Sapling	24.0	15		Stand treated timber sale #63-014-96-01, "Turkey Hill Sale". Cut in 1999.
5	4126 - White, Black, N. Pin Oak	High Density Log	3.3	90	111-140	
6	4131 - Aspen, Oak	High Density Sapling	7.0	18		Stand treated timber sale #63-017-94-01, "March Madness Removal". Cut in 1996.
7	4130 - Aspen	High Density Pole	19.3	27	1-50	Stand treated timber sale #63-002-86-01, "Little Jewel". Cut in 1987.
9	4199 - Other Mixed Upland Deciduous	High Density Sapling	9.9	14		Stand is a mix of oak, aspen, and red maple. Previous plantings have failed. Stand re-planted to red pine per FTP# 47 (July, 1959). Stand planted to jack pine per FTP# 27 (September, 1950). Stand treated timber sale #63-014-96-01, "Turkey Hill Sale".
10	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	10.1	55	200+	Planted red pine per FTP# 47, (July, 1959).
11	42110 - Planted Red Pine	High Density Pole	9.1	52	141-170	Stand planted to red pine in 1962. FTP could not be found but current core confirms age.
13	4124 - Red with White Oak	High Density Log	3.4	95	81-110	Small pockets left out of surrounding treatment.
14	42141 - Planted Mixed Pine, Mixed Deciduous	Medium Density Pole	7.2	52	1-50	Stand planted 1952. FTP could not be found but current core confirms age.
15	4131 - Aspen, Oak	High Density Sapling	41.7	17		Stand treated timber sale #63-014-96-01, "Turkey Hill Sale". Cut in 1997.
16	4126 - White, Black, N. Pin Oak	High Density Log	29.4	95	81-110	Pocket of grape vines to the north of center portion of stand, south of private property.
17	4199 - Other Mixed Upland Deciduous	High Density Sapling	15.6	19		Stand treated timber sale #63-014-96-01, "Turkey Hill Sale".
18	42220 - Natural Jack Pine	High Density Sapling	17.5	7		Stand treated timber sale #63-044-06-01, "Sawarock Pine". Cut in 2007. Excellent jack pine regen.
19	42110 - Planted Red Pine	High Density Pole	17.3	52	81-110	Stand planted to red pine in 1962 however, FTP could not be found.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4131 - Aspen, Oak	High Density Log	15.2	105	141-170	
22	4126 - White, Black, N. Pin Oak	High Density Log	116.9	105	81-110	Stand treated timber sale #63-012-96-01, "Fallen Fawn Oak". Cut in 1997. Sale specs: Do not cut any oak greater than 10" DBH. Cut all red maple, aspen, red pine, white pine, and jack pine.
23	4125 - Black, N. Pin Oak	High Density Pole	19.0	27	1-50	Stand treated timber sale #63-004-86-01, "23 Strip". Cut in 1987.
24	4131 - Aspen, Oak	High Density Sapling	88.1	5		Stand treated timber sale #63-065-07-01, "Out the door oak". Cut in 2009.
25	4199 - Other Mixed Upland Deciduous	High Density Sapling	11.5	13	1-50	Stand treated timber sale #63-008-96-01, "Whispering Winds Removal". Cut in 1997.
27	4119 - Mixed Northern Hardwoods	Low Density Sapling	5.6	5		Stand treated timber sale #63-011-06-01, "Rainbow Oak". Treated with compartment 21 to the north.
28	4123 - Red Oak	Low Density Log	12.2	105	1-50	Stand treated timber sale #63-065-07-01, "Out the door oak". Cut in 2009. Specs for this stand were: Cut all aspen, pine, red maple and trees marked with orange paint.
29	4139 - Aspen, Mixed Deciduous	High Density Sapling	7.7	38		Stand planted to red pine per FTP#63-637 in an oak weave pattern (spacing 8.5' X 7'). Stand treated timber sale #63-023-76-01.
30	4126 - White, Black, N. Pin Oak	High Density Log	6.7	105	81-110	Few scattered red pine averaging 8" DBH.
31	4126 - White, Black, N. Pin Oak	High Density Sapling	14.7	18		Stand treated timber sale #63-009-96-01, "24th Street Curve Oak". Cut in 1996.
32	4139 - Aspen, Mixed Deciduous	Medium Density	13.6	24		Stand treated timber sale #63-020-86-01, "Towerline 13".
33	4126 - White, Black, N. Pin Oak	High Density Log	8.6	105	111-140	
34	4131 - Aspen, Oak	High Density Pole	24.4	36	1-50	Stand treated timber sale #17-76A. Cut in 1978.
35	4126 - White, Black, N. Pin Oak	High Density Log	6.8	105	111-140	
36	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	76.8	17		Stand planted to red pine per FTP #C63-637. Small amount of jack pine planted in frost pockets. Stand treated timber sale #63-008-96-01, "Whispering Winds Removal". Cut in 1997.
37	4125 - Black, N. Pin Oak	High Density Log	8.4	105	111-140	

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## Cadillac Mgt. Unit

## Report 8 – Forested Stands

Compartment: 024  
Year of Entry: 2016

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	4131 - Aspen, Oak	High Density Pole	20.5	35	1-50	Stand treated timber sale # 1-1979. Cut in 1979.
40	4131 - Aspen, Oak	High Density Sapling	33.8	18		Stand treated timber sale #63-009-96-01, "24th Street Curve Oak". Cut in 1996.
41	4139 - Aspen, Mixed Deciduous	High Density Sapling	56.6	26		Stand treated timber sale #63-020-86-01, "Towerline 13". Cut in 1988.
42	4126 - White, Black, N. Pin Oak	High Density Log	6.0	105	141-170	
43	4199 - Other Mixed Upland Deciduous	High Density Log	62.3	105	111-140	
44	4139 - Aspen, Mixed Deciduous	High Density Sapling	43.8	18		Stand treated timber sale #63-011-96-01, "Sun Dog Strips". Cut in 1996.
45	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	22.3	6		Stand planted to red pine per FTP#63-637 in an oak weave pattern (spacing 8.5' X 7'). Small amount of jack pine planted in frost pockets. Stand treated timber sale #63-003-86-01, "Nirvana North". Cut in 1987.
46	4126 - White, Black, N. Pin Oak	High Density Log	3.9	105	51-80	
47	4199 - Other Mixed Upland Deciduous	High Density Sapling	17.7	16		Stand treated timber sale #63-010-96-01, "Red Oak Hills". Cut in 1998.
48	42110 - Planted Red Pine	High Density Log	12.7	57	81-110	Stand treated timber sale #63-064-07-01, "Rubiks Red". Cut in 2007. Third row thinned. Stand planted per FTP #1, 1957.
49	4126 - White, Black, N. Pin Oak	High Density Log	22.2	90	81-110	
50	4126 - White, Black, N. Pin Oak	High Density Log	5.1	105	81-110	
54	4126 - White, Black, N. Pin Oak	High Density Log	33.4	105	1-50	Stand treated timber sale #63-010-96-01, "Red Oak Hills". Cut in 1998.
55	4124 - Red with White Oak	Medium Density Log	46.1	105	51-80	Stand treated timber sale #63-010-96-01, "Red Oak Hills". Cut in 1998.
56	4139 - Aspen, Mixed Deciduous	High Density Pole	22.3	38	1-50	Stand treated timber sale #2-75, I-30. Cut in 1976.
58	4124 - Red with White Oak	Medium Density Log	51.9	105	81-110	Stand treated timber sale #63-007-96-01. Cut in 1996.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
59	6129 - Mixed Coniferous Lowland Forest	High Density Pole	12.9	80	81-110	
60	4130 - Aspen	High Density Pole	50.7	38	51-80	Stand treated timber sale #24-75A, I-30. cut in 1976.
61	4124 - Red with White Oak	Medium Density Log	59.2	105	51-80	Stand treated timber sale #63-007-96-01, "Cattle Crossing Sale". Cut in 1996.
63	4130 - Aspen	High Density Pole	19.4	38	81-110	Stand treated timber sale #27-75A, I-30. Cut in 1976.
64	6129 - Mixed Coniferous Lowland Forest	High Density Pole	5.2	80	81-110	
65	6112 - Lowland Aspen	High Density Pole	6.1	26	1-50	Stand treated timber sale #63-019-86-01, "Sanborn Creek 25". Cut in 1988.
66	42110 - Planted Red Pine	High Density Pole	2.5	57	111-140	Stand planted 1957. FTP could not be found for this stand but age matches other red pine plantings in this section.
67	4130 - Aspen	High Density Pole	62.4	26	1-50	Stand treated timber sale #63-007-86-01, "Cherry Valley Queen". Cut in 1988.
68	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	56.0	80	81-110	
70	42110 - Planted Red Pine	High Density Pole	9.0	51	200+	Stand treated timber sale #63-046-06-01, "Apple Jack". Cut in 2009. Stand planted in 1963. FTP could not be found.
71	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	57.2	26	51-80	Stand habitat cut per FTP #W-63-346. Removal of remaining aspen and red maple from timber sale. Stand treated timber sale #63-019-86-01, "Sanborn Creek 25".
72	4126 - White, Black, N. Pin Oak	High Density Log	8.6	105	51-80	
73	42110 - Planted Red Pine	High Density Pole	4.5	57	171-200	Stand planted 1957. FTP could not be found for this stand but age matches other red pine plantings in this section.
74	42311 - Planted Spruce, Mixed Deciduous	Medium Density Pole	5.8	39	1-50	Stand treated timber sale #63-065-06-01, "Fruiting Fungi". Stand planted per FTP #163, I-30.
75	4139 - Aspen, Mixed Deciduous	High Density Pole	23.2	26	1-50	Stand treated timber sale #63-019-86-01, "Sanborn Creek 25". Cut in 1988.
76	42311 - Planted Spruce, Mixed Deciduous	Medium Density Pole	5.6	39		Stand treated timber sale #63-065-06-01, "Fruiting Fungi". Stand planted per FTP #163, I-30.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
77	42110 - Planted Red Pine	Medium Density Log	3.6	57	81-110	Stand treated timber sale #63-064-07-01, "Rubiks Red". Third row thinned. Stand planted to red pine per FTP #15, September 23, 1957.
78	42110 - Planted Red Pine	Medium Density Log	7.2	57	51-80	Stand treated timber sale #63-064-07-01, "Rubiks Red". Third row thinned. Stand planted to red pine per FTP #15, September 23, 1957.
79	4199 - Other Mixed Upland Deciduous	High Density Sapling	26.5	7	1-50	Stand treated timber sale #63-048-06-01, "Buzzin Hills". Cut in 2007.
81	42110 - Planted Red Pine	Medium Density Log	8.7	57	141-170	Stand treated timber sale #63-064-07-01, "Rubiks Red". Cut in 2007. Third row thinned. Stand planted per FTP #1, 1957.
83	42110 - Planted Red Pine	Medium Density Log	4.9	57	51-80	Stand planted FTP #1, 1957.
84	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	20.2	100	111-140	
85	4126 - White, Black, N. Pin Oak	High Density Log	34.4	95	1-50	Stand treated timber sale #63-048-06-01, "Buzzin Hills". Cut in 2007.
87	4126 - White, Black, N. Pin Oak	Medium Density Log	9.3	90	1-50	Stand treated timber sale #63-048-06-01, "Buzzin Hills". cut in 2007. Specs: Cut all trees except all white oak and those with green paint.
88	42110 - Planted Red Pine	High Density Log	1.8	57	111-140	Stand planted per FTP #1, 1957. Stand has area of jack pine.
89	4126 - White, Black, N. Pin Oak	Medium Density Log	5.9	95	1-50	Stand treated timber sale #63-048-06-01, "Buzzin Hills". Cut in 2007.
90	42110 - Planted Red Pine	Low Density Log	10.8	57	1-50	Small area of planted white pine to northeast. Stand treated timber sale #63-064-07-01, "Rubiks Red". Cut in 2008. Stand burned pre-harvest per FTP#C63-578, completed spring of 2007. Stand planted to red pine per FTP#16, completed 09/21/2014.
91	4199 - Other Mixed Upland Deciduous	High Density Log	9.5	90	81-110	Stand appears to have been treated but paperwork could not be found. Three acres of aspen to the northwest were combined with the oak due to the small acreage and approximate age of past treatment.
92	4126 - White, Black, N. Pin Oak	High Density Log	6.3	90	111-140	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	11 - Low Intensity Urban	0.7	No	Unspecified	King's Highway
8	11 - Low Intensity Urban	1.2	No	Unspecified	King's Highway.
12	3102 - Grass	2.8	Yes	High	Wildlife opening.
21	6229 - Mixed lowland shrub	1.1	No	Unspecified	
26	11 - Low Intensity Urban	5.3	No	Unspecified	King's Highway.
39	3205 - Mixed Upland Shrub	39.3	Natural Regen	Oak	Stand treated timber sale #63-078-06-01, "Fire Starters. Stand prescribed burn pre-harvest 05/24/2006. Few overstory, log-sized oak. Some oak and red maple stump sprouts to 5'.
51	3105 - Mixed Upland Herbaceous	21.8	Natural Regen	Oak	Stand treated timber sale #63-065-06-01, "Fruiting Fungi". Cut in 2010.
52	11 - Low Intensity Urban	0.9	No	Unspecified	Powerline.
53	3105 - Mixed Upland Herbaceous	12.0	Natural Regen	Jack Pine	Stand treated timber sale #63-046-06-01, "Apple Jack". Cut in 2010.
57	3205 - Mixed Upland Shrub	14.7	Natural Regen	Oak	Stand treated timber sale #63-065-06-01, "Fruiting Fungi". Cut in 2010.
62	3102 - Grass	2.0	No	Unspecified	Old wildlife field.
69	3301 - Low Density Deciduous Tree	32.4	Natural Regen	Jack Pine	Stand treated timber sale #63-046-06-01, "Apple Jack". Cut in 2009. Some overstory oak and white pine poles left. Powerline run through eastern portion of stand.
80	3102 - Grass	8.5	No	Unspecified	Old wildlife field.
82	3105 - Mixed Upland Herbaceous	6.4	Natural Regen	Unspecified	Stand treated timber sale #63-064-07-01, "Rubiks Red". Cut in 2008. Good regen.
86	11 - Low Intensity Urban	3.0	No	Unspecified	Pipeline.
93	11 - Low Intensity Urban	5.2	No	Unspecified	40th Street