



## GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 234 ENTRY YEAR: 2012

GIS Compartment Acreage: 1913 County: Crawford

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**Revision Date:** 4/20/2010

**Stand Examiner:** Patrick Cotant

**Legal Description:** Sections 23 - 26, 33 & 34, T26N-R03W, Crawford County

**Management Goals:** To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management. In addition, to maintain a healthy habitat for the endangered species *Dendroica kirtlandii* (Kirtland's Warbler), taking into account warbler management plan directives, species diversity, and visual management.

**Soils and Topography:** The area is level to gently rolling terrain. Grayling and Graycalm-Grayling sands are the predominant soils throughout this compartment. Grayling Sand is characterized as being excessively drained and is common on moraines and outwash plains. Erosion and windthrow probability are slight. Graycalm-Grayling sands are characterized as somewhat excessively drained and again are common on moraines and outwash plains. The possibility of erosion and windthrow are slight on this soil series as well.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Private lands are dispersed evenly throughout this compartment with state land. Much of the land in this compartment was obtained from the forest service and/or was tax reverted.

**Unique, Natural Features (include only non-site specific and non-sensitive information):** This compartment contains what was once historically large expanses of jack pine influenced greatly by fire activity. Today, forest management in this area has been carried out to mimic this activity with an aim to improve and enhance habitat for the endangered Kirtland Warbler in the area. Staley Lake is also unique in that it is a kettle lake with very steep topography leading to it on all sides.

**Special Management Designations or Considerations:** This compartment is part of the Staley Lake Kirtland Warbler management area and is an HCVA. There is potential for dry prairie plants in grassy openings to include pine barren's species of Hill's thistle, rough fescue, Alleghany plum and pale agoseris. There also is potential for pine barren's species including dusted skipper, grizzled skipper and red-legged spittlebug to be present in these openings. Warbler species will be found in the young jack pine stands that abound in this region.

**Watershed and Fisheries Considerations:** Staley Lake is within this compartment. It has a very small watershed and water levels have historically fluctuated quite a bit. It is currently at a low level with many areas of exposed reeds and other wetland vegetation.

**Wildlife Habitat Considerations:** A great deal of wildlife utilize all areas of this compartment. The major consideration is for Kirtland's Warbler management and extensive fisheries management however numerous species of wildlife were observed while conducting field work and should be considered in all aspects of management of this compartment.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial and ice-contact outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift is the Michigan formation, mined for gypsum in other locations in the State. The nearest gravel pit is one mile to the south, and gravel potential is thought to be good in the upland areas. There are no current oil and gas leases in effect.

**Vehicle Access:** Access to this compartment is from Staley Lake Rd and 4 Mile Roads. Each of these are county roads and are in fair condition. Numerous 2-tracks provide access to the remainder of the compartment.

**Survey Needs:** Could not find corners in southern portion of stand 21. Snow depth was limiting. These corners need to be confirmed during summer months to determine if a survey is needed here.

**Recreational Facilities and Opportunities:** Hunting, camping and bird watching make up the majority of recreational activities in this area. No formal state managed facilities are present within this compartment boundary. The Shore-to-Shore riding/hiking trail touches the compartment in the southwestern corner. This trail is shared by the snowmobile trail as well.

**Fire Protection:** Jack pine is the dominant tree species within this compartment and therefore fire activity is a concern. Access is good to the compartment for fire suppression activities. Fire suppression in this area is carried out by the State of Michigan wildland fire program.

#### **Additional Compartment Information:**

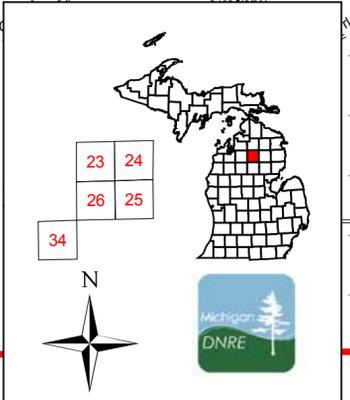
**LOTS Compartment Acreage: 1,913 acres**

- **The following reports are available:**
  - ◆ **Cover Type by Age Class**
  - ◆ **Proposed Treatment Summaries**
  - ◆ **Dedicated Conservation Area Details**
  - ◆ **Listing of Forested Stands**
  - ◆ **Listing of Non-Forested Stands**
  - ◆ **Proposed Treatments – No Limiting Factors**
  - ◆ **Proposed Treatments – With Limiting Factors**
  
- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - ◆ **Base feature information, stand numbers, cover types, recreation trails and facilities**
  - ◆ **Proposed treatments**
  - ◆ **Proposed road access system**
  - ◆ **Special Conservation areas**

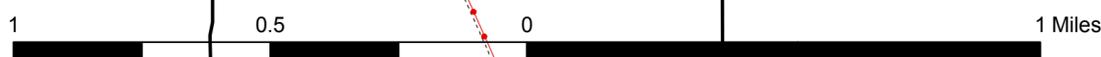
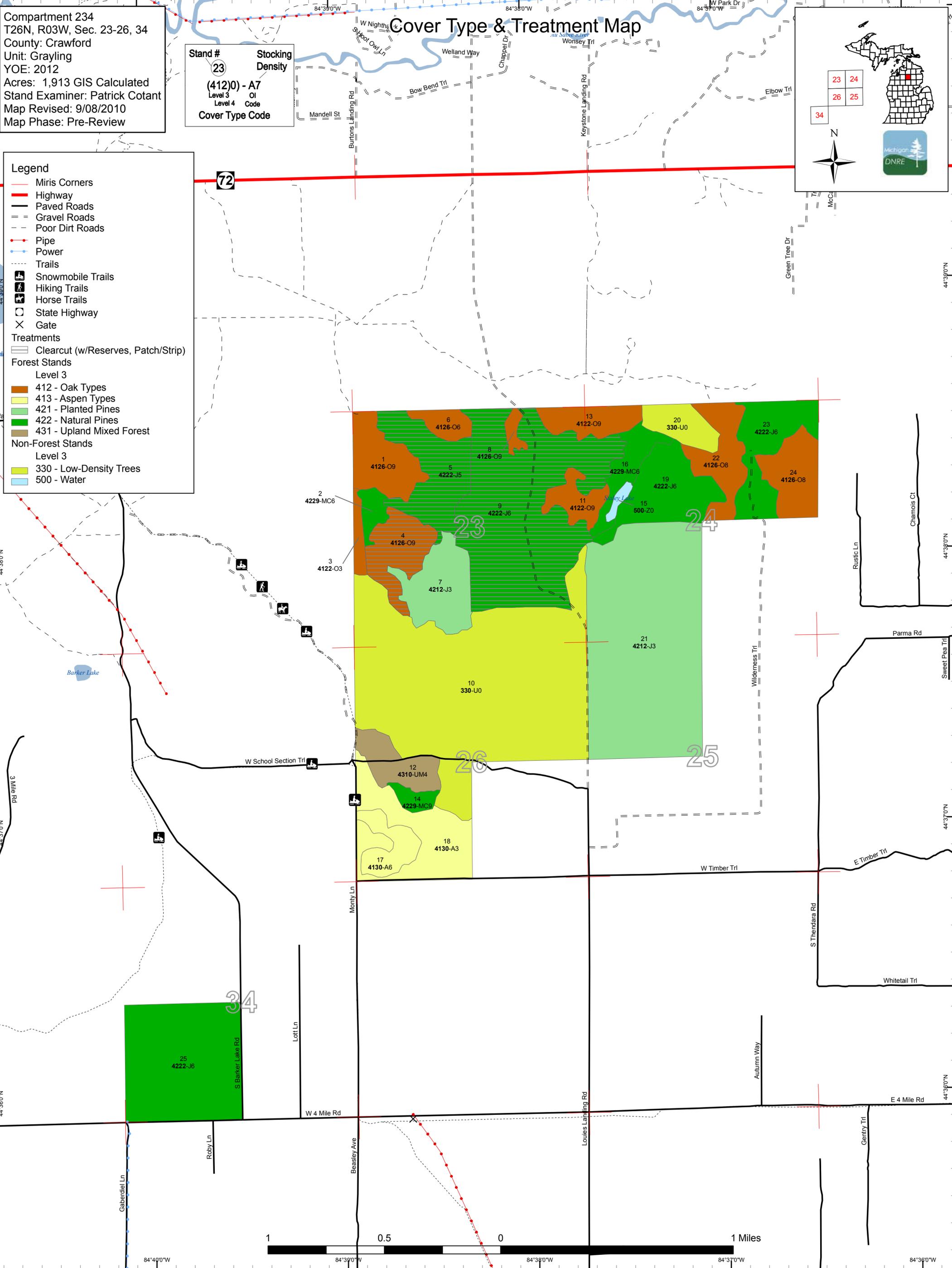
Compartment 234  
 T26N, R03W, Sec. 23-26, 34  
 County: Crawford  
 Unit: Grayling  
 YOY: 2012  
 Acres: 1,913 GIS Calculated  
 Stand Examiner: Patrick Cotant  
 Map Revised: 9/08/2010  
 Map Phase: Pre-Review

**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

# Cover Type & Treatment Map



- Legend**
- Miris Corners
  - Highway
  - Paved Roads
  - Gravel Roads
  - Poor Dirt Roads
  - Pipe
  - Power
  - Trails
  - Snowmobile Trails
  - Hiking Trails
  - Horse Trails
  - State Highway
  - Gate
  - Treatments
  - Clearcut (w/Reserves, Patch/Strip)
  - Forest Stands
  - Level 3
  - 412 - Oak Types
  - 413 - Aspen Types
  - 421 - Planted Pines
  - 422 - Natural Pines
  - 431 - Upland Mixed Forest
  - Non-Forest Stands
  - Level 3
  - 330 - Low-Density Trees
  - 500 - Water



84°40'0"W 84°39'0"W 84°38'0"W 84°37'0"W 84°36'0"W

44°38'0"N 44°37'0"N 44°36'0"N



Compartment 234  
 T26N, R03W, Sec. 23-26, 34  
 County: Crawford  
 Unit: Grayling  
 YOE: 2012  
 Acres: 1,913 GIS Calculated  
 Stand Examiner: Patrick Cotant  
 Map Revised: 9/30/2010  
 Map Phase: Pre-Review

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

# Dedicated & Proposed Special Conservation Area Map

**Legend**

- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
- Cold Water Streams
- Boat Access Sites
- Campgrounds
- Kirtland Warbler Habitat
- Natural Rivers Zoning District
- Natural Rivers Vegetative Buffer

**Forest Stands**

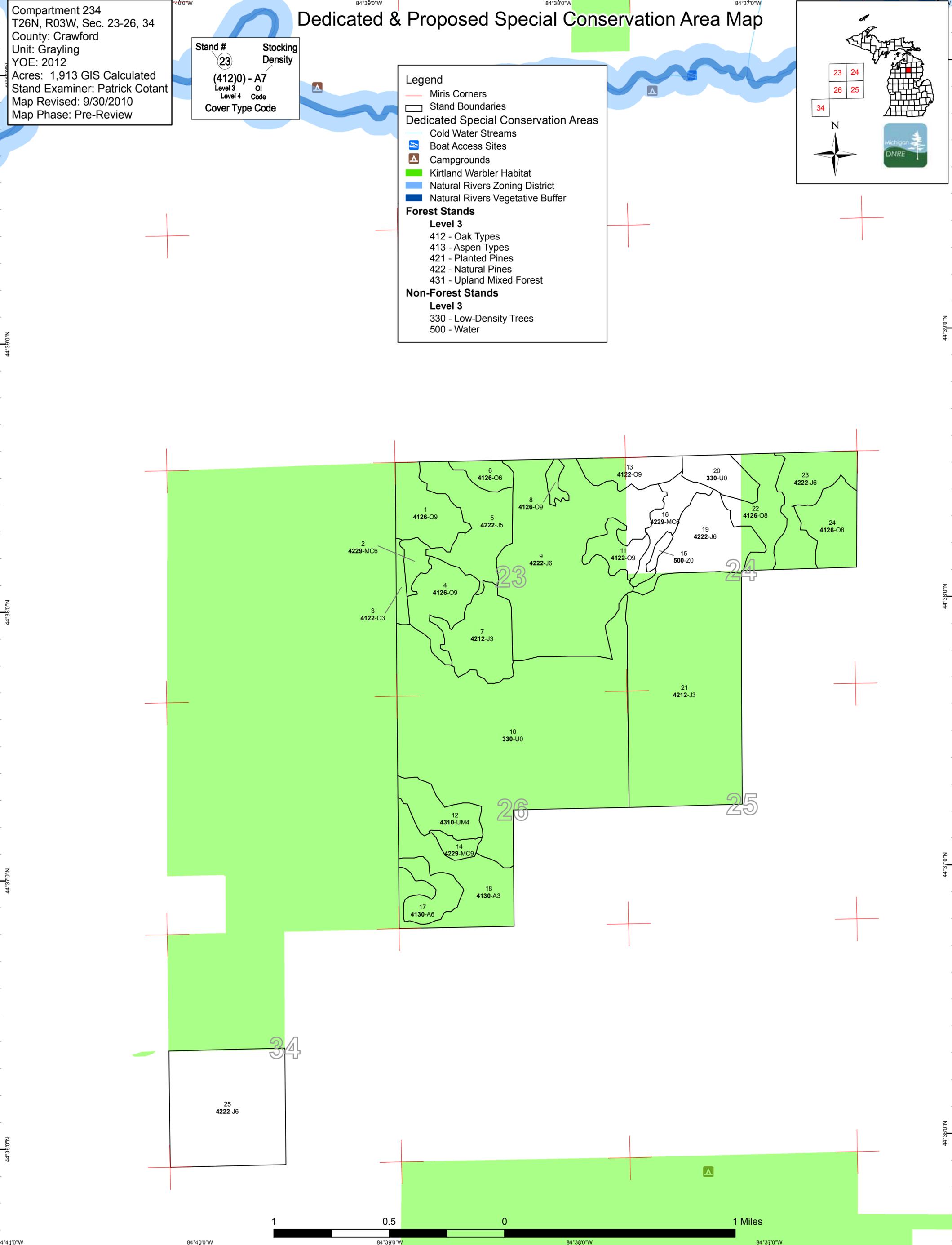
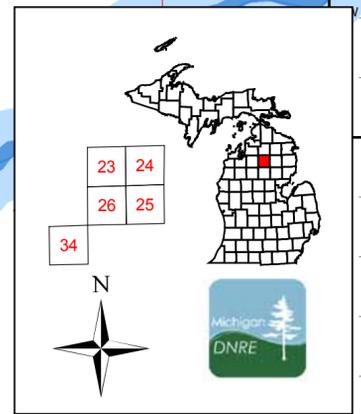
**Level 3**

- 412 - Oak Types
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest

**Non-Forest Stands**

**Level 3**

- 330 - Low-Density Trees
- 500 - Water



1 0.5 0 1 Miles

84°41'0"W 84°40'0"W 84°39'0"W 84°38'0"W 84°37'0"W

44°38'0"N 44°37'0"N 44°36'0"N 44°35'0"N

**Table 1 – Total Acres by Cover Type and Age Class**

Data updated before 2:00 PM



	Age Class														Total	
	Non-Forested	1-9	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	0	83	0	28	0	0	0	0	0	0	0	0	0	0	0	111
Jack Pine	0	0	368	0	0	160	129	251	0	0	0	0	0	0	72	981
Low-Density Trees	457	0	0	0	0	0	0	0	0	0	0	0	0	0	0	457
Natural Mixed Pines	0	0	0	0	28	0	22	0	0	0	0	0	0	0	0	50
Oak	0	0	10	0	0	0	0	0	0	16	23	133	92	0	0	275
Upland Mixed Forest	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	36
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
<b>Total</b>	<b>461</b>	<b>83</b>	<b>378</b>	<b>28</b>	<b>28</b>	<b>160</b>	<b>151</b>	<b>287</b>	<b>0</b>	<b>16</b>	<b>23</b>	<b>133</b>	<b>92</b>	<b>0</b>	<b>72</b>	<b>1913</b>



## Table 2 – Proposed Treatment Summaries

*Data updated before 2:00 PM*

**Grayling Mgt. Unit**  
**Year of Entry 2012**

**Compartment 234**  
**Total Compartment Acres: 1913**

### Acres by Treatment Type

Commercial Harvest - 370	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
<b>Jack Pine</b>	323	0	0	0	0	0	323
<b>Oak</b>	47	0	0	0	0	0	47
<b>Total</b>	370	0	0	0	0	0	370

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Data updated before 2:00 PM

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4 72234004-Cut	46.8	4126 - White, Black, N. Pin Oak	High Density Log	104	Harvest	Clearcut with Reserves	Natural Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription: Remove all oak, red maple and aspen and leave red pine regardless of size. Delineate a couple retention islands to protect some oak and improve vertical structure throughout stand. These islands should not encompass areas of heavy natural red pine regeneration.

Other Comments:

Next Steps:

5 72234005-Cut	72.3	42220 - Natural Jack Pine	Medium Density Pole	49	Harvest	Clearcut	Planted Jack Pine	Cmpt. Review Proposal
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Prescription: Harvest all jack pine with appropriate retention. Stand was prescribed out of YOE and is to be set up in 2010 by Craig Farrer for KW management.

Other Comments:

Next Steps: Plant to jack pine for KW management.

9 72234009-Cut	250.9	42220 - Natural Jack Pine	High Density Pole	64	Harvest	Clearcut	Planted Jack Pine	Cmpt. Review Proposal
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Prescription: Final harvest all species and apply appropriate retention. Stand was prescribed out of YOE and is to be set up in 2010 by Craig Farrer.

Other Comments:

Next Steps: Plant to jack pine for KW management.

**Total Treatment  
Acreage Proposed: 370.1**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Error

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Limiting Factor and No  
Treatment Reason

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**Total Treatment  
Acreage Proposed: 0**

Data updated before 2:00 PM

Out of YOE -- Treatments  
Prescribed with No Limiting Factor

Year of Entry: 2012



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription  
Specs:

Other  
Comments:

Next  
Steps:

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**Total Treatment  
Acreage Proposed: 0**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4126 - White, Black, N. Pin Oak	High Density Log	48.2	103	51-80	New stand added. oak stand with a small amount of rp scattered. stand was shelterwood/thinned harvested last yoe and oak regen is responding fairly well. browse is heavy in spots. rm makes up descent portions of understory in places. northern/eastern edge of stand was final harvested because it was previously a jack pine/oak stand. this portion of stand is regenerating to oak so it was included with this stand. separated from original stand2.
2	42290 - Natural Mixed Pine	High Density Pole	12.2	59		New stand added. mixed stand of jp, rp and oak separating larger oak stands. stand is in a small valley running e/w. fair quality on jp/rp, oak is poor. Size within each species composition is variable with saps, poles and logs present overall. as stand moves up toward ridge tops oak species become more prevalent.
3	4122 - Oak, Pine	High Density Sapling	9.8	10		stand harvested approx 10 years ago and sapling rp were left. oak have regenerated fairly well in numbers however quality is poor. mixed oak pine stand. northern portion-less than 1 ac, has been planted to jp with adjacent stand to the west
4	4126 - White, Black, N. Pin Oak	High Density Log	46.8	104	111-140	oak stand, fair quality. jack pine heavier in places. red pine heavy in placees as well with great regen in areas where larger individuals are present.
5	42220 - Natural Jack Pine	Medium Density Pole	72.3	Uneven Age		two aged jp stand with medium density pole overstory and naturally regenerated sapling understory. scattered oaks in understory.
6	4126 - White, Black, N. Pin Oak	High Density Pole	16.0	85	81-110	poor quality oak stand on ridge with jack pine concentrated near perimeter. wo is dominant throughout. understory is poor quality and heavily browsed. red maple present in low numbers.
7	42120 - Planted Jack Pine	High Density Sapling	59.5	10		planted jp with some rp mixed in. oak stump sprouts scattered throughout-heavily browsed
8	4126 - White, Black, N. Pin Oak	High Density Log	6.8	100	81-110	low quality oak stand within jp stand, near staley lake rd. oak is of low quality, red and jack pine are present within stand in fair numbers. oak regen in understory is heavily browsed and is of poor quality. some red and jack regeneration.
9	42220 - Natural Jack Pine	High Density Pole	250.9	64		mixed stand with jp dominant. oak and red pine throughout with pockets of higher density. some wp in low numbers. understory is heavy in places cconsisting mainly of oak. lots of browse. fair quality pines, oak poor quality. rp is 2aged with scattered super canopy trees throughout, mainly west of staley lk rd
11	4122 - Oak, Pine	High Density Log	23.3	90	81-110	oak stand with jack/red/white pine present in descent numbers. oak regen is fair but browsed. some areas are heavier to jp within stand. looks to be dependent on topo/aspect. red pine component is more notable in eastern portion of stand, on slope to staley lake. stand fazes to jp stand on western side, boundary is variable. **Old fire tower lound just west of staley lake road**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	4310 - Pine, Oak Mix	Low Density Pole	35.8	60		mixed stand, oak savanna looking w/ pine throughout. oak, jp and wp regen present in open areas. oak, jp and wp make up majority of overstory, poor quality.
13	4122 - Oak, Pine	High Density Log	31.5	100	81-110	oak stand w/ pine present in moderate numbers. aspen clones also present, localized in western portions of stand. stand is on a ridge. overall quality is fair. oak in understory is fairly dense but is browsed heavily and not much is recruiting. some wp, mostly in clumps. inclusion heavier to pine in central portion of stand-valley is included with this stand.
14	42290 - Natural Mixed Pine	High Density Log	9.8	50	111-140	mixed stand, 2-aged? wp is thick and variable in terms of size. red pine and oak spp are evenly distributed throughout stand. rm and jp present in low numbers. understory is open in places, oak regen is heavily browsed. rp is supet canopy in parts of stand, wp looks to have been suppressed for quite awhile.
16	42290 - Natural Mixed Pine	High Density Pole	27.9	38	81-110	white pine stand with significant oak component. oak is older, white pine is variable in age-some larger individuals, especially in north. jp fazes in near border with jp stand to the west. wo dominant in some pockets. rp heavier in north w/ some larger individuals present. may have been a plantation planted under oak by the usfs.
17	4130 - Aspen	High Density Pole	28.2	25	1-50	aspen stand w/ red maple throughout. wp/rp present mostly around perimeter. aspen growing well, scattered oak overstory, some regen.
18	4130 - Aspen	High Density Sapling	82.6	8		aspen stand, regenerating well w/ rm and wo present in descent numbers. fair quality aspen, doesn't look like the best site for aspen judging from the surrounding stands.
19	42220 - Natural Jack Pine	High Density Pole	68.5	51		fairly uniform jp stand with pockets of oak inclusions. jp seems fairly healthy. oak consists mainly of wo, growing ok. understory oak is heavily browsed. interestingly, stand also includes 20-30 rows of a scotch/red pine/norway spruce plantation in northern portion, maybe 2 acres. oak is interspersed in this area. wp inclusion in north as well, along border of oak stand.
21	42120 - Planted Jack Pine	High Density Sapling	308.7	15		planted kw jp stand growing well. oaks stump sprouts throughout with occasional rp present.
22	4126 - White, Black, N. Pin Oak	Medium Density Log	47.0	118	1-50	wo stand that was shelterwood harvested last yoe. oak residual is fair quality, oak regen is doing very well. majority is stump sprout origin but single stems are present in good numbers. wp is also in understory in low numbers. jp pockets of regen present in understory as well.
23	42220 - Natural Jack Pine	High Density Pole	60.8	55		mixed stand with jp dominant. oak and red pine present in descent numbers. jp is relatively small dbh, growing well tho.
24	4126 - White, Black, N. Pin Oak	Medium Density Log	45.3	118	1-50	similar to stand 20-oak stand shelterwood harvested last yoe. oak growing well. regen doing good, recruiting to sapling size, both stump sprouts and single stems.

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Grayling Mgt. Unit

**5 – Forested Stands**

Compartment: 234

Year of Entry: 2012



Data updated before 2:00 PM

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	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
<b>25</b>	42220 - Natural Jack Pine	High Density Pole	160.1	40		jp stand of multiple age classes. red pine present as super- canopy. oaks scattered throughout. large wp present along with some pole/saps, low numbers/scattered.

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Stand	Cover Type	Acres	Gen Cmts:
10	3302 - Low Density Conifer Trees	428.3	Stand swapped from Forested to Non-Forested. kw plantation with oaks throughout. does not look like it has been planted as of yet.
15	50 - Water	4.4	
20	3303 - Mixed Low Density Trees	28.3	Stand swapped from Forested to Non-Forested. jp plantation, approx 2' tall. oak stump sprouts evenly scattered throughout stand. jp growing well, will be a fully stocked jp plantation next yoe.



### 7 – 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.

*Data updated before 2:00 PM*

Stand	SCA Type	SCA Name	Acres	Comments
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**8 – DEDICATED CONSERVATION AREA DETAILS**

\* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

*Data updated before 2:00 PM*

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

Conservation Area	Type	Description
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.