



## GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 220 ENTRY YEAR: 2013

Compartment Acreage: 170

County: CRAWFORD

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**Revision Date:** 7/21/11

**Stand Examiner:** Lucas Merrick

**Legal Description:** Grayling Township, T26N R03W sections 17 and 18  
T26N R04W section 12

**Management Goals:** Due to the fractionalized ownership in this compartment, the goals are varied. Major concerns of this compartment are military, visual management, and historical as well as to maintain forest health, productivity, sustainability, species diversification and structural diversity where we can on these small ownerships. The primary management objective for lands in section 17 is education regarding and maintenance of the historical Beal Plantation. The primary management objective for lands in section 18 is maintenance of swamp and lowland types for wildlife and fisheries habitat. The primary objective for lands in section 12 is military use and to maintain the current sustainability of forest cover types on this military board land. The DNR will coordinate all prescribed activities with the National Guard to ensure they are compatible with military training needs.

**Soil and Topography:** The topography of this compartment is flat to slightly rolling. The upland soils are primarily Grayling sands, the lowland portions are Tawas-Leafriver mucks.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This compartment has very fractionalized ownership. The majority of property within the compartment boundary is private. This compartment is made up of three small parcels of state ownership and one small parcel of military board land in the vicinity of the City of Grayling. Commercial and residential development is present throughout.

**Unique, Natural Features:** Per Michigan Natural Features Inventory there is potential for dusted skipper, grizzled skipper, red-legged spittlebug, Henry's elfin, secretive locust, and boreal brachionycha in barren areas. The compartment shows potential for red-shouldered hawk and goshawk. Wood turtles and Blanding's turtle could be found in the streams. Eagle and osprey may also occur. Michigan Natural Features Inventory reports "excellent potential" for eastern massasauga rattle snake.

Potential plant species are rough fescue, pale agoseris, Hill's thistle, and Alleghany plum in pine barrens/dry sand prairie. False violet could occur in hummocky pine, hardwood, or aspen stands. Rare plants of Cedar Swamps: round-leaved orchis, calypso, ram's-head lady's slipper, and limestone oak fern may be present. There is potential for clubmoss in moist grassy depressions or moist sandy soil/borrow pits. Houghton's goldenrod might be found in seasonally moist grassy depressions.

**Archeological, Historical, and Cultural Features:** The Beal Plantation is found in section 17. It was established in 1888, and is one of the nation's first forest plantations. There is a parking lot, walking path and interpretive signs.

**Special Management Designations or Considerations:** The Military Board Lands found in the compartment are designated "special conservation areas".

**Watershed and Fisheries Considerations:** Simpson Creek, a small tributary to the AuSable River is found in section 18.

**Wildlife Habitat Considerations:** Promote the expansion of aspen and oak cover types. Protect mast producing shrubs whenever possible. Efforts should be made to enhance dead and down woody debris and standing snags.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Michigan Formation, quarried for gypsum elsewhere in the State. The nearest gravel pit is located two and one-half miles to the north and potential is thought to be limited. The west part of the compartment is State Military Reservation. There are no oil and gas leases in this compartment. The nearest production is Beaver Creek Field, located six miles to the southwest.

**Vehicle Access:** The only portions of this compartment not accessible by vehicles are the parcels found in section 18 behind the Grayling Country Club. There is a non-exclusive easement along the center section line across the golf course. This easement is not currently drivable.

**Survey Needs:** None at this time.

**Recreational Facilities and Opportunities:** The Beal Plantation walking/hiking trail and Snowmobile Trail #782 are present. Evidence of hunting and gathering activities found throughout the compartment.

**Fire Protection:** Most of this compartment is urban. There is potential for some wildland fire activity in the barren portions of the compartment found section 12. Equipment access will be an issue for any events found around Simpson Creek.

➤ **The following reports are available:**

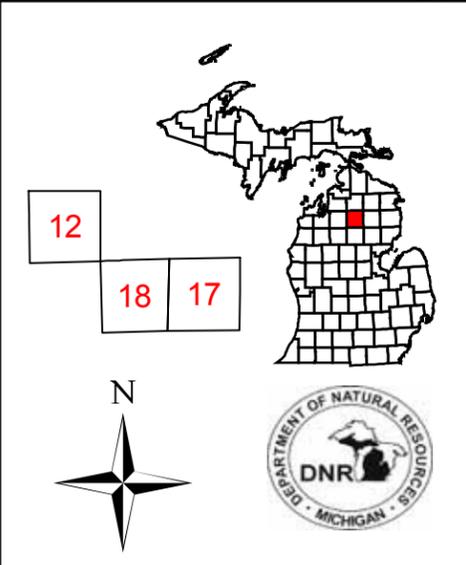
- ◆ **Total Acres by Cover Type and Age Class**
- ◆ **Proposed Treatment Summaries**
- ◆ **Dedicated Conservation Area Details**
- ◆ **Listing of Forested Stands**
- ◆ **Listing of Non-Forested Stands**
- ◆ **Proposed Treatments with No Limiting Factor**
- ◆ **Proposed Treatments with Limiting Factors**

➤ **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**
- ◆ **Dedicated & Proposed Special Conservation Areas**

# Cover Type & Treatment Map

Compartment 220  
 T26N, R03W, Sec. 17, 18  
 T26N, R04W, Sec. 12  
 County: Crawford  
 Unit: Grayling  
 YOE: 2013  
 Acres: 170 GIS Calculated  
 Stand Examiner: Lucas Merrick  
 Map Revised: 9/08/2011  
 Map Phase: Pre-Review



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

### Legend

- RIs Corners
- Miris Corners
- Remonumented Section Corners
- Highway
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Pipe
- Power
- Railroads
- Snowmobile Trail
- Snowmobile Trails
- Interstate Highway
- State Highway
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

### Treatments

- Clearcut (w/Reserves, Patch/Strip)

### Forest Stands

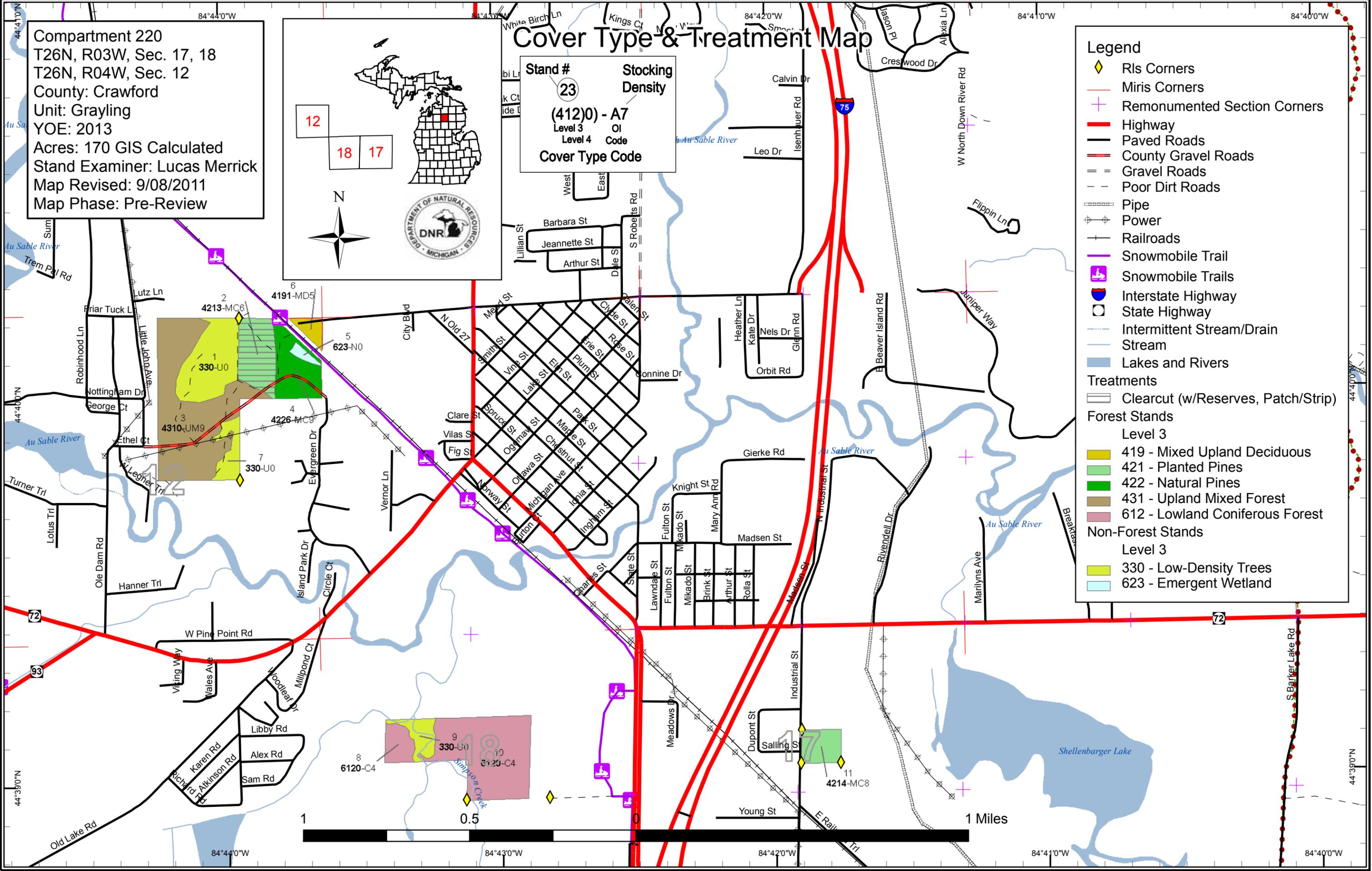
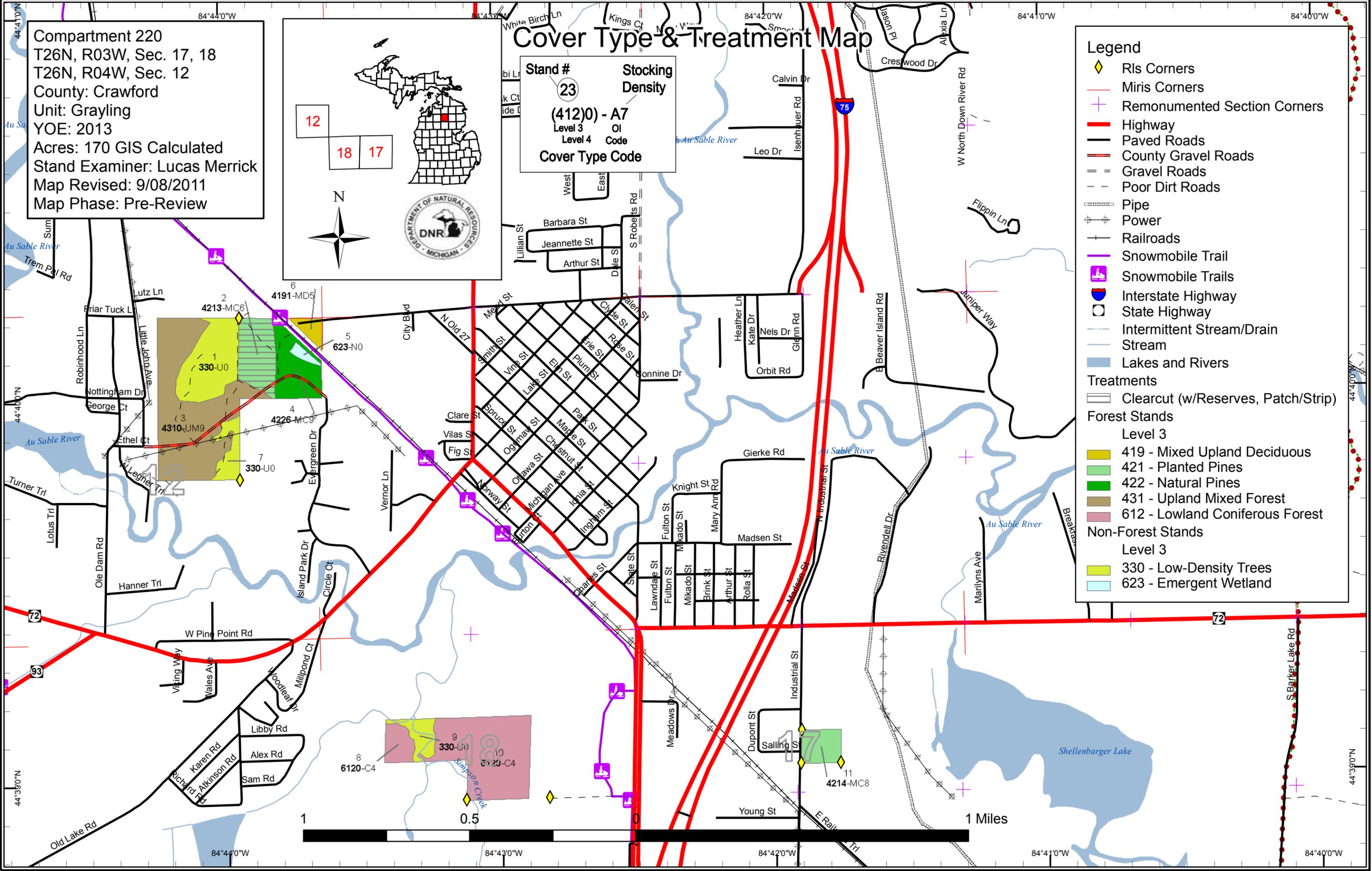
Level 3

- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

### Non-Forest Stands

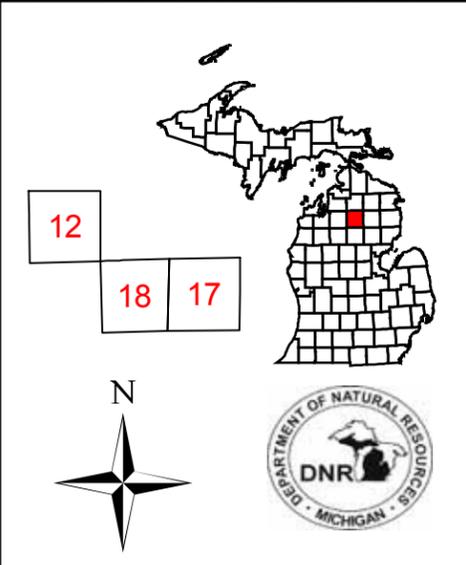
Level 3

- 330 - Low-Density Trees
- 623 - Emergent Wetland



# Stand Boundary Map

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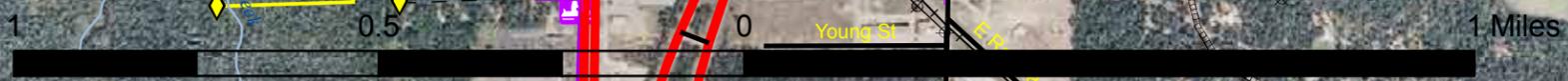
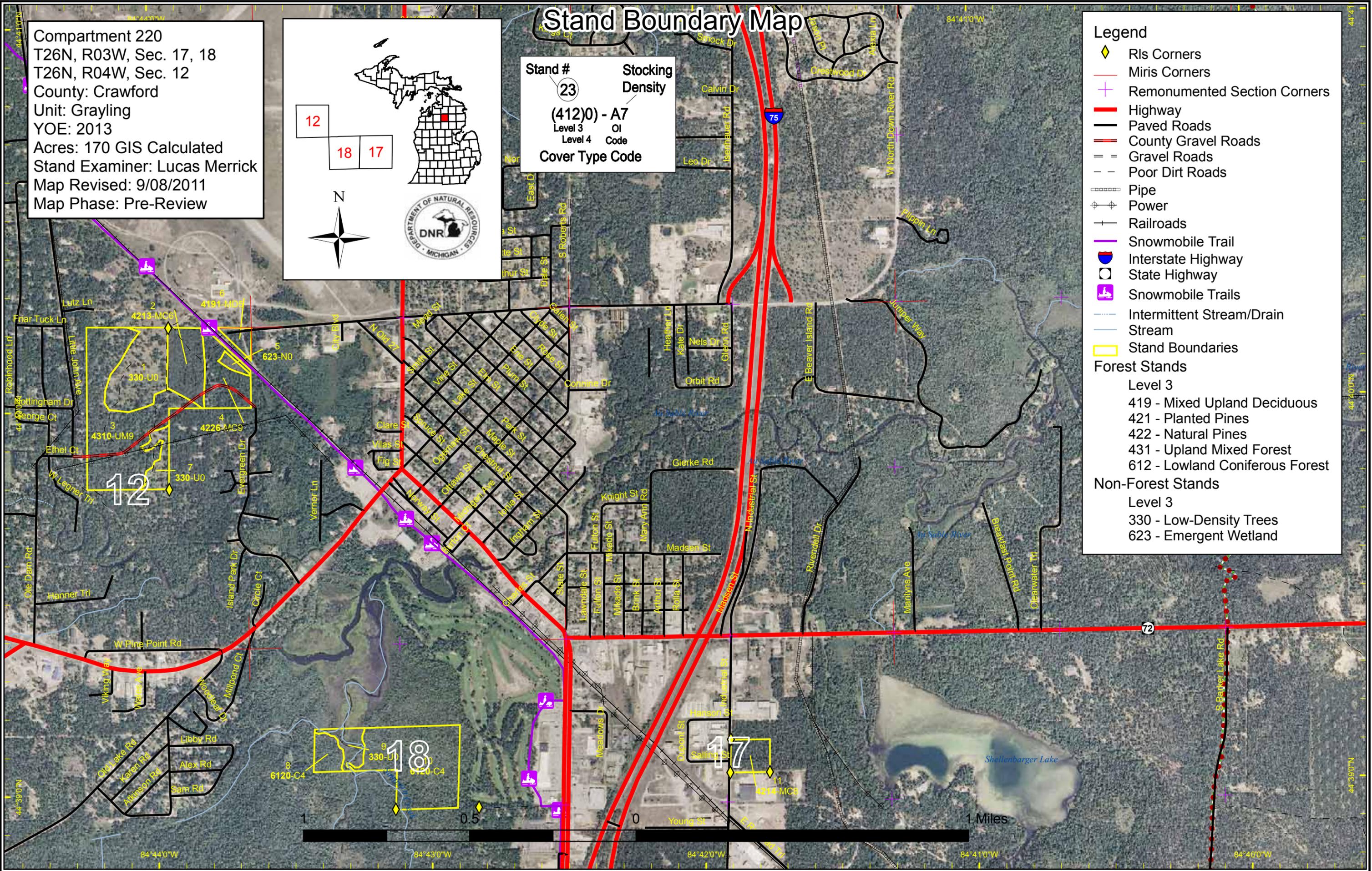
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- Highway
- Paved Roads
- County Gravel Roads
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- Poor Dirt Roads
- Pipe
- Power
- Railroads
- Snowmobile Trail
- Interstate Highway
- State Highway
- Snowmobile Trails
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

**Forest Stands**

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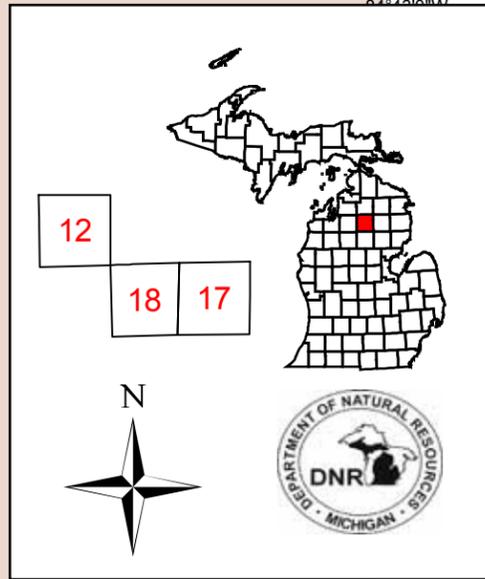
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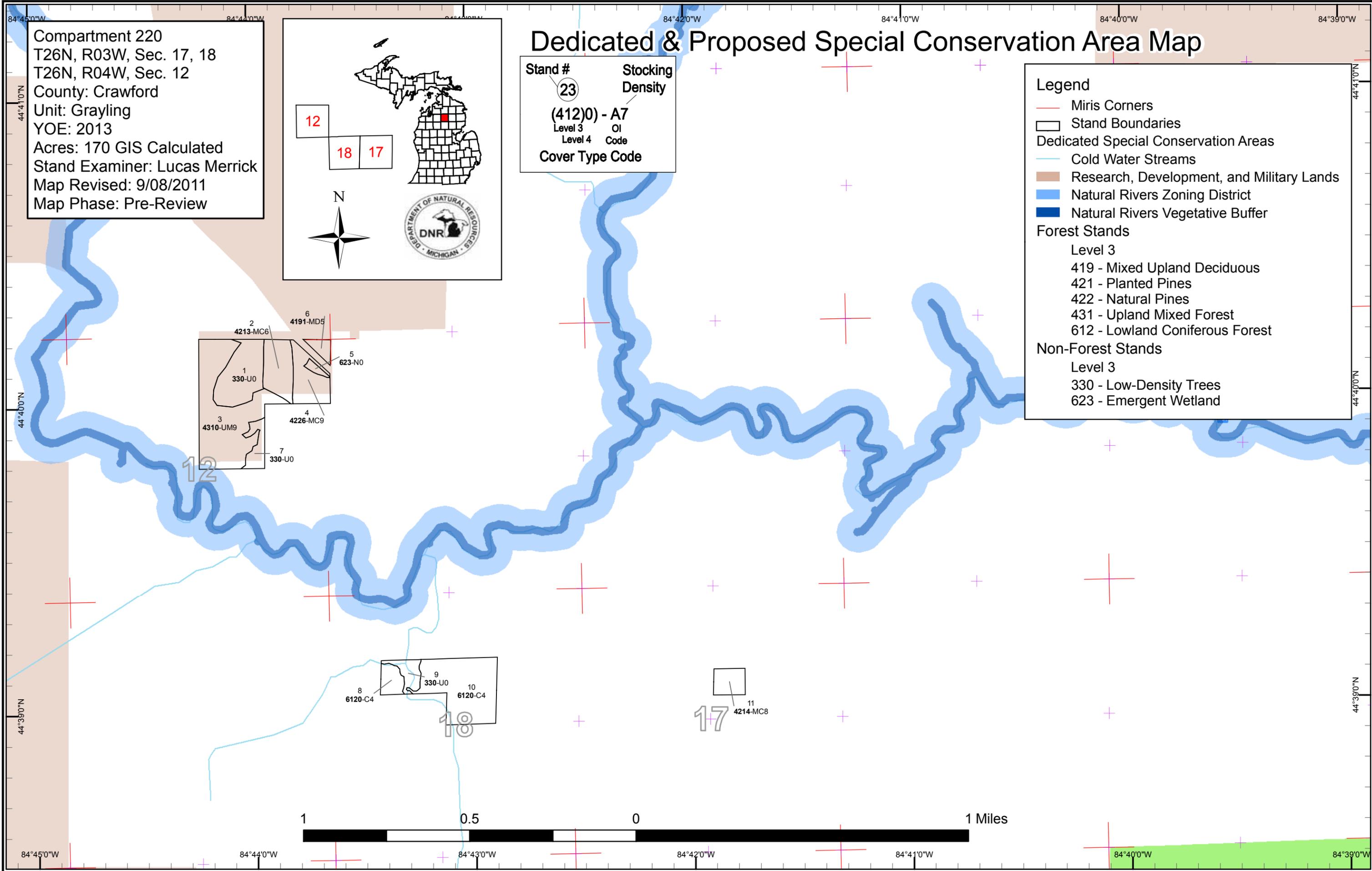
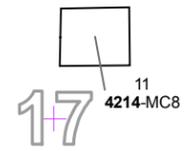
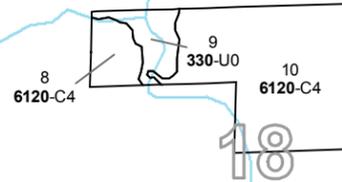
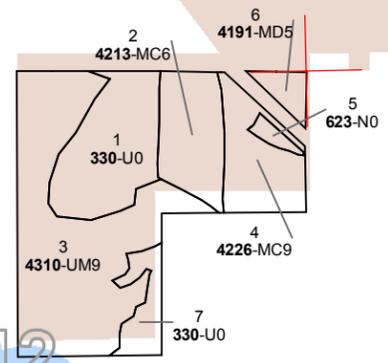
# Dedicated & Proposed Special Conservation Area Map

Compartment 220  
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 Level 4 Code  
**Cover Type Code**

- Legend**
- Miris Corners
  - Stand Boundaries
  - Dedicated Special Conservation Areas**
  - Cold Water Streams
  - Research, Development, and Military Lands
  - Natural Rivers Zoning District
  - Natural Rivers Vegetative Buffer
  - Forest Stands**
  - Level 3
  - 419 - Mixed Upland Deciduous
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  - Non-Forest Stands**
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**Table 1 – Total Acres by Cover Type and Age Class**



	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
Cedar	0	0	0	0	0	0	0	0	0	44	0	0	0	0	0	44
Low-Density Trees	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Marsh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Mixed Upland Deciduous	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	14
Planted Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	0	0	7	15	22
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	50
<b>Total</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>64</b>	<b>0</b>	<b>7</b>	<b>15</b>	<b>170</b>



## Table 2 – Proposed Treatment Summaries

**Grayling Mgt. Unit**  
**Year of Entry 2013**

**Compartment 220**  
**Total Compartment Acres: 169.8**

### Acres by Treatment Type

Commercial Harvest - 15	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
Planted Mixed Pines	15	0	0	0	0	0	0	15
Total	15	0	0	0	0	0	0	15

**Table 3 -- Treatments Prescribed  
with No Limiting Factor**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2 72220002-Cut	14.8	42130 - Planted Scotch Pine	High Density Pole	46	Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription: Remove as much scotch pine from the area as possible. Do not retain this species within the sale area. Make efforts to destroy any scotch pine regen. Suggest replanting to jack pine as long as it will not impact airport operations.

Other Comments: Chipping will be required and woody biomass will not be applied to facilitate planting and military needs. Found a rebar in the NW corner of Plantation

Next Steps: trench and plant after havest.

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**Total Treatment  
Acreage Proposed: 14.8**

Table 4 -- Treatments Prescribed with a Limiting Factor



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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 Comment:

Next Steps:

Limiting Factor and No Treatment Reason

**Total Treatment Acreage Proposed: 0**

Out of YOE -- Treatments  
Prescribed with No Limiting Factor

Year of Entry: 2013



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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**

S  
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a  
n  
d

## Grayling Mgt. Unit

## 5 – Forested Stands

Compartment: 220  
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
<b>2</b>	42130 - Planted Scotch Pine	High Density Pole	14.8	Uneven Age	81-110	Scotch pine plantation.
<b>3</b>	4310 - Pine, Oak Mix	High Density Log	49.8	107	111-140	A mixed pine and oak stand.
<b>4</b>	42260 - Natural Pine, Mixed Deciduous	High Density Log	14.4	108	111-140	An average mixed pine stand w/ a red maple and mixed pine understory.
<b>6</b>	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	3.2	40	51-80	Small stand created because of RR row.
<b>8</b>	6120 - Lowland Cedar	Low Density Pole	5.8	80		Lowland conifer swamp
<b>10</b>	6120 - Lowland Cedar	Low Density Pole	38.3	80	1-50	Deer activity is very high in this area. Excellent horizontal structure.
<b>11</b>	42140 - Planted Mixed Pine	Medium Density Log	7.5	123	111-140	Beal plantation, walking trail in stand.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	3303 - Mixed Low Density Trees	22.2	N/A	Unspecified	Stand is slowly seeding in w/ trees.
5	6230 - Cattail	1.5	N/A	Unspecified	Cattail lowland
7	3303 - Mixed Low Density Trees	6.3	N/A	Unspecified	Slowly seeding in.
9	3302 - Low Density Conifer Trees	6.0	No	Unspecified	With removal of old dam this area is starting to dry out a little. Simpson Ck found within stand.



### 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.

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.

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	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.
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.
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.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.