



GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 178 ENTRY YEAR: 2012

GIS Compartment Acreage: 1043 County: Crawford

Revision Date: 9/7/2010

Stand Examiner: Craig Farrer

Legal Description: T27N, R04W Section 20, 21 and 22, Frederic Township

Management Goals: To manage and maintain species and structural diversity, health, productivity, and sustainability throughout the compartment. To provide multiple uses of the land while incorporating any visual management.

Soils and Topography: Soil types, within this compartment consist of Grayling sands and Graycalm sands. Topography, within this compartment consists of many ridges and valleys throughout it.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Sections 21 and 22 is solid state ownership. Section 20 is mostly privately-owned with full time and seasonal residents, with the exception of an 80 acre parcel in the northeast quarter that is state-owned. Land use within the compartment is generally recreational.

Unique, Natural Features (include only non-site specific and non-sensitive information): None

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None recorded at this time.

Special Management Designations or Considerations: No special designations. Compartment is a major recreational corridor. The recreational trail system within the compartment is a major consideration to taken into account when doing forest treatments.

Watershed and Fisheries Considerations: None

Wildlife Habitat Considerations: To manage and maintain existing cover types for deer, bear, squirrel, turkey and grouse.

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 400 and 600 feet. Beneath the glacial drift is the Coldwater Shale. There is not an economic use for the Coldwater Shale. The nearest gravel pit is three miles to the south, and gravel potential is thought to be good on the upland areas. None of the State land in the compartment has been leased for oil and gas.

Vehicle Access: The compartment is accessed from Howes Lake Road, a county road. Howes Lake Road traverses north/south through the west portion of the compartment. A designated nowmobile trail # 5 and

several two tracks branch off this road and wind through the compartment. All newly created roads due to timber harvesting must be closed following the harvest.

Survey Needs: None.

Recreational Facilities and Opportunities: The compartment does provide many recreational opportunities such as hunting, snowmobiling, wildlife viewing and ORV riding. The Blue Bear Snowmobile Trail #5 / ORV Route traverses north/south through the compartment and the Frederic Loop ORV trail traverses through portions of this compartment.

Fire Protection: Fire protection is the responsibility of the Michigan DNRE and the Frederic Volunteer Fire Department. Current access is adequate for fire suppression equipment. Nearby water sources include the Manistee River and the North Branch of the Au Sable River.

Additional Compartment Information:

LOTS Compartment Acreage: 1,040 acres

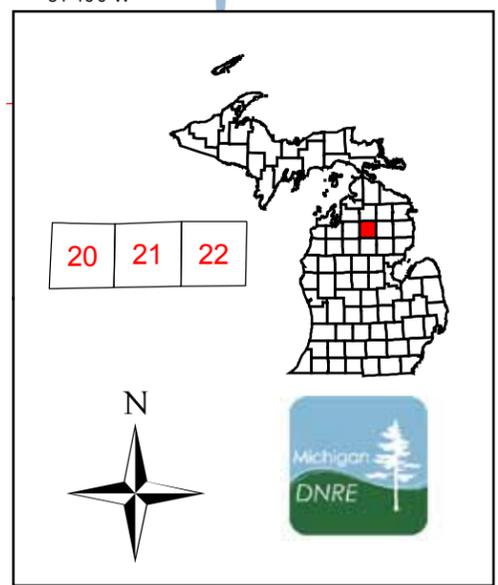
- **The following reports are available:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Proposed Treatment Summaries**
 - ◆ **Dedicated Conservation Area Details**
 - ◆ **Listing of Forested Stands**
 - ◆ **Listing of Non-Forested Stands**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed 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**

Cover Type & Treatment Map

Compartment 178
 T27N, R04W, Sec. 20, 21, 22
 County: Crawford
 Unit: Grayling
 YOE: 2012
 Acres: 1,043 GIS Calculated
 Stand Examiner: Craig Farrer
 Map Revised: 9/08/2010
 Map Phase: Pre-Review

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



Legend

- RIs Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Closed Roads
- Intermittent Stream/Drain
- Stream
- Trails
- ORV Trails
- ORV Routes
- Motorcycle Trails
- Snowmobile Trails
- Lakes and Rivers

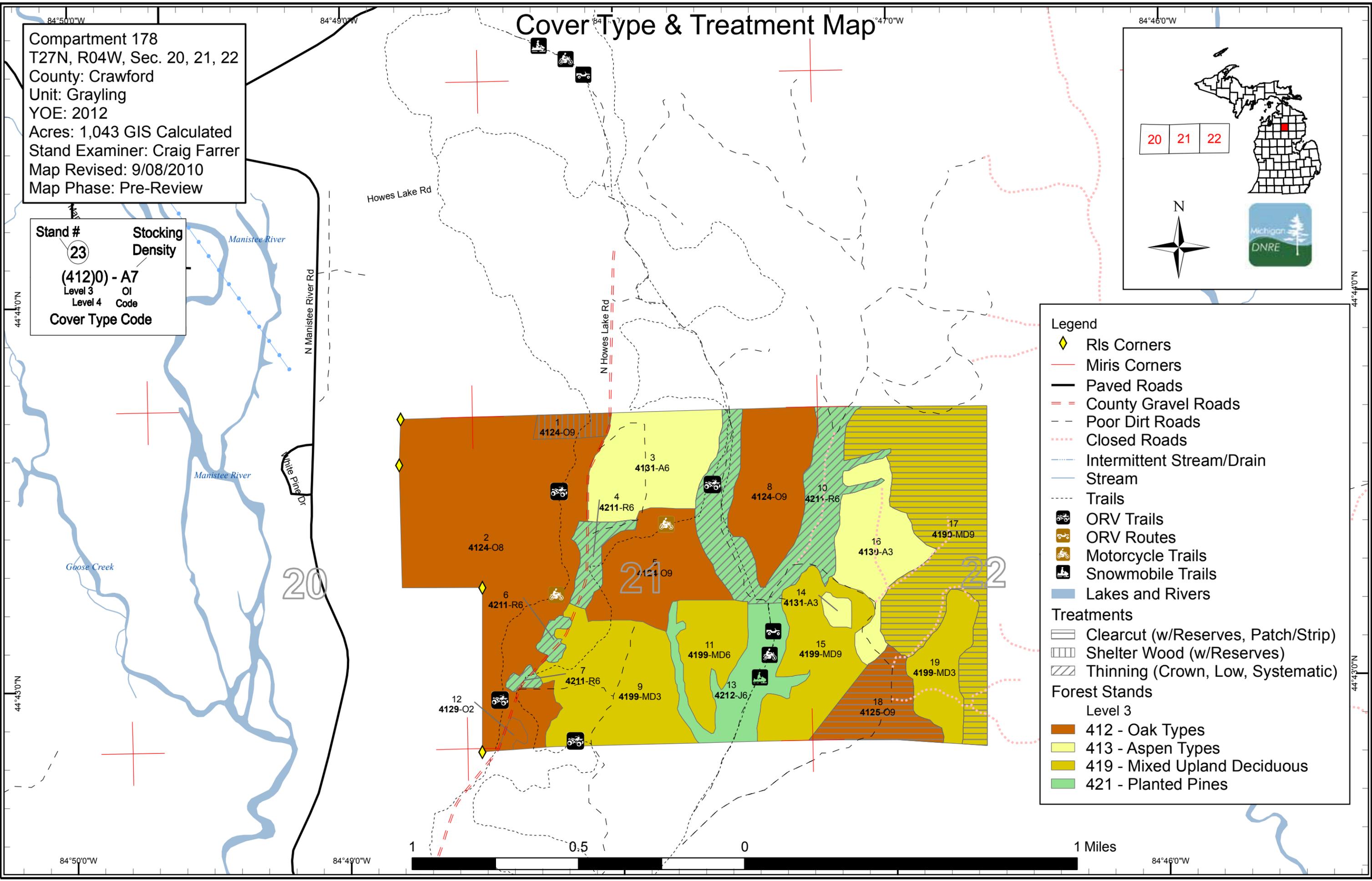
Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)

Forest Stands

Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines



Stand Boundary Map

Compartment 178
 T27N, R04W, Sec. 20, 21, 22
 County: Crawford
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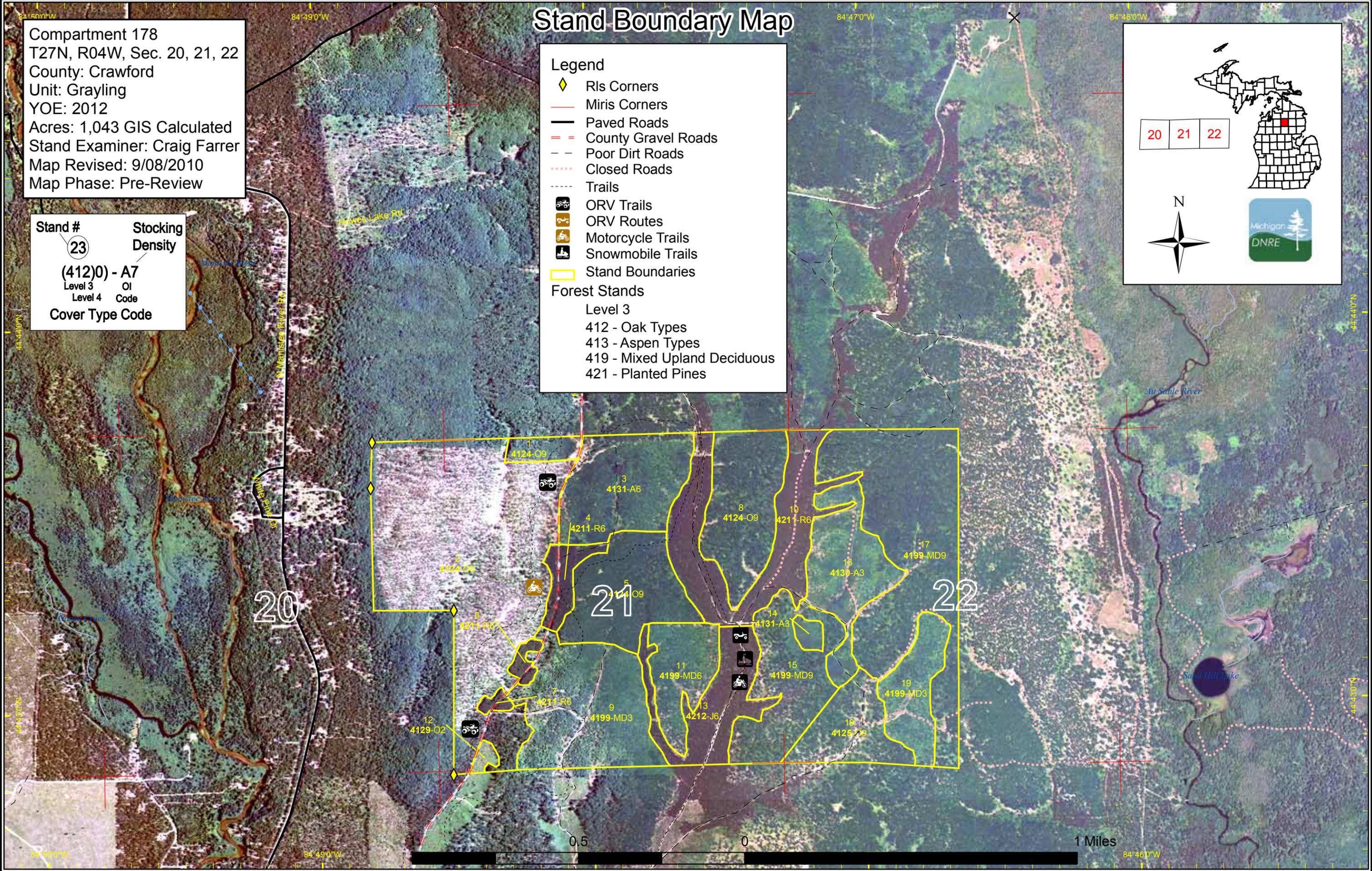
- RIs Corners
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- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Closed Roads
- Trails
- ORV Trails
- ORV Routes
- Motorcycle Trails
- Snowmobile Trails
- Stand Boundaries

Forest Stands

Level 3
 412 - Oak Types
 413 - Aspen Types
 419 - Mixed Upland Deciduous
 421 - Planted Pines

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84°50'0"W 84°49'0"W 84°47'0"W 84°46'0"W
 44°41'0"N 44°40'0"N 44°39'0"N 44°38'0"N

Dedicated & Proposed Special Conservation Area Map

Compartment 178
 T27N, R04W, Sec. 20, 21, 22
 County: Crawford
 Unit: Grayling
 YOE: 2012
 Acres: 1,043 GIS Calculated
 Stand Examiner: Craig Farrer
 Map Revised: 8/10/2010
 Map Phase: Pre-Review

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

Legend

- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas**
- Cold Water Streams
- Research, Development, and Military Lands
- Cold Water Lakes
- Kirtland Warbler Habitat
- Natural Rivers Zoning District
- Natural Rivers Vegetative Buffer
- Forest Stands**
- Level 3
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines

20 21 22

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Michigan DNR

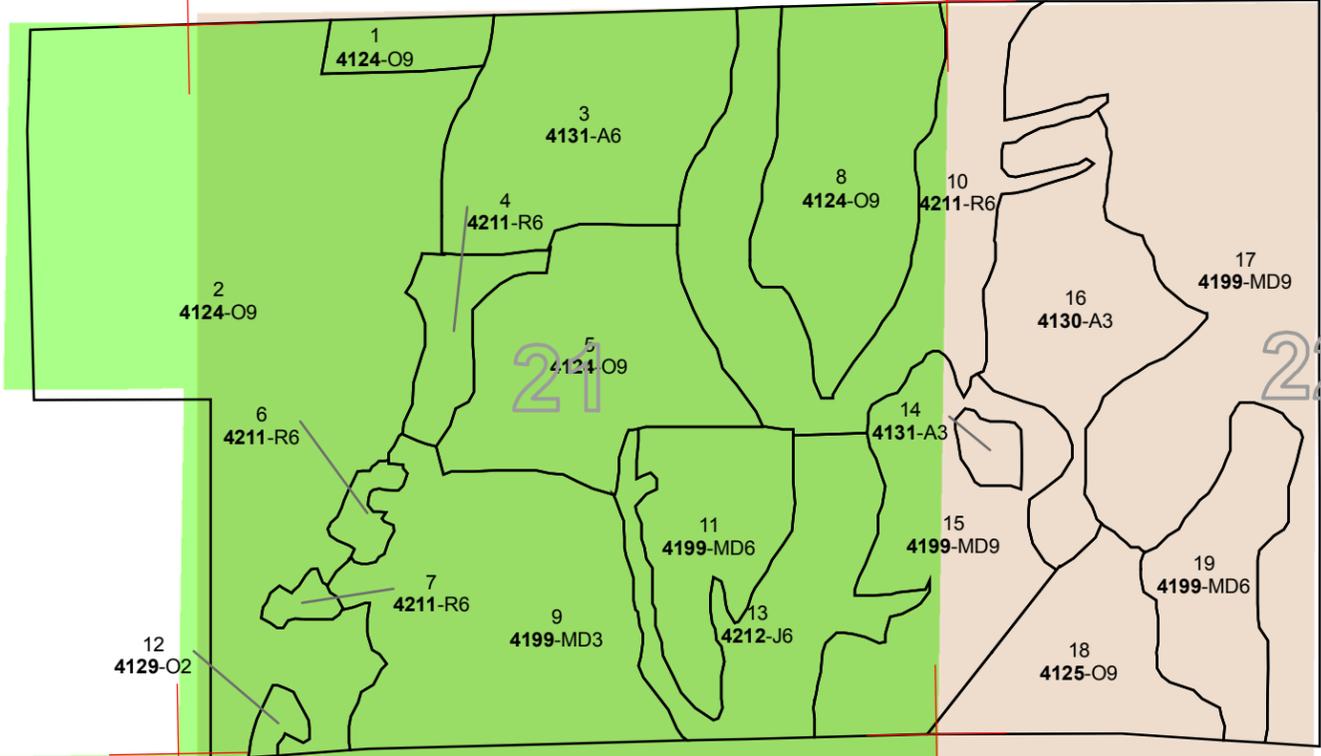
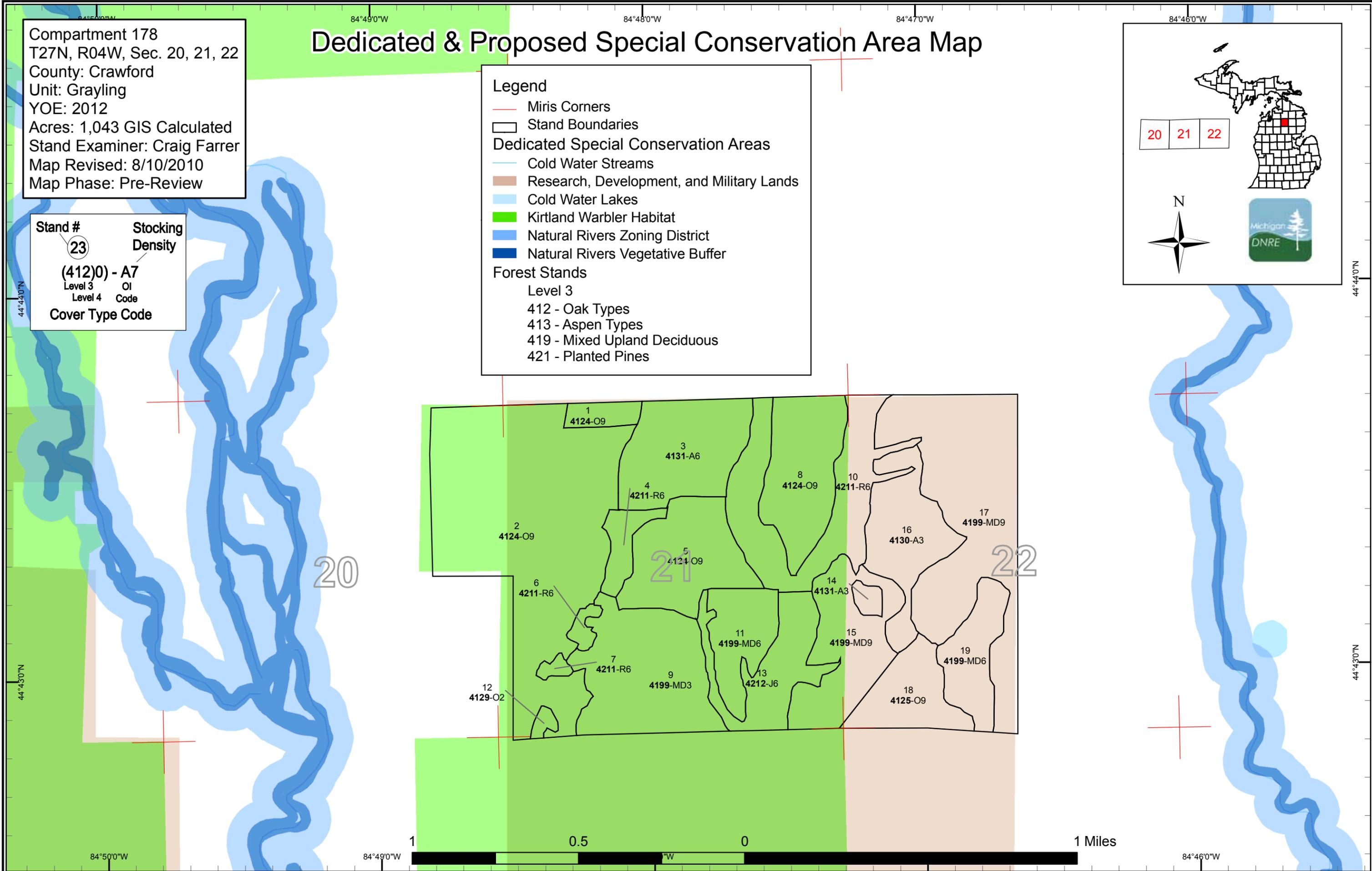


Table 1 – Total Acres by Cover Type and Age Class

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	0	127	0	0	0	0	0	0	0	0	0	0	0	0	127
Jack Pine	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	47
Mixed Upland Deciduous	0	0	89	70	0	0	0	0	0	198	0	0	0	0	0	358
Oak	0	0	3	0	0	0	0	0	0	244	100	63	0	0	0	409
Red Pine	0	0	0	0	0	0	103	0	0	0	0	0	0	0	0	103
Total	0	0	220	70	0	0	150	0	0	441	100	63	0	0	0	1043



Table 2 – Proposed Treatment Summaries

Data updated before 2:00 PM

Grayling Mgt. Unit
Year of Entry 2012

Compartment 178
Total Compartment Acres: 1043

Acres by Treatment Type

Commercial Harvest - 294	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
Mixed Upland Deciduous	142	0	0	0	0	0	142
Oak	38	0	0	10	0	0	48
Red Pine	0	0	0	0	103	0	103
Total	180	0	0	10	103	0	294



Data updated before 2:00 PM

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	72178001-Cut	10.3	4124 - Red with White Oak	High Density Log	89	Harvest	Shelterwood	Red with White Oak	Cmpt. Review Proposal
<u>Prescription</u> Mark 40 BA of Oak to leave with green paint and remove all Aspen and Red maple from the stand. Protect ORV trail that runs through the stand. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Will accept a mix of natural regeneration.									
4	72178004-Cut	14.5	42110 - Planted Red Pine	High Density Pole	51	Harvest	Systematic Thinning	Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> 3rd row thinning and removing other deciduous species and Jack pine within the rows. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u>									
6	72178006-Cut	5.0	42110 - Planted Red Pine	High Density Pole	51	Harvest	Systematic Thinning	Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> 3rd row thinning and removing other deciduous species and Jack pine. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u>									
7	72178007-Cut	3.2	42110 - Planted Red Pine	High Density Pole	51	Harvest	Systematic Thinning	Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> 3rd row thinning and removing other deciduous species and Jack pine within the rows. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u>									
10	72178010-Cut	80.7	42110 - Planted Red Pine	High Density Pole	51	Harvest	Systematic Thinning	Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> 3rd row thinning and removing other deciduous species and Jack pine within the rows. Follow snowmobile trail specifications for timber sale. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u>									
17	72178017-Cut	141.9	4199 - Other Mixed Upland Deciduous	High Density Log	87	Harvest	Clearcut with Reserves	Other Mixed Upland Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Final harvest with reserves. Leave large island between stand 16 and 19. Also leave 2 2 acre patches scattered in the north part of stand. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Will accept a mix of regeneration.									



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
18 72178018-Cut	38.1	4125 - Black, N. Pin Oak	High Density Log	92	Harvest	Clearcut with Reserves	Red with White Oak	Cmpt. Review Proposal

Prescription: Overstory removal. Removal all trees greater than 5 " at DBH. Protect all existing regeneration and trees less than 5 " at DBH

Specs:
Other Comments:

Next Steps:

**Total Treatment
 Acreage Proposed: 293.5**



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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

Data updated before 2:00 PM

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2012



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:

**Total Treatment
Acreage Proposed: 0**

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Grayling Mgt. Unit

5 – Forested Stands
Data updated before 2:00 PM

Compartment: 178

Year of Entry: 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4124 - Red with White Oak	High Density Log	10.3	89	141-170	Mature Oak stand with a Red maple understory. ORV trail traverses through a portion of the stand. Stand was part of stand 1 last entry.
2	4124 - Red with White Oak	Medium Density Log	233.2	89	1-50	Large stand off mature Oak. Stand was treated last entry year with a 40% crown closure (shelterwood seed cut). Regen is a mix of Aspen, Red maple and Oak. Oak is being competed by the other species. Several small openings exist within the stand in the valleys. Several two tracks exist within the stand that were blocked but since then have been breached. ORV trail traverses through a portion of the east side of stand. East side of stand borders Howes Lake Road.
3	4131 - Aspen, Oak	High Density Pole	67.6	17	51-80	Immature Aspen stand mixed with Oak and Red maple.
4	42110 - Planted Red Pine	High Density Pole	14.5	51		Red Pine plantation with a few deciduous species scattered throughout it. Mainly Oak, Red maple & Cherry. Howes Lake Road traverses north/south through center of stand.
5	4124 - Red with White Oak	High Density Log	62.5	102	51-80	Mature Oak stand that was thinned in 2006. All Aspen and Red maple was removed also. Red maple stump sprouting. Oak too, but is being heavily browsed. ORV trail runs through a portion of the stand.
6	42110 - Planted Red Pine	High Density Pole	5.0	51		Small Red Pine plantation. Howes Lake Road traverses north/south through the center of the stand.
7	42110 - Planted Red Pine	High Density Pole	3.2	51		Small Red Pine plantation with a few deciduous species scattered throughout the stand. Howes Lake Road traverses through the center of the stand.
8	4124 - Red with White Oak	High Density Log	61.6	90	81-110	Mature Oak stand that was thinned to 70 ba or had a species removal 15 to 20 years ago. Heavy Red maple understory.
9	4199 - Other Mixed Upland Deciduous	High Density Sapling	89.5	16		Immature Oak/Aspen/Red maple stand. Stand is starting to reach into pole size. West side of stand more dominantly Oak and east side Aspen (dencer too as seen in photo). Two track traverses through south portion of the stand and one up through the middle of stand to then north and dead ending.
10	42110 - Planted Red Pine	High Density Pole	80.7	51		Red Pine plantation. A few scattered hardwood species within the stand (cherry/oak). Blue Bear snowmobile/ORV route traverses through a portion of the stand. A blocked trail road traverses through a portion of the stand.
11	4199 - Other Mixed Upland Deciduous	High Density Pole	35.8	26		Stand swapped from Non-Forested to Forested.
12	4129 - Mixed Oak	Medium Density	3.1	19		Immature Oak/pine stand of variable sizes. 1 to 6 ft tall to 1 to 4 inches in dia.. Stand is part of large stand in compartment 179 to the south. West side of stand borders Howes Lake Road.

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Grayling Mgt. Unit

5 – Forested Stands

Data updated before 2:00 PM

Compartment: 178

Year of Entry: 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	42120 - Planted Jack Pine	High Density Pole	46.7	51		New stand added. Jack pine plantation with mixed deciduous species. Blue Bear snowmobile/ORV route traverses through the stand north/south. Stand continues south into compartment 179.
14	4131 - Aspen, Oak	High Density Sapling	4.8	10		
15	4199 - Other Mixed Upland Deciduous	High Density Log	62.5	87	81-110	Mature Oak stand mixed with Red maple and Red pine. Other hardwood and pine species mixed within the stand. Heavy deer browsing on what Oak regen that exists. Also heavy fuelwood cutting within stand including standing dead. Also oak mortality throughout the stand. Two track trails run through portions of the stand.
16	4130 - Aspen	High Density Sapling	54.6	18		Large immature Aspen stand mixed with deciduous species. (Cherry, Oak, Red maple). Blocked two track traverses through middle of stand north/south and along the south east corner. Two track runs along the south west corner of the stand.
17	4199 - Other Mixed Upland Deciduous	High Density Log	135.2	87	111-140	Mature Oak stand mixed with Red maple in over story and under story. White pine understory more dense in strip to south. All roads through the stand have been blocked.
18	4125 - Black, N. Pin Oak	High Density Log	38.1	92	1-50	
19	4199 - Other Mixed Upland Deciduous	High Density Sapling	34.5	20	1-50	Immature Oak, Aspen and Red Maple stand. Depends on where you are in the stand. Its in pockets as well as scattered throughout the stand. Two tracks around a portion of the stand as well as two the old landings in the stand have been blocked. Looks as though one to south has been breached.



Stand	Cover Type	Acres	Gen Cmts:
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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.
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.