



GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 287 ENTRY YEAR: 2014

GIS Compartment Acreage: 984 County: Crawford

Revision Date: 8/27/2012

Stand Examiner: Craig Farrer

Legal Description: T27N R01W Sections 1, 2,
Lovells 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 needed.

Soils and Topography: Soils consist of well-drained Grayling sand. The low areas contain poorly drained organic Rifle peat. The terrain is mostly flat with some rolling hills.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Private land is located on the east and west sides of the compartment. Some full time residence's are on the east side along Walsh Road. One private forty surrounded by state in section 2 should be considered for acquisition.

Unique, Natural Features: Pale agoseris found to the NE. Rough Fescue and Hill's Thistle are found to the north, west, and east. There is the potential for Calypso bulbosa, round leaved orchid, and limestone oak fern in this compartment.

Archeological, Historical, and Cultural Features: None.

Special Management Designations or Considerations: None.

Watershed and Fisheries Considerations: Middle Branch of Big Creek flows through private on the east side of section 1. The Middle Branch is a part of the Au Sable River Natural River designation.

Wildlife Habitat Considerations: To maintain existing cover types and promote age class diversity where possible to improve habitat conditions for various species of wildlife. The compartment contains winter deeryard. Manage timber to allow for abundance of natural browse within vicinity of deeryard.

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 400 and 800 feet. Beneath the glacial drift is the Coldwater Shale that does not have a current economic use. The nearest gravel pit is located one mile to the south and there may be gravel potential on the upland areas. There has been no drilling and there are no leases in this compartment. The closest production is the Connors Marsh Field to the south. The field produces gas from the Ordovician Prairie du Chien.

Vehicle Access: Thundermug, Townline, and Walsh Roads provide access to the West, North, and East sides of the compartment. No vehicle access to the south center because of the organic soils. All new roads created for timber sales will be closed upon completion of the sale.

Survey Needs: None.

Recreational Facilities and Opportunities: The compartment contains a portion of the Shore-to-Shore Riding and Hiking Trail in section 1. The Roll Hill snowmobile trail and the Midland to Mackinac hiking trail cross sections 1 and 2.

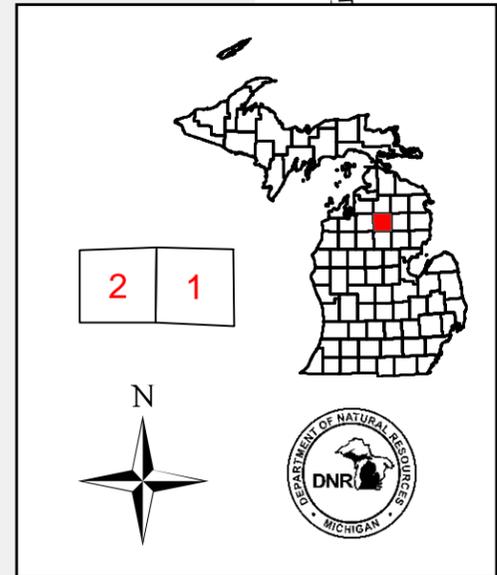
Fire Protection: Access to the fire prone types is more than adequate. Water may be obtained from the West Branch Big Creek three quarters of a mile west of the compartment on Townline Road.

Additional Compartment Information:

- **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**

Compartment: 287
 T27N R01W Se. 1, 2
 County: Crawford
 Unit: Grayling
 YOE: 2014
 Acres: 984 GIS Calculated
 Examiner: Craig Farrer
 Map Revised: 09/05/2012
 Map Phase: Pre-Review



Cover Type & Treatment Map

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

Legend

- ✚ Remonumented Section Corners
- ◇ Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- Intermittent Stream
- ⊕ Powerlines
- Horse Trail
- Hiking Trail
- Snowmobile Trail
- 🚶 Hiking Trails
- 🐎 Horse Trails
- 🚙 Snowmobile Trails
- 🟦 Lakes and Rivers
- 🟤 State Forest Land

Treatments

- ▭ Clearcut (w/Reserves, Patch/Strip)
- ▭ Shelter Wood (w/Reserves)

Forest Stands

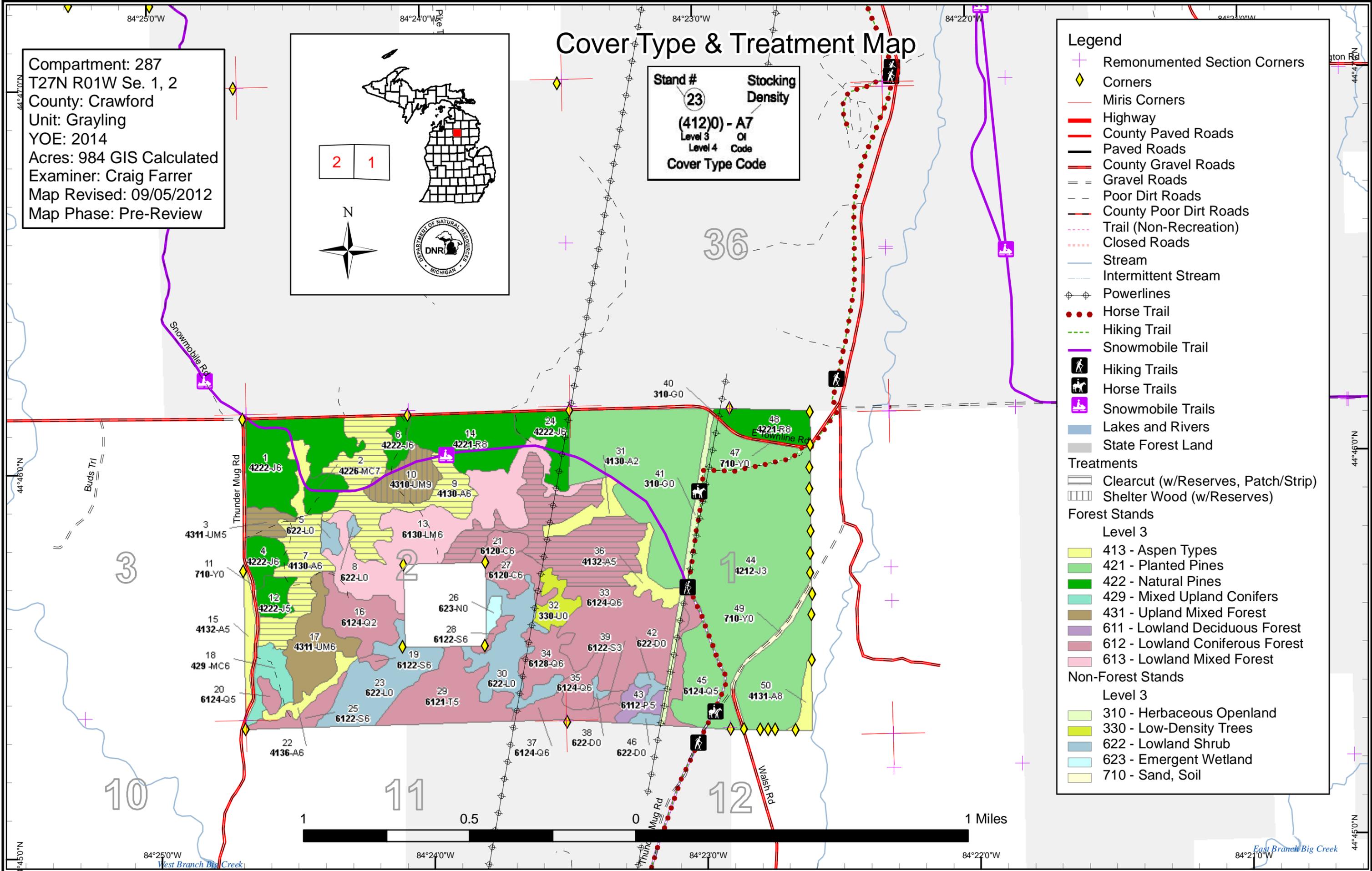
Level 3

- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

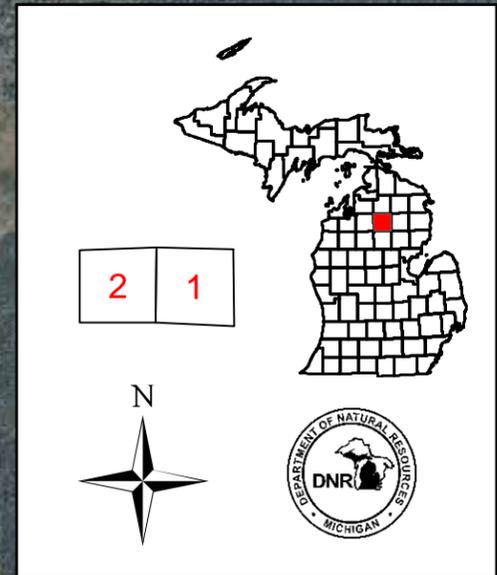
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil



84°25'0"W 84°24'0"W 84°23'0"W 84°22'0"W
 44°45'0"N 44°46'0"N 44°47'0"N

Stand Boundary Map

Compartment: 287
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 Level 3 of
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- 🐎 Horse Trails
- 🚙 Snowmobile Trails
- Stand Boundaries

Forest Stands

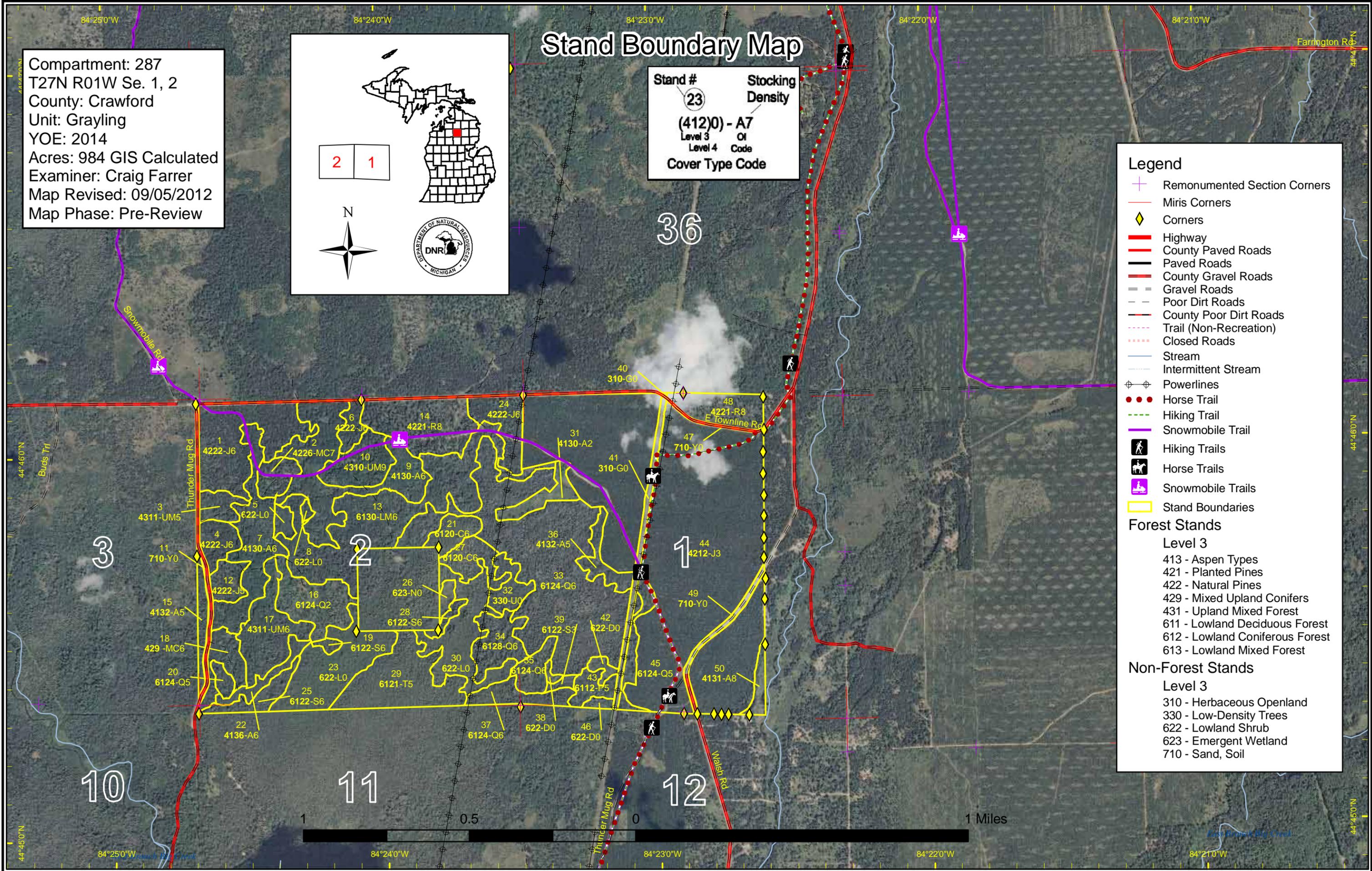
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Non-Forest Stands

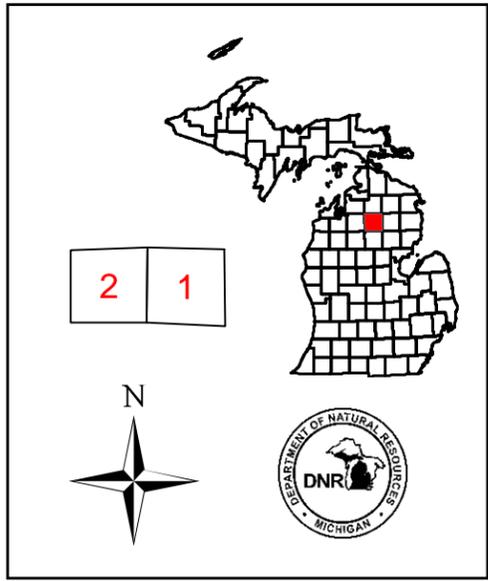
Level 3

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Dedicated & Proposed Special Conservation Area Map

Compartment: 287
 T27N R01W Se. 1, 2
 County: Crawford
 Unit: Grayling
 YOE: 2014
 Acres: 984 GIS Calculated
 Examiner: Craig Farrer
 Map Revised: 09/05/2012
 Map Phase: Pre-Review



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

Legend

- + Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
- Cold Water Streams
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Kirtland Warbler Habitat

Forest Stands

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Non-Forest Stands

Level 3

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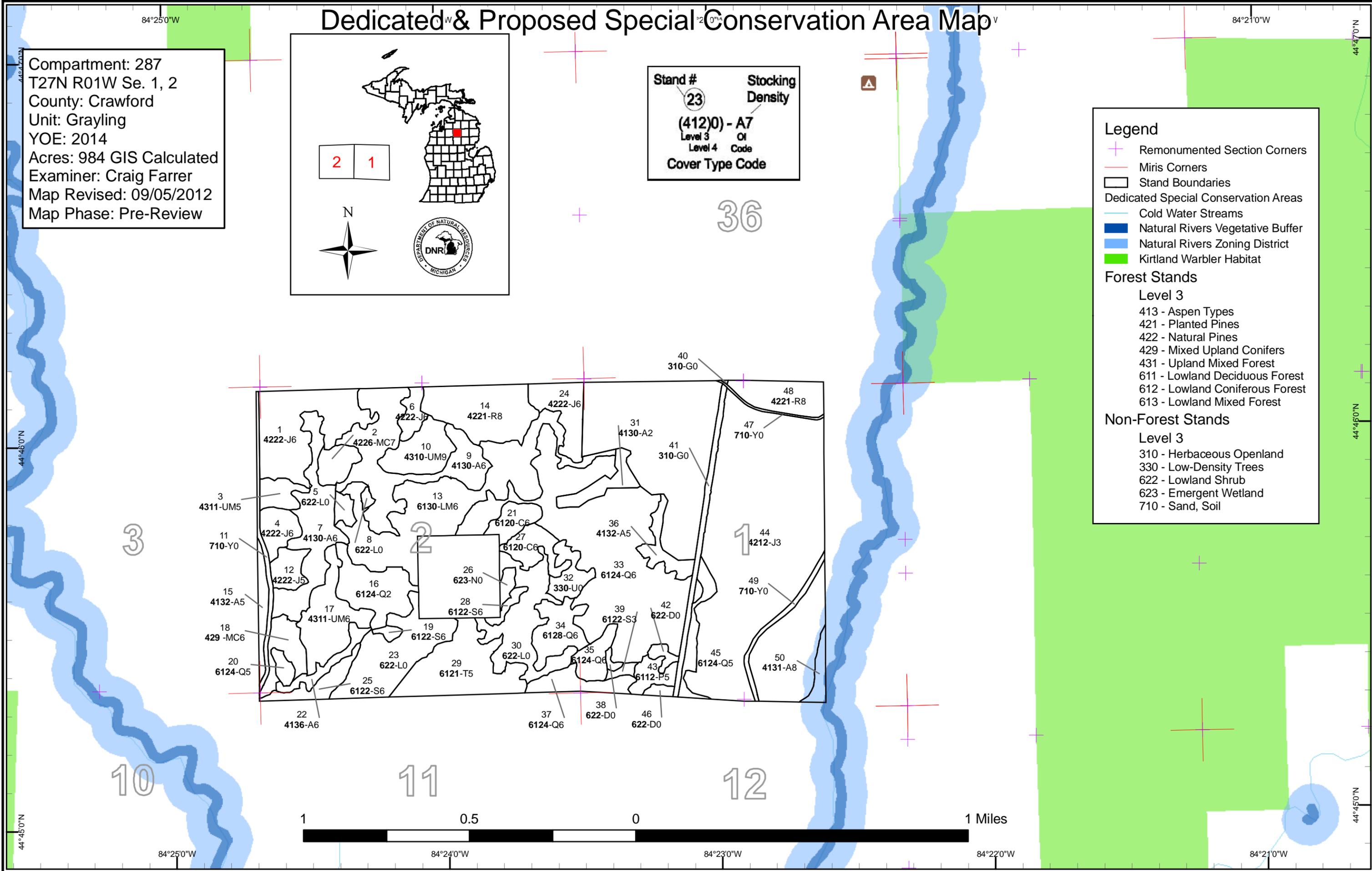
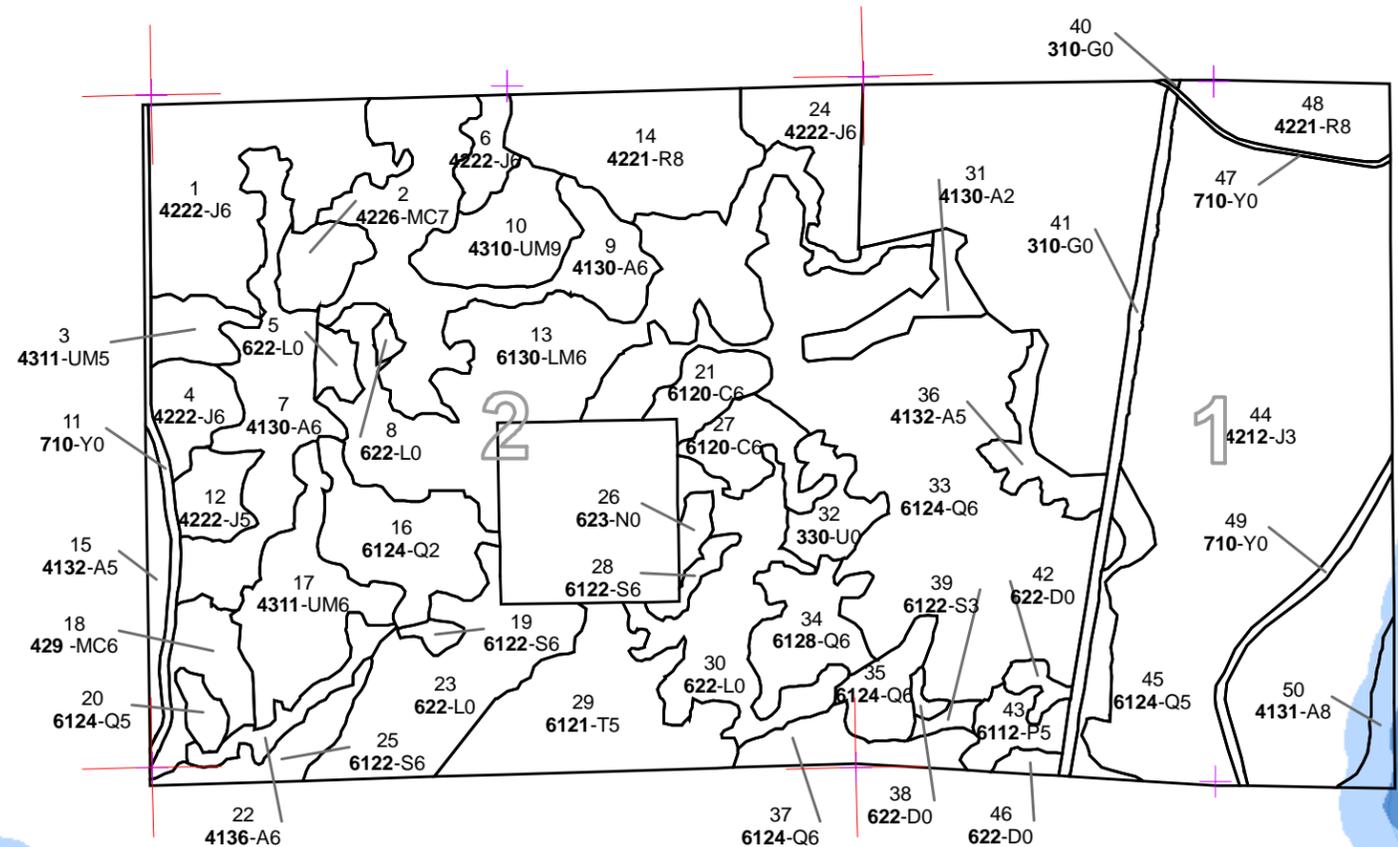


Table 1 – Total Acres by Cover Type and Age Class



	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	8	0	0	8	12	74	0	0	0	5	0	0	0	0	107
Cedar	0	0	0	0	0	0	0	0	0	0	18	0	0	0	18
Herbaceous Openland	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Jack Pine	0	0	276	0	74	0	0	0	0	0	0	0	0	0	350
Low-Density Trees	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Aspen/Balsam Poplar	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
Lowland Conifers	0	21	0	0	3	0	0	152	0	0	0	0	0	0	176
Lowland Mixed Forest	0	0	0	0	66	0	0	0	0	0	0	0	0	0	66
Lowland Shrub	65	0	0	0	0	0	0	0	0	0	0	0	0	0	65
Lowland Spruce/Fir	0	0	0	2	0	0	0	12	0	0	0	0	0	0	14
Marsh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Natural Mixed Pines	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Red Pine	0	0	0	0	0	0	0	0	46	0	0	0	0	0	46
Sand, Soil	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Tamarack	0	0	0	0	0	0	0	33	0	0	0	0	0	0	33
Treed Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Upland Conifers	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
Upland Mixed Forest	0	0	0	0	30	0	0	16	0	0	0	0	0	0	46
Total	111	21	276	16	196	74	0	213	53	5	18	0	0	0	984



Table 2 – Proposed Treatment Summaries

Grayling Mgt. Unit
Year of Entry 2014

Compartment 287
Total Compartment Acres: 983.7

Acres by Treatment Type

Commercial Harvest - 150	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
Aspen	69	0	0	0	0	0	0	69
Lowland Conifers	59	0	0	0	0	0	0	59
Upland Mixed Forest	7	0	0	16	0	0	0	22
Total	134	0	0	16	0	0	0	150



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3	72287003-Cut	6.7	4311 - Pine, Aspen Mix	Medium Density Pole	41	1-50	Harvest	Clearcut	4311 - Pine, Aspen Mix	Cmpt. Review Proposal
<p><u>Prescription:</u> Final harvest with stand 7, but leave a patch of 1 acre in size for retention. Jack pine was damaged in past winter. Tops broke and trees bent over. Keep two track open following sale.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Stand should regenerate to an Aspen / Jack pine mix. Follow up with a regen survey</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
7	72287007-Cut	25.2	4130 - Aspen	High Density Pole	51	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription:</u> Final harvest but leave 2 to 3 1 acre patches scattered throughout stand for retention. Do not treat the finger on the northend of stand.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Stand should regenerate to Aspen naturally. Will accept Aspen with a mix of species. Regen survey need.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
9	72287009-Cut	43.3	4130 - Aspen	High Density Pole	51	141-170	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription:</u> Final harvest with reserves. Leave 2-3 patches 1 acre in size scattered throughout stand for retention.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Should regenerate to Aspen naturally. Will accept a mix of Aspen with other species. Regen survey needed</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
10	72287010-Cut	15.6	4310 - Pine, Oak Mix	High Density Log	79	81-110	Harvest	Shelterwood	42250 - Pine, Oak	Cmpt. Review Proposal
<p><u>Prescription:</u> Recommend a shelterwood cut. Mark to leave 40- 50 BA of Red pine within the stand area. Where Oak is in the stand and is the heaviest. Mark to leave 30-40 BA if possible. Remove all aspen if possible. Protect Snowmobile trail.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Will accept a mix of species for regeneration. Mostly Aspen/ Oak with some Jack pine/ Red pine. Moderately stocked</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										

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



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
33 72287033-Cut	59.2	6124 - Lowland Spruce-Fir	High Density Pole	72	111-140	Harvest	Clearcut with Reserves	6124 - Lowland Spruce-Fir	Cmpt. Review Proposal

Prescription: Final Harvest with reserves. Use standard retention guidelines. Use low ground pressure equipment. Require a pre bid meeting. Protect all very wet areas.

Other: Added at compartment prereview.
Comments:

Next: Will accept a moderately stocked lowland spruce fir mix with lowland shrubs. Will require a regen survey.
Steps:

Proposed
Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 149.9**

Table 4 -- Treatments Prescribed with a Limiting Factor



S
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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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#Error

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Error

Limiting Factor and No
Treatment Reason

**Total Treatment
Acreage Proposed: 0**

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
72269_OYOE_cc	2.0					Harvest	Clearcut	4131 - Aspen, Oak	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Final harvest except leave any beech, ash, and conifers. No additional retention specified due to small stand size and the proximity of retention in comp 268 stand 28. Set up concurrent with compt 268 (2014 YOE) stand 28.</p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Natural regen survey. Natural regen goal is a mixture of aspen, oak and hardwoods.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>									
72272_OYOE_ccr	5.6					Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Final harvest except leave the RP & WP. No additional retention due to small stand size. Run the north & west boundary to include the operable transition ground (where the densest black spruce cover is) down to the swamp. Cut all JP & Scotch pine stems regardless of merchantability. Harvest concurrent with the adjacent comp 268 stand 6 (aquired through the same land transaction). When harvesting this stand's planted SP, site a secondary landing immediately adjacent to the plantation so that Scotch pine doesn't get dragged through the general stand area, distributing its weed seed. Add hare habitat improvement spec to fell the red-painted boundary line trees bordering the swamp.</p> <p><u>Other Comments:</u> Protect the survey monument and any witness trees associated with the north quarter corner of section 22. Borders the Lovells KW Unit, Management Block 56.</p> <p><u>Next Steps:</u> Trench and plant JP to KW specs. May need site prep treatments (that could include burning, herbicide, etc.) to control scotch pine regen before planting. Artificial regen surveys. Acceptable regen is JP at stockings suitable for KW habitat, with minor components of naturally-established mixed deciduous and native conifer species.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>									
72289_OYOE_cc	6.7					Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Final harvest, leaving any RP, WP and white oak. No additional retention due to small stand size. Treat concurrent with the adjacent comp 290 stand 26.</p> <p><u>Other Comments:</u> Protect the survey monument and witness trees associated with the quarter corner common to sections 26 & 27.</p> <p><u>Next Steps:</u> Trench and plant JP to KW specs. Artificial regen surveys. Acceptable regen is JP at stockings suitable for KW habitat, along with naturally-established oak and pine.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>									

**Total Treatment
Acreage Proposed: 14.3**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	38.7	41	51-80	Young Jack pine pole std mixed with other deciduous species. Red pine sawtimber and pole timber scattered throughout east portion of std. Pockets of young pole size aspen within std along with some pole size oak. A small pocket of almost pure Red pine within std where snowmobile and Midland to Mackinac trail traverses through std. Red pine pocket 130 BA.
2	42260 - Natural Pine, Mixed Deciduous	Low Density Log	7.6	81	51-80	Mixed semi open std Large Red pine on perimeter and scattered within std. A couple of pockets of young Jack pine poles and a couple of pockets of young and older aspen. Oak scattered throughout and the remaining patches of upland brush and grasses. Snowmobile trail and Midland to Mackinac trail traverses through std. Old two track traverses south out of std. Red pine age 81(aged with other Red pine) Age 51 is aspen(aged with adjacent aspen std).
3	4311 - Pine, Aspen Mix	Medium Density Pole	6.6	41	1-50	Aspen/Jack pine stand with upland brush (cherry) scattered throughout stand. Aspen is Quaking and of somewhat poor quality. If treated, I recommend a final harvest with stand 4 to the south and the Aspen pocket in stand 1 to the north and then replant to Jack Pine or Red Pine. Aspen is going to be a competitive species along with cherry brush. Possibly herbicide before planting.
4	42220 - Natural Jack Pine	High Density Pole	8.5	41	51-80	Jack pine pole stand. Dense Jack pine in east and south portion of the std with scattered aspen throughout std and in a small clump. North west portion of the std more on the upland brush side with open grown and younger Jack pine scattered with aspen, but more dominantly with cherry shrub openings.
6	42220 - Natural Jack Pine	High Density Pole	5.5	41	51-80	New stand added. Young Jack pine std mixed with Aspen, Oak and Red pine. These species are scattered throughout Jack pine and are older in age except some of the Aspen. North end of std borders Townline Rd. Two track trail traverses north/south through std.
7	4130 - Aspen	High Density Pole	30.8	51	81-110	Upland Aspen std mixed with scattered Red pine. Both Bigtooth and Quaking aspen within std. Some low areas within std. Understory includes some Red and White pine, Balsam fir/spruce, Red maple, Cherry and a little bit of Oak. North end borders snowmobile trail and Midland to Mackinac trail and a portion to the west Thunder mug rd. Std was last harvested about the same time as the lowland Aspen in comp.
9	4130 - Aspen	High Density Pole	43.3	51	141-170	Pole size Aspen std with some logs. Std has some scattered Red maple, Oak and Red pine scattered throughout it. Snowmobile and Midland to Mackinac trail traverses through portions of this std.
10	4310 - Pine, Oak Mix	High Density Log	15.6	79	81-110	Red pine std mixed with hardwoods. Oak, Aspen and some Red maple scattered within std, but for the most part in the north west part of the std. Last entry this std was part of the surrounding Aspen stand and a small Oak std next to it. Snowmobile trail and Midland to Mackinac trail traverses through stand.
12	42220 - Natural Jack Pine	Medium Density Pole	7.2	41	51-80	Jack pine stand mixed with other conifer and cherry brush. Scattered Red pine and Balsam fir proude above main canopy. Stand borders Thunder Mug Rd.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	6130 - Fir, Aspen, Maple	High Density Pole	65.8	40	81-110	Lowland Aspen std (Quaking) mixed with Balsam fir and Blk spruce. Scattered Red pine in clumps and throughout the std. Pockets of high ground inter mixed with low areas of Fir/Spruce and tag adler. Couple of areas of med. White pine understory and Jack pine understory(north). Aspen with in std was cut about the same time as that of upland Aspen stds within comp. Std borders a pvt 40 and mixed conifer swamp in south. If harvested, cut in winter to avoid major rutting, provide some winter food for deer/rabbit and to get a flush of Aspen in the spring.
14	42210 - Natural Red Pine	Medium Density Log	30.2	81	51-80	Red pine std. Spieces removal in 1995 under contract 720219401. Red pine was left. Jack pine regen filling in under Red pine in the north along Townline Rd. Oak regen in the south under Red pine and Red pine regen scattered throughout std. Midland to Mackinac trail and snowmobile trail traverses through the south portion of the std. Damage to regen would occur if treated. No treatment recommended.
15	4132 - Aspen, Jack Pine	Medium Density Pole	6.0	43	51-80	Aspen(quaking)/Jack pine stand mixed with some Oak, Red and White pine and cherry brush. Narrow strip between private to the west and Thunder Mug rd to the east. Larger trees in the north and slowly getting smaller in height to the south. More upland brush to the south.
16	6124 - Lowland Spruce-Fir	Medium Density	20.7	17		A lowland Red maple std before it was harvested 17 years ago under contract 720240601. Deer hit the Red maple and Aspen regen very hard. As a result the east portion of the std is a mix of White pine, Balsam fir and Aspen and the west portion White pine, Balsam fir, Blk spruce and Aspen. Std does have some scattered basal area of Quaking Aspen and Blk spruce (10-40 singles or small clumps). Overall a sapling std. No treatment recommended.
17	4311 - Pine, Aspen Mix	High Density Pole	23.5	43	51-80	
18	429 - Mixed Upland Conifers	High Density Pole	10.4	43	51-80	New stand added. Std is a mix of Quaking aspen, Jack pine and White pine. Std also includes some scattered Balsam fir, Blk spruce and large diamter super canopy Red pine and White pine. Two track trail traverses through std. Also portions of std border Thunder Mug Rd. Recommend no treatment.
19	6122 - Black Spruce	High Density Pole	1.6	72	1-50	Lowland Spruce/fir. Deer yard in winter. Recommend no treatment.
20	6124 - Lowland Spruce-Fir	Medium Density Pole	3.1	43	51-80	New stand added. Lowland spruce/fir with Balsam fir, White pine and some aspen on the perimeter. Also std has scattered large diameter super canopy Red and White pine. Std somewhat borders Thunder Mug Rd.
21	6120 - Lowland Cedar	High Density Pole	7.7	104	81-110	Lowland cedar std. Std is dominantly N. White cedar with scattered Blk spruce and Balsam fir throughout it. Stand is very wet. Ground cover is mossy humks surrounded by water. Some leatherleaf and tag alder in understory with Blk spruce and Balsam fir seedlings and saplings. Mostly pole timber, but some small sawlog size cedar. Deer yard in winter. Recommend no treatment.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4136 - Aspen, Mixed Conifer	High Density Pole	6.3	43	51-80	New stand added. Quaking aspen std on ridges surrounded by swamp. Aspen with some pockets of spruce/fir within it. Some scattered Red and White pine legacy trees. Recommend no treatment.
24	42220 - Natural Jack Pine	High Density Pole	14.5	41	51-80	Young Jack pine pole stand with an approx. 2 acre stand of mature Red pine stand mixed with Jack pine in the north along Townline Rd. This 2 acre portion of the std is similar to std in adjacent comp to the north. The Midland to Mackinac trail and snowmobile trail traverses through the middle of std. Std is healthy and still young. No treatment recommended.
25	6122 - Black Spruce	High Density Pole	8.2	72	1-50	Lowland Spruce/fir or mixed conifer std. Scattered large diameter Red and White pine on perimeter and extending into stand. Heavy Balsam fir, Blk spruce and tag alder understory. Heavy understory of White pine in the perimeter of the std. Std gets wetter the deeper you go into it. Deer yard, especially during winter. South side of std borders private. Recommend no treatment.
27	6120 - Lowland Cedar	High Density Pole	10.3	104	51-80	Lowland cedar std that is wetter and less dense than adjacent cedar std. Std consists of cedar, blk spruce and some tamarack. Trees are on mucks surrounded by water, marsh grasses and some tag alder. Humks consist of single trees and up to 4 or 5 trees. Deer yard in winter. Very wet. Recommend no treatment. Balsam fir drops out of std or is very little in coverage.
28	6122 - Black Spruce	High Density Pole	2.5	72		
29	6121 - Tamarack	Medium Density Pole	33.4	72		Remote call. Did not visit std. Very wet to get to. Used old inventory data to make call. Old data consists of Tamarack 50 BA 3 sticks and N. White cedar 20 BA 3 sticks. Understory T2 and 6 inch dbh. Age 82 and site index of 36. Also limited factored as too wet.
31	4130 - Aspen	Medium Density	8.4	4		Immature Aspen std (Quaking). Harvested 4 yrs ago under contract 720240601. Aspen regenerating fine, meets regen goals.
33	6124 - Lowland Spruce-Fir	High Density Pole	112.1	72	111-140	Mixed lowland conifer swamp. Primarily Black Spruce mixed with Cedar, Tamarack and Balsam fir. No treatment recommended, unless there's a way to cut a large patch with wildlife div. okay. Stand is a deer yard.
34	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	14.1	71		
35	6124 - Lowland Spruce-Fir	High Density Pole	7.9	79	51-80	
36	4132 - Aspen, Jack Pine	Medium Density Pole	7.9	31		A young strip of Quaking Aspen mixed with Jack pine and cherry brush between lowland spruce/fir std and planted KW Jack pine stand. Recommend no treatment this entry year.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	6124 - Lowland Spruce- Fir	High Density Pole	10.0	79	51-80	Lowland Spruce/fir with scattered Cedar clumps and scattered Paper birch, Red maple and Quaking Aspen. Spruce/fir/tag ader understory. Very wet. Deer yard. Hardwood species are of poor quality and even dying out.
39	6122 - Black Spruce	High Density Sapling	1.7	31	1-50	Young Lowland blk spruce mixed with scattered Quaking aspen. Stand was part of adjacent Aspen std 40 last entry year. Most of std is less than 20 ft tall.
43	6112 - Lowland Aspen	Medium Density Pole	6.6	31	1-50	Lowland Aspen std mixed with some spruce and balsam fir. Patches and scattered spruce and balsam fir in understory. Ground is higher than surrounding ground.
44	42120 - Planted Jack Pine	High Density Sapling	276.0	23		Large Jack pine plantation. Planted for Kirland Warbler. Sapling stand starting to reach small pole size. Scattered Oak, Aspen and cherry brush(shrub) throughout stand. Snowmobile trail traverses through stand along with portions of Walsh road.
45	6124 - Lowland Spruce- Fir	Medium Density Pole	8.0	71	1-50	Some high ground, but mostly low ground. Aspen and Jack pine on higher ground and Black Spruce, Balsam Fir and some Jack Pine in the low areas of the stand. Stand is a narrow strip between powerline and KW plantation.
48	42210 - Natural Red Pine	Medium Density Log	15.5	81	51-80	Red Pine std. Under contract 720219401 all Jack pine was cut out of std. Four inch Jack pine now recruiting into some larger pole and more Jack pine has recruited in as saplings. Some scattered Oak saplings as well as pockets of aspen along the north side of std. Aspen pocket where cut when Aspen in compartment to north was cut. East side of std borders private and south side borders Townline Rd. Recommend no treatment now. Wait until Jack pine is merchantable and final harvest than and replant to Jack or Red pine.
50	4131 - Aspen, Oak	Medium Density Log	4.6	91		Over mature Aspen/Oak stand on steep slope and sloping into Middle Branch of Big Creek. Held as a buffer to the Middle Branch Of Big Creek (trout stream). Limited factor for slope steepness and BMP's. Aspen deteriorating and dying (mostly Quaking). Recommend no treatment and limit factor as before.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	6220 - Alder/willow	3.2	No	Lowland Mixed Forest	Tag Alder swamp with a chain to chain and a half mixed conifer strip around it. Strip contains primarily Balsam fir with some scattered Blk spruce, Aspen and Red pine. Aspen is in overstory or at the same level as the Balsam fir and on aerial photos with leaf on hides most of the Balsam fir. Aspen stds 6 and 11 surround this std.
8	6220 - Alder/willow	1.1	No	Lowland Mixed Forest	Tag Alder swamp with a chain to chain and a half strip of Balsam fir, Blk spruce and Aspen strip surrounding it. Aspen in leaf on photos hides the Balsam fir. Aspen std surrounds it.
11	710 - Sand, Soil	6.3	No	Unspecified	Thunder Mug County Road - gravel/good dirt road.
23	6229 - Mixed lowland shrub	31.9	No	Unspecified	Stand swapped from Forested to Non-Forested. Stand is predominately tag ader with scattered black ash, cedar, spruce and tamerack. Not enough tree spieces cover to be consider as lowland mixed low density trees. Very wet year around for the most part. Stand borders private to the north.
26	6230 - Cattail	2.5	No	Unspecified	
30	6229 - Mixed lowland shrub	28.5	No	Unspecified	Mixed lowland shrub swamp. Stand is predominantly tag ader with some scattered cedar, black ash, tamerack and black spruce. Very wet year around for the most part.
32	3302 - Low Density Conifer Trees	8.5	No	Unspecified	This stand is probably low density conifer trees of Black Spruce and Cedar with a heavy understory of Tag Alder.
38	6224 - Treed Bog	1.1	No	Unspecified	Treed bog with tag ader. A mix of conifers. Some cedar, black spruce, tamerack, white pine, and quaking aspen. Low to medium density. Tree speices on umacks surrounded by leather leaf, tag ader and marsh grasses. Stand water.
40	3105 - Mixed Upland Herbaceous	0.1	No	Unspecified	Powerline right of way north of Townline rd.
41	3105 - Mixed Upland Herbaceous	9.8	No	Unspecified	Cleared powerline. Easement across state land. Mostly on high ground, but a few pockets of low ground. Right of way maintained by power company.
42	6224 - Treed Bog	2.5	No	Unspecified	Tree bog/shrub swamp. Humks with tree saplings and small poles surrounded by water, leatherleaf and marsh grasses. Spruce and white pine. Aspen, spruce and balsam fir on perimeter.
46	6224 - Treed Bog	1.7	N/A	Unspecified	Stand swapped from Forested to Non-Forested.
47	710 - Sand, Soil	1.4	No	Unspecified	Aportion of Townline Road that traverses through the northeast part of the compartment.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
49	710 - Sand, Soil	4.5	No	Unspecified	Stand swapped from Forested to Non-Forested. Walsh Road - County road - gravel.



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.
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.