



# Compartment Review Presentation

## Grayling Forest Management Unit

Compartment 239

Entry Year 2015

Acreage: 1,836

County Crawford

Management Area: Camp Grayling

---

**Revision Date:** 06/13/2013

**Stand Examiner:** Joan Charlebois

### Legal Description:

T27N R03W Sections 24, 25, 36

### Identified Planning Goals:

To provide an area that allows for National Guard training while maintaining forest health, productivity, structural and species diversity, and sustainable use.

### Soil and topography:

The predominant soil type is Grayling sand on shallow to steeply rolling terrain. Graycalm-Grayling sands are concentrated in the compartment's north end, with scattered inclusions to the south.

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

All state land within the compartment is under the long-term lease agreement L-1479 (Act 154 P.A. 1935) with the Michigan National Guard, DMA for purposes of Military training. On these lands, Military needs take precedence over resource management activities. The DNR will coordinate all prescribed activities with the National Guard to ensure compatibility with their training needs. Private property adjoining the compartment's northwest and southeast corners have both year-round and seasonal residences.

### Unique Natural Features:

There is the potential for dry prairie plants to occur in grassy openings.

### Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

### Special Management Designations or Considerations:

Approximately two-thirds of the compartment is part of the Military's fenced Range 30 Complex. The compartment is a Special Conservation Area (SCA), falling within the Research, Development and Military Lands category.

### Watershed and Fisheries Considerations:

With the exception of sub-acre wetlands in the fenced Range area, the compartment is upland and lacking in riparian influence.

### Wildlife Habitat Considerations:

Specific wildlife habitat management activities are limited by Military use of the area, however, opening-dependent species benefit from the Military's prescribed burn regime. Outside of the fence, the regenerating oak and aspen cover provides habitat for upland game species.

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

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Marshall Sandstone. The Marshall was previously used as a building stone. The nearest gravel pit is located one mile to the north and potential is thought to be good in the upland areas. None of the compartment is leased for oil and gas. The nearest production is from the Antrim Shale, six miles to the northwest. There does not appear to be Antrim Shale potential in this Compartment.

### Vehicle Access:

Access within the fenced Range 30 Complex is limited to Military vehicles. Portions of the compartment outside of the fence are gated-off during active Military training. County road access includes Aragon Trail, North Redhead Lane and North Down River Road.

### Survey Needs:

None at this time.

**Recreational Facilities and Opportunities:**

The compartment contains no designated recreational trails or facilities. Outside of the Range fence, hunting is the primary form of dispersed recreation.

**Fire Protection:**

The Military regularly conducts prescribed burns within the fenced range area in order to reduce the vegetative fuel load. A wide sandy perimeter road also serves as a fuel break. Most of the compartment's south half burned in the 1975 North Down River Road fire. Water sources for fire suppression include nearby river crossings on Bobcat Trail, Wilcox Bridge Road and the Tank Access Trail.

**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: 239  
 T27N R03W Sec. 24, 25, 36  
 County: Crawford  
 Unit: Grayling  
 YOY: 2015  
 Acres: 1,836 GIS Calculated  
 Examiner: Joan Charlebois  
 Map Revised: 09/04/2013  
 Map Phase: Pre-Review

24  
 25  
 36



### Legend

- GPS Point
- Miris Corners
- Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Camp Grayling Fence
- Powerline
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

### Treatments w/ Site Condition

- Treatments w/ Site Condition

### Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Regeneration Survey

### Forest Stands

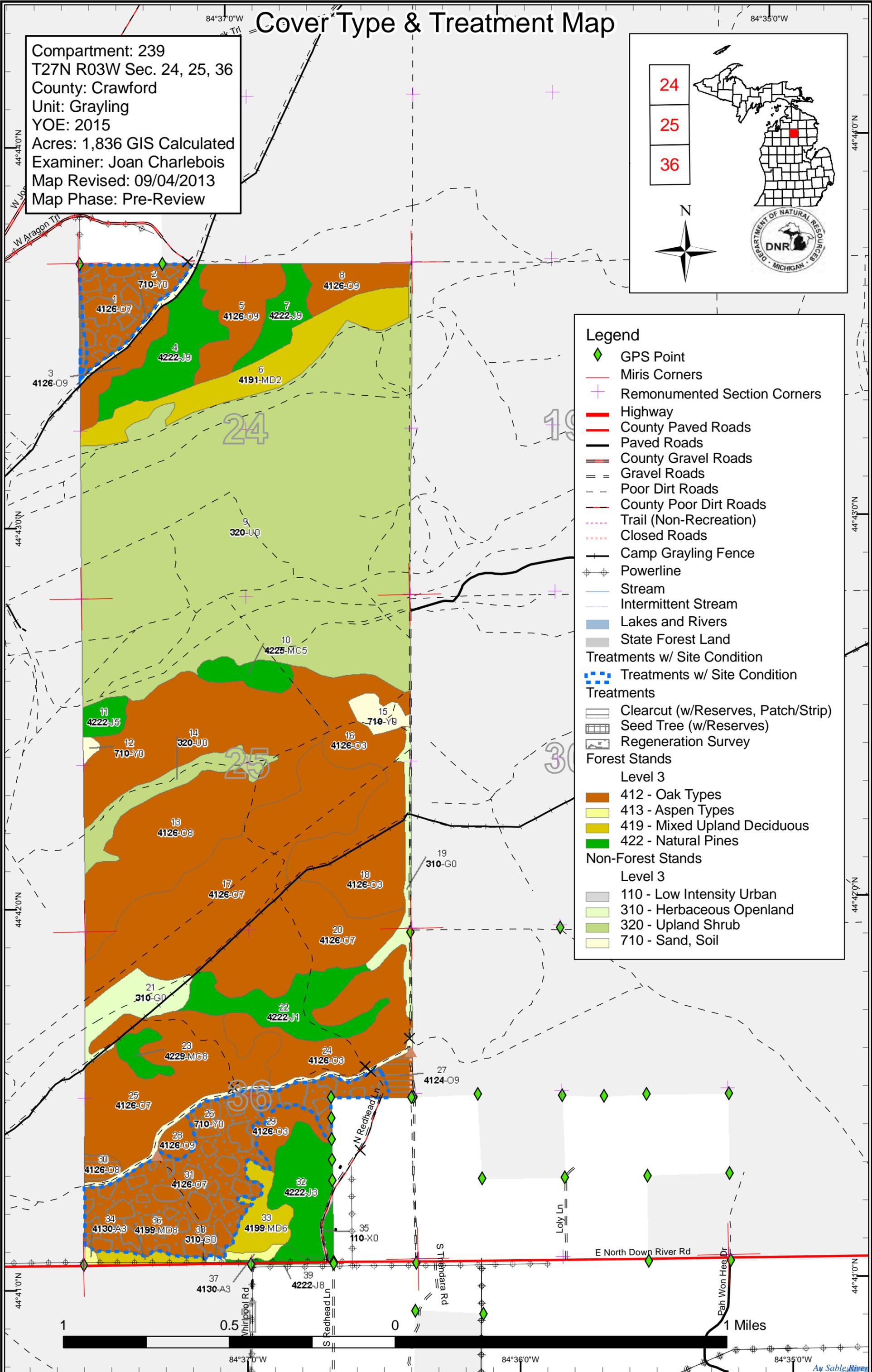
#### Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines

### Non-Forest Stands

#### Level 3

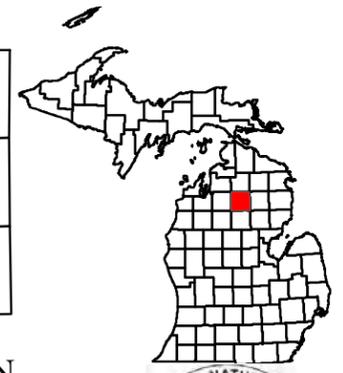
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 710 - Sand, Soil



# Stand Boundary Map

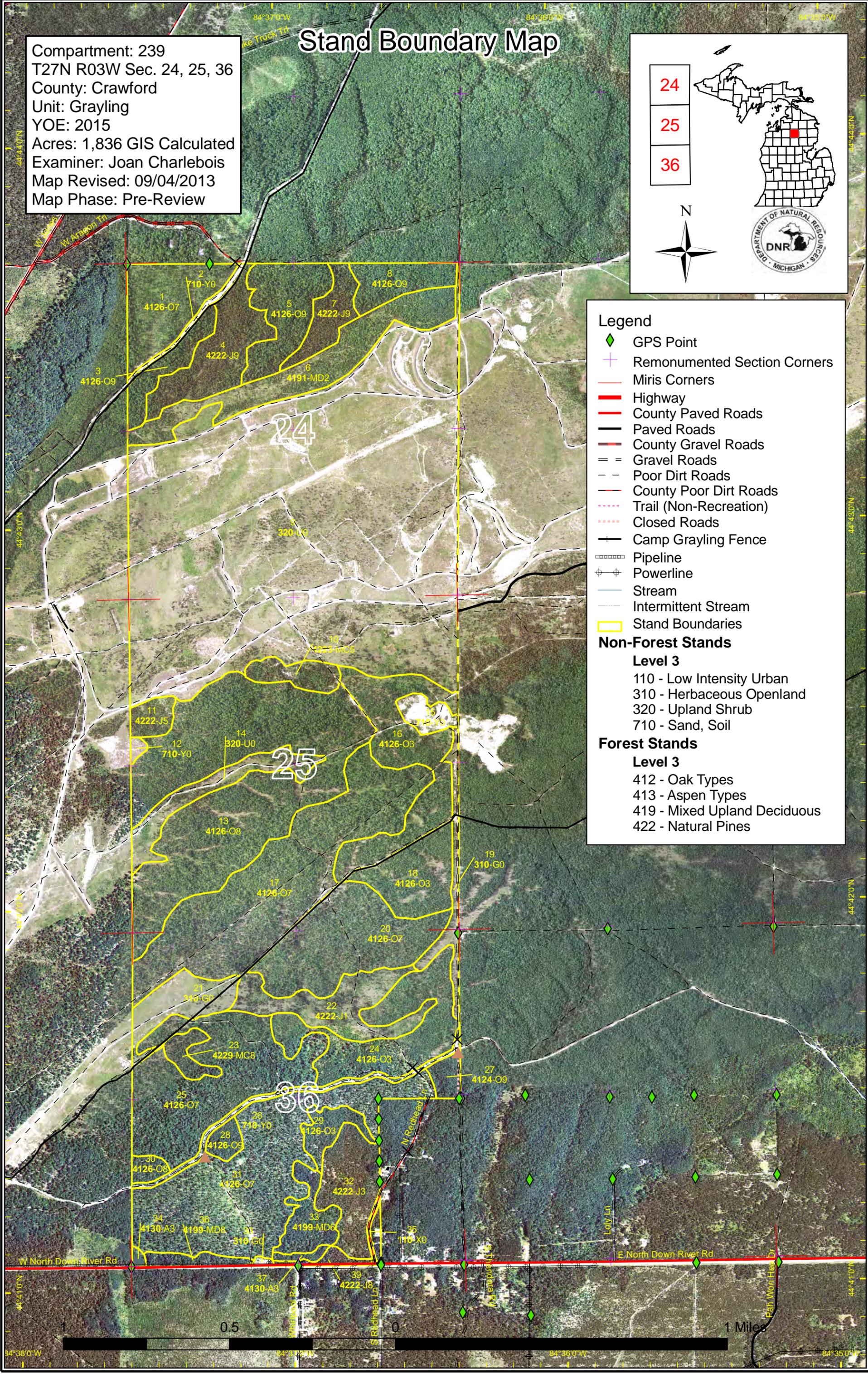
Compartment: 239  
 T27N R03W Sec. 24, 25, 36  
 County: Crawford  
 Unit: Grayling  
 YOE: 2015  
 Acres: 1,836 GIS Calculated  
 Examiner: Joan Charlebois  
 Map Revised: 09/04/2013  
 Map Phase: Pre-Review

24  
 25  
 36



## Legend

- ◆ GPS Point
  - + Remonumented Section 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
  - Camp Grayling Fence
  - Pipeline
  - Powerline
  - Stream
  - Intermittent Stream
  - Stand Boundaries
- Non-Forest Stands**
- Level 3**
- 110 - Low Intensity Urban
  - 310 - Herbaceous Openland
  - 320 - Upland Shrub
  - 710 - Sand, Soil
- Forest Stands**
- Level 3**
- 412 - Oak Types
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 422 - Natural Pines

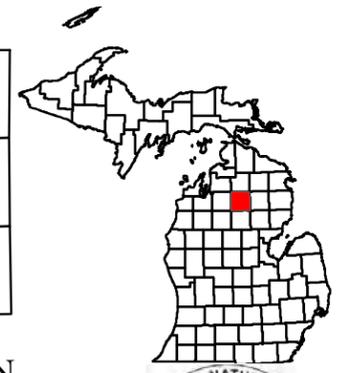


# Special Conservation Areas & Site Conditions Map

84°35'0"W

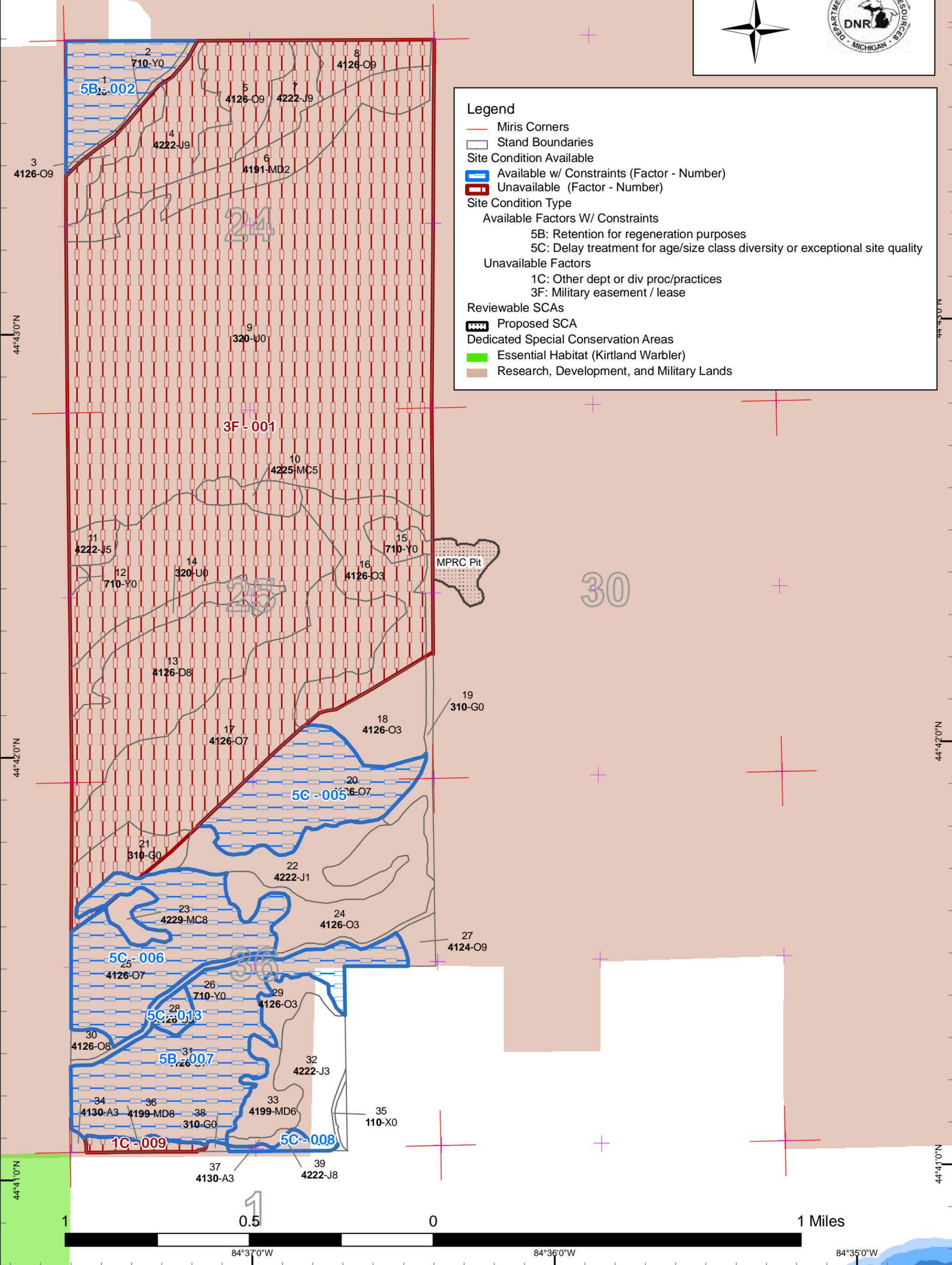
Compartment: 239  
 T27N R03W Sec. 24, 25, 36  
 County: Crawford  
 Unit: Grayling  
 YOE: 2015  
 Acres: 1,836 GIS Calculated  
 Examiner: Joan Charlebois  
 Map Revised: 09/04/2013  
 Map Phase: Pre-Review

24  
 25  
 36



## Legend

- Miris Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
  - 5B: Retention for regeneration purposes
  - 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
  - 1C: Other dept or div proc/practices
  - 3F: Military easement / lease
- Reviewable SCAs
  - Proposed SCA
- Dedicated Special Conservation Areas
  - Essential Habitat (Kirtland Warbler)
  - Research, Development, and Military Lands



84°37'0"W      84°36'0"W      84°35'0"W

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	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
Herbaceous Openland	41	0	0	0	0	0	0	0	0	0	0	0	0	0	41
Jack Pine	0	40	0	36	0	0	0	72	0	0	0	0	0	0	148
Mixed Upland Deciduous	0	58	0	18	0	0	0	0	7	0	0	0	0	0	83
Natural Mixed Pines	0	0	0	0	0	0	0	22	0	0	0	0	0	0	22
Oak	0	156	0	12	0	0	0	140	332	135	151	0	0	0	926
Sand, Soil	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Upland Shrub	585	0	0	0	0	0	0	0	0	0	0	0	0	0	585
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<b>Total</b>	<b>654</b>	<b>255</b>	<b>3</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>233</b>	<b>332</b>	<b>142</b>	<b>151</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1836</b>



## Report 2 – Proposed Treatment Summaries

**Grayling Mgt. Unit**  
**Year of Entry 2015**

**Compartment 239**  
**Total Compartment Acres: 1,836**

### Acres by Treatment Type

Commercial Harvest - 14	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
	0	0	2	0	0	0	2
<b>Oak Types</b>	12	0	0	0	0	0	12
<b>Total</b>	12	0	2	0	0	0	14



S  
t  
a  
n  
d

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
72239_OYOE-Seed	1.9					Harvest	Seed Tree with Reserves	4124 - Red with White Oak	Fld. Tr. Bdy. - Pending Approval

Prescription Mark to leave 30 BA of the healthiest oak, in addition to leaving all RP/WP and 1-2 JP per acre.

Specs:

Other Comments: Was approved for treating at the same time as the rest of the type in compt 238 per the 2001 YOY, but comments from compt 238 were not put into the 239 stand notes and the 239 harvest was set up by itself and cut in 2010. When the 239 harvest was set up under a timbersale preparation contract, the marking contractor missed a wedge along the compt boundary. This wedge (~ 2.5 acres) will be treated concurrent with the harvest being set up for the 2011 YOY in compt 238.

Next Steps: Natural regen goal is mixed upland deciduous.

Proposed Start Date: 10/01/2010

27	72239027_ccr	6.9	4124 - Red with White Oak	High Density Log	72	81-110	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
----	--------------	-----	---------------------------	------------------	----	--------	---------	------------------------	-------------------------------------	-----------------------

Prescription Final harvest with reserves: cut 1" & up except leave the sapling oak, the pine, and the handful of oak that are good potential den/nest trees (open-grown, some hollow already). Boundary-exclude a narrow strip along the stand's north edge along the road.

Other Comments: Advance the start date to Nov 7, 2013 and set up in one sale with the adjacent treatment 72257004-Cut in compt 257 (2014 YOY).

Next Steps: Natural regen survey. Will accept a mix of oak, aspen, red maple and pine regen.

Proposed Start Date: 11/07/2013

30	72239030_ccr	5.0	4126 - White, Black, N. Pin Oak	Medium Density Log	92	51-80	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
----	--------------	-----	---------------------------------	--------------------	----	-------	---------	------------------------	-------------------------------------	-----------------------

Prescription Final harvest with reserves: cut 1" & up except leave the sapling oak, the pine, and the few good potential den/nest trees (open-grown, some hollow already).

Other Comments: Advance the start date to Nov 7, 2013. If the adjacent sale 72-622-11-01 in comp 238 is not cut by fall, seek permission of the TSS & contract holder to append this small treatment to that timbersale. If this stand cannot be cut with that existing timbersale, set this stand up with stand 27 along with comp 257's stand 4 (2014 YOY).

Next Steps: Natural regen survey. Will accept of mix of oak, aspen, red maple and pine regen.

Proposed Start Date: 11/07/2013

**Total Treatment Acreage Proposed: 13.8**

## Report 5 – Site Conditions

Grayling Mgt. Unit

Joan Charlebois : Examiner

Compartment 239

Year of Entry 2015

### Availability for Management

Availability for Management			Dominant Site Conditions					
Total Acres	Acres Available	Acres Not Available						
			No	5C	5B	3F	1C	
4	4		<b>Aspen</b>	4				
147	80	67	<b>Jack Pine</b>	76	5		67	
83	18	65	<b>Mixed Upland Deciduous</b>	18			58	7
22	8	13	<b>Natural Mixed Pines</b>	8			13	
925	457	468	<b>Oak</b>	117	175	165	468	
1,181	568	613	Total Forested Acres	223	179	165	606	7
	48%	52%	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 Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
001	Not Available	3F: Military easement / lease	1,228				
<b>Comments:</b> Restricted access MPRC Range 30							
002	Available	5B: Retention for regeneration purposes	46				
<b>Comments:</b> Heavy shelterwood cut in 2010 left 30 sq. ft. of residual. Leave that low-density overstory for now; let the regen get better developed before taking the top off next YOE.							
005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	72				
<b>Comments:</b> If harvested, there's a lot to be lost (damage to regen) and not much to be gained (beat-up, burnt-up, bonsai oak). Leave that residual for mast. See stand comments.							

## Report 5 – Site Conditions

Grayling Mgt. Unit

Joan Charlebois : Examiner

Compartment 239

Year of Entry 2015

006	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	96
<p><b>Comments:</b> If harvested, there's a lot to be lost (damage to regen) and not much to be gained (beat-up, burnt-up, bonsai oak). Leave that residual for mast. See stand comments.</p>			
007	<b>Available</b>	<b>5B: Retention for regeneration purposes</b>	124
<p><b>Comments:</b> Heavy shelterwood cut in 2009 left 30 sq. ft. of residual. Leave that low-density overstory for now; let the regen get better developed before taking the top off next YOE. Would like to see heavier regen cover on these rolling hills before the removal harvest.</p>			
008	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	5
<p><b>Comments:</b> Narrow, small-acre stand along highway. Subtracting cleared road corridor leaves about 3.5 forested acres. Overmature, but not worth chasing after on its own. Treat with the adjacent stand 33, likely to be prescribed for regen cut next YOE when its aspen is pushing 50.</p>			
009	<b>Not Available</b>	<b>1C: Other dept or div proc/practices</b>	7
<p><b>Comments:</b> Previous YOE, it was part of the larger stand to the north. By approved prescription, it was excluded from the 2009 harvest area (#617-05) and left as a buffer along North Down River Road.</p>			
013	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6
<p><b>Comments:</b> Two-aged stand, only a portion is mature. Harvest concurrent with the surrounding stand 31, likely next YOE.</p>			



S  
t  
a  
n  
d

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

#Type! #Type!

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Type!

Limiting Factor

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



**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
MPRC Pit	Mineral Resource Area	Sand or Gravel Pit	SCA	13.4
<b>Comments</b>				
nonmetallic minerals Lease No. 171 to the Dept. of Military & Veterans Affairs; lease area (SWNW sec 30) is larger than currently developed				



**Report 7 – 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	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	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.
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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4126 - White, Black, N. Pin Oak	Low Density Log	41.1	94	1-50	Was shelterwood cut in 2010 (#618-05), with a stated residual of 30 sq ft. A two-acre strip on the west edge was cut in 2012 (#623-11). The residual overstory of BRO & WO saw is the featured canopy, scattered above the developing regen from the cut. As the regen continues to recruit above 3' tall, it will become the featured canopy. The subcanopy is mostly oak, with lesser RM and BTA components. BRO SI 53. See M.C.s
3	4126 - White, Black, N. Pin Oak	High Density Log	16.6	99		Fenced MPRC Range 30. Age is from the last inventory when the range was still accessible (1985 YOE).
4	42221 - Natural Jack Pine, Mixed Deciduous	High Density Log	40.3	79		Fenced MPRC Range 30. Age is from the last inventory when the range was still accessible (1985 YOE).
5	4126 - White, Black, N. Pin Oak	High Density Log	36.7	77		Fenced MPRC Range 30. Age is from the last inventory when the range was still accessible (1985 YOE).
6	4191 - Mixed Upland Deciduous with Conifer	Medium Density	57.6	17		Fenced MPRC Range 30. Was cut merch & up in 1996 (#044-96). By imagery, appears to be a mix of oak, aspen & JP regen, with the aspen heaviest in the east end and the JP filling in most in the center-west. Age based on harvest, but fires could have established younger age classes.
7	42220 - Natural Jack Pine	High Density Log	18.1	75		Fenced MPRC Range 30. Age is from the last inventory when the range was still accessible (1985 YOE).
8	4126 - White, Black, N. Pin Oak	High Density Log	20.5	106		Fenced MPRC Range 30. Age is from the last inventory when the range was still accessible (1985 YOE).
10	42250 - Pine, Oak	Medium Density Pole	13.2	70		Fenced MPRC Range 30. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Experiences periodic lower-intensity fires. Age is estimated from the last inventory when the range was still accessible (1985 YOE). Given the range's fire occurrence, younger age classes are likely.
11	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density Pole	8.8	70		Fenced MPRC Range 30. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Experiences periodic lower-intensity fires. Age is from the last inventory when the range was still accessible (1985 YOE). Given the range's fire occurrence, younger age classes are likely.
13	4126 - White, Black, N. Pin Oak	Medium Density Log	194.1	83		Fenced MPRC Range 30. Fenced MPRC Range 30. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Experiences periodic lower-intensity fires. Age is from the last inventory when the range was still accessible (1985 YOE). On the imagery, the stand appears similar to stand 30.
16	4126 - White, Black, N. Pin Oak	High Density Sapling	63.0	15		Fenced MPRC Range 30. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Experiences periodic lower-intensity fires. Second age is from the last inventory when the range was still accessible (1985 YOE). On the imagery, the stand appears similar to stand 18.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	4126 - White, Black, N. Pin Oak	Low Density Log	137.5	87		Fenced MPRC Range 30. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Experiences periodic lower-intensity fires. Age is from the last inventory when the range was still accessible (1985 YOY). On the imagery, the stand appears similar to stand 20.
18	4126 - White, Black, N. Pin Oak	High Density Sapling	33.3	17	1-50	Between the Range 30 fence and south perimeter road. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Underburned at lower intensity around 1997. The stand has high coverage in oak saplings 1 to 3 inches in diameter. The residual oak saw occur scattered throughout the stand, and at higher densities rimming the handful of frost pocket opening inclusions and the stand's east edge. A majority of the saplings date to around the underburn. Stand's second age is set to the 1975 fire.
20	4126 - White, Black, N. Pin Oak	Low Density Log	72.3	90	1-50	Between the Range 30 fence and south perimeter road. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Underburned at lower intensity around 1997. The heavily fire-scarred residual oak cover drifts off the low end of 25-50% canopy closure, with a mosaic of regen-dominated inclusions. The mature oak is short, poor quality, & small diameter. The oak regen is outstanding -- 5 to 20 feet tall -- and makes the full subcanopy coverage benchmark. While the large-sapling oak component likely owes its start to the 1975 fire, the average sapling is 1" in diam and around 15 years old. Clumps of mature JP survived the fire in sheltered valleys and are seeding in JP below. There are two 1 & 2 acre patches of JP along the range fence.
22	42220 - Natural Jack Pine	Low Density Sapling	39.8	12	1-50	Between the Range 30 fence and south perimeter road. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Underburned at lower intensity around 1997. Valley opening stand with remnant patches of mature-overmature JP that have seeded in the majority sapling cover. The JP saplings run 1 to 3 inches in diameter and 10 to 15 yrs old. The stand contains grassy opening inclusions not fully colonized by the JP. The stand's oak regen is mostly on the perimeter ground that slopes up out of the valley. JP SI 47. See M.C.s & MNFI
23	42290 - Natural Mixed Pine	Medium Density Log	8.4	75	51-80	Between the Range 30 fence and south perimeter road. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Underburned at lower intensity around 1997. Naturally-established RP & JP stand in a shallow valley. The JP is mostly to the north, having survived the 1975 fire sheltered in a shallow valley. Climbing south out of the valley, the cover shifts to majority RP. A scattering of fire-scarred supercanopy RP seeded in the majority 70-80 year old RP cover. Gaps in the canopy are filled in with oak regen dating to around the underburn. RP SI 48
24	4126 - White, Black, N. Pin Oak	High Density Sapling	60.0	17		Between the Range 30 fence and south perimeter road. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Underburned at lower intensity around 1997. The heavily fire-scarred residual mature oak is sparse to the point where the dense oak & aspen regen is the featured canopy. A majority of the sapling cover is 1" in diam and dates to around the underburn. The stump-origin large sapling/small pole oak likely date to the 1975 fire (second age). Scattered JP have seeded in localized concentrations of J3. The mature oak residual tends to be concentrated along the stand's S & E edges.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4126 - White, Black, N. Pin Oak	Low Density Log	96.2	78	1-50	Between the Range 30 fence and south perimeter road. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Underburned at lower intensity around 1997. The stand's open canopy of heavily fire-scarred poor-quality oak residual is over high subcanopy coverage in oak regen 3 to 20 feet tall. Residual RP saw are scattered throughout, as well as pockets of JP in sheltered valleys. The stand is on a series of rolling hills climbing up out of the Range 30 plains. Across the stand, the mature residual overstory dips on either side of 25-50% canopy closure, depending on slope position. On the north-facing mid- to upper slopes where the '75 fire intensity was the greatest, the cover is regen-dominated, with sparse residual. Did not visit small portion within Range fence. WO SI 40
27	4124 - Red with White Oak	High Density Log	6.9	72	81-110	Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Large pole/small log oak with clumps of aspen and scattered RP-JP-WP. Most of the trees have fire-scarred bases. There are a handful of older xlog oak of den-tree quality, as well as some nice quality large sapling-small pole oak toward the north end. BRO SI 51
28	4126 - White, Black, N. Pin Oak	High Density Log	6.2	108	51-80	Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Sharply two-aged: residual and regen from the fire. The mature oak residual is heaviest on the lower slopes and thins out on the hilltop where it burnt harder. The small pole/large sapling regen from the fire predominates there. That younger component reaches into the bottom of the canopy and so was recorded as part of the canopy. WO SI 36.
29	4126 - White, Black, N. Pin Oak	High Density Sapling	12.0	38	1-50	Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. The sapling-pole oak age dates to the fire. Fire scarring & butt swell common in the poor-quality mature oak residual. The residual increases toward the stand's south end on the lower slope. Also a trace of RP and mature aspen. JP mixes in adjacent to stand 32. Not enough of the young majority cover has transitioned into the pole class to call pole overall, but it's getting there. WO SI 41
30	4126 - White, Black, N. Pin Oak	Medium Density Log	5.0	92	51-80	Between the Range 30 fence and south perimeter road. Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. This stand did not burn as hard as the adjacent stand 25 and it has more intact overstory cover and less dense regen below. Even a few overstory aspen survived. Decent-quality small saw NRO/BRO, but with basal fire scarring common. The white oak is generally poor quality, small diameter & suppressed. Scattered RP & JP. Larger canopy gaps are filled with oak regen. BRO SI 43.
31	4126 - White, Black, N. Pin Oak	Low Density Log	124.4	108	1-50	East half of the stand was within the May 1975 North Down River Road Fire area. Was shelterwood cut in 2009 (#617-05), with a stated residual of 30 sq. ft. An uncut buffer was left on the north side along the road. On rolling hills. The mature oak residual is scattered above a nicely developing 3-5' tall oak subcanopy. The oak component <3' tall has some browse, but good potential to recruit. The RM & BTA regen from the cut have locally higher coverage, but average low overall. WO SI 53



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	42220 - Natural Jack Pine	High Density Sapling	35.9	35	1-50	Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. The majority large sapling/small pole JP cover established within a few years of the fire. The stand's scattered patches of small pole aspen likely regenerated in 1975 (second age, set to the fire date). Not enough of the JP has transitioned into the pole class to call it pole overall. Residual mature JP, oak and RP are scattered across the stand. Slash accumulation is from JP sapling snow-load breakage. Narrow brushed trails snake through the stand. An opening was cleared in the stand's poly east of Redhead Lane; part of a yard trespass.
33	4199 - Other Mixed Upland Deciduous	High Density Pole	18.0	38	1-50	Burned in the May 1975 North Down River Road Fire, and subsequently salvaged. Canopy is sharply two-aged: residual and regen from the fire. The pole & large sapling aspen & oak age is set to the fire event. Extensive butt scarring common on the mature oak residual. There are small patches of 20-year old aspen saplings on the SW side from a 1993 salvage cut (#035-93). BTA SI 74
34	4130 - Aspen	High Density Sapling	1.3	10		Was cut 2" & up in 2003, part of the comp 238 harvest #035-01. Dense aspen regen.
36	4199 - Other Mixed Upland Deciduous	Medium Density Log	7.2	92	51-80	Previous YOE, was part of the larger stand to the north. By approved prescription, it was excluded from the harvest area and left as a buffer along North Down River Road. Dry south aspect with short, poor-quality oak, barely making log-overall benchmark (30%). Patches of sap-pole aspen from a 1993 harvest (#035-93) are part of the canopy. Mature aspen stems are scattered throughout. JP lines the road corridor. WO SI 48. See M.C.s & MNFI.
37	4130 - Aspen	High Density Sapling	2.7	20		Aspen was cut 4" & up in a 1993 harvest typed as a salvage (#035-93). Residual oak, pine & RM are scattered around the perimeter. Satellite patches of this small harvest are inclusions in the adjacent stand 33.
39	42220 - Natural Jack Pine	Medium Density Log	4.6	74	51-80	Narrow roadside stand that fell just outside of the 1975 North Down River Road Fire. Mature-overmature JP with mature aspen, scattered northern pin oak and RP. Oak filling in nicely below. Some aspen regen slop-over from the adjacent 1993 cut. Stand boundary includes the cleared highway corridor. JP SI 47



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	710 - Sand, Soil	4.6	No	Low	Wide perimeter road along the Range 30 fence.
9	3205 - Mixed Upland Shrub	559.3	No	Low	Fenced MPRC Range 30. Stand is a large actively-used, regularly burned opening with a mosaic of non-forest covertypes: sand/soil, upland herbaceous, upland shrub & low density tree. (estimated from imagery).
12	710 - Sand, Soil	1.7	No	Low	Fenced MPRC Range 30. By the imagery, appears scalped but in process of re-vegetating.
14	3205 - Mixed Upland Shrub	25.8	No	Low	Fenced MPRC Range 30. Valley opening stand. By imagery, likely upland shrub with encroaching low-density tree cover.
15	710 - Sand, Soil	9.3	No	Low	Fenced MPRC Range 30. By the imagery, appears scalped, with remnant clumps of trees. Military map indicates there's a gravel pit adjacent in comp 257.
19	3105 - Mixed Upland Herbaceous	14.9	No	Low	Cleared corridor along two-track; north portion within range fence. JP, oak and aspen colonizing but not to low-density tree benchmark yet.
21	3105 - Mixed Upland Herbaceous	24.7	No	Low	Fenced MPRC Range 30. Small portion of stand is south of the fence. Upland opening with widely-scattered JP & oak saplings and clumps of prairie willow. Not enough of either to call it upland brush or low-density tree. See MNFI.
26	710 - Sand, Soil	11.3	No	Low	Wide perimeter road south of Range 30. Snowmobile trail used to run down it.
35	11 - Low Intensity Urban	1.5	No	Low	County road corridor. North Redhead Lane
38	3105 - Mixed Upland Herbaceous	1.0	No	Low	Old roadside borrow pit area with encroaching JP & oak.