

GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW RESENTATION

COMPARTMENT # 202 ENTRY YEAR: 2012

GIS Compartment Acreage: 1372 County: Crawford

Revision Date: August 20, 2010

Stand Examiner: Joan Charlebois

Legal Description: T26N R4W Sections 22, 23, 24

Grayling Township, southwest part

Management Goals: This compartment is comprised of Hanson Reserve Lands which contain the following deed restrictions: 1) The lands are to be used as a permanent encampment and maneuvering ground for the military, 2) to serve as a game preserve for the breeding and protection of game, and 3) to serve as a forest reserve. The management goal is to maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while meeting the deed restrictions.

Soils and Topography: The terrain is rolling to steep, with ridges separated by outwash valleys. Grayling and Graycalm-Grayling sands of varying slope predominate.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The Michigan Army National Guard's Camp Grayling is west of M-93 & Military Road. The Hanson Hills Recreation area is east of those roads; this area is leased to the Grayling Recreation Authority. All of the compartment is within the Hanson Military Reserve. Hanson Reserve Lands were given to the National Guard, Department of Military Affairs (DMA) by Rasmus Hanson in 1913, with several deed restrictions as outlined under the management goals. The Department of Natural Resources & Environment (DNRE) manages the natural resources on these lands so as long as management activities do not conflict with military needs. In addition, hunting is prohibited on the Hanson Reserve Lands.

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

Archeological, Historical, and Cultural Features: The long history of military and recreational use of the area is evidenced by decommissioned structures and improvements.

Special Management Designations or Considerations: Hanson Reserve Lands, as designated through original deed restrictions. The Military Reserve is also designated as a Special Conservation Area (SCA). Part of Camp Grayling's Land-Nav orienteering course lies within this compartment. The Hanson Hills Recreation Area extends across most of the compartment.

Watershed and Fisheries Considerations: The compartment's west edge borders Lake Margrethe.

Wildlife Habitat Considerations: Opportunities for specific wildlife habitat management activities are limited by military & recreational use.

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 Michigan formation, mined for gypsum in other locations in the State. The nearest gravel pit is two miles to the south, and gravel potential is thought to be good in the upland areas. This area has had limited oil and gas development, because it is part of the DMVA lands. There are no current oil and gas leases.

Vehicle Access: M-93 and Military Road run through the compartment. East of Military Road, two-tracks associated with the Hanson Hills Recreation Area serpentine throughout.

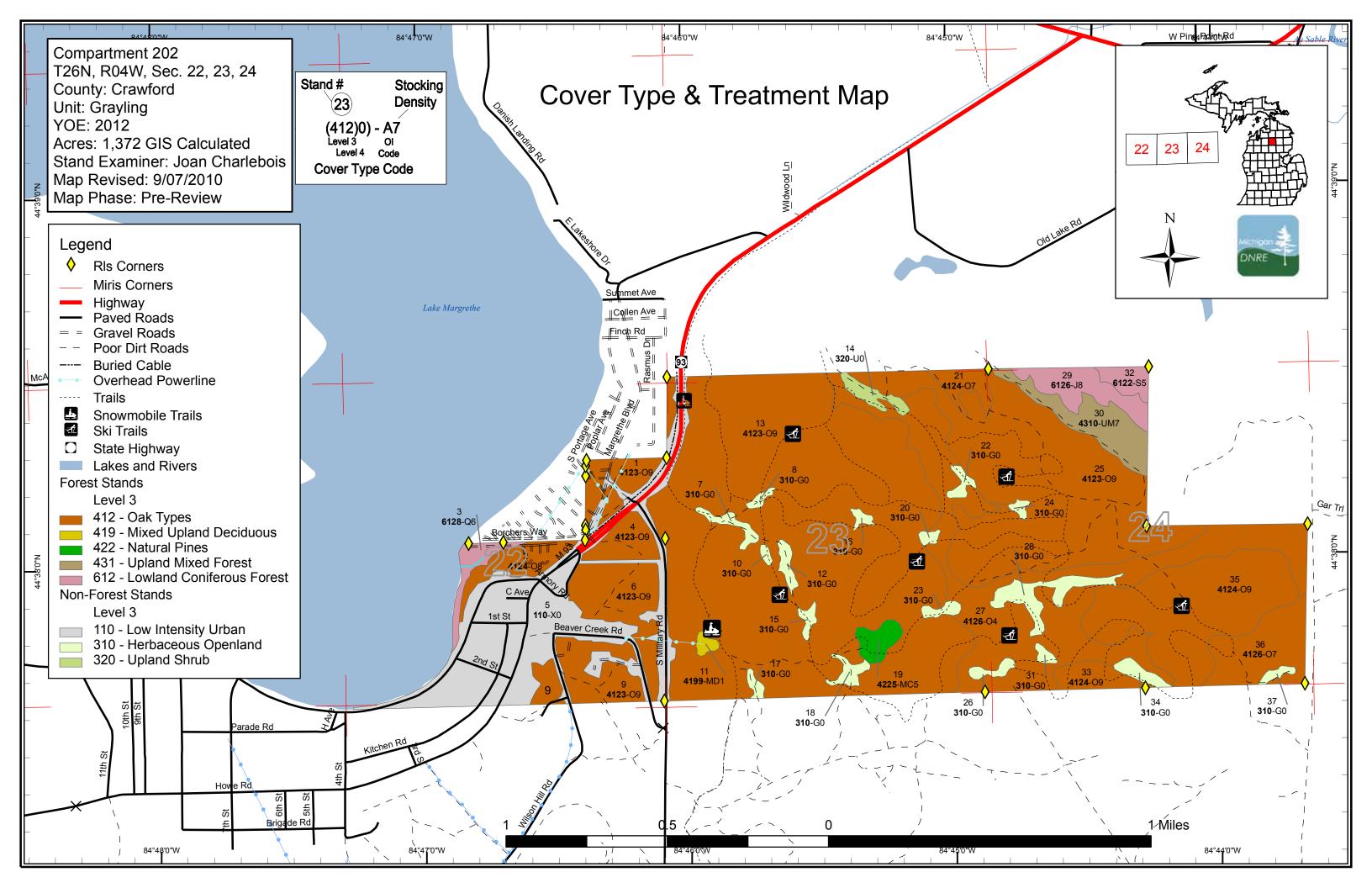
Survey Needs: None

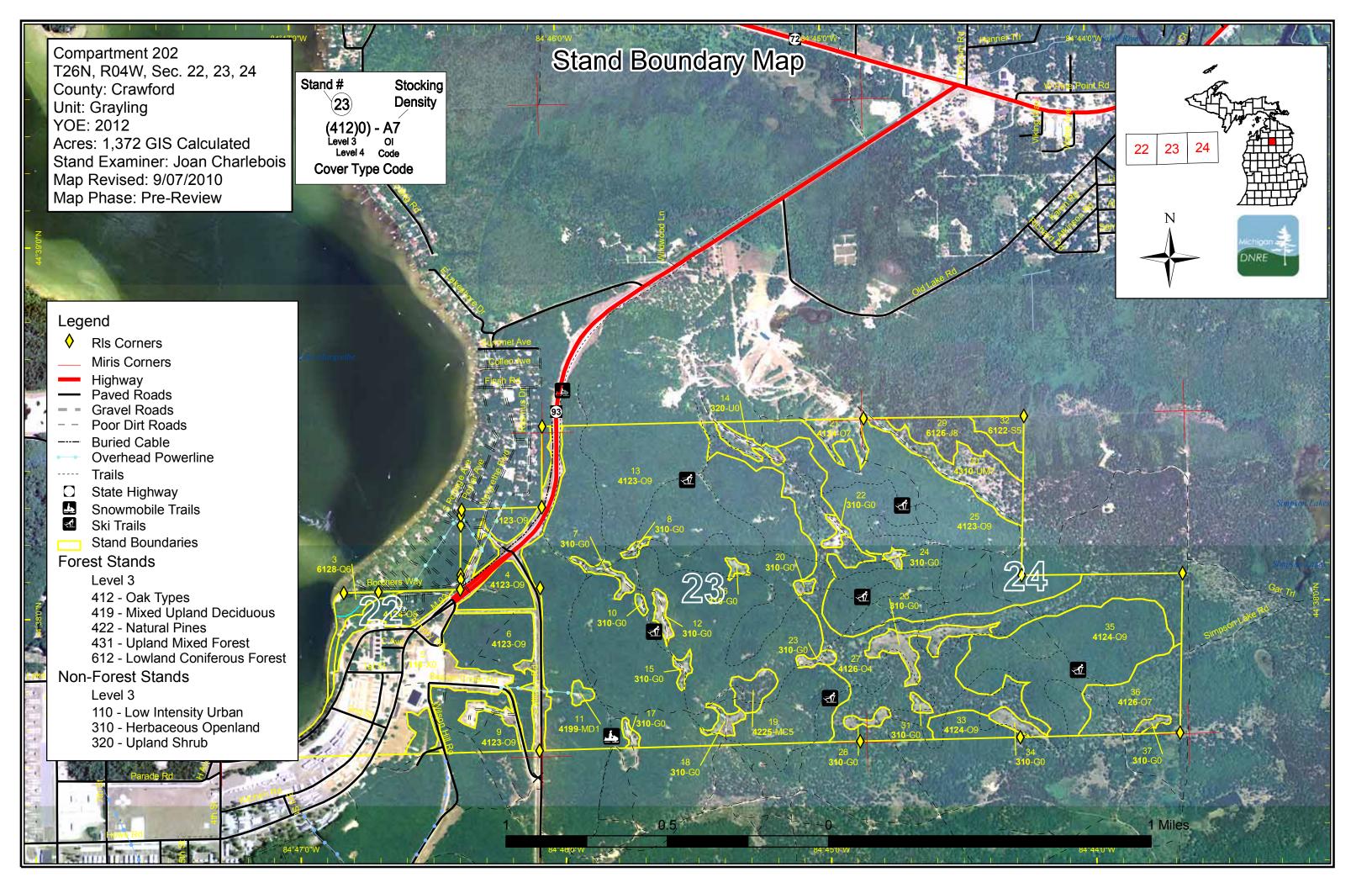
Recreational Facilities and Opportunities: The compartment has no developed recreational facilities west of Military Road except for those associated with the camp itself. Hunting is specifically prohibited on Hanson Reserve Lands per deed restrictions. Recreational trails east of Military Road include the Hanson Hills-to-Grayling Snowmobile Trail # 7 and the Hanson Hills Recreation Area's cross-country ski trail and mountain bike trail systems. Part of Hanson Hill's new Disc Golf Course is along the north edge of the compartment.

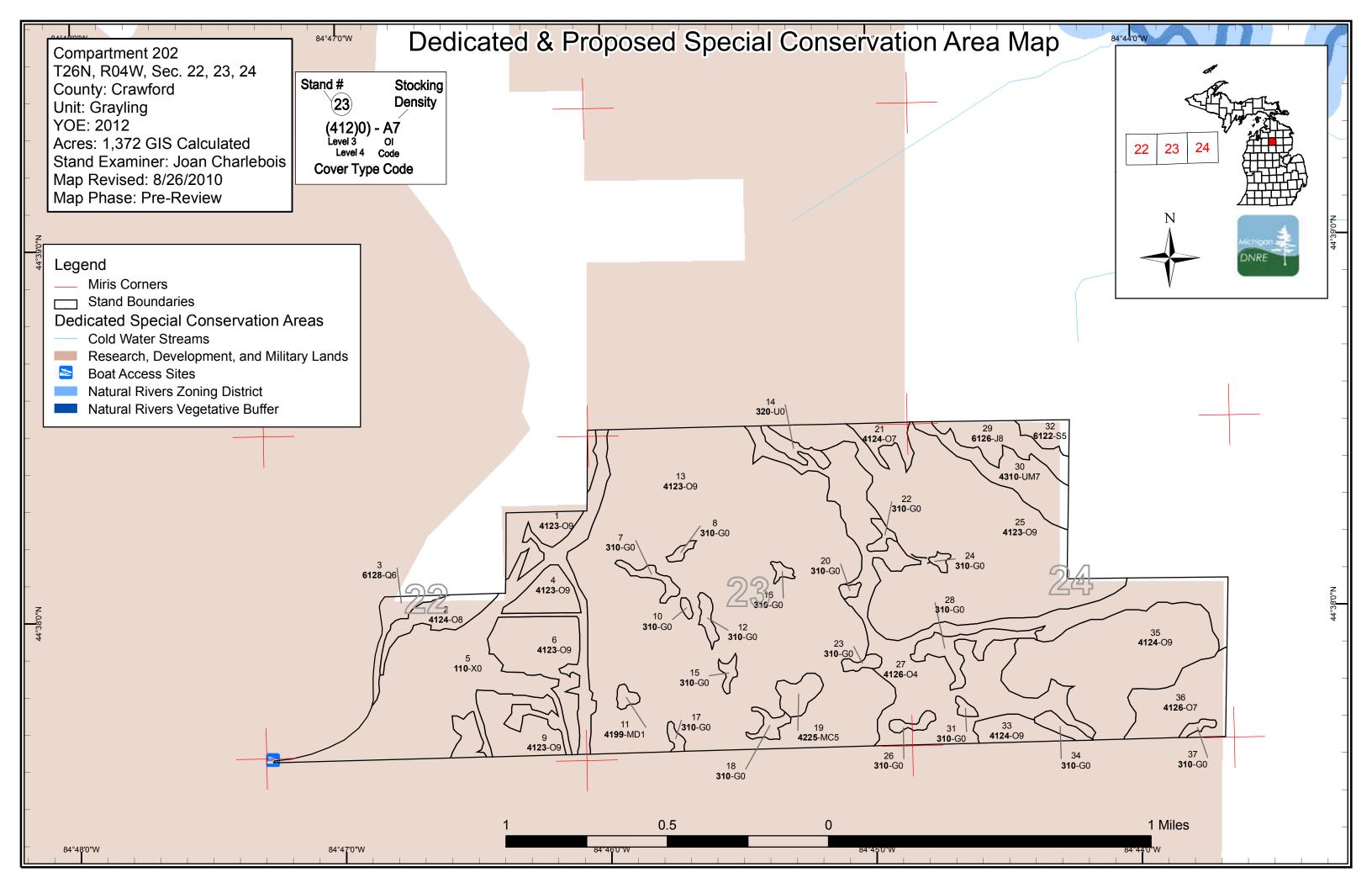
Fire Protection: The compartment is dominated by upland oak types. Access has been restricted through road closures around the recreational trail system.

LOTS Compartment Acreage: 1,378 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







Grayling Mgt. Unit

Data updated before 2:00 PM

Compartment 202 Year of Entry 2012



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Herbaceous Openland	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	
Jack Pine	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	<u>[</u>
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	I
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	I
Mixed Upland Deciduous	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	I
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	I
Oak	0	0	0	0	0	0	0	0	0	905	192	0	0	0	0	1097	I
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	27	I
Upland Shrub	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	I
Urban	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143	I
Total	201	0	2	0	0	0	0	0	8	926	192	0	0	0	43	1372]



Table 2 – Proposed Treatment Summaries

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Grayling Mgt. Unit Year of Entry 2012

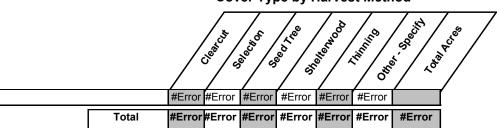
Compartment 202 Total Compartment Acres: 1372

Acres by Treatment Type

Commercial Harvest - 0 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



Grayling Mgt. Unit

S Data updated before 2:00 PM

Stage1

CoverType

Size

Density

Table 3 -- Treatments Prescribed with No Limiting Factor

Stand

Age

Treatment

Type

Treatment

Method

Compartment: 202 Year of Entry 2012

Cover Type

Objective

DNRE Approval

Status

#Error

Acres

Prescription Specs:

n

Other Comments:

Next Steps:

Total Treatment

Treatment

Name

Acreage Proposed:

0

Grayling Mgt. Unit Table 4 -- Treatments Prescribed with Compartment: 202 a Limiting Factor s Year of Entry 2012 Data updated before 2:00 PM t **Treatment Treatment** n Acres Stage1 Size Stand **Treatment Cover Type Approval** Name CoverType Density Method Objective Status Age Type #Error **Prescription** Specs: <u>Other</u> Comment: <u>Next</u>

Total Treatment
Acreage Proposed: 0

<u>Limiting Factor and No</u> <u>Treatment Reason</u>

Steps:

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Data updated before 2:00 PM

Out of YOE -- Treatments Prescribed with No Limiting Factor

Year of Entry: 2012

Michigan DNRE

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

Specs:

Other Comments:

Next Steps:

Total Treatment

Acreage Proposed:

S t	Graylin	Grayling Mgt. Unit			rested Sta	1000000
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4123 - Red Oak	High Density Log	20.0	85	111-140	Scattered large wolfy NRO & WO, SCRP & WP, with more typical large pole/small saw oak below. Almost multistoried, nice WP understory development. The stand is dissected by roads, overhead powerlines & driveways. The north polygon occupies the back slope of M-93's cutbank, bumping up to a residential subdivision, with possible yard encroachments. The stand recieves frequent use from the adjacent residential areas in terms of driveway use, yard waste dumping, and children playing.
2	4124 - Red with White Oak	Medium Density Log	16.3	82	111-140	Camp Graying Trailer Park campground. RV sites with full hookups, dump station, etc. NRO/WO cover with, mixed in to E: SCWP & WP understory, & to W edge: hemlock saw with hemlock regen. Core of stand has the developed campsites with NRO, WO & RP; park-like & open below. SW peninsula of stand has beach cottages & incorporates a small portion of the lakeside Q/E type. Buried water & electric utilities.
3	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	8.8	Uneven Age	81-110	Mixed Q/E stand on lakeplain. Black muck/standing water between root lattice. Diverse forb/fern layer. Stream originates within stand & flows out to lake. Mortality & windthrow in the NWC. Dog-hair balsam fir across most of the stand. Built-up road connects campground with beach.
4	4123 - Red Oak	High Density Log	14.0	89	111-140	Small triangle bordered by M-93, Military Rd & Cantonment Fence. Decent quality small saw/large pole NRO & BTA, and mostly suppressed WO & RM. Nice WP understory. Aside from the wolf oak, small crowns are the norm, with fine branch dieback. Thin groundcover, mostly leaf litter with sparse sedge, blueberry, & brackenfern. SCRP in SE. First age from rest of type to south inventoried in compt 201 (2008 YOE), also matches age from rest of type E of Military Road. Avoided coring oak during high-risk oak wilt period; the oak's relatively uniform age in this area has been well-document in previous YOE's and by recent adjacent compt inventories.
6	4123 - Red Oak	High Density Log	36.4	89	111-140	Decent quality small saw NRO with scattered BTA clones, generally suppressed WO & sub-dominant RM poles. On rolling terrain bounded by the cantonment fence & Camp facilities. A few SCRP seeded in localized pockets of RP saps, but not widespread enough to record. Light sedge, brackenfern, blueberry groundcover. Late-instar FTC present but defoliation light. Research plot with orange #'s on trees. First age from rest of type to south inventoried in compt 201 (2008 YOE), also matches age from rest of type E of Military Road. Second age current on BTA. Avoided coring oak during high-risk oak wilt period; the oak's relatively uniform age in this area has been well-document in previous YOE's and recent adjacent compt inventories.
9	4123 - Red Oak	High Density Log	31.1	89	111-140	Within Camp Grayling Cantonment Fence. West edge of stand overlooks Lake Margrethe, rest of stand is on rolling to steep terrain, bounded by roads, structures, recycling facilty. Small saw/large pole NRO, large pole/small saw WO, & RM. Scattered scenescing BTA poles - not enough to record. Fine branch dieback in upper crowns of the NRO, suppressed WO poles weeding out. Understory has pockets of moderate WP regen stocking, along with lesser amounts of RP & RM saps, but averages out to less than recordable cover. Late-instar FTC present but defoliation light. First age from rest of type to south inventoried in compt 201 (2008 YOE), also matches age from rest of type E of Military Road.

s t	Grayling	Grayling Mgt. Unit		5 – Fo Data update	rested Sta	3
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
11	4199 - Other Mixed Upland Deciduous	Low Density Sapling	2.2	13		Small area cut for military communications tower, associated outbuilding. Stump-origin RM & NRO, BTA suckers. NRO sprouts nice quality, weeding down to fewer stems per clump, up there with the RM.
13	4123 - Red Oak	High Density Log	474.7	89	81-110	Shallow rolling terrain becoming steeply rolling in the NW, nice NRO 10-15 DBH, clean boles, little hybridization. BTA clones scattered across the stand; the oak doesn't have much more than ten years on the aspen, which is beginning to break up. Where the type grades down onto the flats circa U/G inclusions, the NRO gets a bit wolfy. Aside from a minority of wolfy individuals and small saw, the WO tends to be suppressed, occupying sub-dom crown positions, with those poles weeding out. RM small pole/large sap stump-origin clumps throughout but not representing much of the canopy closure. The understory is relatively open except for localized pockets of RP & WP saps concentrated around seed sources; averages <2%. Occasional SCRP, <2% cover. Thin groundcover: brackenfern, light sedge, blueberry. Portion in NW prescribed in previous YOE, set up for harvest (726750501). Second age on BTA. XC ski & Mtb trails cross through, also part of LandNav course.
19	42250 - Pine, Oak	Medium Density Pole	7.9	Uneven Age	51-80	Shallow valley stand, terrible health/quality NPO dying out, but about a dozen SCRP and a few WP have seeded in a gradient from saps to small saw. Multistoried. Scattered WO holding on better than the NPO. Occasional BTA stems @ margins. Stand interspersed with small frost pocket openings. Ski & Mtb trails, also part of LandNav course.
21	4124 - Red with White Oak	Low Density Log	9.5	88	81-110	Oak type on hillside, dissected by old downhill ski runs. Steep. Nice overlook. Mtb trail, 3D archery & disc golf tees. NRO tends to be wolfy. Old runs covering over with cladina, sedge.
25	4123 - Red Oak	High Density Log	191.9	88	111-140	Rolling to steep terrain, north end topping out above old downhill ski runs. Relatively uniform small saw/large pole NRO with mostly suppressed WO, and RM large sap/small pole stump clumps. Fine branch dieback in even the dominant/co-dominant NRO, some epicormic branching, suppressed stems dying out. Oak has poorer form & growth on the south aspects vs. the north-facing slopes. Thin groundcover (blueberry, sedge, brackenfern), open below except for scattered RM, WP saps and witchhazel clumps. Ski & Mtb pathways serpentine through the stand, also part of LandNav course.
27	4126 - White, Black, N. Pin Oak	Low Density Pole	156.3	93	1-50	Mostly valley stand but also shallow rolling hills. Poor site with frost influence selecting for NPO over NRO. Short, branchy, multiple-stem NPO; WO also short but better vigor. Few scattered BTA stems and struggling trembling aspen clones. Slash accumulating from breaking up NPO - is largely dying out. WP, and lesser amounts RP, seeding in. RM stump-origin pole clumps. RM regen tends to occur in localized dense pockets. Being valley stands, were RR grade corridors, and now have Ski & Mtn bike trails, also part of LandNav course.

6126 - Lowland Jack

Pine

29

Medium

Density Log

20.6

86

Overmature small saw/large pole JP on ground close to the water table, grading down to black spruce swamp. JP, WP, BS filling in below as the overmature overstory breaks up.

Windthrow common, resulting in areas of high slash accumulation. Groundcover ranges from blueberry to K. angustifolia to leatherleaf.

s t	Grayling Mgt. Unit			5 – For Data update	ested Sta	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	4310 - Pine, Oak Mix	Low Density Log	26.6	Uneven Age	1-50	On PVCd flats, large cull multiple-stem NPO clumps breaking up, few better quality & health WO, filling in with JP, WP & RP. U/G interspersed. Multi-storied, ranging from saps to saw. Break-up of the NPO has resulted in areas of high slash accumulation.
32	6122 - Black Spruce	Medium Density Pole	7.7	72		Spindly black spruce poles over sphagnum, Kalmia angustifolia labrador tea, leatherleaf; mostly dry right now. JP mixed in fron adjacent type, overmature & largely died out. Black spruce fillin in below.
33	4124 - Red with White Oak	High Density Log	11.6	85	81-110	Hybridized NRO/NPO, with WO saw & suppressed poles, RM poles, & small pockets of BTA (clumps of < a dozen trees). Stems with the most NPO influence largely died out. Fine branch dieback/thinning crowns occurring in dominant betterquality stems too. Ski & Mtb trails wind through. Relatively ope below, mostly RM regen.
35	4124 - Red with White Oak	High Density Log	99.6	85	81-110	Shallow rolling terrain with steeper north edge. Better site, quality & health oak than surrounding valley stand. More NRO influence in the NPO hybrid. Stems with strongest NPO characteristics largely died out (in the minority), but even the dominant better quality NRO/NPO is showing fine-branch dieback in the upper crown. Suppressed WO poles dropping out. Scattered RM, WP & RP seedlings & saplings, otherwise open below: thin sedge cover with blueberry, brackenfern, cladina. Ski, Mtb trails wind through, also part of LandNav course.
36	4126 - White, Black, N. Pin Oak	Low Density Log	35.5	92	1-50	Red maple, aspen & oak salvaged by prison firewood crew in 2003-2004. RM stump sprouts from cut. FTP #C72-560 submitted in 2007 for under-planting pine. May 27, 2008 contract crew hand-planted 20,000 white pine - without trenching - at roughly a 10'x10' spacing, avoiding the ski and mountain bike trails. Continuing mortality in the NRO/NPO, epicormic branching. WO maintaing better vigor and gaining dominancy in the overstory as the NPO dies out. Illegal

dominancy in the overstory as the NPO dies out. Illegal fuelwood cutting, some driving-over of the WP seedlings. Some deer browse on those seedlings, but majority are wellestablished. Will need to evaluate survivorship after they grow above the snow depth (in about 2 years) and deer can get at them during the winter. Slash accumulations from deadfalls & firewood cutting. Ski & Mtb trails.

6 - Nonforested Stands Data updated before 2:00 PM



Compartment: 202 Year of Entry: 2012

Stand	Cover Type	Acres	Gen Cmts:
5	11 - Low Intensity Urban	143.3	Camp Grayling facilities. Buildings, hard-surfaced roads/sidewalks/parking lots, maintained lawns with scattered oak & pine. Also includes paved road ROW's.
7	3101 - Poverty Grass, Cladonia	4.1	Shallow frost pocket depression, cladina, sweetfern, blueberry, thin grass cover.
8	3101 - Poverty Grass, Cladonia	1.6	Sandy valley filling in with RP. Cladina & light sedge cover. Ski trail hub.
10	3101 - Poverty Grass, Cladonia	1.1	Small opening on Ski trail. Cladina, blueberry, sweetfern, little sedge cover.
12	3101 - Poverty Grass, Cladonia	3.4	Valley opening, road runs through. Cladina, sedge, small amount of little bluestem.
14	3205 - Mixed Upland Shrub	6.0	Sandy valley stand, old RR grade runs through. large cull multiple stem NPO clumps almost entirely died out. Mostly cherry brush, some NPO, RM & BTA saps.
15	3101 - Poverty Grass, Cladonia	2.2	Frost pocket depression with Cladina, blueberry, & RP poles, saps seeded in from a handful of adjacent SCRP.
16	3101 - Poverty Grass, Cladonia	1.6	Small frost pocket depression, mostly Cladina cover, sparse sedge, lycopodium.
17	3101 - Poverty Grass, Cladonia	1.9	Shallow open valley with RP seeding in from adjacent SCRP. Groundcover heavy to Cladina, sparse sedge.
18	3101 - Poverty Grass, Cladonia	3.9	Frost pocket depression, some little bluestem, but mostly sedge, hairgrass?
20	3101 - Poverty Grass, Cladonia	1.5	Opening with NPO largely died out. Mix of grass & cladina, blueberry.
22	3101 - Poverty Grass, Cladonia	2.8	Shallow frost pocket depression. Past tank track disturbance. Less of the warm-season grasses, more of the cool-season & sedges, Cladina.
23	3101 - Poverty Grass, Cladonia	2.6	Shallow frost pocket depression, the usual suspects plus WP.
24	3101 - Poverty Grass, Cladonia	1.5	Shallow frost pocket depression, Cladina, sweetfern, sedge. Ski trail runs through.
26	3101 - Poverty Grass, Cladonia	2.8	Shallow frost pocket depression, used for military equipment maneuvers in the past - tank tracks & hideout trenches. Ski trail.
28	3101 - Poverty Grass, Cladonia	13.4	Shallow frost pocket valley. Branches-to-ground NPO, cherry brush, Cladina spp, sedge, hairgrass, little bluestem, lesser amount big bluestem. Ski & Mtb trails cross through.
31	3101 - Poverty Grass, Cladonia	1.7	Shallow frost pocket depression. Sedge, little bluestem, sweetfern, cladina.

Grayling Mgt. Unit

6 – Nonforested StandsData updated before 2:00 PM

Compartment: 202 Year of Entry: 2012



Stand	Cover Type	Acres	Gen Cmts:
34	3101 - Poverty Grass, Cladonia	4.3	Shallow frost pocket depression. Cladina, sedge, little bluestem, some big bluestem, sweetfern, cherry.
37	3101 - Poverty Grass, Cladonia	1.9	Shallow valley, frost pocket with sedge, cladina, little bluestem, sweetfern, cherry brush, declining NPO at edges.

Grayling Mgt. Unit Compartment: 202

Year of Entry: 2012

Michigan ...

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



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.

Conservatio Area	п Туре	Data updated before 2:00 PM Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area			
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish spec- year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	cies (e.g., slimy sculpin) to persist from ese conditions due to substantial			
SCA	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including Sta State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and access sites.				
SCA	or research, or other purposes. They 00 acre Houghton Lake Wildlife Research nat includes most of Garden Island, all of ox and North Fox Islands), the Cusino esearch Station, the 125 acre Wyman					