Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 269 Entry Year: 2013
Compartment Acreage: 1, 268 County: Marquette

Revision Date: August 18, 2011

Stand Examiner: Tom Seablom

Legal Description: T45N R27W Sec 30 except NWNW and Sec 31

RMU (if applicable): Chain Lakes Moraine Management Area

Management Goals: Goals within this compartment are timber production, wildlife habitat management and protection of water quality. Timber management is primarily for fiber production using even age techniques, with some sawlog and old forest condition management where appropriate. Managing the timber in this manner continues to provide for both early and late successional wildlife habitat. Appling proper Best Management Practices (BMP's) during timber harvests and road work ensures water quality protection. Aspen is the dominant cover type within this compartment and surrounding landscape. For this entry period, several clearcuts in the aspen type are being prescribed, with one as a conversion to red pine. Clearcuts are also being prescribed in jack pine, birch, tamarack, and upland mixed stands.

Soil and Topography: Soil associations within this compartment include Grayling, Kalkaska-Carbondale-Deford (KCD), Rubicon-Keweenaw (RK), and Sagola-Rubicon (SR). These soils are very deep and range from very poorly drained muck to excessively drained sandy soils, with some well drained fine sandy loam included as well. The Grayling Association is located in the northern portion of this compartment and extends to the north and east. Soil quality improves moving south through the compartment. Topography ranges from fairly level in the north to gently undulating and very hilly progressing south. This compartment is on the southwest edge of a larger sandy outwash plain.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership is predominantly state with small private parcels scattered throughout. The Michigan Northwoods Club is located approximately a mile to the north. Land use is in both timber production and recreation. Camps exist on the majority of the private parcels and are primarily used for hunting and fishing.

Unique, Natural Features: Potential for red-shouldered hawk and goshawk. Potential for osprey, eagle, and great blue heron rookery. Potential for moose and wolf. Potential for wood turtle in Camp 11 Creek. Potential for northern blue in openings in jack pine stands if dwarf bilberry is present. Potential for dwarf bilberry, wild oat grass, and Canada rice-grass in grassy openings and in clearings in jack pine. Potential for auricled tway-blade and linear-leaved gentian along riparian areas. Potential for Farwell's water-milfoil and alternate-leaved water-milfoil in shallow lakes. Potential for Assinboia sedge, male fern, and goblin moonwort in mature northern hardwoods.

Archeological, Historical, and Cultural Features: A portion of the abandoned ELF ROW is on the northern border of this compartment.

Special Management Designations or Considerations: Special Conservation Area's (SCA's) exist along the Camp Eleven Creek.

Watershed and Fisheries Considerations: Follow proper BMP's along with a 300 foot buffer along designated trout streams and a 100 foot buffer along all other streams and any lakes. Camp Eleven Creek along with tributaries to it flow within the confines of this compartment. This is a designated trout stream.

Wildlife Habitat Considerations: Maintain or increase potential of hard mast production by utilizing management strategies that encourage oak. Manage for within-stand diversity by protecting and/or enhancing white and red pine, and strive to increase diversity for wildlife. Maintain the best age class diversity in aspen. Strive to increase within-stand diversity in aspen by utilizing retention guidelines and other strategies that provide the best combination of food and cover for wildlife. Within Special Conservation Areas maintain large closed canopy conifer that provide snow intercept and cover, mature forest structure and protection for wildlife corridors and protect riparian areas. Diversity in habitat types in this compartment offers a variety of hunting, trapping, and wildlife viewing opportunities.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of medium-textured and coarse-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. There is not a current economic use for these rocks. Gravel pits are located just to the east of the compartment, and potential appears to be good. Abandoned iron mines are located over twelve miles to the north. This compartment has not been previously leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access: Kates Grade, the Camp Eleven Truck Trail and Tower Road provide the main access to this compartment. Several woods roads branch off of these providing internal access.

Survey Needs: None

Recreational Facilities and Opportunities: No recreational facilities exist nor is there any opportunity for development.

Fire Protection: This compartment is on the border of southern Marquette County and northern Dickinson County. The northern edge of the compartment is on the southern edge of a large sandy outwash plain dominated by jack pine and a large wildlife opening, aka the Bryan Creek Opening Complex, while the south is dominated by northern hardwood and aspen. There are adequate water sources throughout the area as well as adequate road access for fire suppression activities.

Additional Compartment Information: None

- **The following reports from the Inventory are attached:**
  - **Total Acres by Cover Type and Age Class**
  - **Proposed Treatment Summary**
  - **Proposed Treatments – No Limiting Factors**
  - **Proposed Treatments – With Limiting Factors**
  - **Stand Details (Forested and Nonforested)**
  - **Dedicated and Proposed Special Conservation Areas**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - **Base feature information, stand boundaries, cover types, and numbers**
  - **Proposed treatments**
  - **Details on the road access system**
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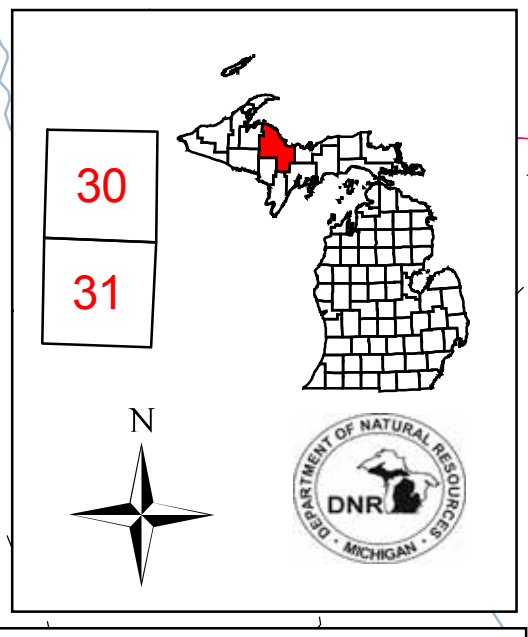
Cover Type & Treatment Map

Compartment 269
T45N, R27W, Sec. 30, 31
County: Marquette
Unit: Gwinn
YOE: 2013
Acres: 1,268 GIS Calculated
Stand Examiner: Thomas Seablom
Map Revised: 8/23/2011
Map Phase: Pre-Review

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



Legend

- Miris Corners
- Remonumented Section Corners
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Planned Regeneration
- Natural
- Planted

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

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands
Level 3
- 110 - Low Intensity Urban
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub

87°45'0"W 87°42'0"W 46°17'0"N 46°16'0"N 46°15'0"N

Kates Grade Rd
Hurt Lake
Camp Eleven Creek
West Tower Rd
Tower Truck Trl
Tower Rd

1 4130-A5 | 2 4130-A5 | 3 4130-A6 | 4 330-U0 | 5 4212-J6 | 6 4130-A3 | 7 4212-J6 | 8 4212-J6 | 9 622-L0 | 10 4222-J6 | 11 4130-A5 | 12 622-L0 | 13 6122-S6 | 14 4191-MD5 | 15 330-U0 | 16 500-ZU | 17 4319-UM5 | 18 622-L0 | 19 4212-J3 | 20 110-X0 | 21 4130-A6 | 22 330-U0 | 23 4319-UM9 | 24 4130-A3 | 25 6139-LM5 | 26 4130-A3 | 27 6121-T6 | 28 4140-B6 | 29 6121-T6 | 30 4130-A3 | 31 4137-A8 | 32 4130-A3 | 33 4110-M9 | 34 320-U0 | 35 320-U0

30 31

1 0.5 0 1 Miles

Stand Boundary Map

Compartment 269
T45N, R27W, Sec. 30, 31
County: Marquette
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Map Revised: 8/23/2011
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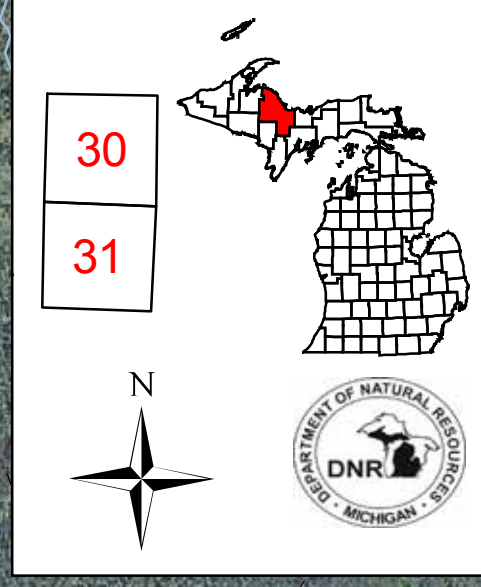
Stand # 23 — Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code



Legend
- Miris Corners
- Remonumented Section Corners
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stand Boundaries

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
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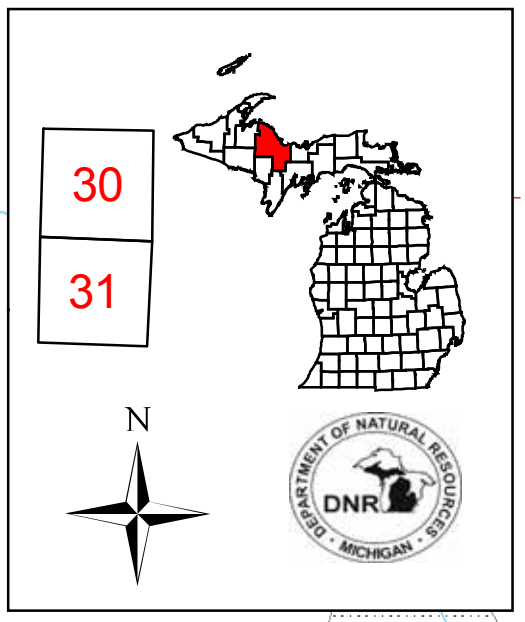
Non-Forest Stands
Level 3
- 110 - Low Intensity Urban
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub

1 0.5 0 1 Miles

Dedicated & Proposed Special Conservation Area Map

Compartment 269
T45N, R27W, Sec. 30, 31
County: Marquette
Unit: Gwinn
YOE: 2013
Acres: 1,268 GIS Calculated
Stand Examiner: Thomas Seablom
Map Revised: 8/23/2011
Map Phase: Pre-Review

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



87°42'0"W
46°17'0"N
46°16'0"N
46°15'0"N

14 **4191**-MD5
2 **4130**-A5
17 **4319**-UM5
12 **622**-L0
20 **110**-X0
1 **4212**-J6
7 **4212**-J6
18 **622**-L0
6 **4130**-A3
16 **500**-Z0
3 **4130**-A6
15 **330**-U0
30
4 **330**-U0
5 **4212**-J6
8 **4212**-J6
11 **4130**-A5
13 **6122**-S6
21 **4130**-A6
9 **622**-L0
10 **4222**-J6
19 **4212**-J3
24 **4130**-A3
23 **4319**-UM9
22 **330**-U0
25 **6139**-LM5
28 **4140**-B6
29 **6121**-T6
26 **4130**-A3
27 **6121**-T6
30 **4130**-A3
31
31 **4137**-A8
32 **4130**-A3
34 **320**-U0
33 **4110**-M9
35 **320**-U0

Legend

- Miris Corners
- Proposed Special Conservation Areas
  - SCA - Special Conservation Area
  - SCA Removal
- Dedicated Special Conservation Areas
- Cold Water Streams
- Stand Boundaries
- Forest Stands
  - Level 3
    - 411 - Northern Hardwood
    - 413 - Aspen Types
    - 414 - Other Upland Deciduous
    - 419 - Mixed Upland Deciduous
    - 421 - Planted Pines
    - 422 - Natural Pines
    - 431 - Upland Mixed Forest
    - 612 - Lowland Coniferous Forest
    - 613 - Lowland Mixed Forest
- Non-Forest Stands
  - Level 3
    - 110 - Low Intensity Urban
    - 320 - Upland Shrub
    - 330 - Low-Density Trees
    - 500 - Water
    - 622 - Lowland Shrub

1 0.5 0 1 Miles

87°44'0"W 87°43'0"W 87°42'0"W

Table 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit **Compartment 269 Year of Entry 2013**

Thomas Seablom : Examiner

Age Class

	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	Total
Aspen	0	42	40	306	150	0	0	0	0	56	0	0	0	0	0	**594**
Jack Pine	0	0	32	0	0	93	0	0	19	0	0	0	0	0	0	**144**
Low-Density Trees	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**33**
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	**12**
Lowland Shrub	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**47**
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	110	0	0	0	**110**
Mixed Upland Deciduous	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	**9**
Northern Hardwood	0	0	0	0	0	0	0	0	0	200	0	0	0	0	0	**200**
Paper Birch	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	**12**
Tamarack	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	**54**
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	**35**
Upland Shrub	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**12**
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
Total	**98**	**42**	**71**	**306**	**150**	**93**	**0**	**9**	**19**	**370**	**0**	**110**	**0**	**0**	**0**	**1268**

Table 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2013

Compartment 269
Total Compartment Acres: 1268

Acres by Treatment Type

Commercial Harvest - 174	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	108	0	0	0	0	0	**108**
Jack Pine	25	0	0	0	0	0	**25**
Mixed Upland Deciduous	9	0	0	0	0	0	**9**
Paper Birch	12	0	0	0	0	0	**12**
Tamarack	7	0	0	0	0	0	**7**
Upland Mixed Forest	5	0	7	0	0	0	**13**
Total	**166**	**0**	**7**	**0**	**0**	**0**	**174**

Table 3 -- Treatments Prescribed with No Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	32269001-Cut	24.9	42120 - Planted Jack Pine	High Density Pole	40	Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: Clearcut this stand harvesting all trees regardless of merchantability.

Other Comments: This stand is quite healthy and vigorous. It has been decided at this time to treat this stand along with stand 2. However, if it is decided not to harvest stand 2, this stand should be dropped from treatment.

Next Steps: Upon completion of harvest, trench and direct seed to jack pine.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	32269002-Cut	66.7	4130 - Aspen	Medium Density Pole	37	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: Clearcut this stand leaving all oak, red and white pine. All other trees are to be cut regardless of merchantability.

Other Comments: This stand is poor quality aspen, some of which is pulpwood size. To make the stand more marketable it should be sold with the adjacent jack pine, stand 1. The wood could be hauled out to the Bryan Creek road to the east. A stream crossing will be necessa

Next Steps: Upon completion of harvest, herbicide, trench and plant to red pine at a rate of 650 trees per acre.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	32269017_small-Cut	5.0	4319 - Mixed Upland Forest	Medium Density Pole	87	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Clearcut this stand leaving any oak, red and white pine and enough trees along the east edge to satisfy 3% retention.

Other Comments: Harvest this stand at the same time as stands 1 and 2 to the west, ie set up as the same timebersale.

Next Steps: Following harvest determine if natural regeneration of mixed upland species is adequate. If it's not, trench and direct seed to jack pine. Use herbicide only as needed.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	32269021-Cut	31.2	4130 - Aspen	High Density Pole	83	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut this stand cutting all trees regardless of merchantability except any oak, red or white pine. Mark scattered large, overmature aspen for wildlife trees.

Other Comments: Retention will be satisfied by not cutting AOI 21_small. Not all of this stand may be operable due to terrain which will also contribute to retention.

Next Steps: Acceptable regeneration inclueds aspen, birch, maple, spruce, fir and pine.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
23	32269023_small-Cut	7.5	4319 - Mixed Upland Forest	High Density Log	84	Harvest	Seed Tree with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Seed tree harvest this stand leaving approx. 10 seed trees per acre being a mix of spruce and fir. All other trees are to be cut regardless of merchantability.

Other Comments: Monitor success for spruce-fir regeneration.

Next Steps: A mix of spruce-fir, red maple, white birch and aspen will be acceptable for regeneation of this stand.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	32269027_small-Cut	7.4	6121 - Tamarack	High Density Pole	84	Harvest	Patch or Strip Clearcut	6121 - Tamarack	Cmpt. Review Proposal

Prescription Specs: Seedtree harvest this stand using strip clearcuts orientated in a north-south direction. Cut strips should be approx. 100-150 feet in width with 75 feet of uncut timber inbetween.

Other Comments: The eastern portion of this stand may be too wet, evaluate during timber sale prep.

Next Steps: Monitor success of tamarack and spruce regeneration. Leave strips will be cut during next YOE when individual seed trees will be marked. Acceptable regeneration includes spruce, tamarack, fir, aspen, maple and cedar.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28	32269028-Cut	12.1	4140 - Other Upland Deciduous	High Density Pole	84	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Clearcut this stand leaving any red and white pine and scattered white birch (leave approximately 20). All other trees are to be cut regardless of merchantability.

Other Comments: Portion of the stand is a steep hillside (40% slope), but it is short. A 100 foot buffer will be left along the creek(s) adjacent to the stand.

Next Steps: Monitor the regen success in this stand. A mix of aspen, spruce-fir, and red maple is acceptable. In areas where regen may be lacking, underplanting of white pine could occur.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
31	32269031-Cut	9.5	4137 - Aspen, Birch	Medium Density Log	84	Harvest	Clearcut with Reserves	4137 - Aspen, Birch	Cmpt. Review Proposal

Prescription Specs: Clearcut this stand marking enough white birch trees and decadent aspen to satisfy 3% retention. All other trees are to be cut, except any oak, red or white pine that may be present.

Other Comments: Monitor areas heavy to birch for regeneration.

Next Steps: Upon completion of harvest, evaluate regeneration success to determine if a subsequent regeneration treatment may be necessary, such as scarification or underplanting. A mixed stand of aspen, maple, birch, spruce-fir will be acceptable.

Total Treatment Acreage Proposed: 164.4

Table 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
14	32269014-Cut	9.2	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	60	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Clearcut this stand leaving only red pine, oak and any white pine. All other trees are to be cut regardless of merchantability.

Other Comment: If adjacent stands (1, 2, and 17_small) are approved for treatment then treat this stand, otherwise keep the limiting factor. Zero percent retention for this stand. When trenching this stand, obliterate the ELF line.

Next Steps: Following completion of harvest, trench and direct seed to jack pine using herbicide only as necessary. Acceptable regeneration includes jack pine, maple, and oak.

Limiting Factor and No Treatment Reason: 4C: Low volume (stocking/diameter)

Stand could be harvested if adjacent stands are cut. Trees in this stand are scattered and in clumps and wouldn't make a stand alone sale.

Total Treatment Acreage Proposed: **9.2**

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2013

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: **0**

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42120 - Planted Jack Pine	High Density Pole	24.9	40	111-140	Majority of this stand was planted and/or seeded in May 1970 (see planting form #126). Aspen is a mix of quaking and bigtooth, however it only makes up 2% of the canopy. No understory is present at this time.
2	4130 - Aspen	Medium Density Pole	66.7	37	1-50	Stand was commercially clearcut in 1974 by Earl St. John, permit #T-72 and followed up by a noncommercial KG dozer shearing of residual trees by Wildlife Division (mostly smaller red maple) in May/June 1975 (see FTP W3-547, or forestry no. 136-V-22). Red pine remnant trees are scattered throughout the stand. Red and white pine saplings and poles are scattered throughout the stand as well. Jack pine occurs as individual trees and also as scattered pockets.
3	4130 - Aspen	High Density Pole	82.9	37	81-110	Stand was commercially clearcut in 1974 by Earl St. John, permit #T-72 and followed up by a noncommercial KG dozer shearing of residual trees by Wildlife Division (mostly smaller red maple) in May/June 1975 (see FTP W3-547, or forestry no. 136-V-22).
5	42120 - Planted Jack Pine	High Density Pole	52.3	41	111-140	Majority of this stand was planted and/or seeded in May 1970 (see planting form #126)
6	4130 - Aspen	High Density Sapling	31.5	8		Stand harvested in Dec. 2003 by Roy Nelson, Jr (Camp 11 Creek Sale) #32-123-03-01. All oak, cherry, red and white pine and spruce less than 2 sticks were left.
7	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	10.2	41	51-80	Majority of this stand was planted and/or seeded in May 1970 (see planting form #126)
8	42120 - Planted Jack Pine	High Density Pole	5.7	41	51-80	SCA=>Potential Old Growth for water quality protection. This stand is part of a corridor along the Camp 11 creek.
10	42220 - Natural Jack Pine	High Density Pole	19.5	75	111-140	SCA=>Potential Old Growth for water quality. Stand is part of a corridor along the Camp 11 creek.
11	4130 - Aspen	Medium Density Pole	4.8	87	51-80	SCA=>Potential Old Growth for water quality protection. Stand is part of a corridor along the Camp 11 creek. Succession to conifers is the long term management goal here. Aspen and birch are beginning to fall apart and the conifer understory will become part of the canopy within the next 1 to 2 entry periods.
13	6122 - Black Spruce	High Density Pole	109.7	106	81-110	SCA=>Potential Old Growth for water quality protection. Stand is part of a corridor along the Camp 11 creek and seveal feeders to it.
14	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	9.2	60	1-50	Very sparse stand on a hillside.
17	4319 - Mixed Upland Forest	Medium Density Pole	16.3	87	51-80	SCA=>Potential Old Growth (POG), water quality/BMP. Very mixed stand with variable density throughout. Some areas are void of trees. The east part of the stand is a north south ridge that is very steep on both sides. The northwest corner is the east facing slope of a hillside. This stand is acting as a buffer to a feeder of the Camp 11 creek.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	42120 - Planted Jack Pine	High Density Sapling	31.6	16		Stand was harvested in 1994 by DeShambo Forest Prod. permit #2-93. Stand was then herbicided, trenched and handplanted (FTP C31-03-95).
21	4130 - Aspen	High Density Pole	41.9	83	81-110	This stand is the combination of two stands due to mapping rules. The northern portion of this stand is SCA=>Potential Old Growth for water quality protection and is part of a corridor along the Camp 11 creek. The southern portion of the stand is not included in this designation. Operability in this stand is very limited. The hill sides are quite steep (>45%) and the ridges are very narrow. Birch 1/2 dead, very large aspen, 14+dbh
23	4319 - Mixed Upland Forest	High Density Log	18.8	84	51-80	Transitional stand. Mix of red maple, white birch and spruce-balsam. Some scattered aspen. Birch is falling apart. Northern lobe is almost pure spruce-fir. Treat this area with adjacent spruce-tamarack stand to east. Leave the upland transition zone in the south-southeast however.
24	4130 - Aspen	High Density Sapling	170.8	25	1-50	Stand harvested between 1980-1986 first by Lowell White and later by Mark Johnson under permit #8-78. All oak, red and white pine, and spruce were left.
25	6139 - Mixed Lowland Forest	Medium Density Pole	12.2	84	51-80	Mixed lowland forest. Tamarack, spruce, white birch, aspen, fir and ash. A creek flows east to west in this stand that eventually enters Camp 11 creek.
26	4130 - Aspen	High Density Sapling	39.8	17		Stand harvested in 1994 by DeShambo Forest Products, permit #2-93. Birch seed trees were left as well as all oak, red and white pine). No siginificant birch regen. was found in Oct. 2001. Some lower stocking in areas that had been heavy to birch. In 2011 some birch regen was found along the border of the upland hardwood stand. Very little regeneration is present where birch stocking was heavier before the cut. These pockets amount to 15-20% of the stand and have scattered spruce fir in them. They are in the west, center, and east parts of the stand. The 2009 imagery clearly shows these spots.
27	6121 - Tamarack	High Density Pole	36.2	84	111-140	This is a mixed stand of tamarack, spruce-fir, aspen and birch. The aspen and birch are primarily along the edges where it transitions to upland. There is a pocket of cedar in the middle of this stand. This stand is very wet with an underground creek on the east end of the stand.
28	4140 - Other Upland Deciduous	High Density Pole	12.1	84	51-80	Mixed stand of birch, aspen, red maple, spruce-fir with traces of red and jack pine. This stand is a ridge of high ground between two spruce-tamarack stands. The east end of the stand is a steep hillside (40% slope). A creek flows through this stand and into the adjacent tamarack stand eventually ending at Camp 11 creek.
29	6121 - Tamarack	High Density Pole	18.1	84	81-110	Narrow stand of tamarack and black spruce. There is a small feeder creek that flows west to east through this stand ending in the Camp 11 creek.
30	4130 - Aspen	High Density Sapling	10.8	8		Stand harvested Sept-Oct 2003 by St. John Forest Products, #32-124-03-01 (Camp 11 Truck Trail Sale).

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
31	4137 - Aspen, Birch	Medium Density Log	9.5	84	81-110	Small stand of birch and aspen that was left as a visual buffer along the Camp 11 Truck Trail. Birch and aspen are dieing, stand is succeeding to red maple and ironwood.
32	4130 - Aspen	High Density Sapling	135.4	26	1-50	West part of stand was harvested by Mark Johnson, permit #9-83, east portion was cut by St. John Forest Products, permit #1-78. Western part of stand had a maintained hunter walking trail through it at one time. In the eastern portion of the stand, oak were marked to save as well as birch clumps w/in 100ft of the Camp 11 Truck Trail.
33	4110 - Sugar Maple Association	High Density Log	200.0	84	81-110	This stand is the combination of two separate stands due to new mapping rules. The portion of the stand south of the Tower Rd. was harvested in 2004, TS#32-125-03-01. The portion north of the road was harvested between July and December of 1996 by Jeff Jacobson #17-93. It has been noted in OI notes from last entry that maple regeneration is severly lacking in this stand and that ironwood and leatherwood are dominant in the understory. In May 2011 sugar maple regeneration is abundant throughout the entire stand as 2-4 inch seedlings. There is no evidence of browsing on these seedlings. Sedge is quite abundant in the southern part of the stand. Aspen regeneration is also prevalent throughout the southern portion of the stand. White ash seedlings are scattered throughout the entire stand and show evidence of browsing.

6 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	3301 - Low Density Deciduous Tree	2.4	Yes	Low (NonForested)	Opening with scattered clumps and individual red maple saplings and a jack pine clump. Heavy sweetfern ground cover.
9	6220 - Alder/willow	33.1	No	Unspecified	Lowland brush with scattered lowland conifer trees. Camp 11 Creek flows through this stand.
12	622 - Lowland Shrub	11.0	N\A	Unspecified	Lowland brush with a few trees along a small creek that flows into the Camp 11 creek.
15	3302 - Low Density Conifer Trees	7.1	Natural Regen	High (NonForested)	Stand was harvested in January 2005 by Roy Nelson Jr., permit #32-123-03-01 "Camp 11 Creek Sale". No cedar was to be cut.
16	50 - Water	3.6	N\A	Unspecified	
18	6220 - Alder/willow	3.3	N\A	Unspecified	Small creek flows through this stand and into adjacent pond which eventually drains into Camp 11 Creek.
20	11 - Low Intensity Urban	1.0	N\A	Unspecified	
22	3302 - Low Density Conifer Trees	23.8	Planted	High (NonForested)	Stand was herbicided, trenched and seeded to jack pine. Seeding took place in June 2009. Scattered pockets of fir throughout the stand.
34	320 - Upland Shrub	8.7	N\A	Unspecified	
35	320 - Upland Shrub	3.7	N\A	Unspecified	

Data updated before 2:00 PM

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
8	Unique Site - SCA	32269008	5.7	SCA=>Riparian corridor along Camp 11 Creek. Stand is providing for both a wildlife corridor and and extended buffer along Camp 11 Creek which is a cold water trout stream.
10	Unique Site - SCA	32269010	19.5	SCA=>Riparian corridor. Stand is serving as a riparian corridor for both wildlife and fisheries along Camp 11 Creek which is a cold water trout stream.
11	Unique Site - SCA	32269011	4.8	SCA=>Riparian corridor. Stand is serving as a riparian corridor for both wildlife and fisheries along Camp 11 Creek which is a cold water trout stream. A longterm goal in this stand is to promote conifers to discourage beaver activity near Camp 11 Creek.
13	Unique Site - SCA	32269013	109.7	SCA=>Potential Old Growth. Stand is currently listed as POG and water quality. Camp 11 creek as well as several spring fed tributaries to it are located within this stand. The stand should remain in SCA status for water quality.
17	Unique Site - SCA	32269017	11.3	SCA =>Potential Old Growth (POG). A spring fed creek flows through this stand evenutally entering into the Camp 11 creek. The gravel pit that is located on the northeast edge of this stand should be allowed to expand, if necessary, into this stand along the east boundary of the compartment. Some limited harvesting could occur in this stand, possibly a removal cut to harvest the jack pine and white birch allowing the stand to convert to a fir/pine mix. There is some steep terrain, mainly the east side, in this stand that is inoperable.
21	SCA Removal	32269021	31.2	Remove this portion of the stand from SCA designation.
21	Unique Site - SCA	32269021_small	10.7	SCA=>Potential Old Growth and riparian corridor. Stand is providing a travel corridor and buffer along Camp 11 Creek. Allowing this stand to succed to a conifer type will discourage beaver activity here as well.
9	Unique Site - SCA	NF_32269009	33.1	SCA=>Riparian corridor. Stand is serving as a riparian corridor for both wildlife and fisheries along Camp 11 Creek which is a cold water trout stream.

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.