



**Gwinn Forest Management Unit  
Compartment Review Presentation  
Compartment 56      Entry Year: 2013  
Compartment Acreage: 1, 897      County: Marquette**

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**Revision Date:** 08/18/11

**Stand Examiner:** Kevin LaBumbard

**Legal Description:** T44N R26W Sections 16, 17, 18

**RMU (if applicable):** Chain Lakes Moraine Management Area

**Management Goals:** To improve the quality and diversity of State forests and wildlife through proper habitat management, while protecting the riparian values of our wetlands and waters.

**Soil and Topography:** Greenwood and Dawson soils, Carbondale and Tawas mucks, Emmet-Escanaba complex, Rousseau fine sand, Au Gres sand, and Croswell-Deford complex. Terrain is flat to low rolling.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Private to the north off of Kate's Grade, otherwise a large block of State ownership.

**Unique, Natural Features:** Potential for osprey, eagle, and great blue heron rookery. Potential for red-shouldered hawk and goshawk. Potential for loon in Landon Lake. Potential for moose and wolf. Potential for wood turtle in Escanaba River. Potential for frigga fritillary, freija fritillary, and red-disked alpine in openings of treed bogs. Potential for Assiniboia sedge and goblin moonwort in mature northern hardwoods. Potential for auricled tway-blade, western dock, veiny meadow-rue, and linear-leaved gentian along riparian areas. Potential for Farwell's water-milfoil and alternate-leaved water-milfoil in shallow lakes. Potential for purple clematis in dry-mesic conifer stands.

**Archeological, Historical, and Cultural Features:** Area of concern in section 18.

**Special Management Designations or Considerations:** ERA (stand 1) – Dry Mesic Forest

**Watershed and Fisheries Considerations:** Bryan Creek

**Wildlife Habitat Considerations:** Manage for within-stand diversity by protecting and/or enhancing white and red pine, and strive to increase diversity for wildlife. An Ecological Reference Area located along Camp 10 Road contains a large white pine community which attracts some of Michigan's more rare species such as white winged and red crossbill, boreal chickadee, Blackburnian and pine warbler, and moose. Maintain the best age class diversity in aspen. Strive to increase within-stand diversity in aspen by utilizing retention guidelines to provide the best combination of food and cover. Within Special Conservation Areas along creeks and tributaries maintain large closed canopy conifer to provide snow intercept and cover, mature forest structure and protection for wildlife corridors and 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 primarily of peat and muck. There is insufficient data to determine the glacial drift thickness. The Cambrian Trempealeau and Munising Formations subcrop below the glacial drift. The Trempealeau could be used for

stone. Gravel pits are located over two miles to the south, and there appears to be limited potential. Abandoned iron mines are located six miles to the northeast. Sections 8 and 18 were previously leased for metallic exploration. There is no economic oil and gas production in the UP.

**Vehicle Access:** West half of the compartment has good access off of Kate's Grade. The rest of the compartment has very poor vehicle access.

**Survey Needs:** None at this time.

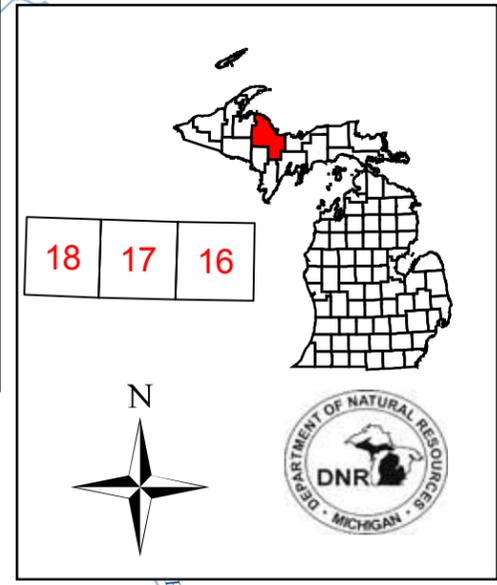
**Recreational Facilities and Opportunities:** Good trout fishing along Bryan Creek, small and large game hunting.

**Fire Protection:** This compartment has a low risk for fire.

**Additional Compartment Information:**

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
  - ◆ **Cover Type by Age Class**
  - ◆ **Cover Type by Management Objective**
  - ◆ **Compartment Volume Summary**
  - ◆ **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**
  - ◆ **Proposed treatments**
  - ◆ **Proposed road access system**
  - ◆ **Suggested potential old growth**

Compartment 56  
 T44N, R26W, Sec. 16, 17, 18  
 County: Marquette  
 Unit: Gwinn  
 YOE: 2013  
 Acres: 1,897 GIS Calculated  
 Stand Examiner: Kevin LaBumbard  
 Map Revised: 8/23/2011  
 Map Phase: Pre-Review

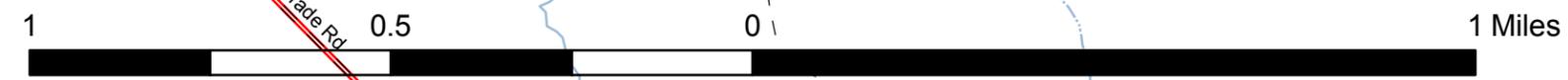
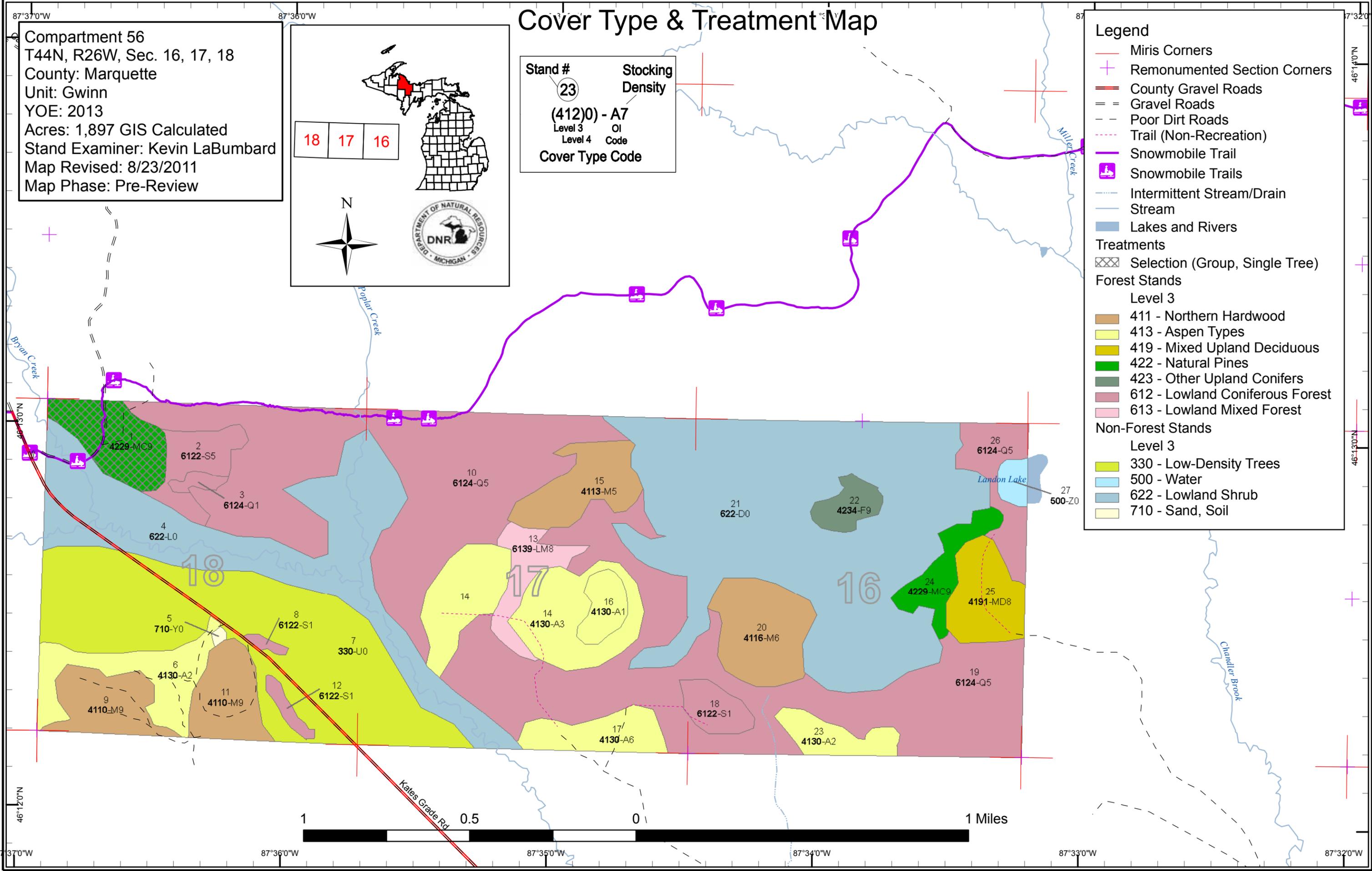


# Cover Type & Treatment Map

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

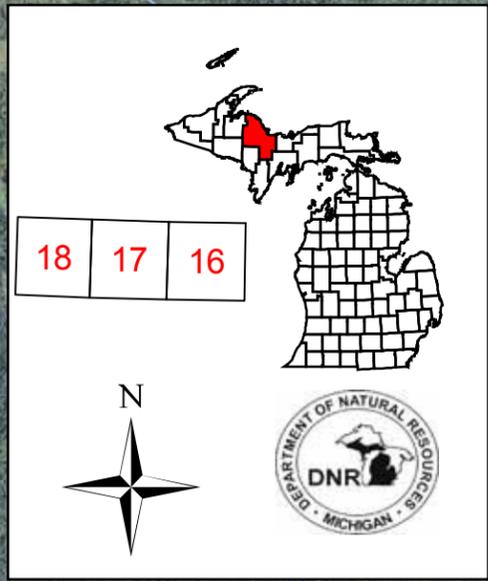
18 17 16

- ### Legend
- Miris Corners
  - + Remonumented Section Corners
  - County Gravel Roads
  - = Gravel Roads
  - - - Poor Dirt Roads
  - - - Trail (Non-Recreation)
  - Snowmobile Trail
  - 🏠 Snowmobile Trails
  - Intermittent Stream/Drain
  - Stream
  - 🌊 Lakes and Rivers
  - Treatments**
  - 🏠 Selection (Group, Single Tree)
  - Forest Stands**
  - Level 3
  - 🟤 411 - Northern Hardwood
  - 🟡 413 - Aspen Types
  - 🟠 419 - Mixed Upland Deciduous
  - 🟢 422 - Natural Pines
  - 🟤 423 - Other Upland Conifers
  - 🟤 612 - Lowland Coniferous Forest
  - 🟤 613 - Lowland Mixed Forest
  - Non-Forest Stands**
  - Level 3
  - 🟡 330 - Low-Density Trees
  - 🟡 500 - Water
  - 🟡 622 - Lowland Shrub
  - 🟡 710 - Sand, Soil



87°37'0"W 87°36'0"W 87°35'0"W 87°34'0"W 87°33'0"W  
 46°12'0"N 46°13'0"N 46°14'0"N

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 Map Revised: 8/23/2011  
 Map Phase: Pre-Review



# Stand Boundary Map

**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

**Legend**

- Miris Corners
- + Remonumented Section Corners
- == Gravel Roads
- - Poor Dirt Roads
- - - Trail (Non-Recreation)
- Stand Boundaries

**Forest Stands**

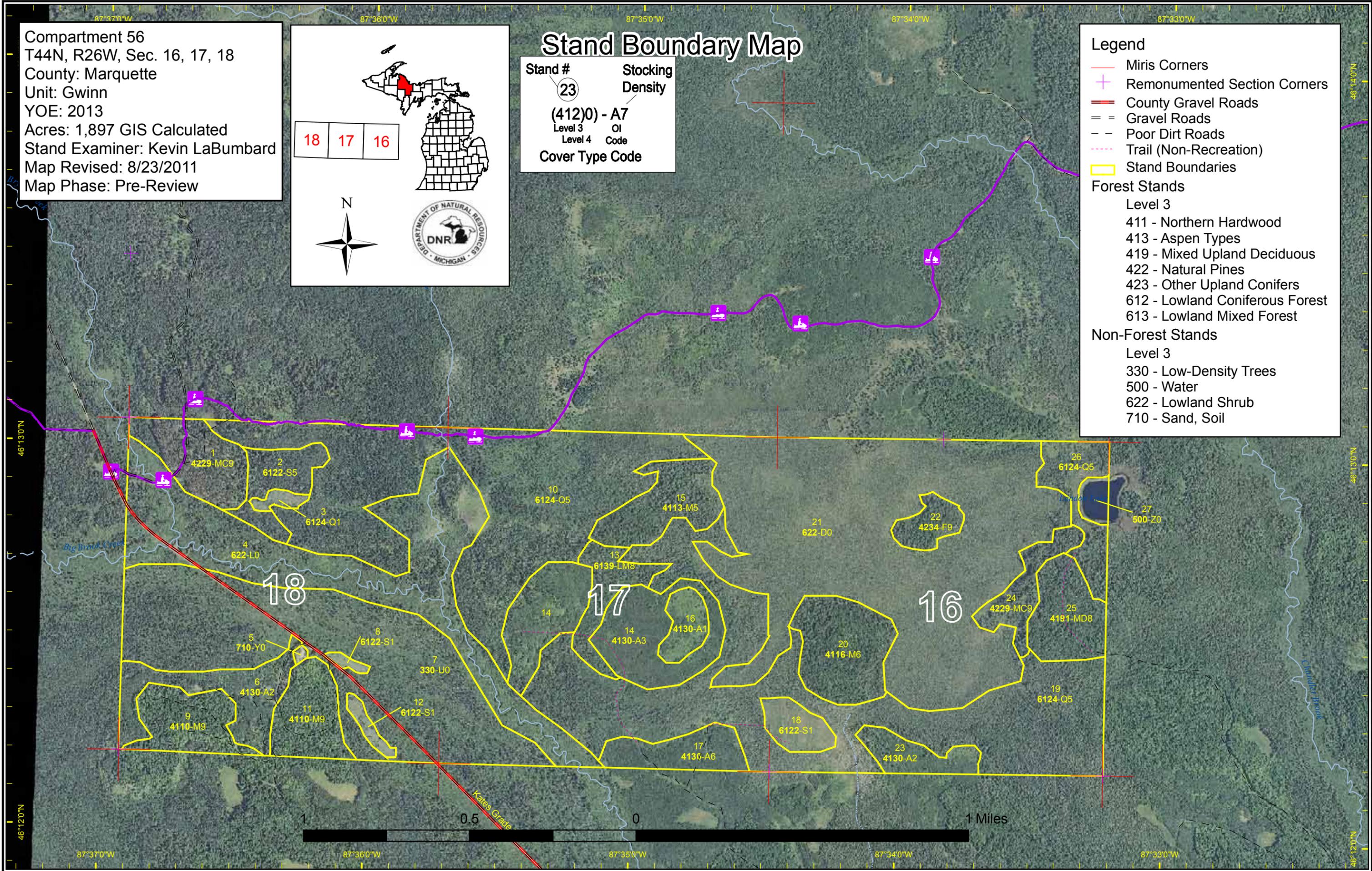
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

**Non-Forest Stands**

Level 3

- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 710 - Sand, Soil





**Table 1 – Total Acres by Cover Type and Age Class**

Kevin LaBumbard : Examiner



	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneren Age
Aspen	0	0	35	159	0	0	0	0	0	0	0	0	0	0	0	194
Low-Density Trees	229	0	0	0	0	0	0	0	0	0	0	0	0	0	0	229
Lowland Conifers	0	5	0	0	0	0	0	0	0	0	0	0	302	254	0	561
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	24
Lowland Shrub	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	188
Lowland Spruce/Fir	0	8	0	16	0	0	0	0	0	26	0	0	0	0	0	50
Mixed Upland Deciduous	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	37
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	24	0	39	0	0	62
Northern Hardwood	0	0	0	0	0	0	0	0	0	39	119	0	0	0	0	159
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Treed Bog	369	0	0	0	0	0	0	0	0	0	0	0	0	0	0	369
Upland Spruce/Fir	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	15
Water	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
<b>Total</b>	<b>795</b>	<b>13</b>	<b>35</b>	<b>175</b>	<b>0</b>	<b>15</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>89</b>	<b>143</b>	<b>0</b>	<b>341</b>	<b>254</b>	<b>0</b>	<b>1897</b>



## Table 2 – Proposed Treatment Summaries

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

**Compartment 056**  
**Total Compartment Acres: 1897**

### Acres by Treatment Type

Commercial Harvest - 39	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
<b>Natural Mixed Pines</b>		0	39	0	0	0	0	39
<b>Total</b>		0	39	0	0	0	0	39

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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	32056001-Cut	38.7	42290 - Natural Mixed Pine	High Density Log	110	Harvest	Group Selection	42290 - Natural Mixed Pine	Cmpt. Review Proposal

Prescription: Follow ERA plan for management guidance. Recommend thinning the stand creating regeneration gaps followed by understory fire in 2-5 years  
Specs: to remove slash, any fir regeneration, and prepare seed bed.

Other Comments: Dry Mesic Forest. ERA nomination. Nicest natural pine stand in the Gwinn Unit. Large, heavily stocked red and white pine sawtimber with the rare black spruce. Avg. ba wp-54, rp-64, bs-2. CUT 1983, Thinned 2007 (Sanville permit 029-03-01)while req

Next Steps: Rx burn, monitor regeneration. Red and white pine are acceptable regeneration species.

**Total Treatment  
Acreage Proposed: 38.7**

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

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Limiting Factor and No  
Treatment Reason

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**Total Treatment**  
**Acreage Proposed: 0**

Out of YOE -- Treatments  
Prescribed with No Limiting Factor

Year of Entry: 2013



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

Other  
Comments:

Next  
Steps:

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**Total Treatment  
Acreage Proposed: 0**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42290 - Natural Mixed Pine	High Density Log	38.7	110	111-140	Dry Mesic Forest. ERA nomination. Nicest natural pine stand in the Gwinn Unit. Large, heavily stocked red and white pine sawtimber with the rare black spruce. Avg. ba wp-54, rp-64, bs-2. CUT 1983, Thinned 2007 (Sanville permit 029-03-01) while requiring logger to eliminate fir understory to mimic natural processes of frequent fire. In MNFI database as a high quality dry-mesic forest. Recommend understory fire in 2-5 years to burn up fir that seeds in after this cutting.
2	6122 - Black Spruce	Medium Density Pole	25.6	88		Moderately stocked black spruce stand.
3	6124 - Lowland Spruce- Fir	Low Density Sapling	4.5	9		Tornado touchdown area along the edge of a black spruce stand and tamarack stand. Regenerating very well to mixed conifers with a heavy component of 6-12" black spruce seedlings.
6	4130 - Aspen	Medium Density	44.4	23		3-5" very tall aspen saplings with occasional pole. Approximately 50% of the stems are dead and down due to hypoxolon?
8	6122 - Black Spruce	Low Density Sapling	2.5	5		Stand cut 2004 by Giguere logging permit #031-03-01. Stand regenerating to black spruce and fir. Good regen in the sphagnum moss areas, lesser so on the drier sites.
9	4110 - Sugar Maple Association	High Density Log	35.1	98	81-110	Last treated under contract #32-30-03 by Sheski. Almost pure sugar maple with a few soft maple stems. (See wildlife comments below). 17,000 hemlock seedlings were planted within the east portion of Kate's Grade Big Pit sale boundary (#32-030-03) in May 2005. An additional 18,750 hemlock seedlings were planted in May 2006 to completely stock the remainder of the available sale area. The planting rate was 441 hemlock seedlings per acre.
10	6124 - Lowland Spruce- Fir	Medium Density Pole	254.4	120		Former potential old growth nomination. Stand varies from tamarack to black spruce. Very wet.
11	4110 - Sugar Maple Association	High Density Log	33.9	98	81-110	Essentially a pure sugar maple stand, good quality last treated under contract # 32-30-03. A trace of small fir saplings in the understory, Scattered small pockets of raspberry. No hardwood regeneration and no evidence of underplanted hemlock (see wildlife comments below). 17,000 hemlock seedlings were planted within the east portion of Kate's Grade Big Pit sale boundary (#32-030-03) in May 2005. An additional 18,750 hemlock seedlings were planted in May 2006 to completely stock the remainder of the available sale area. The planting rate was 441 hemlock seedlings per acre.
12	6122 - Black Spruce	Low Density Sapling	5.5	5		Stand cut 2004 by Giguere logging permit #031-03-01. Stand regenerating to black spruce and fir. Good regen in the sphagnum moss areas, lesser so on the drier sites.
13	6139 - Mixed Lowland Forest	Medium Density Log	24.5	85		A lowland mix of white birch, balm, black spruce, cedar and red maple. Stand converting to black spruce.
14	4130 - Aspen	High Density Sapling	86.2	20		2" aspen saplings with occasional large white pine. Treated under contract # 35-85-01.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4113 - R.Maple, Conifer	Medium Density Pole	39.1	80	51-80	Former fir stand, most of the fir is dead and down. Stand consists of poor quality red maple poles with pockets of dense M3 (red maple), and huge white pine. Also contains scattered large 14" cedar and black spruce. Recommend this stand for an SCA potential old growth.
16	4130 - Aspen	Low Density Sapling	15.0	15		Cut in 1995 under contract # 22-93-01, former birch/aspen stand. Stand consists of scattered aspen clones with occasional fir. White birch did regenerate in patches but was browsed heavily by moose, as was much of the aspen.
17	4130 - Aspen	High Density Pole	28.1	23		Approximately 30 ba of 2 stick aspen poles, over aspen saplings. Cut in 1987.
18	6122 - Black Spruce	Low Density Sapling	16.2	20		First strip cut in 1990 with the original uncut strips harvested in 2005. Access blocked by high water. OIPC comments show the strips cut in 1990 are well-stocked 2-6' B. spruce, tamarack and some W.Pine.
19	6124 - Lowland Spruce- Fir	Medium Density Pole	271.4	118		Low, extremely wet mixed swamp conifer stand with more cedar than stands 6 and 9. Former SCA nomination for potential old growth.
20	4116 - Mixed N. Hardwood - Aspen	High Density Pole	50.6	95		"Island" of hardwood surrounded by wet swamp. High water levels prevented onsite review. Older OIPC comments as follows: Cut about 1961. Lot of residual left then. Areas of large hardwood. Aspen and Balm areas mature but younger. Could CC or thin.
22	42340 - Upland Spruce/Fir	High Density Log	14.7	47		Widely scattered big W. Pine 20-24" over thick 6" dbh 2-stick fir with black spruce poles. Scattered aspen, cedar, white birch. "Island" of upland in a treed bog. Evidence of old burn, which corresponds with the age of the fir. Former SCA nomination.
23	4130 - Aspen	Medium Density	20.1	15		Cut in 1995, PRMT #31-93-01. 1-2" 15-20' tall average. Scattered big Cedar and W. Pine. Scattered areas of cherry and Balsam Poplar.
24	42290 - Natural Mixed Pine	High Density Log	23.6	98	171-200	Dry Mesic Forest. Former SCA nomination. Large, heavily stocked red and white pine sawtimber with jack pine and black spruce. Avg. ba wp-85, rp-80, jp-10, bs-15
25	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	37.0	52		Sparsely to moderately stocked mix of aspen, cherry, balm, white birch, balsam fir and very large basswood, white pine and white spruce. Wet pockets of cedar. Stand contains a high knob of sugar maple, basswood and upland cedar over heavy sugar maple whips.
26	6124 - Lowland Spruce- Fir	Medium Density Pole	30.8	118		An extension of stand 15. Low wet swamp conifers, former POG nomination.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	6220 - Alder/willow	188.4	No	Unspecified	Tag alder and willow. Contains Bryan Creek. Former SCA nomination.
5	710 - Sand, Soil	1.1	Yes	Low (NonForested)	Gravel pit.
7	3302 - Low Density Conifer Trees	229.0	No	Unspecified	Poorly stocked tamarack and black spruce over willow and tag alder. Very wet, unproductive. Former SCA nomination.
21	6224 - Treed Bog	369.2	No	Unspecified	Black spruce bog. Former SCA .
27	50 - Water	7.3	No	Unspecified	Landon Lake



## 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
1	Unique Site - SCA	32056001	38.7	ERA Dry Mesic Forest. ERA nomination. Nicest natural pine stand in the Gwinn Unit. Large, heavily stocked red and white pine sawtimber with the rare black spruce. Avg. ba wp-54, rp-64, bs-2. CUT 1983, Thinned 2007 (Sanville permit 029-03-01) while requiring logger to eliminate fir understory to mimic natural processes of frequent fire. In MNFI database as a high quality dry-mesic forest. Future management activities will follow the ERA plan in the compartment file.
10	Unique Site - SCA	32056010	254.4	SCA Maintain closed canopy conifer and mature forest attributes that provide thermal protection, snow intercept, and complex forest structure. Former SCA POG stand, it is a part of a large wetland complex.
13	Unique Site - SCA	32056013	24.5	SCA Maintain closed canopy conifer and mature forest attributes that provide thermal protection, snow intercept, and complex forest structure. Former SCA POG stand, it is a part of a large wetland complex. A lowland mix of white birch, balm, black spruce, cedar and red maple. Stand converting to black spruce. Part of a large wetland complex.
15	Unique Site - SCA	32056015	39.1	Former fir stand, most of the fir is dead and down. Stand consists of poor quality red maple poles with pockets of dense M3 (red maple), and huge white pine. Also contains scattered large 14" cedar and black spruce. Recommend this stand as an SCA potential old growth.
19	Unique Site - SCA	32056019	271.4	SCA Maintain closed canopy conifer and mature forest attributes that provide thermal protection, snow intercept, and complex forest structure. Former SCA POG stand, it is a part of a large wetland complex. Low, extremely wet mixed swamp conifer stand with more cedar than stands 6 and 9. Part of a large wetland complex.
22	Unique Site - SCA	32056022	14.7	Widely scattered big W. Pine 20-24" over thick 6" dbh 2-stick fir with black spruce poles. Scattered aspen, cedar, white birch. "Island" of upland in a treed bog. Evidence of old burn, which corresponds with the age of the fir. Former SCA POG nomination, recommend continuing the SCA POG designation.
24	Unique Site - SCA	32056024	23.6	SCA Dry Mesic Forest. Maintain closed canopy conifer and mature forest attributes that provide thermal protection, snow intercept, and complex forest structure. Former SCA POG stand, it is a part of a large wetland complex. Large, heavily stocked red and white pine sawtimber with jack pine and black spruce. Avg. ba wp-85, rp-80, jp-10, bs-15
26	Unique Site - SCA	32056026	30.8	SCA Maintain closed canopy conifer and mature forest attributes that provide thermal protection, snow intercept, and complex forest structure. Former SCA POG stand, it is a part of a large wetland complex. Stand is just an extension of stand 19. Low, extremely wet mixed swamp conifer stand with more cedar than stands 6 and 9.



## 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
4	Unique Site - SCA	NF_32056004	188.4	SCA Riparian corridor
7	Unique Site - SCA	NF_32056007	229.0	SCA Maintain conifer and mature forest attributes that provide thermal protection, snow intercept, and complex forest structure. Former SCA POG stand, it is a part of a large wetland complex. Poorly stocked tamarack and black spruce over willow and tag alder. Very wet, unproductive. Part of a large wetland complex.
21	Unique Site - SCA	NF_32056021	369.2	SCA Maintain closed canopy conifer and mature forest attributes that provide thermal protection, snow intercept, and complex forest structure. Former SCA POG stand, it is a part of a large wetland complex.



**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.