



**Gwinn Forest Management Unit**  
**Compartment Review Presentation**  
**Compartment 209      Entry Year: 2013**  
**Compartment Acreage: 1, 597      County: Marquette**

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**Revision Date:** August 18, 2011

**Stand Examiner:** Tom Seablom

**Legal Description:** T49N R28W Sec. 35 except N1/2NE and NENW; T 48N R28W NWNE, NWSW, S1/2S1/2 Sec 2, NE, NENW Sec 3, NWNW Sec 11, Sec 12 except NENE

**RMU (if applicable):** Peshekee Highlands Management Area

**Management Goals:** Management in this compartment will continue to focus on timber production and providing wildlife habitat as well as protecting water quality. Timber within this compartment is medium quality; therefore focus will be on both fiber production and quality sawlog development. The hardwood cover type will be managed as both even age and uneven age where appropriate. Softwood will be managed solely as even age. Managing these cover types as such, will continue to provide diverse wildlife habitat. Applying proper Best Management Practices (BMP's) during timber sale activities will ensure water quality protection. Several harvests are being prescribed during this entry period including selection, seed tree, and clearcut (both final harvest and patch clearcuts).

**Soil and Topography:** Soils within the compartment are of the Keewaydin-Michigamme-Rock Outcrop (KMR) and Kalkaska-Carbondale-Deford (KCD) Association's. The KMR's tend to be deep well drained loams to silty loams over gravelly and sandy tills and igneous or metamorphic bedrock. KCD associated soils are very deep and range from being somewhat excessively drained (Kalkaska) to very poorly drained (Carbondale). Topography is nearly level to gently rolling hills. This compartment resides on the edge of a larger outwash plain to the east and very rugged rock outcrops and hills to the north and west.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Primary ownership within this portion of the landscape is industrial forest land. Scattered private parcels are intermixed. There is very little state or public land in this area. Land use is timber production and recreation, predominantly camps. The Silver Lake and Dead River Basin's are in this area and provide ample water based recreational opportunities as well as a water source for hydro-electric power. The Goldmine Lake Location is located to the south approximately 2 to 3 miles.

**Unique, Natural Features:** Potential for osprey, eagle, and great blue heron rookery. Potential for red-shouldered hawk and goshawk. Potential for moose and wolf. Potential for wood turtle in Barnhardt Creek. Potential for 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. Potential for Assiniboia sedge, male fern, and goblin moon wart in mature northern hardwoods. Potential for dwarf bilberry, wild oat grass and Canada rice-grass in grassy openings and in clearings in jack pine. Potential for big-leaved sandwort, rock whitlow-grass, northern gooseberry Douglas's hawthorn, northern oak fern, northern woodsia, and slender cliff-brake if exposed rock outcrops are present.

**Archeological, Historical, and Cultural Features:** None

**Special Management Designations or Considerations:** Small stands listed as Special Conservation Area's (SCA's), primarily along the Barnhardt and Bear Creek.

**Watershed and Fisheries Considerations:** Barnhardt Creek is a cold water trout stream that is being impacted by beaver dams. This stream would provide a much better brook trout resource if beaver impacts were reduced. When setting up harvests maintain proper BMP buffers to protect water quality.

**Wildlife Habitat Considerations:** Identify and implement methods that increase mesic conifer in hardwood stands. Maintain or increase potential of hard mast production by utilizing strategies that encourage oak. Historic fire disturbance maintained pine and hard and soft mast producing trees and plants found here. Significant soft mast in the form of choke cherry, blueberry, and serviceberry offer the public berry picking opportunities and attract many wildlife species in summer and fall especially black bear. Hunting is popular in this area for deer and bear. This compartment also contains some Special Conservation Areas in the form of old growth stands. These provide a wide range in diversity, age classes and forest structure for wildlife including large den trees and snags. 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.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of coarse-textured glacial till. The glacial drift thickness varies between 10 and 50 feet and insufficient data to determine the thickness. The Precambrian Oakbluff Formation and Archean Granite/Gneiss subcrop below the glacial drift. There is not a current economic use for these rocks. Gravel pits are not located in the area, but potential appears to be good. Gold Mine Lake and the old Michigan Gold Mine are located to the south. Sections 2 and 12 were previously leased for metallic exploration. There is no economic oil and gas production in the UP.

**Vehicle Access:** Access is good throughout the compartment. County roads CL, CCO, CCH and AAH provide the main access with secondary roads providing subsequent access. Several of the county roads have not been maintained in some time and have turned into semi-overgrown woods roads.

**Survey Needs:** None

**Recreational Facilities and Opportunities:** There currently are no recreational facilities or opportunities within this compartment.

**Fire Protection:** Access to the area for fire protection is good. Timber types prone to fires are the lowland spruce and upland spruce fir stands. There are adequate water sources within the compartment.

**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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Compartment 209  
 T48N, R28W, Sec. 02, 03, 11, 12  
 T49N, R28W, Sec. 35  
 County: Marquette  
 Unit: Gwinn  
 YOE: 2013  
 Acres: 1,597 GIS Calculated  
 Stand Examiner: Thomas Seablom  
 Map Revised: 8/23/2011  
 Map Phase: Pre-Review

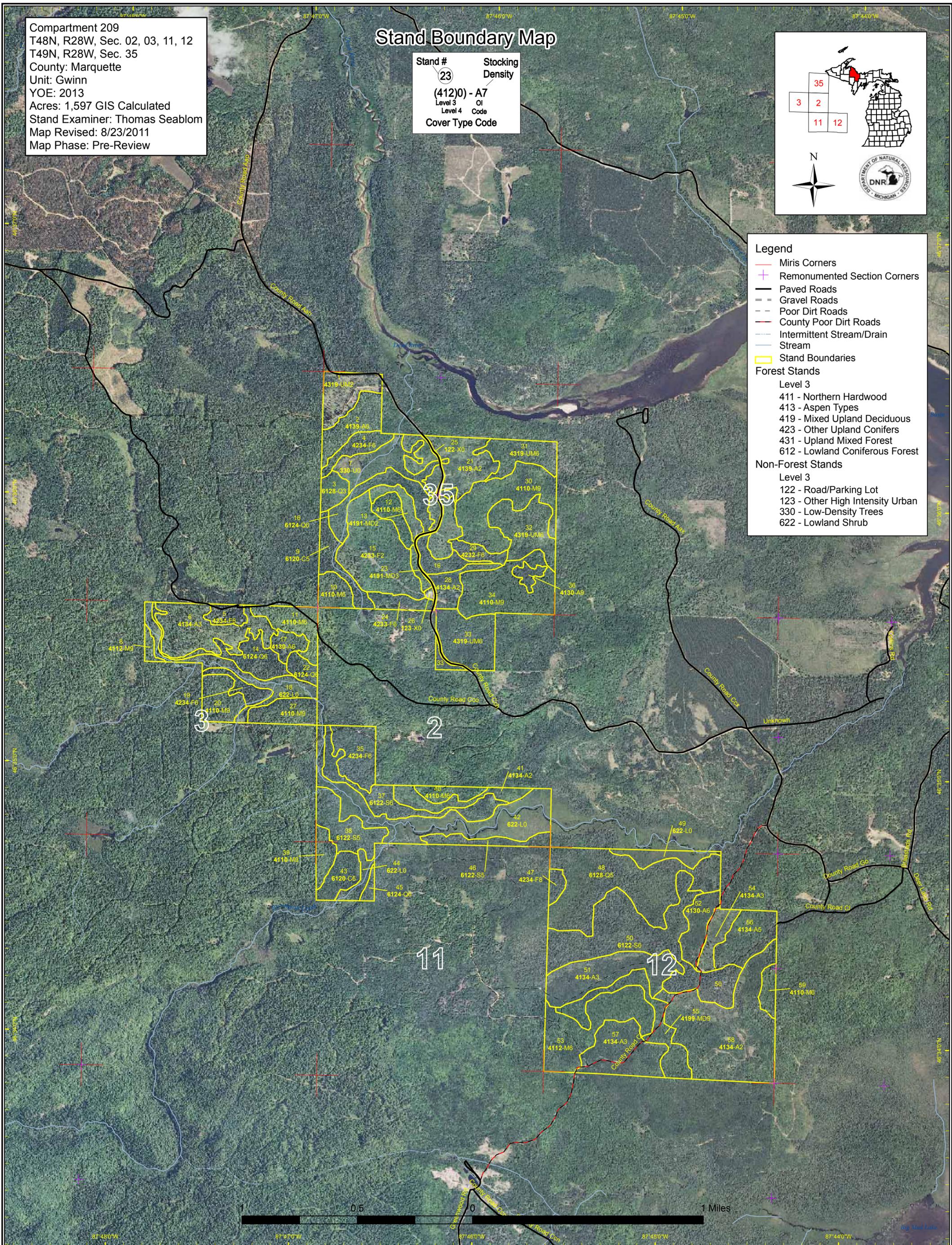
# Stand Boundary Map

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



## Legend

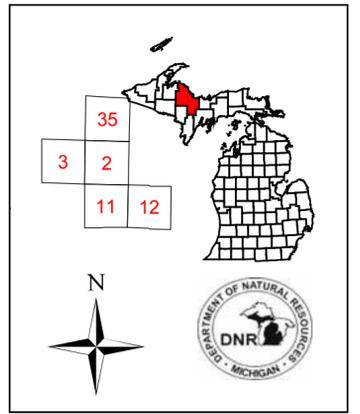
- Miris Corners
- ⊕ Remonumented Section Corners
- Paved Roads
- == Gravel Roads
- - - Poor Dirt Roads
- County Poor Dirt Roads
- Intermittent Stream/Drain
- Stream
- Stand Boundaries
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3
- 122 - Road/Parking Lot
- 123 - Other High Intensity Urban
- 330 - Low-Density Trees
- 622 - Lowland Shrub



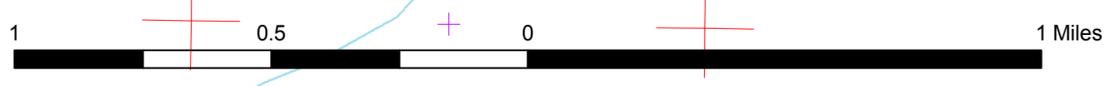
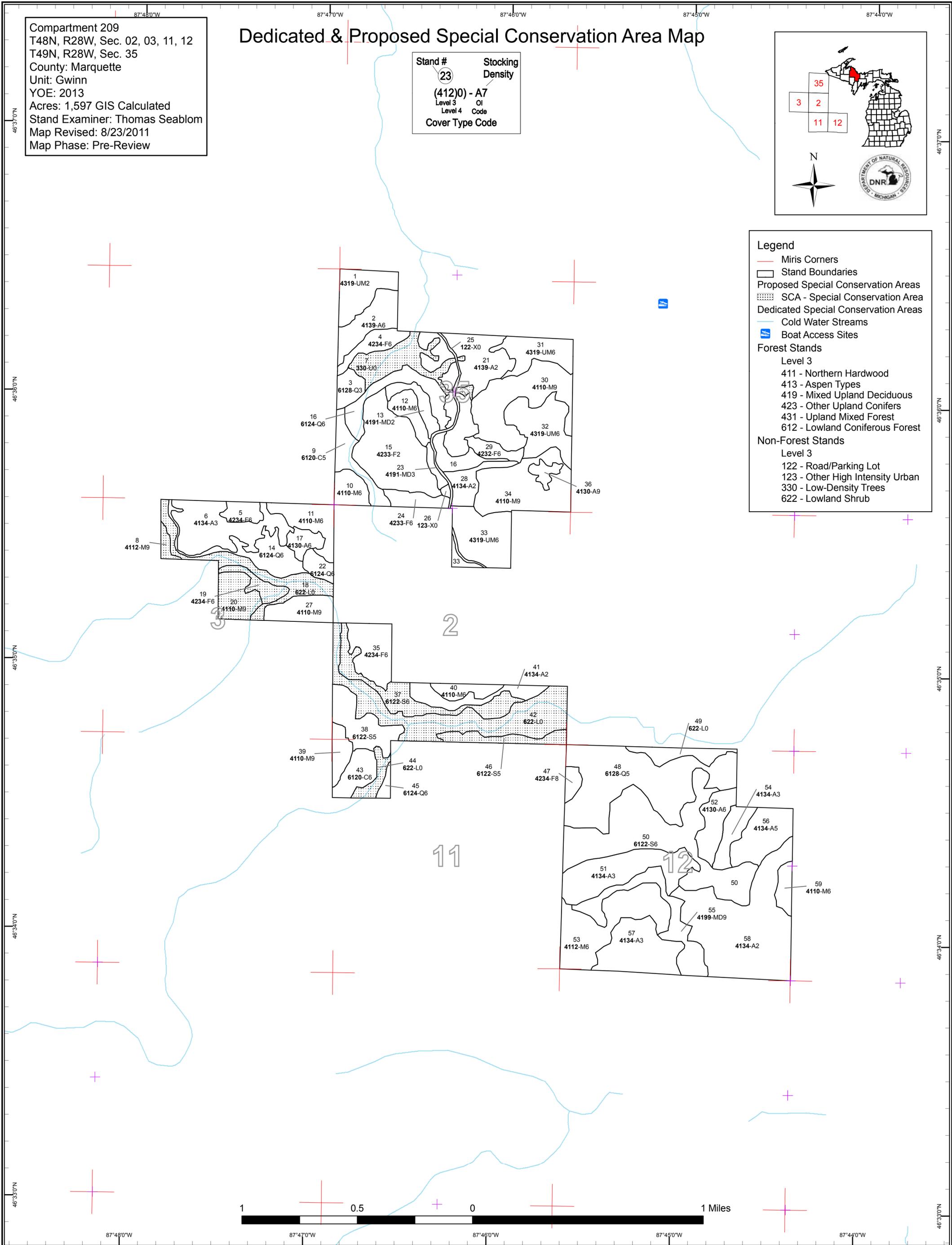
# Dedicated & Proposed Special Conservation Area Map

Compartment 209  
 T48N, R28W, Sec. 02, 03, 11, 12  
 T49N, R28W, Sec. 35  
 County: Marquette  
 Unit: Gwinn  
 YOE: 2013  
 Acres: 1,597 GIS Calculated  
 Stand Examiner: Thomas Seablom  
 Map Revised: 8/23/2011  
 Map Phase: Pre-Review

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



- Legend**
- Miris Corners
  - Stand Boundaries
  - ▨ Proposed Special Conservation Areas
  - ▩ SCA - Special Conservation Area
  - ▩ Dedicated Special Conservation Areas
  - Cold Water Streams
  - Ⓟ Boat Access Sites
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
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  - 419 - Mixed Upland Deciduous
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- Non-Forest Stands**
- Level 3
- 122 - Road/Parking Lot
  - 123 - Other High Intensity Urban
  - 330 - Low-Density Trees
  - 622 - Lowland Shrub



87°48'0"W      87°47'0"W      87°46'0"W      87°45'0"W      87°44'0"W  
 46°33'0"N      46°33'0"N      46°33'0"N      46°33'0"N      46°33'0"N



	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 +		Unreven Age
Aspen	0	123	141	90	58	0	0	0	30	0	0	0	0	0	0	442
Cedar	0	0	0	0	0	0	0	0	16	0	0	18	0	0	0	34
Low-Density Trees	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Lowland Conifers	0	0	0	0	10	0	0	0	125	48	0	0	0	0	0	182
Lowland Shrub	126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	143	33	0	0	0	0	176
Mixed Upland Deciduous	0	14	0	0	0	0	0	0	0	35	0	0	0	0	0	49
Northern Hardwood	0	0	0	0	0	0	0	0	0	32	179	25	0	43	0	279
Upland Mixed Forest	0	24	0	39	0	0	0	0	0	58	0	0	0	0	0	122
Upland Spruce/Fir	0	0	63	0	0	0	9	13	11	14	0	10	0	0	27	146
Urban	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
<b>Total</b>	<b>166</b>	<b>162</b>	<b>204</b>	<b>129</b>	<b>68</b>	<b>0</b>	<b>9</b>	<b>13</b>	<b>181</b>	<b>330</b>	<b>213</b>	<b>52</b>	<b>0</b>	<b>43</b>	<b>27</b>	<b>1597</b>



## Table 2 – Proposed Treatment Summaries

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

**Compartment 209**  
**Total Compartment Acres: 1597**

### Acres by Treatment Type

Commercial Harvest - 366	Site Prep - 0	Tree Planting - 23	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>Aspen</b>	24	0	0	0	0	0	0	24
<b>Lowland Conifers</b>	0	0	8	0	0	0	0	8
<b>Lowland Spruce/Fir</b>	58	0	0	0	0	0	0	58
<b>Mixed Upland Deciduous</b>	35	0	0	0	0	0	0	35
<b>Northern Hardwood</b>	0	127	0	0	0	0	0	127
<b>Upland Mixed Forest</b>	58	0	0	0	0	0	0	58
<b>Upland Spruce/Fir</b>	16	0	40	0	0	0	0	56
<b>Total</b>	<b>191</b>	<b>127</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>366</b>



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	32209002-Cut	23.9	4139 - Aspen, Mixed Deciduous	High Density Pole	72	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Harvest all trees from this stand with the exception of cedar and scattered cherry. In addition retain a portion of the yellow birch, primarily the large, overmature trees on the west end of the stand. Retain only enough of the aforementioned trees to sati</p> <p><u>Specs:</u></p> <p><u>Other</u> The west end of this stand loses the aspen component but picks up more red maple and yellow birch. It is also more wet on this end of the stand. We may want to split this end out and do more of a shelterwood harvest here.</p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable species for regeneration include aspen, maple, fir, spruce, yellow birch and cherry.</p> <p><u>Steps:</u></p>									
4	32209004-Cut	12.9	42340 - Upland Spruce/Fir	High Density Pole	60	Harvest	Seed Tree with Reserves	42340 - Upland Spruce/Fir	Cmpt. Review Proposal
<p><u>Prescription</u> A seed tree harvest is being prescribed for this stand. Leave approximately 10-15 trees/acre between balsam and spruce. All other trees are to be cut.</p> <p><u>Specs:</u></p> <p><u>Other</u> Strive to select quality seed trees. To increase scarification, slash should be removed from the site or evenly disbursed and not left in a mat as is common with processor operations.</p> <p><u>Comments:</u></p> <p><u>Next</u> If scarification from logging equipment is inadequate, low pressure disking may be needed. Acceptable regeneration species include balsam fir, spruce, tamarack, maple, aspen, and birch.</p> <p><u>Steps:</u></p>									
10	32209010-Cut	12.8	4110 - Sugar Maple Association	High Density Pole	101	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Single tree harvest this stand to approximately 70 sq. ft./ac. Create regeneration gaps where appropriate. Use group selection where aspen component is heavier to help and maintain this species within this stand.</p> <p><u>Specs:</u></p> <p><u>Other</u></p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration includes all species currently in this stand.</p> <p><u>Steps:</u></p>									
11	32209011-Cut	21.6	4110 - Sugar Maple Association	High Density Pole	80	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Select cut this stand to a residual basal area of approx. 70-80 sq. ft/ac.</p> <p><u>Specs:</u></p> <p><u>Other</u> Stand is currently on proposal, 32-302-10-01, and is scheduled for a hemlock underplanting as approved at 2003 compartment review.</p> <p><u>Comments:</u></p> <p><u>Next</u> Wildlife Division will underplant hemlock upon completion of harvest. Acceptable regeneration species include maple, birch, hemlock, spruce, and fir.</p> <p><u>Steps:</u></p>									
22	32209022-Cut	7.9	6124 - Lowland Spruce-Fir	High Density Pole	87	Harvest	Seed Tree with Reserves	6124 - Lowland Spruce-Fir	Cmpt. Review Proposal
<p><u>Prescription</u> Seed tree harvest this stand leaving approx. 10 tpa of spruce and balsam.</p> <p><u>Specs:</u></p> <p><u>Other</u> Stand is currently on proposal, 32-302-10-01.</p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration includes, balsam fir, tamarack, red maple, black and white spruce.</p> <p><u>Steps:</u></p>									

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24 32209024-Cut	10.5	42330 - Upland Fir	High Density Pole	72	Harvest	Clearcut with Reserves	42330 - Upland Fir	Cmpt. Review Proposal

Prescription Clearcut this stand leaving a patch at the west end of the stand large enough to meet 3% retention and also leave approximately 3 trees per acre of each spruce, fir, and white birch trees as a seed source. Cut no oak.

Other Comments: West end of this stand is heavy to white birch and aspen. This end is also a ridge that drops off into the adjacent lowland stand.

Next Steps: Monitor regeneration success. A mixed stand of the species that are present is acceptable.

27 32209027-Cut	18.8	4110 - Sugar Maple Association	High Density Log	120	Harvest	Group Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Use the group selection method to harvest this stand, and thin between the groups do a residual basal area of 70 sq. ft./ac. Groups should range in size from 1/5 to 1/4 acre. Thin heavier near the bottom of the slope.

Other Comments: This stand has a northerly aspect to it and as the bottom of the slope nears, spruce-fir and white birch begin to become prevalent and the quality of the sugar maple drops. There are several large sugar maple and yellow birch culls in this stand. The harv

Next Steps: Possible underplanting of white pine post-harvest. Acceptable regeneration species include maple, birch, cherry, hemlock, spruce, and fir.

30 32209030-Cut	55.3	4110 - Sugar Maple Association	High Density Log	90	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Single tree selection down to 70-80 sq. ft./ac across the majority of the stand, heavier cutting along the edges where timber quality decreases and becomes more red maple dominant. Use group selection/patch clearcuts where aspen pockets exist. Retain ind

Other Comments: Decent quality sugar maple stand. Balsam and spruce are constrained primarily to the edges of the stand. Some black cherry is present in various areas of the stand.

Next Steps:

31 32209031-Cut	23.8	4319 - Mixed Upland Forest	High Density Pole	88	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
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Prescription Clearcut this stand leaving some spruce (with a dbh <12-inches for a seed source) any white pine, yellow birch, and cedar. All other trees are to be cut regardless of merchantability. Leave patches of trees along the north and east edges of the stand, if

Other Comments: There are a few drainages and lower areas that exist within this stand. An intermittent stream exists in the northwest part of the stand that will need a buffer.

Next Steps: Acceptable regeneration species include aspen, maple, spruce, fir, birch, hemlock, pine, and cherry.

32 32209032-Cut	34.7	4319 - Mixed Upland Forest	High Density Pole	88	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
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Prescription Clearcut this stand retaining any black cherry, yellow birch, white pine and cedar. Stand is a mix of both high and low ground, therefore restrict to a winter harvest. Strive to cut/knock down all balsam fir as it is very thick in the understory. Mark o

Other Comments:

Next Steps: Acceptable regeneration species include aspen, maple, spruce, fir, birch, hemlock, pine, and cherry.

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35 32209035-Cut	27.1	42340 - Upland Spruce/Fir	High Density Pole	72	Harvest	Seed Tree with Reserves	42340 - Upland Spruce/Fir	Cmpt. Review Proposal

Prescription Seed tree harvest leaving approx. 10-15 trees per acre of spruce and fir.

Specs:

Other Stand currently under contract 32-302-10-01.

Comments:

Next Acceptable regeneration includes balsam fir, black and white spruce, cedar, red maple.

Steps:

38 32209038-Cut	10.4	6122 - Black Spruce	Medium Density Pole	84	Harvest	Patch or Strip Clearcut	6122 - Black Spruce	Cmpt. Review Proposal
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Prescription Strip or patch clearcut this stand. Strips should be approx. 100-150 ft in width running in an east to northeasterly direction (for ease of access from adjacent upland), with approximately 50 ft between strips. All trees within the strip are to be cut. H

Specs:

Other Stand is difficult to access. Several miles of plowing will be necessary to access this stand during the winter.

Comments:

Next Monitor regeneration success here with these strip widths. Acceptable regeneration species include spruce, fir, tamarack, aspen, birch, and maple.

Steps:

39 32209039-Cut	10.5	4110 - Sugar Maple Association	High Density Log	81	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Single tree select cut this stand to a residual basal area of approx. 50 sq. ft./ac. Leave 1-3 overmature sugar maple and yellow birch per acre.

Specs:

Other A heavy harvest is being recommended for this stand due to it's small stand size and somewhat difficult access. Stand was last cut (clearcut) pre-1939.

Comments:

Next Acceptable regeneration species include maple, birch, cherry, hemlock, spruce, and fir.

Steps:

47 32209047-Cut	5.5	42340 - Upland Spruce/Fir	Medium Density Log	81	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Clearcut this stand retaining 3-4 trees (each) of large, decadent white spruce and aspen. All other trees are to be cut.

Specs:

Other Stand is somewhat difficult to get to, logistically, for harvesting as it's only 5.5 acres. Stand should be included with stands to southeast for sale purposes.

Comments:

Next

Steps:

50 32209050-Cut	47.3	6122 - Black Spruce	High Density Pole	85	Harvest	Patch or Strip Clearcut	6122 - Black Spruce	Cmpt. Review Proposal
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Prescription Seed tree harvest this stand using strips. The strips should be orientated north-south, be approx. 75-100 ft. wide with 150 ft between strips. All trees within the strip are to be harvested. Slash needs to be either removed from the strips or evenly dis

Specs:

Other The southeast end of this stand has some higher ground supporting jack pine and may be worth clearcutting rather than strip cutting.

Comments:

Next The remaining strips should be harveted over the next one to two entry periods pending adequate regeneration. Acceptable regeneration species include spruce, fir, tamarack, aspen, birch, pine and maple.

Steps:



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
55	32209055-Cut	34.6	4199 - Other Mixed Upland Deciduous	High Density Log	80	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal

Prescription Clearcut this stand retaining enough white birch for a seed source (where component is more prevalent), scattered over mature aspen, and any red or white pine to generate a maximum of 3% retention. All other trees are to be cut.

Other Comments: This stand is predominantly on a hill side (sloping north). Aspen and birch dominate the northern tier of the stand whereas red maple secures the southern end.

Next Steps: Monitor regeneration. May be possible to underplant white pine in areas heavy to white birch. Acceptable regeneration species include maple, aspen, birch, spruce, fir, and pine.

59	32209059-Cut	8.3	4110 - Sugar Maple Association	High Density Pole	95	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Single tree select this stand to a residual basal area of approx. 50-60 sq. ft/ac. creating some gaps where appropriate. Open up around oak trees approx. 1-2 tree lengths from the drip line of the oak crowns. Remove the majority of the white birch.

Other Comments: Sugar maple regen is present in the stand, but is only thigh high. Oak and white birch are predominantly at the south end of the stand.

Next Steps: Possible followup treatment of underplanting white pine and/or hemlock. Acceptable regeneration species include maple, birch, oak, spruce, fir and pine.

12	32209012-Plant	12.1	4110 - Sugar Maple Association	High Density Pole	105	Tree Planting	Hand Plant	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Hand plant approx. 150 tpa. of bareroot white pine. Concentrate planting where gaps exist and where basal area is below 60 sq. ft.

Other Comments: Evidence of white pine is present throughout the landscape. This planting will help to re-introduce it to this area.

Next Steps: Monitor success of planting

13	32209013-Plant	10.4	4191 - Mixed Upland Deciduous with Conifer	Medium Density Saplin	5	Tree Planting	Hand Plant	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Hand plant approx. 300 tpa in either white pine or hemlock where regeneration is lacking in this stand.

Other Comments: Stocking is quite variable in this stand. Planting white pine or hemlock would help to bring this stand up to full stocking and will re-introduce these species to this portion of the landscape

Next Steps: Monitor planting success.

**Total Treatment  
Acreage Proposed: 388.5**

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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  
Comment:

Next  
Steps:

Limiting Factor and No  
Treatment Reason

**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	4319 - Mixed Upland Forest	Medium Density	24.5	3		Harvested in 2006/2007, TS#103-03-01. Scattered large white pine scattered throughout the stand. Regeneration is patchy in places.
2	4139 - Aspen, Mixed Deciduous	High Density Pole	23.9	72	81-110	Heavy aspen and sugar maple on east end. Extreme west loses aspen and transitions into poor quality red maple & yellow birch. Trace cedar, white spruce, balsam fir; these are all on west end.
3	6128 - Lowland Coniferous, Mixed Deciduous	High Density Sapling	10.0	30	1-50	Black ash and cedar sapling stand. Pole cedar, spruce, balsam present in "super canopy". No history for this stand as to how it ended up this way.
4	42340 - Upland Spruce/Fir	High Density Pole	12.9	60	111-140	Stand characteristics appear to be two-aged. The trees on the west end appear larger and older than those on the eastern end of the stand.
5	42340 - Upland Spruce/Fir	High Density Pole	8.8	51	51-80	
6	4134 - Aspen, Spruce/Fir	High Density Sapling	47.4	5		Stand harvested 2004-2005, TS#32-105-03-01 (seed tree cut, spruce-fir). Scattered black cherry and yellow birch, patches of spruce and fir. Some areas have patchy regen, mainly on west end of stand. Residual spruce-fir are in clumps.
8	4112 - Maple, Beech, Cherry Association	High Density Log	3.8	120		Stand is currently listed as stand condition 8-potential old growth (POG). Stand is small and somewhat of a drive to get into compared to surrounding stands. It is treatable.
9	6120 - Lowland Cedar	Medium Density Pole	17.7	105	51-80	Spring creek runs through this stand. This area appears to have not been harvested, or at least not cut as hard, as the adjacent stand. Very little regeneration present in this stand and the overstory trees are of much larger diameter.
10	4110 - Sugar Maple Association	High Density Pole	12.8	101	81-110	Pole stand with no evidence of past cutting.
11	4110 - Sugar Maple Association	High Density Pole	21.6	80		Stand currently is on proposal/under contract.
12	4110 - Sugar Maple Association	High Density Pole	12.1	105	81-110	Stand harvested in 2005, TS#32-104-03-01 (Spruce Up North Sale). Medium- poor quality stand as a whole, north part is o.k. Edge of stand is loaded with white spruce and balsam fir.
13	4191 - Mixed Upland Deciduous with Conifer	Medium Density	10.4	5		Stand harvested in 2005, TS#32-104-03-01 (seed tree cut with spruce-fir retained). Spruce-fir regen is patchy in this stand, where it exists it is at acceptable levels. Red maple is filling in where spruce-fir is lacking, though it is heavily browsed by moose. Aspen is also present in parts of the stand, predominantly in the south. Cherry is also mixing in within the stand. An underplanting would help to bring stocking up to a fully stocked stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	6124 - Lowland Spruce- Fir	High Density Pole	24.8	75	81-110	Portion of stand is old stand condition 8, potential old growth (POG). This portion of the stand can remain as an SCA-Riparian corridor as it is along the headwaters to the Barnhardt Creek. The remaining portion of the stand meets criteria for treatment. Very mixed stand, hard to discern what species is dominant in canopy coverage. By basal area: white birch 26 ft/ac, balsam 23 ft/ac, cedar 16 ft/ac, black spruce 13 ft/ac. The cedar are mainly logs, therefore contributing to a larger percentage of the basal area. The balsam and black spruce are mainly poles (6-8 in. dbh), as are the white birch.
15	42330 - Upland Fir	Medium Density	62.6	15		Stand was harvested in the summer of 1995 by Ken Lanaville, permit #12-93 (Dead River Basin Sale). Red and white pine, cedar, cherry and oak were left. Stand is patchy in nature. Heavy to fir which appears as strips in the imagery, aspen and red maple are mixed in between the fir strips.
16	6124 - Lowland Spruce- Fir	High Density Pole	36.7	85	51-80	Stand is mixed and variable throughout. Cedar is somewhat absent in the middle of the stand, but present on both ends of the stand. Cedar regen is prevalent on the western side of the stand but is replaced by black spruce on the east. Looking at the old aerial photo's it appears this area was harvested pre-1954. Clumps and individual trees were left at that time.
17	4130 - Aspen	High Density Pole	9.1	38	51-80	It appears that this stand was treated in the 1970's when the adjacent upland hardwood stands were treated. No records exist for this stand.
19	42340 - Upland Spruce/Fir	High Density Pole	9.8	105	81-110	Stand currently listed as SCA-potential old growth. This stand is beginning to succeed to red maple. Where gaps are present (primarily the west end) red maple saplings are recruiting into those gaps. The spruce, fir, and tamarack are in fairly good shape. Some balsam is beginning to die. With the proximity of this stand being close to the creek, only a portion of it will be treatable.
20	4110 - Sugar Maple Association	High Density Log	19.9	120	111-140	Stand is currently listed as an SCA-potential old growth (POG). Stand is exhibiting some old growth characteristics and processes. Large sugar maple and yellow birch trees are beginning to die and become large downed woody debris and snags. Timber quality in the overstory logs is very poor. Poles in the canopy and mid-canopy do exhibit some quality. Adjacent stand on private land is good quality poles. Stand is treatable.
21	4139 - Aspen, Mixed Deciduous	Medium Density	61.6	5		Harvested in 2004-2005, TS#32-104-03-01, (seed tree cut with spruce retained). The majority of this stand has regenerated to aspen with a spruce-fir component. Trace species of cedar, yellow birch, black cherry and white pine are in the super-canopy. The extreme south end of the stand (about 2-3 acres) has only cherry regenerating and some red maple.
22	6124 - Lowland Spruce- Fir	High Density Pole	7.9	87		Stand is currently on proposal/under contract.
23	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	3.9	5		Stand was harvested 2004-2005, TS#32-104-03-01 (Spruce Up North Sale). This stand is essentially on a hill side. It is a mix of red maple, quaking aspen, and balsam fir.

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## Gwinn Mgt. Unit

## 5 – Forested Stands

Compartment: 209

Year of Entry: 2013



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	42330 - Upland Fir	High Density Pole	10.5	72	81-110	Stand is heavy to fir throughout. West end is more white birch and aspen.
27	4110 - Sugar Maple Association	High Density Log	18.8	120	81-110	Old, decadent stand. Yellow birch are mostly all large cull's as are the majority of the x-large sugar maple. Edge of stand has spruce, fir and white birch mixed in and is very poor quality sugar maple.
28	4134 - Aspen, Spruce/Fir	Medium Density	14.2	17		Stand was harvested in summer 1993 by Ken Lanaville, permit #12-93 (Dead River Basin Sale). Stand has some sparse stocking areas. Spruce and fir are mainly in patches.
29	42320 - Upland Spruce	High Density Pole	9.0	80	81-110	Stand is predominantly an upland, transitioning to lowland. Large white spruce present in this stand.
30	4110 - Sugar Maple Association	High Density Log	55.3	90	111-140	Decent quality sugar maple stand. A few pockets of aspen within the stand and one small area of white birch. Balsam and spruce are constrained to the extreme edges/transitions to the other stands. Some black cherry is also present within the stand.
31	4319 - Mixed Upland Forest	High Density Pole	23.8	88	81-110	Stand is a mix of large white spruce and pole size red maple with a heavy fir understory. Trace species of white pine, cedar, and black ash are present. A couple drainages exist within the boundary of this stand.
32	4319 - Mixed Upland Forest	High Density Pole	34.7	88	111-140	Mixed stand of red maple and conifers. Similar in nature to the stand further north. Some low ground present in stand.
33	4319 - Mixed Upland Forest	High Density Pole	38.9	27	51-80	Stand harvested in 1983, permit #9-82-2. Mix of aspen and spruce fir. Scattered red maple and a couple oaks. Spruce-fir tend to be in clumps and along the east edge of the stand.
34	4110 - Sugar Maple Association	High Density Log	51.2	90	81-110	Pretty nice sugar maple logs. Regen but no recruitment. Some regen is 3 feet tall, but nothing taller. East half of stand has been treated in the recent past, however west half was not. Regen that is present in west half is in old gaps. Not much regen in east half.
35	42340 - Upland Spruce/Fir	High Density Pole	27.1	Uneven Age	81-110	Stand is currently on proposal to be harvested (Out North Sale 32-302-10-01). Coded as a seed tree harvest.
36	4130 - Aspen	High Density Log	5.7	72	111-140	Aspen island surrounded by northern hardwood stand.
37	6122 - Black Spruce	High Density Pole	33.5	94	111-140	SCA=>Riparian corridor. Heavy to black spruce on west and central part of the stand, more cedar as you head east. Tamarack is along the stand edge.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	6122 - Black Spruce	Medium Density Pole	27.8	84	111-140	Mixed stand of black spruce and white birch, with some blasam and scattered cedar. Cedar is mainly along the north edge. Cedar stumps are present within the stand and immediately to the north in the lowland brush. This stand appears to have been clearcut, along with the adjacent hardwood, somewhere right before 1939 as photo interpretation shows. This was the last time that this stand was harvested.
39	4110 - Sugar Maple Association	High Density Log	10.5	81	111-140	Poor quality upland hardwood. Black cherry present throughout the stand, heaviest at south end. White birch is present within the stand, heaviest at south end and along the edge as stand transitions into spruce swamp; the edge is where the aspen and balsam are present as well. A few x-large remnant trees are present in the stand (sugar maple and yellow birch). Heavy moose sign in this stand while I was there (2/11/2011). Very difficult to access this stand. Age estimate is based on the cutting in 1939 photo's. The increment borer would not penetrate the trees on this day.
40	4110 - Sugar Maple Association	High Density Pole	10.1	90	81-110	Stand was harvested during the fall of 1997, permit #15-93 by Jim Carey Logging (Barnhardt Creek North Sale).
41	4134 - Aspen, Spruce/Fir	Medium Density	17.9	13		Stand was harvested during the fall of 1997, permit #15-93 by Jim Carey Logging (Barnhardt Creek North Sale). Cedar was left. Some scattered red and white pine.
43	6120 - Lowland Cedar	High Density Pole	15.9	71	111-140	Just about a pure cedar stand. Very dense. Trees range from log size to 4-6" pole's. Log size trees are all about 30-40 feet tall where the pole timber is 15-20 feet. No cutting history for this stand on record, but stumps are present in the stand and photo interpretation shows that this stand was cut before 1939. Some spruce and balsam present.
45	6124 - Lowland Spruce- Fir	High Density Pole	3.3	81	81-110	This stand is the 'edge' of a larger stand to the east on private property. It is a slice of upland spruce/fir with some cedar on the edge of the stand. This stand is very difficult for us to access in terms of harvesting. If the adjacent landowner to the east harvests in the near future we should try to do a negotiated sale with them.
46	6122 - Black Spruce	Medium Density Pole	13.7	81	51-80	Stand currently listed as SCA=>Potential Old Growth. Stand is small and is just within State ownership. It is part of a riparian corridor along the Barnhardt Creek.
47	42340 - Upland Spruce/Fir	Medium Density Log	5.5	81	81-110	Small stand of large spruce, fir and quaking aspen. Aspen is beginning to fall apart, large white spruce are blowing over and red maple is beginning to fill in the gaps. Some red maple are 2 inches in diameter. Access to this stand is very difficult. Several miles of road to get to less than 10 acres.
48	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	99.7	77	81-110	Mixed stand of spruce, cedar and white birch. Some black ash is present as well on the west end of the stand. Stumps are present within the stand and photo interpretation shows a harvest sometime shortly before 1939. Cedar regen is present throughout the stand, heaviest in the west.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	6122 - Black Spruce	High Density Pole	101.3	85	111-140	Mixed stand, predominantly black spruce. Very large tamarack located on the edges. Southwest end is a little higher ground and is supporting some jack pine. An creek does originate in this stand and will need to be buffered.
51	4134 - Aspen, Spruce/Fir	High Density Sapling	48.1	21		Mixed aspen/fir stand with some areas of pole size trees. Red maple and sugar maple are regenerating in this stand as well. Mainly as seedlings (3-5 feet), but some saplings are present.
52	4130 - Aspen	High Density Pole	19.8	30	1-50	Stand harvested in January of 1980 by Dave Holli, permit #13-79. Canopy is nearly all aspen with some balsam present. Balsam compose the majority of the understory.
53	4112 - Maple, Beech, Cherry Association	High Density Pole	54.4	95	81-110	Mediocre northern hardwoods, some potential. A mix of poles and logs. Scattered balsam in the understory. Regeneration is present in this stand.
54	4134 - Aspen, Spruce/Fir	High Density Sapling	14.1	5		Stand harvested last entry. Balsam was left that are less than 6". Balsam are seedlings w/the aspen and also as pole timber "supercanopy".
55	4199 - Other Mixed Upland Deciduous	High Density Log	34.6	80	51-80	Stand is predominantly on a side hill. Poor quality red and sugar maple, aspen and white birch are of better quality.
56	4134 - Aspen, Spruce/Fir	Medium Density Pole	29.2	34	51-80	Stand was harvested in 1982 under permis 9-81A and 10-81A. This area was sold as a firewood sale. The northwest part of the stand is almost entirely red and sugar maple saplings that may need to be split out in future stand exams. The '0' in the basal area column is a true '0' as the point fell in this area of maple. There are a couple of mature white pine in the stand as well.
57	4134 - Aspen, Spruce/Fir	High Density Sapling	42.0	22		Mostly aspen and balsam. Some scattered red and white pine saplings where stand is more open.
58	4134 - Aspen, Spruce/Fir	Medium Density	109.2	14		Jack pine regen seems to be in pockets and not scattered throughout the entire stand, it's more focused in the west and center of the stand. There is some black cherry and white birch present as well. The majority of the red and white pine is in the southwest portion of the stand.
59	4110 - Sugar Maple Association	High Density Pole	8.3	95	81-110	Practically a pure sugar maple stand. A few red oaks and white birch are at the south end of the stand.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
7	3302 - Low Density Conifer Trees	31.6	No	Unspecified	Some scattered trees throughout the stand, more as you approach the upland. Could almsot be low density trees.
18	6229 - Mixed lowland shrub	29.8	NVA	Unspecified	
25	122 - Road/Parking Lot	6.8	No	Unspecified	County Road.
26	123 - Other High Intensity Urban	1.1	No	Unspecified	Gravel pit.
42	6229 - Mixed lowland shrub	75.6	NVA	Unspecified	
44	6229 - Mixed lowland shrub	8.0	NVA	Unspecified	
49	6229 - Mixed lowland shrub	13.0	NVA	Unspecified	



## 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	32209008	3.8	SCA=>Potential Old Growth. Stand is exhibiting both old growth characteristics and processes. Large sugar maple and yellow birch snags are present throughout the stand. Large coarse woody debris is also beginning to accumulate in portions of this stand. Stand fits criteria for Type II Old Growth.
19	Unique Site - SCA	32209019	9.8	SCA=>Potential Old Growth and Riparian Corridor. Stand is providing wildlife travel corridor and buffer along the Barnhardt Creek. It is succeeding from spruce-fir to red maple and fir.
20	Unique Site - SCA	32209020	19.9	SCA=>Potential Old Growth. Stand is exhibiting both old growth characteristics and processes. Large sugar maple and yellow birch snags are present throughout the stand. Large coarse woody debris is also beginning to accumulate in portions of this stand. Stand fits criteria for Type II Old Growth.
37	Unique Site - SCA	32209037	33.5	SCA=>Riparian corridor along the Barnhardt Creek which is a cold water trout stream.
46	Unique Site - SCA	32209046	13.7	SCA=>Riparian corridor along the Barnhardt Creek which is a cold water trout stream. Currently listed as SC-8.
7	Unique Site - SCA	NF_32209007	31.6	SCA=>Riparian corridor along a tributary to the Dead River.
18	Unique Site - SCA	NF_32209018	29.8	SCA=>Riparian corridor along a tributary for the Barnhardt Creek which is a cold water trout stream.
42	Unique Site - SCA	NF_32209042	75.6	SCA=>Riparian corridor along the Barnhardt Creek.
44	Unique Site - SCA	NF_32209044	8.0	SCA=>Riparian corridor along the Barnhardt Creek.



## 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.