



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 225

Entry Year 2015

Acreage: 813

County Marquette

Management Area: Chain Lakes Moraine

Revision Date: 05/10/2013

Stand Examiner: Dean Wilson

Legal Description:

T46N-R29W, sections 26, 32, 35, 36.

Identified Planning Goals:

Mixed use.

Soil and topography:

Soils range from sand to loamy sand in the uplands and organic mucks and peats in the lowlands. Topography ranges from level to rolling to moderately hilly.

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

The tracts that comprise this compartment are bordered by State, corporate, and non-industrial ownerships. Land use is dominated by forest production and passive recreation.

Unique Natural Features:

Long Lake and a stretch of the Michigamme River occur in this compartment.

Archeological, Historical, and Cultural Features:

The Navy's abandoned project ELF was centered in this compartment.

Special Management Designations or Considerations:

Best management practices will be used to protect the water features in this compartment.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Compartment 225 is found within the Chain Lakes Management Area; which is a Disintegration Moraine in Southwestern Marquette County. The State Forest covers about 84,600 acres and is mostly contiguous. State Forest Lands are the major ownership in this vicinity. The dominant Natural Communities are dry mesic northern forests, poor conifer swamps, and mesic northern forests. Major forest cover types include Aspen, Mixed Lowland Conifer, and Jack Pine. In general, this area has a mid-range site quality. This management area provides multiple benefits to the public including forest products, dispersed recreational activities, and habitat for fish and wildlife species. Some of the most significant wildlife management issues in the management area are: mast (hard and soft); habitat fragmentation; mature forest conditions; mesic conifer; coarse woody debris; and retention or development of large living and dead standing trees (for cavities). Wildlife Division would like to increase the oak resource within this management area and to optimize acorn production. This management area represents approximately ¼ of the oak resource on WUP state forest. In addition to promoting mast crops another priority is to maintain or increase wildlife corridors especially along riparian corridors.

The following have been identified as featured species for the Chain Lakes Management Area: Black bear, Gray Jay, Pileated Woodpecker, Northern Goshawk, Red Crossbill. However, the featured species concept does not preclude the management for other wildlife species within a particular MA, rather it is simply intended to be as a tool to help prioritize or focus habitat management.

For lands purchased with Pittman–Robertson Act or Game and Fish funds, the primary objective of vegetative management must be wildlife restoration.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and peat and muck. The glacial drift thickness varies between 50 and 100 feet or there is insufficient data. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. This rock could be used as a building or dimension stone. Gravel pits are not located in the area, but potential may be good.

The abandoned Republic iron mine is located two miles to the north. Part of the compartment was previously leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access:

Is generally good to and around this compartment.

Survey Needs:

None.

Recreational Facilities and Opportunities:

There are no developed recreational facilities in this compartment.

Fire Protection:

Portions of this compartment fall within the 581 zone dispatch area.

Additional Compartment Information:

The following reports from the Inventory are attached:

- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 225
 T46N R29W Sec. 26, 32, 34, 35
 County: Marquette
 Unit: Gwinn
 YOE: 2015
 Acres: 813 GIS Calculated
 Examiner: Dean Wilson
 Map Revised: 08/06/2013
 Map Phase: Pre-Review

Legend

- ◆ PLSS Corner
- Miris Corners
- ⊕ Remonumented Section Corners
- State Highway
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Pipeline
- Powerline
- ⊗ Gate
- Snowmobile Trails
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

- ▨ Clearcut (w/Reserves, Patch/Strip)
- ▨ Seed Tree (w/Reserves)
- ▨ Thinning (Crown, Low, Systematic)
- ▨ Other Treatment - See Comments

Forest Stands

Level 3

- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub

Stand #
 23

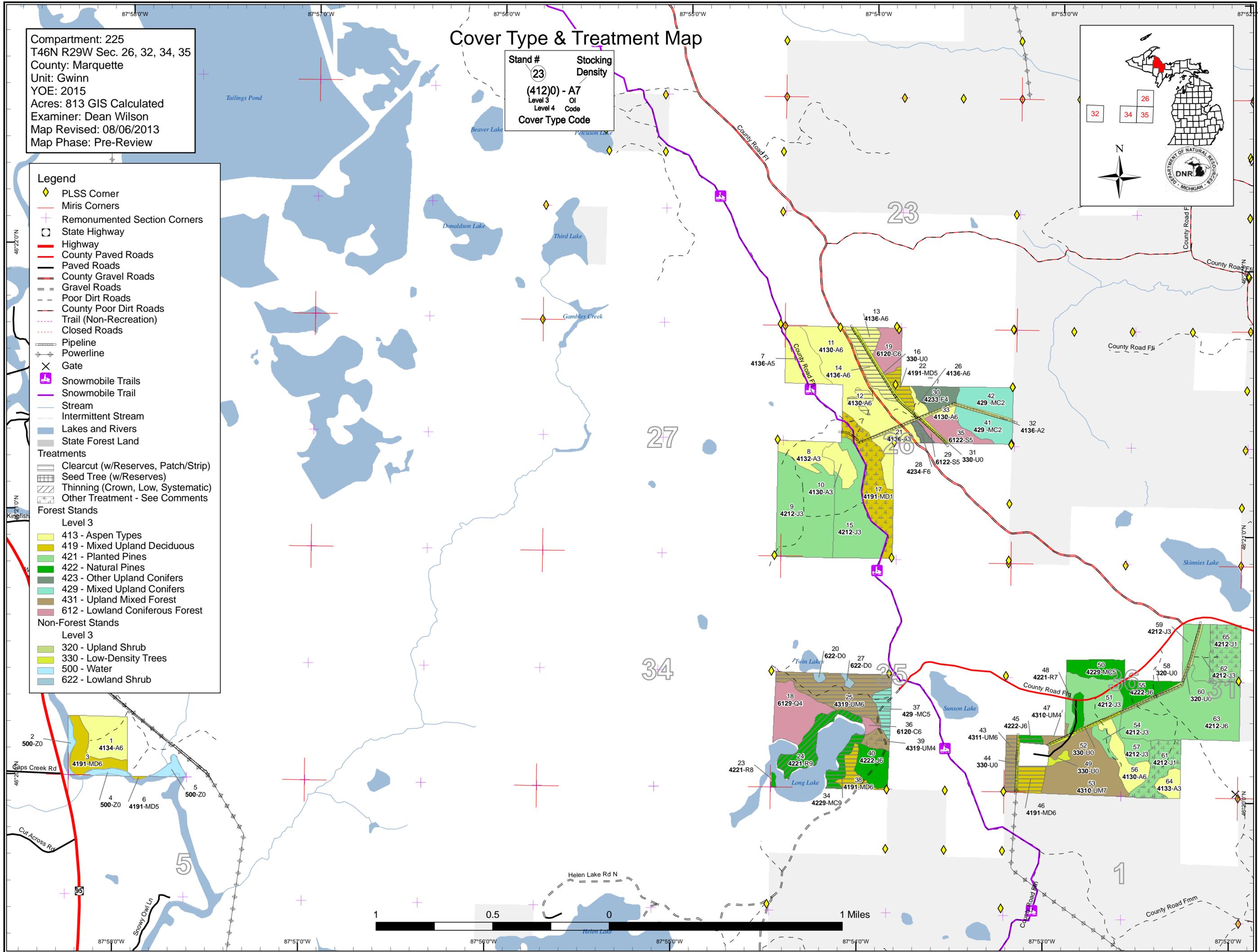
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code

Cover Type Code

26
32 34 35

N

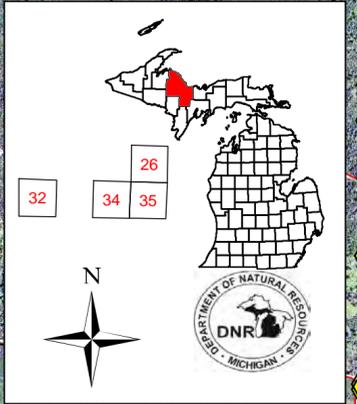
DNR
 DEPARTMENT OF NATURAL RESOURCES
 MICHIGAN



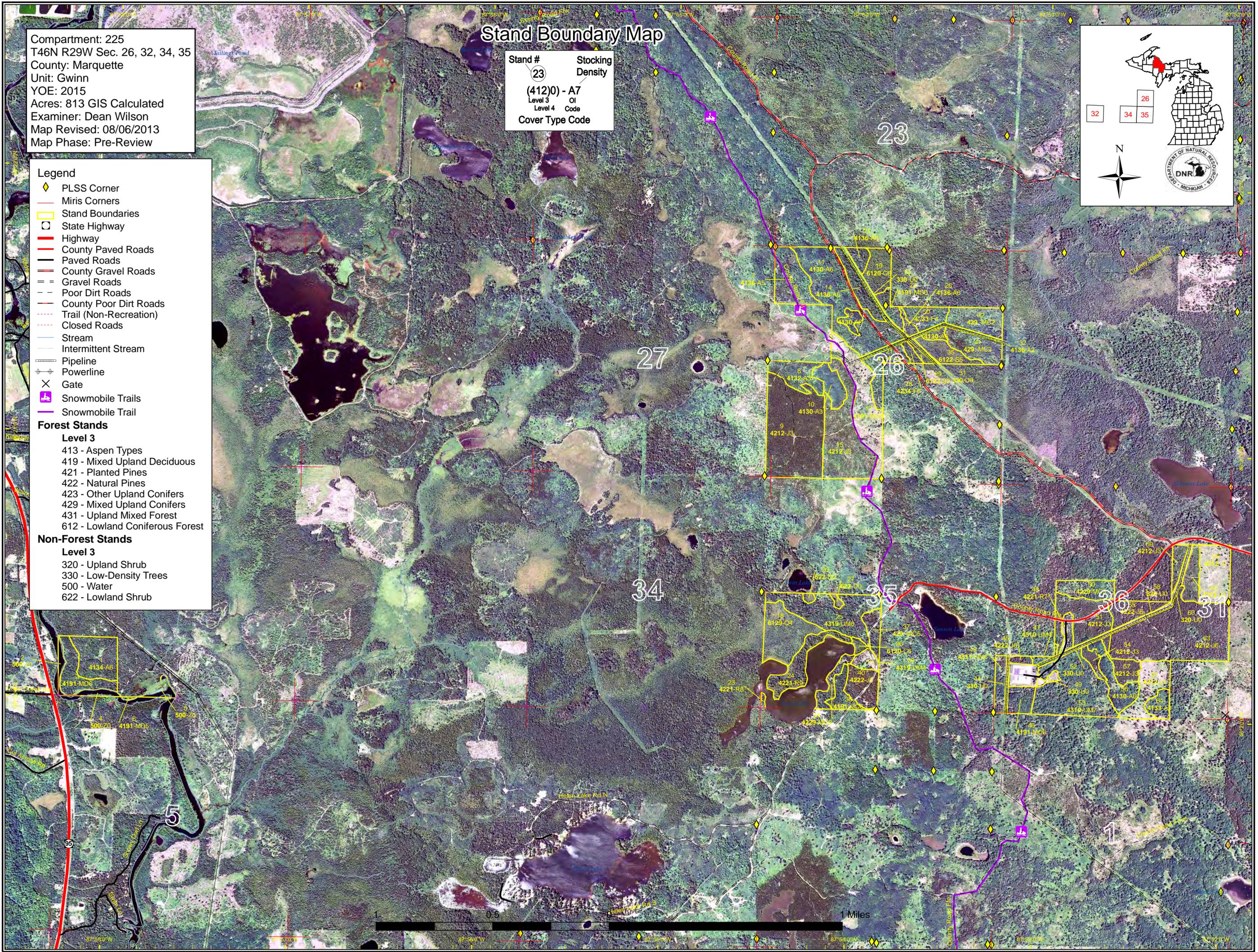
Stand Boundary Map

Compartment: 225
 T46N R29W Sec. 26, 32, 34, 35
 County: Marquette
 Unit: Gwinn
 YOE: 2015
 Acres: 813 GIS Calculated
 Examiner: Dean Wilson
 Map Revised: 08/06/2013
 Map Phase: Pre-Review

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



- Legend**
- ◆ PLSS Corner
 - Miris Corners
 - Stand Boundaries
 - State Highway
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Closed Roads
 - Stream
 - Intermittent Stream
 - Pipeline
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- Forest Stands**
- Level 3**
- 413 - Aspen Types
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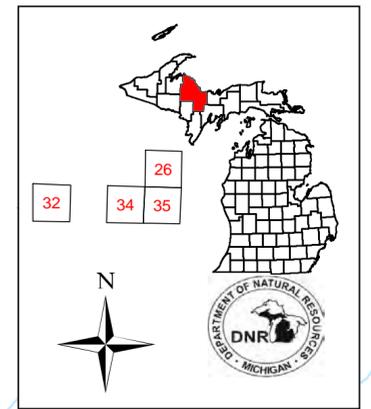


0.5 1 Miles

Special Conservation Areas & Site Conditions Map

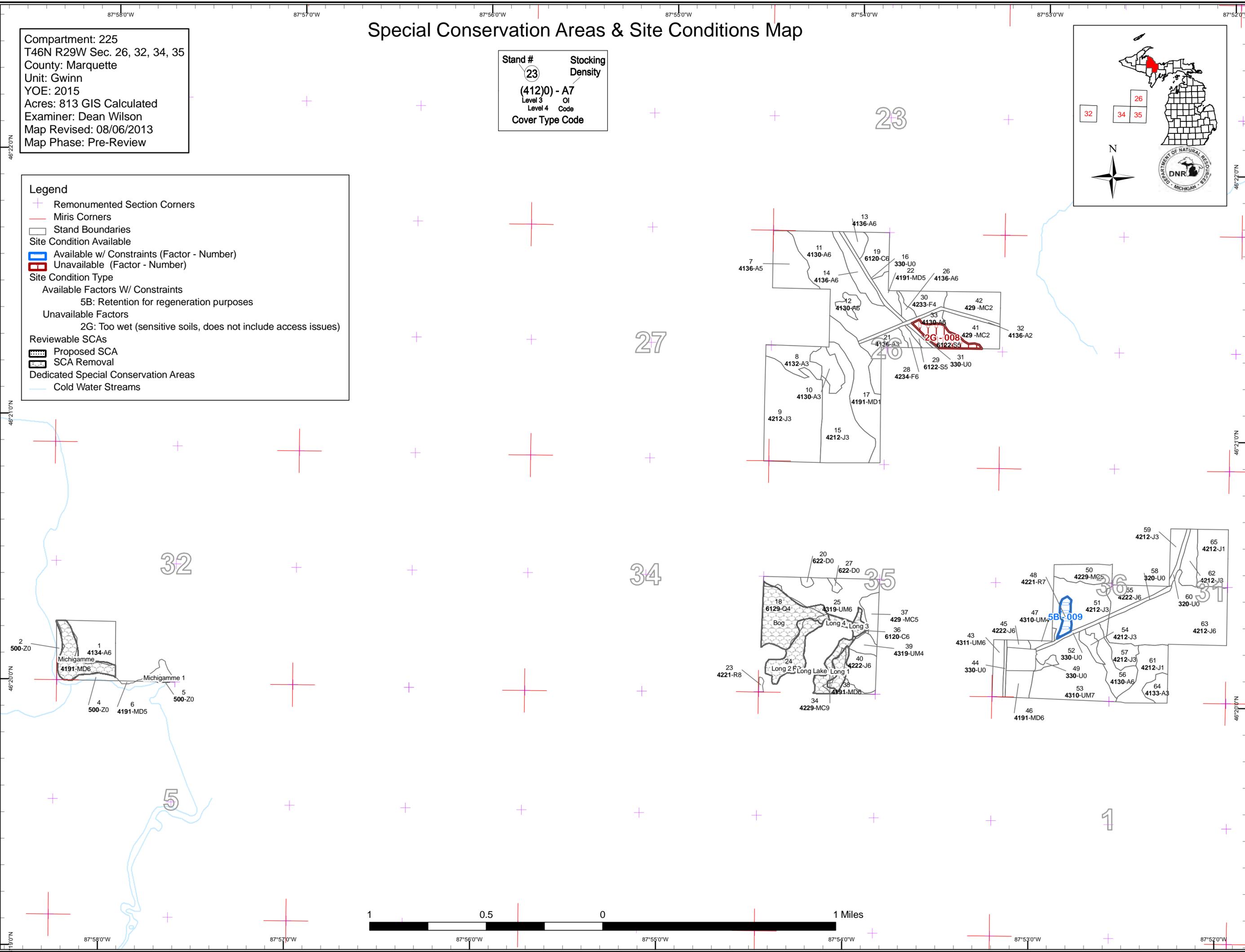
Compartment: 225
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 Map Revised: 08/06/2013
 Map Phase: Pre-Review

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



Legend

- + Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
- 5B: Retention for regeneration purposes
- Unavailable Factors
- 2G: Too wet (sensitive soils, does not include access issues)
- Reviewable SCAs
- Proposed SCA
- SCA Removal
- Dedicated Special Conservation Areas
- Cold Water Streams



Report 1 – Total Acres by Cover Type and Age Class



	Age Class														Total
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneven Age	
Aspen	12	10	113	5	21	15	4	0	0	0	0	0	0	0	180
Cedar	0	0	0	0	0	0	0	2	0	12	0	0	0	0	14
Jack Pine	39	56	101	81	14	0	0	0	2	0	0	0	0	0	292
Low-Density Trees	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Lowland Conifers	0	0	0	0	0	0	0	27	0	0	0	0	0	0	27
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12
Mixed Upland Deciduous	32	0	0	0	0	6	0	24	8	0	0	0	0	0	70
Natural Mixed Pines	0	0	12	0	0	0	0	7	0	0	0	0	0	0	19
Red Pine	0	0	0	0	0	0	0	17	1	5	0	0	0	0	22
Treed Bog	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Upland Conifers	0	0	31	0	0	0	7	0	0	0	0	0	0	0	38
Upland Mixed Forest	0	0	0	0	5	35	7	0	47	0	0	0	0	0	95
Upland Shrub	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Upland Spruce/Fir	0	0	0	10	0	3	0	0	0	0	0	0	0	0	12
Water	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	114	66	257	96	39	59	18	77	70	17	0	0	0	0	813



Report 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2015

Compartment 225
Total Compartment Acres: 813

Acres by Treatment Type

Commercial Harvest - 120 Tree Planting - 2 Other - 76
 Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	19	0	0	0	0	0	19
Mixed Upland Conifers	7	0	0	0	0	0	7
Mixed Upland Deciduous	22	0	0	0	0	0	22
Natural Pines	9	0	0	0	17	0	26
Other Upland Conifers	0	0	3	0	0	0	3
Upland Mixed Forest	43	0	0	0	0	0	43
Total	100	0	3	0	17	0	120



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	32225012-Cut	3.9	4130 - Aspen	High Density Pole	63	111-140	Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clear cut.										
<u>Specs:</u>										
<u>Other</u> No reserves; however, leave 10 to 15 of the larger big tooth aspen along the edges of this stand.										
<u>Comments:</u>										
<u>Next</u> Check regeneration per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
13	32225013-Cut	4.4	4136 - Aspen, Mixed Conifer	High Density Pole	57	81-110	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with reserves.										
<u>Specs:</u>										
<u>Other</u> Retain the white pine. Mark three to six red pine per acre for retention. Mark six white birch per acre and leave 5 to 10 of the larger big tooth aspen along the edges for seed trees and wildlife.										
<u>Comments:</u>										
<u>Next</u> Check for regeneration per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
14	32225014-Cut	10.8	4136 - Aspen, Mixed Conifer	High Density Pole	57	81-110	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with reserves.										
<u>Specs:</u>										
<u>Other</u> Retain the white pine. Mark three to six red pine and white birch per acre and leave 10 to 15 of the larger big tooth aspen along the edges for retention and wildlife..										
<u>Comments:</u>										
<u>Next</u> Check for regeneration per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
22	32225022-Cut	5.8	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	57	1-50	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with reserves.										
<u>Specs:</u>										
<u>Other</u> Retain the white pine, big tooth aspen, and mark 3 to six red pine and white birch per acre for retention and seed.										
<u>Comments:</u>										
<u>Next</u> Check regeneration per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	32225024-Cut	16.8	42210 - Natural Red Pine	High Density Log	78	111-140	Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Mark individual trees to attain a basal area of 90 to 100 square feet per acre. Maintain a 100 foot buffer untouched along the lake shore.										
<u>Specs:</u>										
<u>Other</u> Retain all the white pine and white birch..										
<u>Comments:</u>										
<u>Next</u> Determine silvicultural needs next entry.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
25	32225025-Cut	35.4	4319 - Mixed Upland Forest	High Density Pole	57	81-110	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with reserves.										
<u>Specs:</u>										
<u>Other</u> Retain all white pine and white spruce. Mark six white birch per acre to leave for wildlife.. Do not cut red pine that have a Dbh of 20 inches or larger.										
<u>Comments:</u>										
<u>Next</u> Check regeneration per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
28	32225028-Cut	2.6	42340 - Upland Spruce/Fir	High Density Pole	57	1-50	Harvest	Seed Tree with Reserves	42340 - Upland Spruce/Fir	Cmpt. Review Proposal
<u>Prescription</u> Mark ten to fifteen spruce or balsam fir trees per acre for seed trees. Mark six to ten red pine trees per acre for retention and seed.										
<u>Specs:</u>										
<u>Other</u> White pine should be retained if it occurs and leave 3 to 6 of the larger big tooth aspen along the edges.										
<u>Comments:</u>										
<u>Next</u> Check regeneration per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
34	32225034-Cut	7.1	42290 - Natural Mixed Pine	High Density Log	78	81-110	Harvest	Clearcut with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<u>Prescription</u> Harvest all trees that are not red or white pine and cedar. Mark individual red pine for harvest where this tree's basal area exceeds 100 square feet per acre reducing it to 80. Leave a 100 foot buffer untouched along the lake shore.										
<u>Specs:</u>										
<u>Other</u> Retain all the white pine and mark 6 to 10 white birch per acre for retention, seed trees, and wildlife.										
<u>Comments:</u>										
<u>Next</u> Check regeneration per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37	32225037-Cut	7.0	429 - Mixed Upland Conifers	Medium Density Pole	66	51-80	Harvest	Clearcut with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Clear cut with reserves.

Specs:

Other Retain all red pine and tamarack. Leave 5 to 10 of the larger big tooth aspen along the edges. Mark 5 to 6 spruce trees per acre for seed..
Comments:

Next Check regeneration per work instructions.
Steps:

Proposed
Start Date: 10/01/2014

38	32225038-Cut	8.3	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	78	111-140	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Clear cut with reserves.

Specs:

Other Retain all red and white pine. Leave 5 to 10 of the larger big tooth aspen along the sale edges. Mark six to ten white birch per acre for retention,
Comments: seed, and wildlife.

Next Check regeneration per work instructions.
Steps:

Proposed
Start Date: 10/01/2014

43	32225043-Cut	7.3	4311 - Pine, Aspen Mix	High Density Pole	68	81-110	Harvest	Clearcut with Reserves	4311 - Pine, Aspen Mix	Cmpt. Review Proposal
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Prescription Clear cut with reserves.

Specs:

Other Retain all the oak and white pine. Leave 5 to 10 of the larger big tooth aspen along the sale edges. Mark 3 to 6 red pine per acre to leave.
Comments:

Next Check regeneration per work instructions.
Steps:

Proposed
Start Date: 10/01/2014

45	32225045-Cut	2.2	42220 - Natural Jack Pine	High Density Pole	88	81-110	Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review Proposal
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Prescription Clear cut all trees excluding oak. All oak are to be retained.

Specs:

Other Following harvest disk trench and direct seed to jack pine.
Comments:

Next Check regeneration per work instructions.
Steps:

Proposed
Start Date: 10/01/2014



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
46	32225046-Cut	8.3	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	85	81-110	Harvest	Clearcut	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<u>Prescription</u> Clear cut all trees excluding oak, red pine, and white pine. Mark 10 oak, 3 to 6 white birch, and 3 to 6 red and white pine per acre for retention.										
<u>Specs:</u>										
<u>Other</u> Leave 5 to 10 of the larger big tooth aspen along the sale edges for wildlife.										
<u>Comments:</u>										
<u>Next</u> Check regeneration per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
17	32225017- Other	32.2	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	5	1-50	Other	Unspecified	42120 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Check regeneration following trenching and seeding efforts in 2010.										
<u>Specs:</u>										
<u>Other</u> Hand plant 2-0 jack pine seedling if regeneration is insufficient.										
<u>Comments:</u>										
<u>Next</u> Follow up to insure regeneration meets guidelines.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
39	32225039- Other	4.9	4319 - Mixed Upland Forest	Low Density Pole	40	1-50	Other	Unspecified	42121 - Planted Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Check regeneration of the 2010 trenching and direct seeding project.										
<u>Specs:</u>										
<u>Other</u> If regeneration is inadequate, hand plant 2-0 jack pine in exsition trenches.										
<u>Comments:</u>										
<u>Next</u> Make sure that regeneration meets guidelines.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
61	32225061- Other	17.7	42120 - Planted Jack Pine	Low Density Sapling	8		Other	Unspecified	42121 - Planted Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Check regeneration to insure last reforestation attempt was successful.										
<u>Specs:</u>										
<u>Other</u> Hand plant 2-0 jack pine seedlings if stocking is inadequate.										
<u>Comments:</u>										
<u>Next</u> Monitor to insure stocking meets guidelines.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										

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	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
65	32225065-Other	21.1	42120 - Planted Jack Pine	Low Density Sapling	8		Other	Unspecified	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Check regeneration to affirm last reforestation effort was successful.

Specs:

Other Hand plant 2-0 jack pine if stocking is inadequate.

Comments:

Next Steps: Monitor to insure that stocking meets guidelines.

Proposed

Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 195.7**



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

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

**Total Treatment
Acreage Proposed: 0**

Report 5 – Site Conditions

Gwinn Mgt. Unit
Dean Wilson : Examiner

Compartment 225
Year of Entry 2015

Availability for Management

Availability for Management			Dominant Site Conditions			
Total Acres	Acres Available	Acres Not Available		No	5B	2G
180	180		Aspen	180		
14	14		Cedar	14		
292	292		Jack Pine	292		
27	27		Lowland Conifers	27		
12	2	10	Lowland Spruce/Fir	2		10
70	70		Mixed Upland Deciduous	70		
19	19		Natural Mixed Pines	19		
22	22		Red Pine	18	5	
38	38		Upland Conifers	38		
95	95		Upland Mixed Forest	95		
12	12		Upland Spruce/Fir	12		
782	772	10	Total Forested Acres	767	5	10
	99%	1%	Relative Percent			

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
008	Not Available	2G: Too wet (sensitive soils, does not include access issues)	10				
Comments: Low volumes/small diameters.							
009	Available	5B: Retention for regeneration purposes	5				
Comments:							



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Michigamme 1 Comments Riparin zone.	Spring-Seeps, Riparian Areas	Riparian Area	SCA	0.3
Long 4 Comments Use BMP	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	1.9
Long 3 Comments Use BMP	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	2.9
Long 1 Comments Use BMP	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	5.7
Long Lake Comments Use BMP	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	7.9
Long 2 Comments Use BMP	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	14.9
Michigamme Comments Use BMP	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	16.6
Bog Comments Patches of larger timber, but also much of stand isn't much more than a treed bog. Some cedar and tamarack present also.	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	27.7



Report 7 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
SCA	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.

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Gwinn Mgt. Unit

Report 8 – Forested Stands

Compartment: 225
Year of Entry: 2015

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4134 - Aspen, Spruce/Fir	High Density Pole	20.7	43	51-80	Harvested in 1970: TS# 24-70.
3	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	15.3	73	51-80	Remove from SCA status and harvest with stand 1 next entry.
6	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	0.4	73	51-80	SCA = Riparian zone protection.
7	4136 - Aspen, Mixed Conifer	Medium Density Pole	20.9	27	1-50	Harvested in 1986: TS# 6-85.
8	4132 - Aspen, Jack Pine	High Density Sapling	13.8	24	1-50	Harvested in 1989: TS# 4-85.
9	42120 - Planted Jack Pine	High Density Sapling	63.0	21	1-50	Harvested in 1989: TS#4-85. Trenched and hand planted in 1992.
10	4130 - Aspen	High Density Sapling	9.7	16		Harvested in 1997: TS# 6-95.
11	4130 - Aspen	High Density Pole	51.2	27	1-50	Harvested in 1986: TS# 6-85.
12	4130 - Aspen	High Density Pole	3.9	63	111-140	Clear cut with reserves.
13	4136 - Aspen, Mixed Conifer	High Density Pole	4.4	57	81-110	Clear cut with reserves.
14	4136 - Aspen, Mixed Conifer	High Density Pole	10.8	57	81-110	Clear cut with reserves.
15	42120 - Planted Jack Pine	High Density Sapling	41.9	15		Harvested in 1997: TS# 6-95. Trenched and direct seeded in 1998.
17	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	32.2	5	1-50	Harvested in 2008: TS# 108-05-01. Trenched and direct seeded in 2010.
18	6129 - Mixed Coniferous Lowland Forest	Low Density Pole	26.6	70	1-50	Margionally non-productive.
19	6120 - Lowland Cedar	High Density Pole	12.4	93	141-170	
21	4136 - Aspen, Mixed Conifer	High Density Sapling	12.5	27	1-50	Harvested in 1986: TS# 6-85.
22	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	5.8	57	1-50	Clear cut with reserves.
23	42210 - Natural Red Pine	Medium Density Log	0.7	85	1-50	SCA = Riparian Zone protection for Long Lake.

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Gwinn Mgt. Unit

Report 8 – Forested Stands

Compartment: 225
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	42210 - Natural Red Pine	High Density Log	16.8	78	111-140	Remove from old growth and thin favoring the retention of white pine.
25	4319 - Mixed Upland Forest	High Density Pole	35.4	57	81-110	Clear cut with reserves.
26	4136 - Aspen, Mixed Conifer	High Density Pole	2.6	35	1-50	
28	42340 - Upland Spruce/Fir	High Density Pole	2.6	57	1-50	Clear cut with reserves.
29	6122 - Black Spruce	Medium Density Pole	1.8	87	1-50	
30	42330 - Upland Fir	Low Density Pole	9.7	36	1-50	Harvested from 1975 to 1980: TS# 22/74.
32	4136 - Aspen, Mixed Conifer	Medium Density	5.6	8		
33	4130 - Aspen	High Density Pole	2.7	37	1-50	Harvested in 1976: TS# 22/74.
34	42290 - Natural Mixed Pine	High Density Log	7.1	78	81-110	Remove from sca and conduct a shelterwood harvest. Minor lowland inclusions along lake shore are not to be treated.
35	6122 - Black Spruce	Medium Density Pole	10.1	87	1-50	Margionally productive.
36	6120 - Lowland Cedar	High Density Pole	2.1	70	1-50	SCA = Riparian zone protection for Long Lake.
37	429 - Mixed Upland Conifers	Medium Density Pole	7.0	66	51-80	Clear cut with reserves.
38	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	8.3	78	111-140	Remove from SCA. Clear cut with reserves..
39	4319 - Mixed Upland Forest	Low Density Pole	4.9	40	1-50	Partially cut in 2008: TS# 108-05-01. Trenched and direct seeded in 2010.
40	42220 - Natural Jack Pine	High Density Pole	13.6	43	81-110	Scarified and broadcast seeded in 1970.
41	429 - Mixed Upland Conifers	Medium Density	15.4	23		Harvested in 1990: TS# 5-85.
42	429 - Mixed Upland Conifers	Medium Density	15.7	23		Harvested in 1990: TS# 5-85.
43	4311 - Pine, Aspen Mix	High Density Pole	7.3	68	81-110	Clear cut with reserves.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	42220 - Natural Jack Pine	High Density Pole	2.2	88	81-110	Clear cut followed by refoestation with jack pine.
46	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	8.3	85	81-110	Clear cut with reserves.
47	4310 - Pine, Oak Mix	Low Density Pole	1.8	85	1-50	Harvested by partial cutting in 2006: TS# 109-05-01.
48	42210 - Natural Red Pine	Low Density Log	4.6	90	1-50	Harvested in 2006: TS#109-05-01.
50	42290 - Natural Mixed Pine	Medium Density Pole	12.1	24	1-50	Harvested in 1989: TS# 7-85. Two storied stand.
51	42120 - Planted Jack Pine	High Density Sapling	25.5	21	1-50	Harvested in 1989: TS# 7-85. Planted in 1992.
53	4310 - Pine, Oak Mix	Low Density Log	45.2	85	1-50	Harvested by partial cutting in 1996: TS# 7-95. Two storied stand.
54	42120 - Planted Jack Pine	High Density Sapling	4.0	21		Harvested in 1989: TS# 7-85. Planted in 1992.
55	42220 - Natural Jack Pine	High Density Pole	10.9	39	1-50	Harvested in 1972: TS# 5-7A. Sit was scarified and broadcast seeded in 1974.
56	4130 - Aspen	High Density Pole	14.4	23	1-50	Pole sized in the north turning to more sapling size to the south due to site conditions.
57	42120 - Planted Jack Pine	High Density Sapling	8.4	21		Harvested in 1989: TS# 7-85. Planted in 1992.
59	42120 - Planted Jack Pine	High Density Sapling	5.4	17		Harvested in 1996: TS# 7-95. Trenched and direct seeded.
61	42120 - Planted Jack Pine	Low Density Sapling	17.7	8		Harvested in 2005: TS# 109-05-01. Trenched and seeded with poor results. Followed up with hand planting.
62	42120 - Planted Jack Pine	High Density Sapling	9.1	17		Harvested in 1996: TS# 7-95. Trenched and direct seeded.
63	42120 - Planted Jack Pine	High Density Pole	69.8	39	1-50	Harvested in 1972: TS# 5/71A. Planted in 1974.
64	4133 - Aspen, Mixed Pine	High Density Sapling	6.6	8		Harvested in 2005: TS# 109-05-01.
65	42120 - Planted Jack Pine	Low Density Sapling	21.1	8		Harvested in 2005: TS# 110-05-01. Was trenched and seeded which failed. Followed up with hand planting.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	50 - Water	2.8	No	Unspecified	
4	50 - Water	3.1	No	Unspecified	
5	50 - Water	4.4	No	Unspecified	
16	3303 - Mixed Low Density Trees	4.0	No	Unspecified	
20	6224 - Treed Bog	1.2	No	Unspecified	
27	6224 - Treed Bog	1.3	No	Unspecified	
31	3303 - Mixed Low Density Trees	1.5	No	Unspecified	
44	3301 - Low Density Deciduous Tree	1.7	No	Unspecified	
49	3302 - Low Density Conifer Trees	2.0	No	Unspecified	
52	3301 - Low Density Deciduous Tree	3.3	No	Unspecified	
58	3205 - Mixed Upland Shrub	2.9	No	Unspecified	
60	3205 - Mixed Upland Shrub	2.8	No	Unspecified	