



Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 025 Entry Year: 2013
Compartment Acreage: 1, 204 County: Marquette

Revision Date: 08/18/2011

Stand Examiner: Theresa Sysol

Legal Description: T44N R24W Section 20, 29, 32

RMU (if applicable): Dead Horse Moraines Management Area

Management Goals: To maintain and improve biological diversity, forest health and sustainability, considering wildlife, fisheries and recreational needs.

Soil and Topography: Mainly Carbondale-Tawas lowlands with Shoepac-Trenary, Shoepac-Ensley on upland moraines. Small amount of AuGres-Deford muck (stands 4, 5) and Croswell sand (stand 6) on outwash plains.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Mainly State ownership with block of private land off Parker Spur. Land use is mainly for timber, wildlife and hunting.

Unique, Natural Features: Potential for round-leaved orchis, calypso, ram's head lady's slipper, marsh grass-of-Parnassass, and limestone oak fern in Cedar Swamps. Potential for auricled tway-blade, western dock, and linear-leaved gentian along riparian areas. Potential for osprey, eagle, and great blue heron rookery. Potential for red-shouldered hawk and goshawk. Potential for wood turtle. Potential for moose and wolf.

Archeological, Historical, and Cultural Features: none identified

Special Management Designations or Considerations: Sawmill Creek Complex

Watershed and Fisheries Considerations: Sawmill Creek, Mud Creek

Wildlife Habitat Considerations: Identify and implement methods that increase mesic conifer in hardwood stands. Hunting is popular in this area for deer, bear, and upland birds. Within Special Conservation Areas along wildlife corridors, 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. Maintain small openings for wildlife and enhance using techniques which attract species such as deer, turkey, and grouse.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of peat and muck and an end moraine of medium-textured till. There is insufficient data to determine the glacial drift thickness. The Cambrian Trempealeau Formation and Ordovician Prairie du Chien Group subcrop below the glacial drift. These formations could be used for stone. The nearest gravel pit is located two miles east and there should be some potential on the upland areas. Abandoned iron mines are located four miles to the northwest, but this compartment has never been leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access: Limited by gated private access via Parker Spur to the north of Mud Creek, and poor dirt road access via the Swampbuck Road to the south.

Survey Needs: none at this time

Recreational Facilities and Opportunities: hunting

Fire Protection: fire risk is relatively low, due to lowland cover types, although lightning strikes could cause potential suppression difficulties.

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**

Cover Type & Treatment Map

Compartment 25
 T44N, R24W, Sec. 20, 29, 32
 County: Marquette
 Unit: Gwinn
 YOY: 2013
 Acres: 1,204 GIS Calculated
 Stand Examiner: Theresa Sysol
 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

20

29

32

N

Legend

- + Remonumented Section Corners
- ◆ RIs Corners
- Miris Corners
- - - Poor Dirt Roads
- County Poor Dirt Roads
- - - Trail (Non-Recreation)
- - - Closed Roads
- ✕ Gates
- - - Intermittent Stream/Drain
- Stream
- █ Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)
- Other Treatment - See Comments

Forest Stands

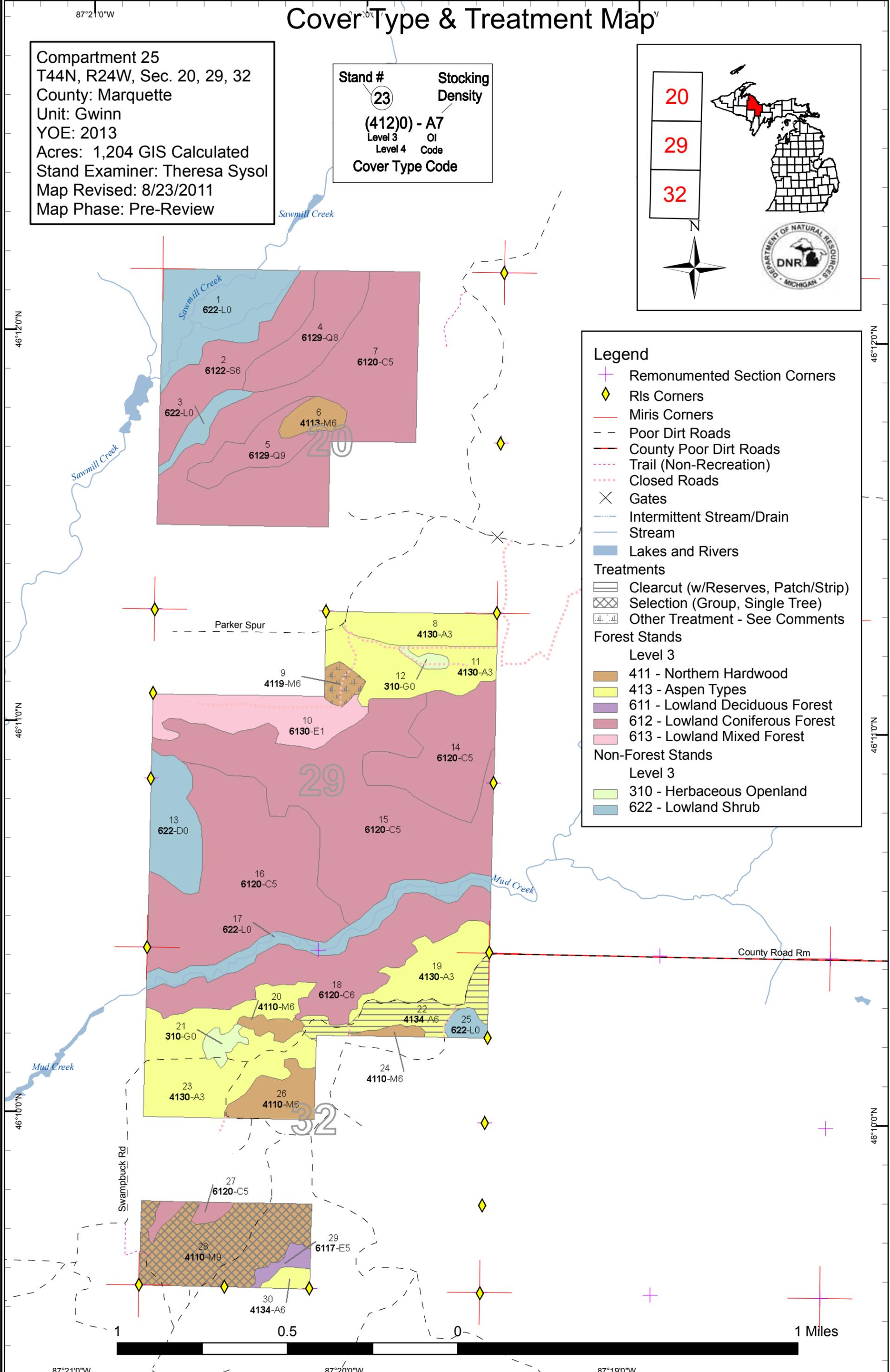
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 622 - Lowland Shrub



87°21'0"W 87°20'0"W 87°19'0"W

46°12'0"N

46°11'0"N

46°10'0"N

46°12'0"N

46°11'0"N

46°10'0"N

1 Miles

Stand Boundary Map

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- Stand Boundaries

Forest Stands

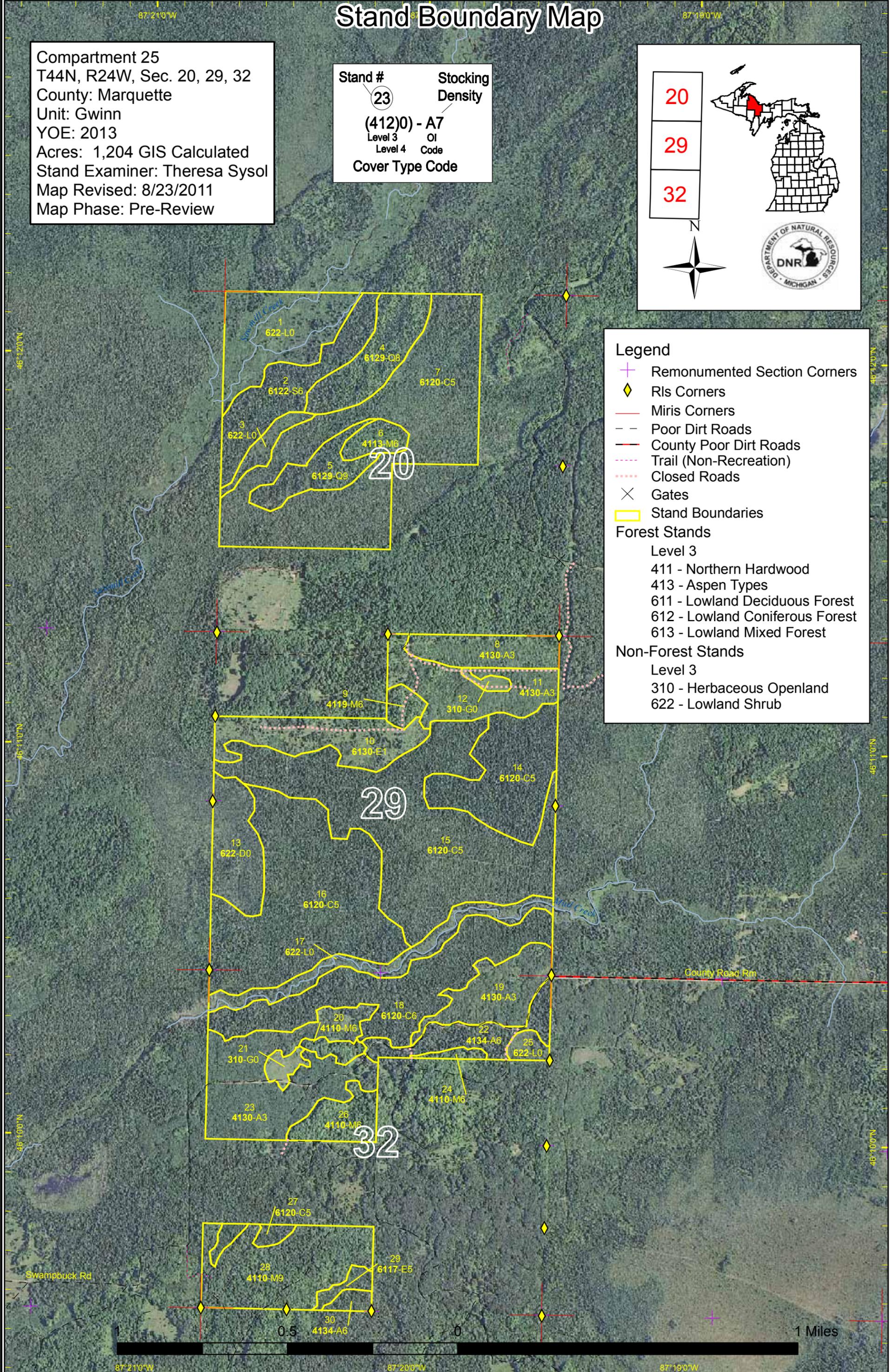
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Non-Forest Stands

Level 3

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Dedicated & Proposed Special Conservation Area Map

Compartment 25
 T44N, R24W, Sec. 20, 29, 32
 County: Marquette
 Unit: Gwinn
 YOY: 2013
 Acres: 1,204 GIS Calculated
 Stand Examiner: Theresa Sysol
 Map Revised: 8/23/2011
 Map Phase: Pre-Review

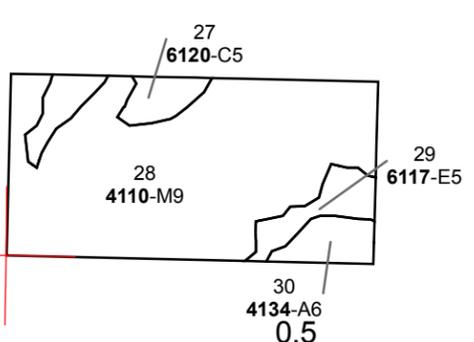
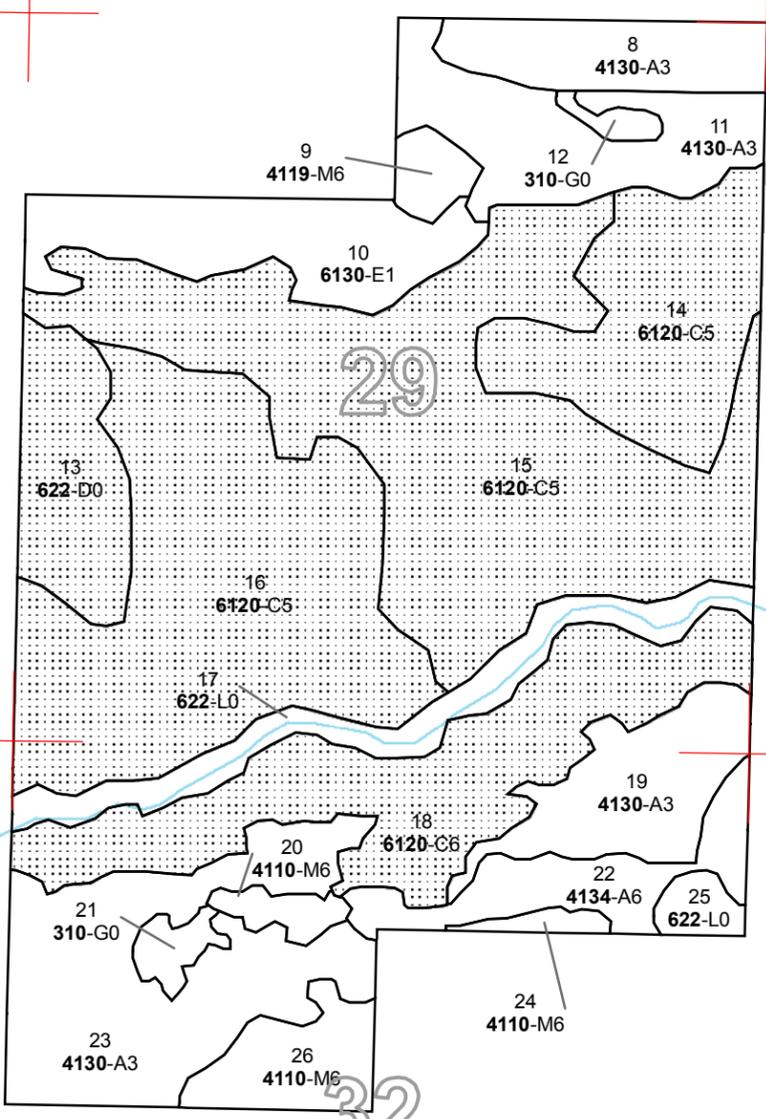
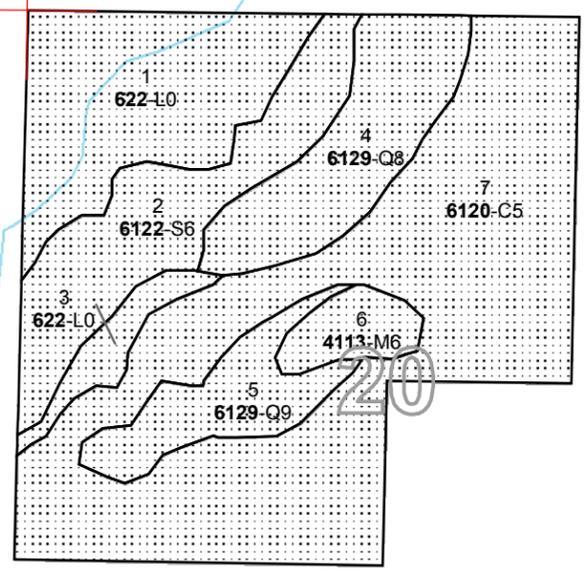
Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

20
 29
 32



Legend

- Miris Corners
- Stand Boundaries
- Proposed Special Conservation Areas
- ▤ SCA - Special Conservation Area
- Dedicated Special Conservation Areas
- Cold Water Streams
- Forest Stands
 - Level 3
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands
 - Level 3
 - 310 - Herbaceous Openland
 - 622 - Lowland Shrub



87°21'0"W 87°20'0"W 87°19'0"W

46°12'0"N

46°11'0"N

46°10'0"N

46°12'0"N

46°11'0"N

46°10'0"N

Table 1 – Total Acres by Cover Type and Age Class



	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	26	76	77	0	0	0	0	30	0	0	0	0	0	0	208
Cedar	0	0	0	0	0	0	0	0	150	0	449	0	0	0	0	599
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5
Lowland Mixed Forest	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	43
Lowland Shrub	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	43	0	0	0	0	43
Northern Hardwood	0	0	0	0	0	0	0	0	0	68	30	0	0	0	10	108
Treed Bog	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Total	139	26	118	77	0	0	0	0	180	68	527	0	0	0	68	1204



Table 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2013

Compartment 025
Total Compartment Acres: 1204

Acres by Treatment Type

Commercial Harvest - 88	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 7
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	25	0	0	0	0	0	0	25
Northern Hardwood	0	63	0	0	0	0	0	63
Total	25	63	0	0	0	0	0	88

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
22 32025022-Cut	25.3	4134 - Aspen, Spruce/Fir	High Density Pole	75	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Remove all aspen, balsam poplar, red maple, paper birch, balsam fir, and black spruce.

Specs:

Other Leave all cedar and white spruce. A few leave tree birch and maple could be marked for retention, where appropriate.

Comments:

Next Monitor for successful regeneration of aspen, mixed conifers by the next entry cycle.

Steps:

28 32025028-Cut	62.7	4110 - Sugar Maple Association	High Density Log	85	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Single tree harvest, retaining approximately 80-90 BA, using the Compleat Marker as a guide. Maintain and encourage species diversity. Create regeneration gaps, where appropriate.

Specs:

Other Retain any cedar and hemlock within stand, as well as a component of maple and birch super canopy wildlife trees, if present.

Comments:

Next Regeneration survey will be needed per Work Instructions before next entry cycle. Acceptable regeneration includes sugar and red maple, basswood, and yellow birch in various amounts.

Steps:

9 32025009-Other	7.0	4119 - Mixed Northern Hardwoods	High Density Pole	90	Other	Unspecified	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Needs formal regeneration survey.

Specs:

Other stand was thinned in 1994 - no maple regeneration noted last entry cycle (2001), and very little this entry cycle (2011).

Comments:

Next

Steps:

**Total Treatment
Acreage Proposed: 95.0**

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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



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:

**Total Treatment
Acreage Proposed: 0**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6122 - Black Spruce	High Density Pole	43.0	90	81-110	Mix of black spruce and cedar, with trace amounts of white pine and paper birch noted. Lab tea, sphagnum ground cover.
4	6129 - Mixed Coniferous Lowland Forest	Medium Density Log	35.8	Uneven Age	111-140	Nearly pure hemlock rises/knobs (13" - 20" dbh), with surrounding lowland areas transitioning from interior black spruce bog with occasional white pine and cedar to white pine, paper birch, red maple with thick balsam fir understory as topography changes. Larger paper birch is dying out. Ground cover of lab tea, sphagnum, snowberry noted. Most of older balsam fir that was within stand is dead/down (from budworm) - thick saplings now.
5	6129 - Mixed Coniferous Lowland Forest	High Density Log	22.0	Uneven Age	111-140	Glacial till terrain creates stand composition of spruce, cedar to spruce, white pine, hemlock with some mixed deciduous (trace amount of yellow birch included).
6	4113 - R.Maple, Conifer	High Density Pole	10.0	Uneven Age	51-80	Access is limited on three sides by a ridge of hemlock, spruce, creating a "bowl" of red maple within surrounding cedar swamp. Old red maple, yellow birch "legacy" trees (18" + dbh) with some large white spruce present also (25" dbh measured); otherwise, mainly stand is red maple poles. Ground cover of club moss. Understory with thicker F3 (edges) and/or M3 (50 BA site).
7	6120 - Lowland Cedar	Medium Density Pole	149.8	75	51-80	Variable stocked cedar stand. Lots of standing water, grasses within.
8	4130 - Aspen	High Density Sapling	26.0	5		T. sale #012-03 "Spur End Aspen" - cut Su, 2005
9	4119 - Mixed Northern Hardwoods	High Density Pole	7.0	90	81-110	T. sale #003-93 (unit 6) "Red Top Block" - cut Su, 1994. Main access through private lands. No regeneration noted last entry cycle; little to none noted this entry, except for ironwood. Heavy defects to stems; numerous large diameter "legacy" trees and snags within.
10	6130 - Fir, Aspen, Maple	Low Density Sapling	42.6	14		T. sale #003-93 "Red Top Block" - cut 1994-1996; F patches with A/P clumps/clones. Residual F/S within.
11	4130 - Aspen	High Density Sapling	42.4	14		T. sale #003-93 "Red Top Block" - cut 1995,1996.
14	6120 - Lowland Cedar	Medium Density Pole	58.6	94	81-110	Proposed old growth last entry. Little to no understory present.
15	6120 - Lowland Cedar	Medium Density Pole	167.2	94	81-110	Proposed old growth last entry. Old/decaying, cut-off cedar stumps noted; N/S skid routes with tagalder.
16	6120 - Lowland Cedar	Medium Density Pole	133.2	94	1-50	Nominated as potential old growth last entry.
18	6120 - Lowland Cedar	High Density Pole	82.8	95		primarily cedar with some slightly higher grounds containing birch, aspen, trace blk cherry

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Gwinn Mgt. Unit

5 – Forested Stands

Compartment: 025
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4130 - Aspen	High Density Sapling	33.4	14		T. sale #004-93 "Swampbuck 32 Block" (units 1,2) - cut fall, 1995 through January, 1996. Trace amounts of spruce, cedar.
20	4110 - Sugar Maple Association	High Density Pole	5.7	88	51-80	T. sale # 004-93 "Swampbuck 32 Block" (unit 5) - thinned fall, 1996. Trace amounts of red maple, elm and paper birch.
22	4134 - Aspen, Spruce/Fir	High Density Pole	25.3	75	51-80	
23	4130 - Aspen	High Density Sapling	76.8	21		T. sale # 002-87 "Swampbuck Aspen" (Unit 1,2) - cut 1989, and "Swampbuck 32 Block" #04-93 (Unit 4) - cut fall, 1996
24	4110 - Sugar Maple Association	High Density Pole	3.3	90	81-110	T. sale #004-93 "Swampbuck 32 Block" (Unit 3) - cut fall, 1996
26	4110 - Sugar Maple Association	High Density Pole	19.3	90	81-110	T. sale #004-93 "Swampbuck 32 Block" (unit 6) - cut fall, 1996
27	6120 - Lowland Cedar	Medium Density Pole	7.0	95		
28	4110 - Sugar Maple Association	High Density Log	62.7	85	111-140	T. sale # 005-93 "Swampbuck Hardwood Block" - thinned 1995-96.
29	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	5.4	90	51-80	Transition stand between upland hardwoods and aspen knob.
30	4134 - Aspen, Spruce/Fir	High Density Pole	4.6	74		Quite a bit of blowdown aspen - lots of conks.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	6220 - Alder/willow	52.7	No	Unspecified	Contains Sawmill Creek
3	6220 - Alder/willow	8.8	No	Unspecified	
12	3102 - Grass	3.1	Yes	Low (NonForested)	Trace amounts of spruce/fir noted.
13	6224 - Treed Bog	32.7	No	Unspecified	
17	6220 - Alder/willow	31.0	No	Unspecified	edges with cedar, spruce
21	3103 - Rubus-Fern	5.5	No	Unspecified	
25	6220 - Alder/willow	5.6	No	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
2	Unique Site - SCA	32025002	43.0	SCA - wildlife travel corridor. Part of Sawmill Creek proposed BSA (northern forested wetlands). Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
4	Unique Site - SCA	32025004	35.8	SCA - large diameter hemlock, white pine along ridges, and swales with mixed coniferous and deciduous presence. Falls within Sawmill Creek BSA complex. Important wildlife corridor. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
5	Unique Site - SCA	32025005	22.0	SCA - large diameter hemlock, white pine along ridges, and swales with mixed coniferous and deciduous presence. Falls within Sawmill Creek BSA complex. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
6	Unique Site - SCA	32025006	10.0	SCA - older legacy trees (red maple, yellow birch) in developing red maple pole stand within Sawmill Creek BSA complex.
7	Unique Site - SCA	32025007	149.8	SCA - wildlife travel corridor. Part of Sawmill Creek proposed BSA (northern forested wetlands). Protect watershed integrity. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
14	Unique Site - SCA	32025014	58.6	SCA-Wildlife travel corridor. Part of Sawmill Creek proposed BSA (northern forested wetlands). Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
15	Unique Site - SCA	32025015	167.2	SCA - Riparian and wildlife corridor along Mud Creek. Maintain sufficient zone to protect watershed integrity. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
16	Unique Site - SCA	32025016	133.2	SCA - Riparian and wildlife corridor along Mud Creek. Maintain sufficient zone to protect watershed integrity. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.



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Stand	SCA Type	SCA Name	Acres	Comments
18	Unique Site - SCA	32025018	82.8	SCA - Riparian and wildlife corridor along Mud Creek. Maintain sufficient zone to protect watershed integrity. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
1	Unique Site - SCA	NF_32025001	52.7	SCA - riparian corridor for Sawmill Creek. Protect watershed integrity.
3	Unique Site - SCA	NF_32025003	8.8	SCA - protect watershed integrity; lowland within Sawmill Creek BSA complex.
13	Unique Site - SCA	NF_32025013	32.7	SCA - protect watershed integrity; falls within Sawmill Creek BSA 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.