



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32029

Entry Year 2016

Acreage: 1303.39580000

County Marquette

Management Area: Sands Plains

Revision Date: 2014-09-16

Stand Examiner: Theresa Sysol

Legal Description:

T45N R24W Section(s) 5, 8, 9, 16, 17, 20, 21

Identified Planning Goals:

To maintain the health and sustainability of the forest while providing for recreational, wildlife and fisheries concerns and needs.

Soil and topography:

The compartment is on the east side of a sand outwash plain transitioning to a moraine topography further east with better soils. Extensive fire history. Primarily level Rubicon, Grayling and Croswell sands with transition to Rousseau-Ocqueoc fine sand and Garlic-Alcona-Voelker complex.

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

Private lands with permanent, year-round residences surround and are interspersed within the compartment.

Unique Natural Features:

See MNFI comments.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Numerous lakes are in the area and within the compartment. Area has an extensive early logging and mining history. Potential for linear-leaved gentian, Hill's thistle, and Canada rice-grass in openings in jack pine. Potential for Wiegand's sedge, black sedge, and marsh grass-of-Parnassus in boggy areas. Potential for submergent and emergent marsh species in small lake and creeks: auricled tway-blade, autumnal water starwort, alternate-leaved water-milfoil, Farwell's water-milfoil, alga pondweed, small yellow water-lily, American shore-grass, linear-leaved gentian and veiny meadow-rue.

Watershed and Fisheries Considerations:

Fisheries Values: Minimal

Fisheries Concerns: The northern tier of this compartment is located in the Chocolay River watershed (ELSMU). No prescribed treatments are near any waterbodies. Standard BMP's should be applied near any wetland areas.

Wildlife Habitat Considerations:

Compartment 29 is found within the Sands Plains Management Area; on an Outwash Plain in central Marquette County. The dominant Natural Communities are dry mesic northern forests and dry northern forests. Wildlife considerations in the Sands Plains Management Area include increasing stand size and striving to accommodate many species associated with xeric forest habitat such as Kirtland's warbler, upland sandpiper, black backed woodpecker, eastern bluebird, and spruce grouse. Wildlife management issues in the management area are: large open land complexes; habitat fragmentation; mature forest (jack pine, black and white spruce and tamarack); and early successional forest.

The following have been identified as featured species for the Sands Plains Management Area: Kirtland's warbler, spruce grouse, and upland sandpiper

Mineral Resource and Development Concerns and/or Restrictions

Sections 5, 8, 9, 16, 17 & 21, T45N-R24W, Marquette County

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of coarse-textured till. The glacial drift thickness varies between 10 and 200 feet. The Cambrian Munising Group and Precambrian Archean Granite/Gneiss subcrop below the glacial drift. The Granite/Gneiss has dimension stone characteristics in some areas. There are no gravel pits in the area, but potential should be good on the uplands. Abandoned iron mines are located four miles to the southwest, but economic iron probably has been removed from this area. This State land has not been

previously leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access:

Good access throughout via primarily sandy two-track roads. Roads are generally hard to block.

Survey Needs:

Section 20

Recreational Facilities and Opportunities:

Little Lake State Forest campground. Boat access sites at Little Lake, Sporley Lake. Snowmobile trail runs through the compartment. Popular area for blueberry picking. Heavily used area by nearby residents for hunting, skiing, hiking and other activities.

Fire Protection:

This area historically has a high fire frequency, due to urban interface and timber types. Much of the area north of Little Lake burned in a large 6,000 acre wildfire in 1986.

Additional Compartment Information:

Area has become a dumping ground for household trash.

The following reports from the Inventory are attached:

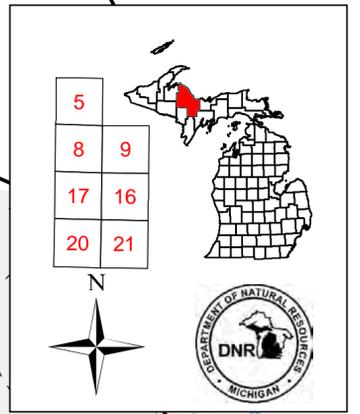
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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: 029
 T45N R24W Sec. 05, 08, 09, 16, 17 20, 21
 County: Marquette
 Unit: Gwinn
 YOE: 2016
 Acres: 1,304 GIS Calculated
 Examiner: Theresa Sysol
 Map Revised: 09/19/2014
 Map Phase: Pre-Review



Legend

- Miris Corners
- Survey Grade
- Remonumented Section Corners
- PLSS Corner
- Iron Post
- Wood Post
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Gate
- House
- Railroads
- Stream
- Intermittent Stream
- Pipeline
- Hiking Trails
- Snowmobile Trails
- Hiking Trail
- Snowmobile Trail
- Lakes and Rivers
- State Forest Land

Treatments

- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

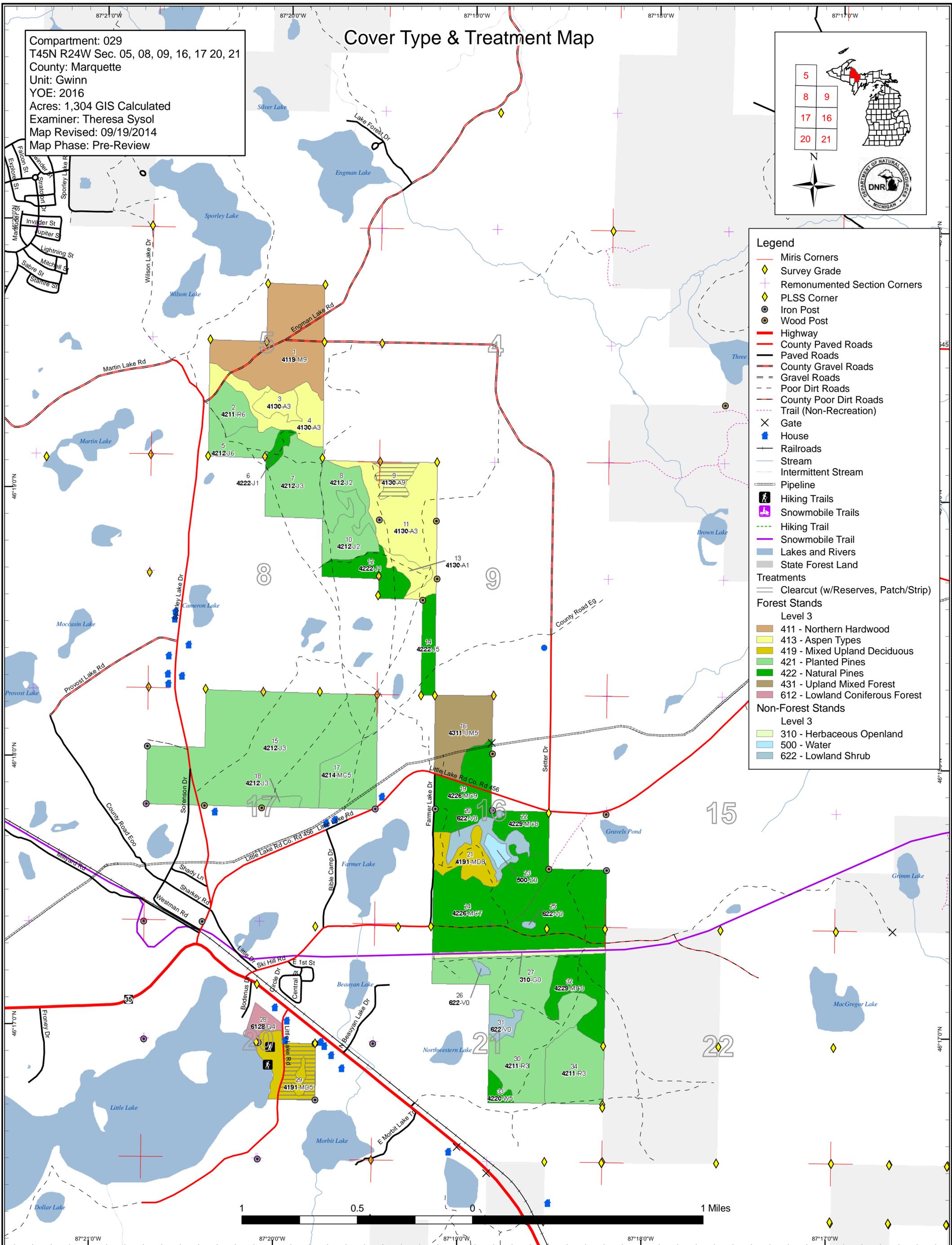
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub



Falcon St
 Explorer St
 Marquette St
 Invader St
 Jupiter St
 Lightning St
 Sabre St
 Stanire St

Wilson Lake Rd
 Martin Lake Rd
 Wilson Lake
 Martin Lake
 Moccasin Lake
 Provost Lake

Solenison Dr
 County Road Eoo
 Little Lake Rd
 Shady Ln
 Sharkey Rd
 Westman Rd
 Little Lake Rd
 Ski Hill Rd
 1st St
 Central St
 Bodanus Dr
 Little Lake Rd
 4191-MD5

Dollar Lake
 Morbit Lake
 E. Morbit Lake Rd

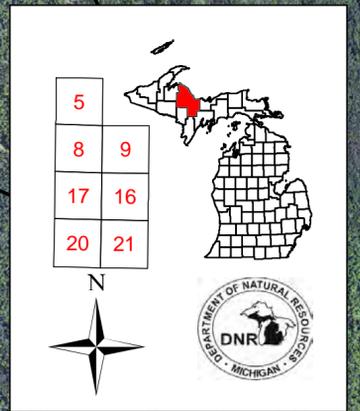
87°21'0"W
 87°20'0"W
 87°19'0"W
 87°18'0"W
 87°17'0"W

46°18'0"N
 46°17'0"N
 46°16'0"N
 46°15'0"N
 46°14'0"N
 46°13'0"N
 46°12'0"N
 46°11'0"N
 46°10'0"N
 46°9'0"N
 46°8'0"N
 46°7'0"N

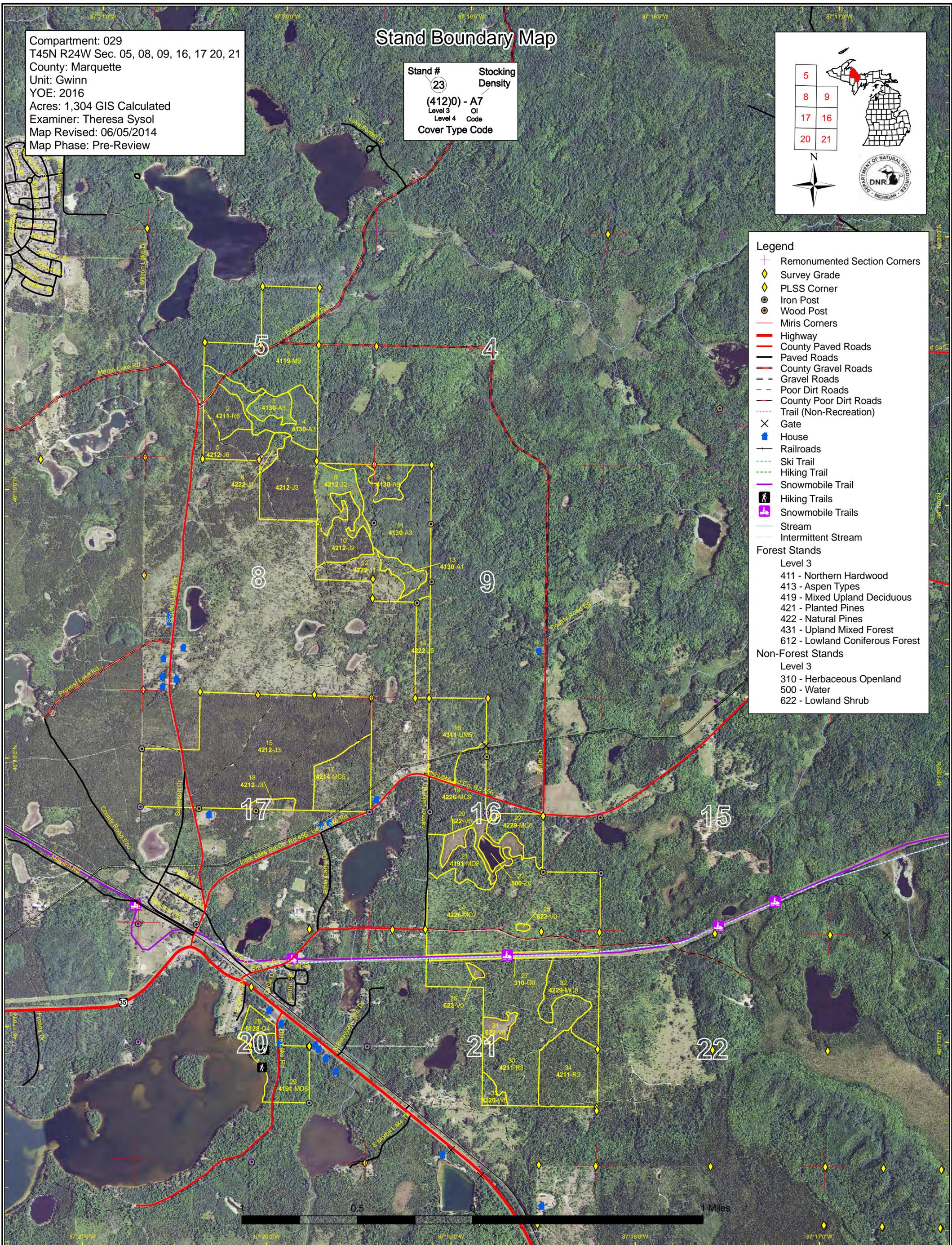
Stand Boundary Map

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 Unit: Gwinn
 YOE: 2016
 Acres: 1,304 GIS Calculated
 Examiner: Theresa Sysol
 Map Revised: 06/05/2014
 Map Phase: Pre-Review

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



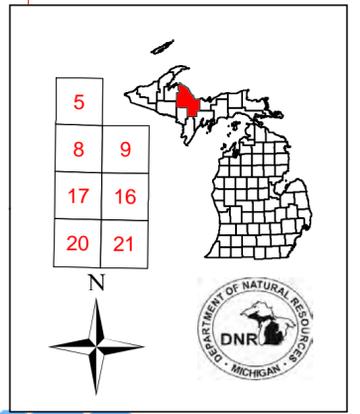
- Legend**
- ⊕ Remonumented Section Corners
 - ◆ Survey Grade
 - ◆ PLSS Corner
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- Forest Stands**
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- Non-Forest Stands**
- Level 3
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 - 500 - Water
 - 622 - Lowland Shrub



Special Conservation Areas & Site Conditions Map

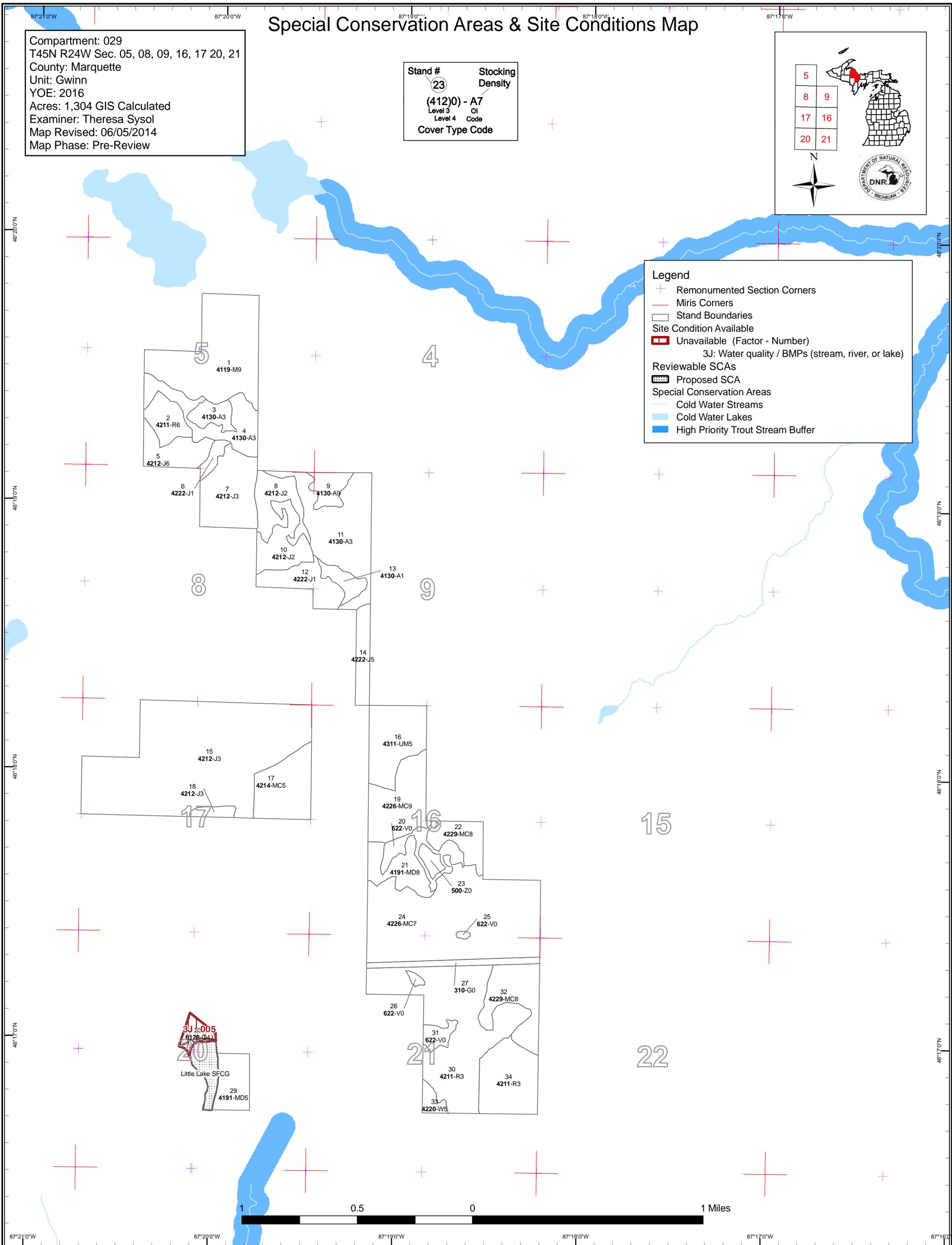
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Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



Legend

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Site Condition Available
- Unavailable (Factor - Number)
3J: Water quality / BMPs (stream, river, or lake)
- Reviewable SCAs
- Proposed SCA
- Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



3J 005
 6128-04
 Little Lake SFCG
 29
 4191-MD5

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	35	0	80	0	13	0	0	0	0	0	0	0	0	140
Bog	29	0	0	0	0	0	0	0	0	0	0	0	0	0	29
Herbaceous Openland	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Jack Pine	0	0	379	26	0	0	0	0	0	0	0	0	0	0	405
Lowland Conifers	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	61	0	0	0	0	0	61
Natural Mixed Pines	0	0	0	0	0	0	0	164	104	0	0	0	0	0	268
Northern Hardwood	0	0	0	0	0	0	0	0	97	0	0	0	0	0	97
Planted Mixed Pines	0	0	0	40	0	0	0	0	0	0	0	0	0	0	40
Red Pine	0	121	65	0	0	0	0	0	0	0	0	0	0	0	186
Upland Mixed Forest	0	0	0	45	0	0	0	0	0	0	0	0	0	0	45
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
White Pine	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Total	58	157	444	192	0	19	0	172	165	97	0	0	0	0	1304



Report 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2016

Compartment 029
Total Compartment Acres: 1,304

Acres by Treatment Type

Commercial Harvest - 31	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Aspen Types	13	0	0	0	0	0	13
Mixed Upland Deciduous	18	0	0	0	0	0	18
Total	31	0	0	0	0	0	31

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
9 32029009-Cut	12.9	4130 - Aspen	High Density Log	53	81-110	Harvest	Clearcut	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal

Prescription Harvest all aspen, jack pine, balsam fir. All white pine, white spruce and paper birch should be left for diversity and seed source.

Specs:

Other No retention due to small stand size and potential budworm issues.

Comments:

Next Monitor for successful regeneration of aspen; some mixed conifers are acceptable.

Steps:

Proposed

Start Date: 10/01/2015

29 32029029-Cut	18.5	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	84	81-110	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Cut to improve stand quality. Harvest all balsam fir, aspen, and most red maple, retaining some by either marking leave trees or include spec. in sale contract to have logger leave some crop tree maple. Harvest paper birch, except for a few healthy leave trees along Co Rd (for aesthetics) and smaller poles/saplings (6" or less). Leave all black cherry, hemlock, white pine, cedar and white spruce.

Other Exclude interior patch of lowland, wet area and adjacent white pine/cedar patch (~3-4 acs). Formal survey work may be required against private boundaries. May wish to confine harvest to winter months, due to proximity of recreation area. Also, check with Parks Division to include harvesting hazard trees within recreation site if desired.

Next Monitor for successful regeneration of maple, aspen, birch and mixed conifers.

Steps:

Proposed

Start Date: 10/01/2015

**Total Treatment
Acreage Proposed: 31.4**



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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! #Type!

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Gwinn Mgt. Unit
Theresa Sysol : Examiner

Compartment 029
Year of Entry 2016

Availability for Management

Availability for Management			Dominant Site Conditions		
Total Acres	Acres Available	Acres Not Available		No	3J
140	140		Aspen	140	
405	405		Jack Pine	405	
9		9	Lowland Conifers		9
61	61		Mixed Upland Deciduous	61	
268	268		Natural Mixed Pines	268	
97	97		Northern Hardwood	97	
40	40		Planted Mixed Pines	40	
186	186		Red Pine	186	
45	45		Upland Mixed Forest	45	
6	6		White Pine	6	
1,257	1,248	9	Total Forested Acres	1,248	9
	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
005	Not Available	3J: Water quality / BMPs (stream, river, or lake)	9				
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
Little Lake SFCG	Concentrated Recreation Area	State Forest Campground	SCA	
<p>Comments also contains boat launch site. Consider leaving buffer on E. side of road, if adjoining lands are harvested.</p>				



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4119 - Mixed Northern Hardwoods	High Density Log	96.7	95	81-110	Select cut as "Sporley Lake Block" #20-78A - summer, 1979 and "Engman Lake Hardwood" #010-96 (unit 1-6) - fall, 1996 - summer, 1997, summer 1998. Some hardwood TSI also completed under FTP C32-12 - October, 1979 in conjunction with t. sale contract. Rolling terrain. Variable stand. Areas heavier to oak logs with oak seedlings noted transitioning into more maple with oak component and cherry poles. Black knot on cherry. Heavier fir understory in areas with higher maple canopy.
2	42110 - Planted Red Pine	High Density Pole	18.0	28	81-110	"Sporley Lake Salvage Block" #017-86 - harvest Sept-Oct, 1986. FTP C32-393 - planted RP in 1989 (3-0 stock). Red pine ~ 20-24' hts. Ground cover of blueberry, sweetfern, St Johns Wort.
3	4130 - Aspen	High Density Sapling	11.7	5		"Sporley Fire Edge Sale" #006-06-1 (unit 2,3) - cut summer, 2008. Harvest did not include any oak, red pine, white pine, hemlock or cedar. Some as just trace amounts within stand. Ground cover of sweetfern, bracken noted.
4	4130 - Aspen	High Density Sapling	35.2	16		"Engman Lake Hardwood" #010-96 (unit 7) - cut summer, 1997. Also west portion cut as part of "Sporley Fire Edge Sale" #006-06-1 (Unit 1, W. part Unit2) - cut spring, 2007. Oak, white and red pine left. Trace amount of cherry within.
5	42120 - Planted Jack Pine	High Density Pole	23.3	27	81-110	"Sporley Lake Salvage Block" #017-86 - harvested Sept - Oct., 1986. FTP C32-393: trench/plant JP 1989. Jack pine ~ 30' hts. Ground cover of blueberry, bracken fern, sweetfern. Trace amount of maple present.
6	42220 - Natural Jack Pine	Low Density Sapling	5.8	28	1-50	Jack pine seeding in old grass type. Burned in 1986.
7	42120 - Planted Jack Pine	High Density Sapling	46.2	27	81-110	"Sporley Lake Salvage Block" #017-86 - harvested Sept - Oct, 1986. FTP C32-393: trench/plant JP (herbicide w/Velpar) - 1989. Jack pine ~ 30' hts; north side of road slightly larger in diameter (5"). Ground cover of sweetfern, bracken fern, blueberry, grasses. Road edges with juneberry, cherry.
8	42120 - Planted Jack Pine	Medium Density	26.4	31		FTP 32-323: 24 acres machine planted (7x7) w/ 2-0 JP May, 1985 (15,000 seedlings) and W. 1/2 re-planted 1989 (FTP 32-393). Still some spotty areas on the NW side of stand, but sufficient stocking. Most seedlings range from 3 - 10 feet in height. A few residual jack pine poles strips left (charred and ~ 4 - 6" dbh). Heavy sweetfern.
9	4130 - Aspen	High Density Log	12.9	53	81-110	Isolated area of older aspen - best access is from the west, due to slope/lowland along east boundary. Breakage, dieback and blowdown all noted; possibly some old plowlines, too. Jack pine clumps are primarily confined to the west side (old residual which fire did not burn?). Ground cover includes lily, bracken fern, grasses, starflower.
10	42120 - Planted Jack Pine	Medium Density	27.0	27		Old fire area with numerous plow lines within (burned both in 1986 and portion on 5/12/2004). Somewhat sparse, in places. FTP 32-393: plant/trench JP ~ W. half of stand 1989.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
11	4130 - Aspen	High Density Sapling	70.2	36	1-50	"Farmer's Lake Block" #12/77A - cut 1977-78 (unit 1,2). Some dead stems, dieback and breakage. Stand gradually increase in diameter (from S to N) with more hardwood, fir in the sub-canopy (transitioning into better site). A few clones of bigtooth aspen poles (residual), mainly along private boundary and slope. Ground cover of blueberry, sweetfern.
12	42220 - Natural Jack Pine	Low Density Sapling	25.4	28		Area left to regenerate naturally after 1986 burn. Old plow lines still visible. Juneberry and other shrubs present. Sparse. Ground cover of grass, sweetfern, blueberry.
13	4130 - Aspen	Low Density Sapling	10.3	35		Cut in 1978 (part of pre-inventory stand 11). Very low quality aspen - within burned area of 1986?
14	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density Pole	16.5	28		Mixed jack pine/aspen. "Farmer's Lake Block" #012-77A (unit 3) - cut 1977-78. Harvested all except oak, red pine. A few old plow lines noted from fire in 1986. Ground cover of bracken fern, wintergreen, trailing arbutus, sweetfern. FTP32-83: hand plant 3-0 RP (10 acres - 6,000 trees) 11/14/78 with YACC crew. No real evidence of these anymore, due to 1986 fire. Possibly some planted jack pine, but not much.
15	42120 - Planted Jack Pine	High Density Sapling	229.1	27		Large tract burned by wildfire in 1986. "Sporley Lake Salvage Block" #017-86 - harvested spring/summer, 1987. FTP 32-375 (W. side of Sporley Lk Rd) - chop, trench, plant jack pine ~ 1989. East side ~ 1990. Ground cover of sweetfern. Very small/trace amount of jack pine (10-20 ft ht) and red pine (5-10 ft ht, mainly near pvt line) in subcanopy.
16	4311 - Pine, Aspen Mix	Medium Density Pole	44.7	35		Permit #2/79A - cut spring, 1979. Patchy jack pine (natural origin), esp at south end; old fire plow lines (from 1986 wildfire) still visible. Some low quality, fire origin aspen also - heavy stem breakage. Natural red and white pine, oak doing well on site; oak regeneration established near residual oak found. Ground cover of wintergreen, bracken fern, sweetfern noted.
17	42140 - Planted Mixed Pine	Medium Density Pole	40.4	30	1-50	"Farmer's Lake West Block" #3/79A - cut summer, 1979. FTP 32-132: roller chop slash 4/1980 and machine planted 3-0 RP May, 1980. Site was (hand) re-planted to 2-0 RP (24,000 trees) May, 1986 after wildfire destroyed plantation. Red pine is mostly smaller diameter, shorter than jack pine (natural); both are fairly limby. The west half of stand is heavier to pure red pine and more open. Trace amount of aspen within.
18	42120 - Planted Jack Pine	High Density Sapling	5.4	27	1-50	Some older jack pine (blowdown, dead within) around leatherleaf bog/dried pond; planted red and jack pine surround. Trace amount of red pine subcanopy and some hazel (west side of stand).



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	42260 - Natural Pine, Mixed Deciduous	High Density Log	45.4	84	81-110	Natural pine stand with oak. N. of Co Rd 456 was treated under permit #2/79A - spring, 1979. S. of Co Rd 456 harvested under permit #9/71A (portions) - removed marked red and white pine, white spruce >12" and all jack pine, aspen, birch from 1971-73. Both areas with a fair amount of mixed regeneration; north end with some dead tops in white pine, old red pine snags and charred stumps (1986 fire). Older paper birch clumps in decline. South end (primarily along Farmer Lk Rd and Co Rd 456) had 3 - 0 red pine hand planted (FTP 32-82) by YACC crews in Nov, 1978. Some of this red pine is now ~ 20 ft heights. Some areas could be shelterwood cut, removing some of the larger red pine; other more open areas regenerated more to aspen, maple and cut should be delayed.
21	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	24.6	84	51-80	Permit #9/71A - cut marked red and white pine, all white spruce >12" and all jack pine, aspen, birch - 1971-73. Stand contains a fair amount of oak regeneration, as well as some
22	42290 - Natural Mixed Pine	Medium Density Log	20.6	82	51-80	"Gravels Pond Block" #011-96 - cut fall, 1998. Removed aspen, birch, jack pine and spruce, leaving RP, WP and oak. Ground cover of lily, bracken fern, wintergreen, trailing arbutus.
24	42260 - Natural Pine, Mixed Deciduous	Low Density Log	163.9	76	1-50	Aspen, birch removed under permit #014-85-2 in 1985. Also, "Farmer Lake Sale" #007-06-1 - harvested fall, 2006 - fall, 2009. Good white pine regeneration throughout; red and jack pine somewhat spotty, but present. Stand also contain a few small leatherleaf depressions.
28	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	8.6	78		Lowland type with drainage into Little Lake.
29	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	36.0	84	81-110	W. half of stand contains Little Lake SFCG and boat access site. Trace amount of jack and red pine, mainly within campground area. Stand is mostly low quality red maple, with overmature aspen, birch. Contains interior wet pockets, low swale with large, weeviled, white pine grove, some cedar adjacent. Ground cover of lily, club moss, starflower noted.
30	42110 - Planted Red Pine	High Density Sapling	121.4	19	1-50	Several harvests: permit #017-88-2 - cut spring, 1988 (aspen, birch, maple) and permit #029-84-2 - cut 1985. "Ski Hill Road Jack Pine" sale #012-96 (unit 2 - 11) - cut winter - spring, 1997 and summer, 1997 (unit 11 - far south end of stand). FTP 32-560: herbicided summer, 1997 (Accord/Garlon 4), trenched and hand planted 3 - 0 red pine in May, 1998.
32	42290 - Natural Mixed Pine	Medium Density Log	38.2	82	81-110	"Ski Hill Road Jack Pine" #012-96-1 (unit 1) - cut Jan, 1997 - left all red, white pine and oak. Permit #021-84-2 - harvested aspen. Good diversity of regeneration.
33	42200 - Natural White Pine	Medium Density Pole	6.2	59	51-80	Evidence of FTP 32-391: trench/plant 2 - 0 RP 1989 (and herbicided sp, 1988 w/Weedone) along W/NW end. Otherwise, stand is heavily weeviled white pine with low quality aspen, and a few mature jack pine. Not much to harvest here.

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Gwinn Mgt. Unit

Report 8 – Forested Stands

Compartment: 029
Year of Entry: 2016



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	42110 - Planted Red Pine	High Density Sapling	46.8	26	1-50	"Cohen Field Block" #032-86 - cut 1987-1991. Removed larger red pine (>12") and all aspen, jack pine, white pine. FTP 32-442: herbicide (Valpar), trench and hand plant 2 - 0 red pine ~ fall, 1990. Stand contains natural jack pine regeneration. Ground cover of sweetfern, wintergreen, blueberry.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
20	6225 - Bog	18.4	No	Unspecified	Leatherleaf bog.
23	50 - Water	5.5	No	Unspecified	Pond
25	6225 - Bog	1.0	No	Unspecified	Small leatherleaf pothole.
26	6225 - Bog	1.8	No	Unspecified	Small leatherleaf pothole.
27	3104 - Degraded	12.3	Yes	Low	Powerline and R.O.W.
31	6225 - Bog	7.7	No	Unspecified	Leatherleaf depression.