



**Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 014 Entry Year: 2014
Compartment Acreage: 723 County: Marquette**

Revision Date: 8/20/12

Stand Examiner: Theresa Sysol

Legal Description: T44N R23W Section(s) 19, 30, 31

RMU (if applicable): Dead Horse Moraines Management Area

Management Goals: To maintain the health and sustainability of the forest, while providing for wildlife, fisheries, environmental and recreational needs.

Soil and Topography: Ranges from level swamps and wetland drainages to rolling or only slightly hilly upland terrain. Major soils include: Nahma muck, Cathro-Ensley muck, Sundell loam, Trenary silt loam, and Shoepac-Trenary

Ownership Patterns, Development, and Land Use in and Around the Compartment: Numerous private camps and homes in the area.

Unique, Natural Features: No known MNFI concerns – see database comments though. Potential for rare plants of rich mesic forests. Potential for calypso bulbosa, round leaved orchid, limestone oak fern, and Cypripedium arietinum in cedar swamp. Potential for rare plants of rich mesic forests: Carex assiniboensis, showy orchis, Ginseng, Goblin Fern. Little potential for listed animals.

Archeological, Historical, and Cultural Features: None identified with HAL

Special Management Designations or Considerations:

Watershed and Fisheries Considerations: numerous small drainages and seeps

Wildlife Habitat Considerations: Featured species includes black bear, white-tailed deer, pileated woodpecker and ruffed grouse

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of medium-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River Group subcrops below the glacial drift. This formation is quarried for stone/dolomite in other areas of the State. The nearest gravel pit is located in Section 20 and potential appears to be good. Abandoned iron mines are located nine miles to the northwest. This compartment has not been leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access: East on Co Rd 444 from McFarland and North on Co Rd RA (Badder Road) and also off of M-35

Survey Needs: Possibly some work in Section 30

Recreational Facilities and Opportunities: No developed facilities, but opportunities exist for hunting, trapping and berry picking.

Fire Protection: Very low risk area.

Additional Compartment Information: Old McFarland landfill within stand 29.

- **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: 014
 T44N R23W Sec. 18, 19, 29, 30-32
 County: Marquette
 Unit: Gwinn
 YOE: 2014
 Acres: 723 GIS Calculated
 Examiner: Theresa Sysol
 Map Revised: 08/29/2012
 Map Phase: Pre-Review

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

Legend

- Remonumented Section Corners
- PLSS Corner
- Iron Post
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Gate
- Structures
- Railroads
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

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

Forest Stands

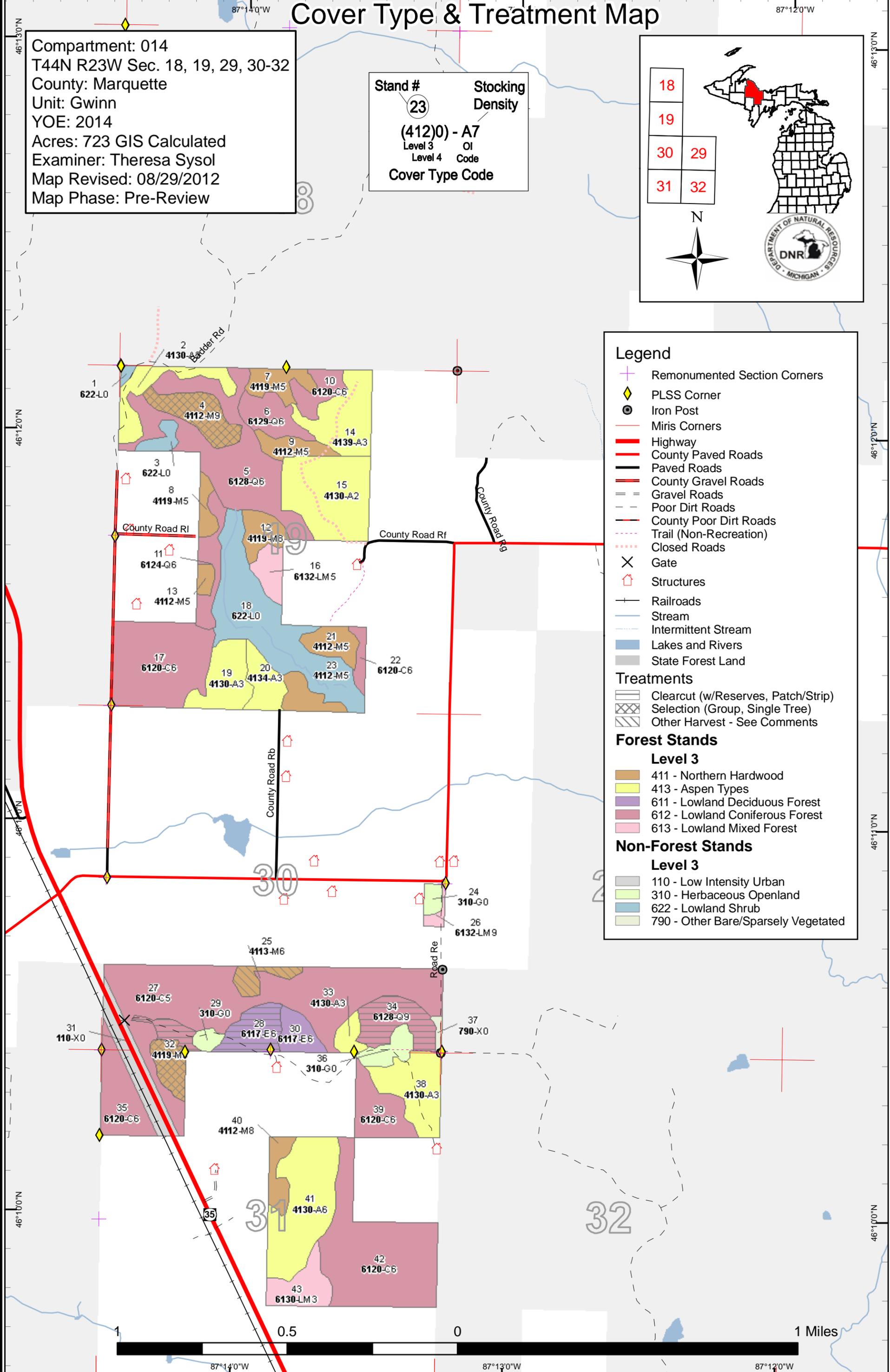
Level 3

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

Non-Forest Stands

Level 3

- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- 790 - Other Bare/Sparsely Vegetated



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 Map Revised: 04/05/2012
 Map Phase: Pre-Review

Stand Boundary Map

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

8

Legend

- Remonumented Section Corners
- PLSS Corner
- Iron Post
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Gate
- Structures
- Railroads
- Stream
- Intermittent Stream
- Stand Boundaries

Forest Stands

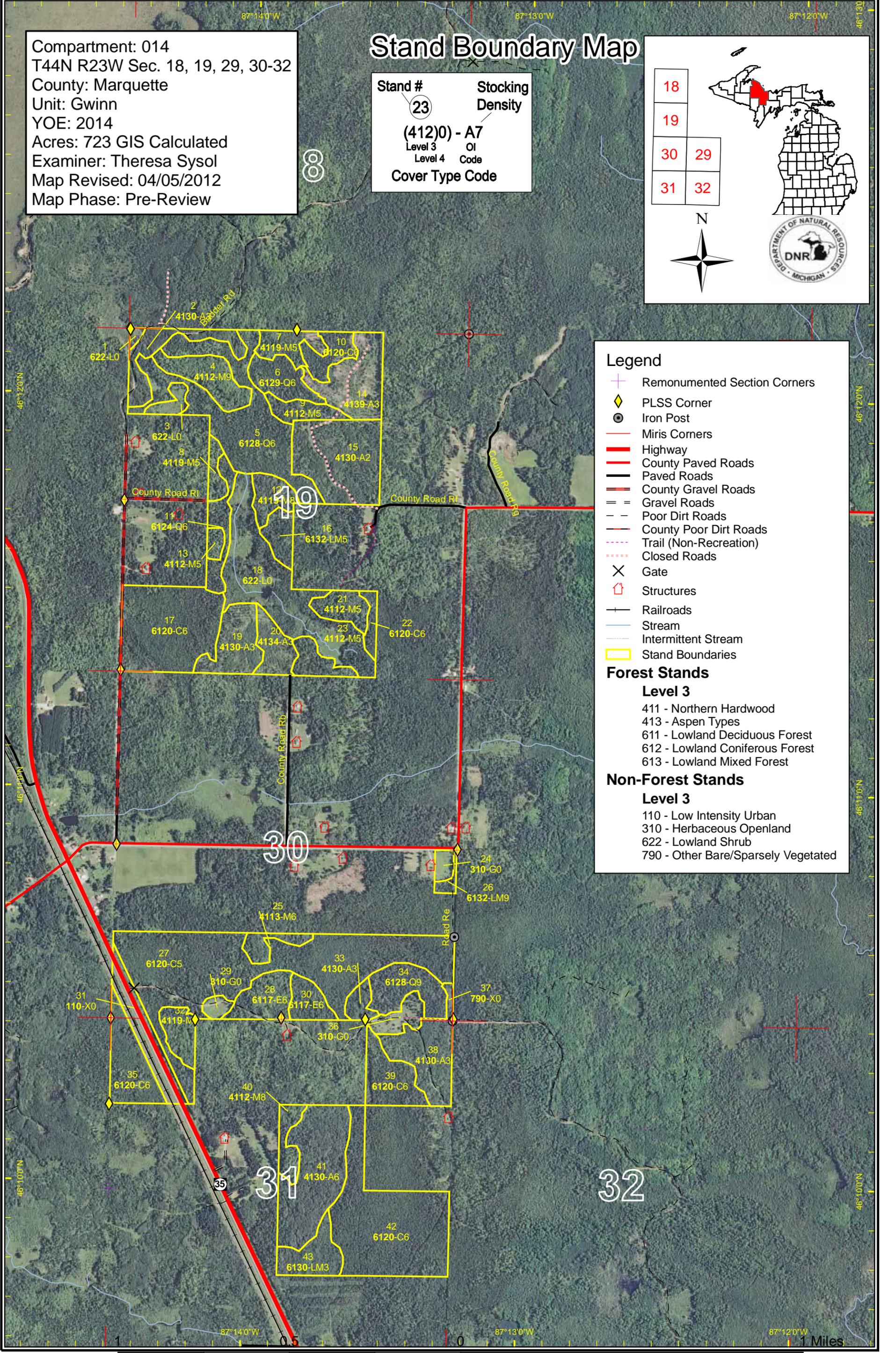
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Non-Forest Stands

Level 3

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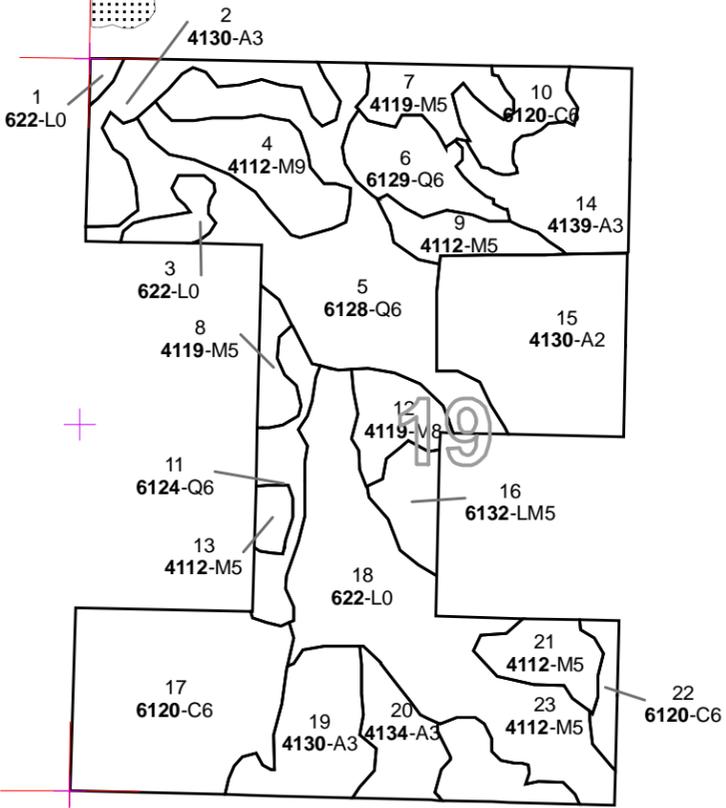
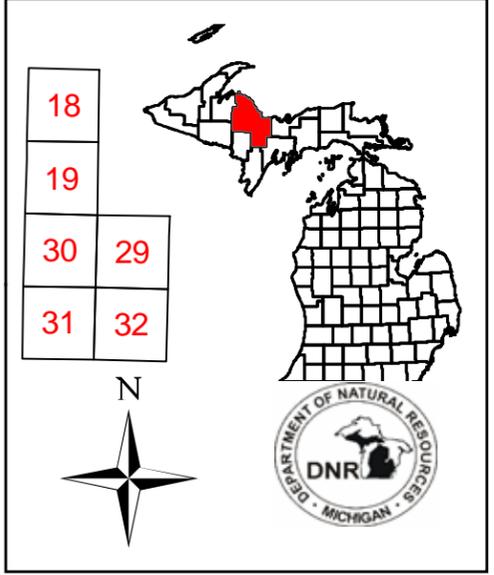
1 0.5 0 1 Miles

Dedicated & Proposed Special Conservation Area Map

87°12'0"W

Compartment: 014
 T44N R23W Sec. 18, 19, 29, 30-32
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 Examiner: Theresa Sysol
 Map Revised: 08/29/2012
 Map Phase: Pre-Review

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



Legend

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
- Cold Water Streams

Forest Stands

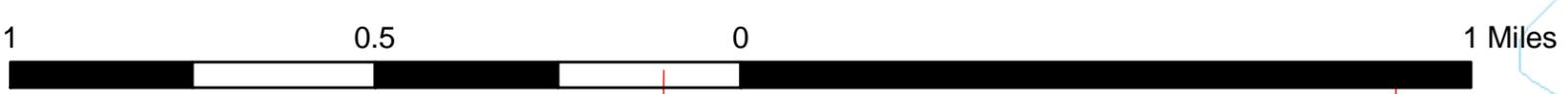
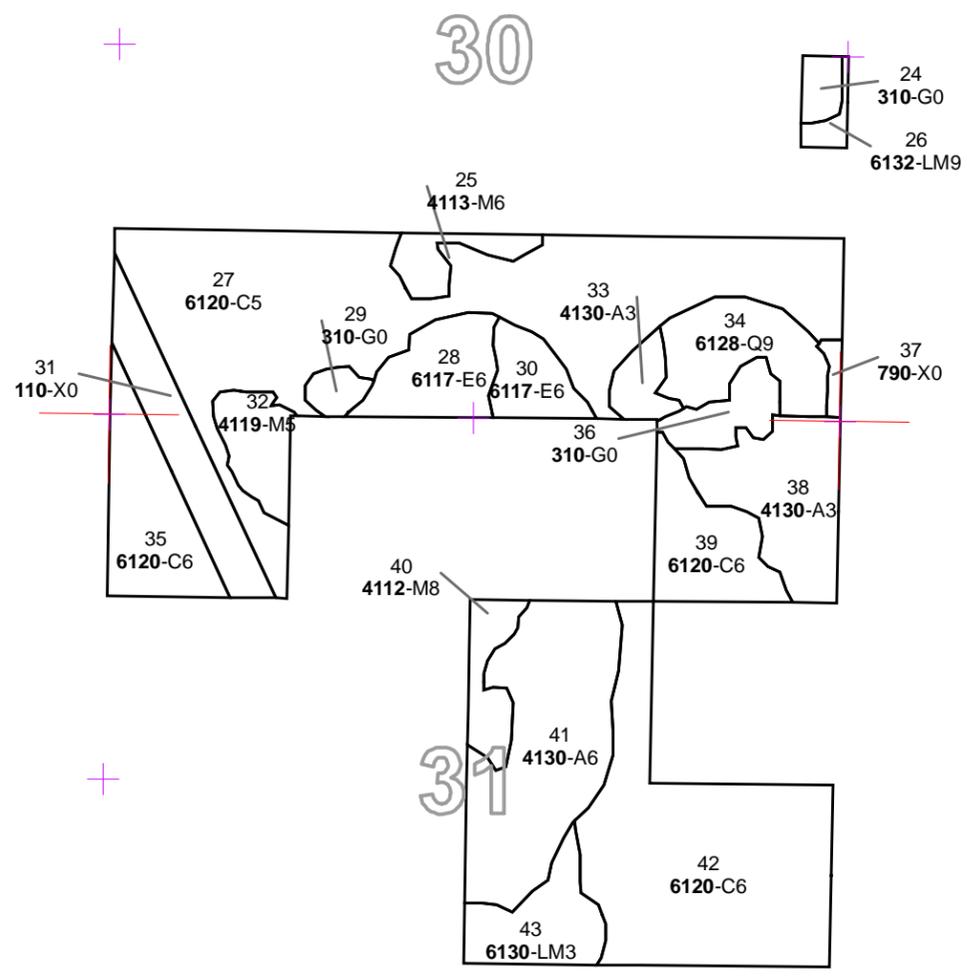
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Non-Forest Stands

Level 3

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- 622 - Lowland Shrub
- 790 - Other Bare/Sparsely Vegetated



87°14'0"W 87°13'0"W 87°12'0"W

46°13'0"N
46°12'0"N
46°11'0"N
46°10'0"N

87°12'0"W
87°13'0"W
87°14'0"W

Table 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	50	58	14	44	0	0	0	0	0	0	0	0	0	0	165
Bare/Sparsely Vegetated	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	131	119	0	0	0	250
Herbaceous Openland	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Lowland Conifers	0	0	0	0	0	0	0	0	0	38	0	0	0	53	91
Lowland Deciduous	0	0	0	8	0	0	0	0	0	0	0	0	0	13	21
Lowland Mixed Forest	0	0	0	13	0	0	0	7	0	2	0	0	0	0	22
Lowland Shrub	57	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Northern Hardwood	0	0	0	0	0	0	0	31	23	0	0	0	0	31	85
Urban	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Total	138	58	14	65	0	0	0	38	23	171	119	0	0	97	723



Table 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2014

Compartment 014
Total Compartment Acres: 722.9

Acres by Treatment Type

Commercial Harvest - 64	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Cedar	5	0	0	0	0	0	5
Lowland Conifers	17	0	0	0	0	0	17
Lowland Deciduous	13	0	0	0	0	0	13
Northern Hardwood	0	24	0	0	0	6	29
Total	35	24	0	0	0	6	64



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	32014004-Cut	15.0	4112 - Maple, Beech, Cherry Association	High Density Log	85	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription</u> Mark hardwoods to 80-90 BA, using all applicable guidelines, and maintain species diversity. Create regeneration gaps, where appropriate, and release any current regeneration. Retain some of the oversized, wildlife-quality maple, basswood and birch as legacy trees. Retain snag trees. Retain any hemlock, white pine and white spruce.</p> <p><u>Specs:</u></p> <p><u>Other</u> per WLD at pre-review: promote blk cherry for mast, where possible, for bear</p> <p><u>Comments:</u></p> <p><u>Next</u> Monitor regeneration for an acceptable mix of northern hardwoods.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
27	32014027-Cut	5.1	6120 - Lowland Cedar	Medium Density Pole	95	111-140	Harvest	Clearcut	6120 - Lowland Cedar	Cmpt. Review Proposal
<p><u>Prescription</u> Harvest all merchantable aspen, balsam fir, tamarack, and white spruce.</p> <p><u>Specs:</u></p> <p><u>Other</u> --Theresa Sysol : 08/20/2012 comments: per WLD at pre-review - leave windfirm white spruce</p> <p><u>Comments:</u> Concentrate on overmature, hazard trees within immediate road vicinity.</p> <p><u>Next</u> Monitor for successful regeneration, per work instructions.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
28	32014028-Cut	13.0	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	85		Harvest	Clearcut	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<p><u>Prescription</u> Dead BF, overmature aspen, snapped WS,C within - treat stand to improve quality/health and encourage new mixed regeneration. Include road edge trees in harvest (stand 27), where feasible. Trace amounts of elm - leave. Leave all WP, C, H, sugar maple; cut A and larger PB, F, S and leave tree mark RM.</p> <p><u>Specs:</u></p> <p><u>Other</u> Most likely winter cut only, although proximity to hwy could create some issues, due to deer (bedding sign evidence noted). No retention due to stand size.</p> <p><u>Comments:</u></p> <p><u>Next</u> Monitor for successful regeneration of mixed species.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
32	32014032-Cut	8.7	4119 - Mixed Northern Hardwoods	Medium Density Pole	85	81-110	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
<p><u>Prescription</u> Mark hardwoods to 60-90 BA, using all applicable guidelines, maintaining a diversity of species. Retain some larger diameter, wildlife-quality maple and birch, as well as all cedar, white pine and hemlock. Create regeneration gaps, where appropriate.</p> <p><u>Specs:</u></p> <p><u>Other</u> --Theresa Sysol : 08/20/2012 comments: per WLD at pre-review - leave windfirm white spruce</p> <p><u>Comments:</u> Very little maple sapling/seedling regeneration noted. Larger RM is mainly wildlife quality; stand transitions into heavier conifer mix. Proximity to hwy could create deer issues as stand may be winter harvest. Treat small portion of stand 27 for road access to stand.</p> <p><u>Next</u> Monitor for acceptable regeneration of hardwoods, per work instructions.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
34 32014034-Cut	16.5	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	90		Harvest	Clearcut	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal

Prescription Harvest all species, except white pine and cedar. Leave small cedar retention/exclusion patches where volumes are higher. Leave snags, unless a hazard to the operator. Winter cut only.

Other Comments: --Theresa Sysol : 08/20/2012 comments: per WLD at pre-review - retain some blk cherry, paper birch, large aspen and windfirm white spruce

Access from the east would require road improvements (culvert, small temporary bridge), or private permission to the west. Porcupine girdling on tamarack noted, blowdown spruce/fir; numerous dead/dying aspen, tamarack (eastern larch beetle damage).

Next Steps: Monitor regeneration, per work instructions. Acceptable species mix includes: aspen, birch, spruce, fir, tamarack and cedar.

Proposed Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 58.3**

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25 32014025-Cut	5.7	4113 - R.Maple, Conifer	High Density Pole	78	111-140	Harvest	Other - Specify in Comments	4113 - R.Maple, Conifer	Cmpt. Review Proposal

Prescription Specs: Either mark as a leave tree cut, or mark hardwoods to 80-90 BA, using all applicable guidelines, and maintain species diversity. A toss up as to which system would provide the desired results in the most efficient manner - re-evaluate at time of sale prep.

Create regeneration gaps, where appropriate, and release any current regeneration. Retain some of the oversized, wildlife-quality maple and birch as legacy trees. Retain snag trees. Retain any hemlock, white pine and cedar.

Other Comment: --Theresa Sysol : 08/20/2012 comments: per WLD at pre-review - retain some paper birch and windfirm white spruce, if available

Stand will be difficult to treat without access through private lands. Remove some of the larger white spruce, which may be prone to windthrow once stand is treated.

Next Steps: Monitor for successful regeneration of mixed northern hardwoods.

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)

Total Treatment Acreage Proposed: 5.7

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<u>Prescription Specs:</u>									
<u>Other Comments:</u>									
<u>Next Steps:</u>									
<u>Proposed Start Date:</u> #Error									

Total Treatment Acreage Proposed: 0

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Gwinn Mgt. Unit

5 – Forested Stands

Compartment: 014

Year of Entry: 2014



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4130 - Aspen	High Density Sapling	13.8	25		T. sale #030-85 - cut 1986-87 (with comp't 5)
4	4112 - Maple, Beech, Cherry Association	High Density Log	15.0	Uneven Age	111-140	T. sale #007-94 "RA Hardwood" (unit 2) - cut May, June, 1994.
5	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	53.0	Uneven Age		Thick and thin concentrations of C/H; some blowdown (mainly cedar). Trace amounts of WP (supercanopy), PB, BC and aspen.
6	6129 - Mixed Coniferous Lowland Forest	High Density Pole	12.0	99		Ground cover of leatherleaf, grasses noted. Very little understory variability - most is >10' hts.
7	4119 - Mixed Northern Hardwoods	Medium Density Pole	9.0	Uneven Age	51-80	T. sale #005-04 "Old Griz #2" (Units 3,5) - cut Feb, 2008. Sale area was also chipped.
8	4119 - Mixed Northern Hardwoods	Medium Density Pole	4.6	81	51-80	T. sale #006-94 "Old Griz Block" (unit 1) - cut Sept., 1997.
9	4112 - Maple, Beech, Cherry Association	Medium Density Pole	7.4	Uneven Age	51-80	"Old Griz #2" sale #005-04 (unit 2) - select cut Jan/Feb, 2008.
10	6120 - Lowland Cedar	High Density Pole	8.7	90		Ground cover of labrador tea, tagalder
11	6124 - Lowland Spruce-Fir	High Density Pole	9.9	90		Trace amount of cherry, ash
12	4119 - Mixed Northern Hardwoods	Medium Density Log	8.6	78	81-110	"Old Griz #2" sale #005-04 (unit 1) - select cut Jan., Feb, 2008
13	4112 - Maple, Beech, Cherry Association	Medium Density Pole	2.7	81	51-80	Isolated patch of hardwood. (part of) "Old Griz Block" sale #006-94 (unit 2) - cut Sept, 1997.
14	4139 - Aspen, Mixed Deciduous	High Density Sapling	22.6	4		"Old Griz #2" sale #005-04 (unit 4) - cut in 2008. Mainly RM sprouts/clumps - fairly well-stocked.
15	4130 - Aspen	Medium Density	36.7	13		"Corner Aspen Block" sale # 005-94 - cut July, 1997-Feb, 1998. Small patch of hardwoods w/in SE corner of stand; select cut under same permit. Stand also contains interior patches/pockets of S/C/H and trace amounts of WP(supercanopy).
16	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	7.3	78		Lowland conifers with tagalder, ash. Dead BF
17	6120 - Lowland Cedar	High Density Pole	43.5	100		Mainly cedar poles and ash saplings within interior. Areas of slightly higher ground/narrow ridges, esp. along road edge, contain larger conifers. Pocket of tagalder, cattails, dead cedar along private.
19	4130 - Aspen	High Density Sapling	16.8	6		"Mid 19 Mix" sale #006-04 (unit 1) - cut August, Sept., 2005. Retention of C,H,WP,YB. Some swales/low areas within (ash, cattails).



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4134 - Aspen, Spruce/Fir	High Density Sapling	10.1	6		"Mid 19 Mix" sale #006-04 (Unit 2) - cut August, 2005. Retention of C,H,WP and BF marked with green.
21	4112 - Maple, Beech, Cherry Association	Medium Density Pole	8.6	78	51-80	"Mid 19 Mix" sale #006-04 (unit 4) - select cut August, 2005.
22	6120 - Lowland Cedar	High Density Pole	3.8	91		
23	4112 - Maple, Beech, Cherry Association	Medium Density Pole	7.7	78	51-80	"Mid 19 Mix" sale #006-04 (unit 3) - cut August, 2005
25	4113 - R.Maple, Conifer	High Density Pole	5.7	78	111-140	hardwood rise within cedar swamp
26	6132 - Mixed Lowland Forest with Cedar	High Density Log	2.0	90		Dispose of property?
27	6120 - Lowland Cedar	Medium Density Pole	99.3	95	111-140	Tagalder, grasses/sedge noted.
28	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	13.0	Uneven Age		Large, overmature aspen with red maple, F/S, some WP; scattered cedar pockets/inclusions (180 BA) and mixed lowlands.
30	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	8.0	39		Cut under permit #008-72A (1972-74) - contains some lower, wet areas.
32	4119 - Mixed Northern Hardwoods	Medium Density Pole	8.7	85	81-110	low quality red maple
33	4130 - Aspen	High Density Sapling	4.7	36		Cut under permit #008-72A (1975-76).
34	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	16.5	90		blowdown spruce/fir; numerous dead/dying aspen, tamarack (eastern larch beetle damage)
35	6120 - Lowland Cedar	High Density Pole	18.8	95		Contains isolated patches of higher timber.
38	4130 - Aspen	High Density Sapling	21.5	14		T. sale #003-94 "Old Dump Road Block" (unit 2) - clearcut Su, 1997. Trace amounts of WP, PB noted.
39	6120 - Lowland Cedar	High Density Pole	15.5	106	141-170	
40	4112 - Maple, Beech, Cherry Association	Medium Density Log	7.2	80	51-80	"Old Dump Block" #003-94 (Unit 1) - select cut July, 1995
41	4130 - Aspen	High Density Pole	39.1	39		Cut under permit #15-70A (1971-73)

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Gwinn Mgt. Unit

5 – Forested Stands

Compartment: 014
Year of Entry: 2014



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42	6120 - Lowland Cedar	High Density Pole	60.4	100	141-170	
43	6130 - Fir, Aspen, Maple	High Density Sapling	12.8	39		Cut under permit #15-70A (1972-73).



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	6220 - Alder/willow	1.2	No	Unspecified	dead snags/stumps; beaver influence area
3	6220 - Alder/willow	4.1	No	Unspecified	
18	6220 - Alder/willow	52.0	No	Unspecified	Open grass/sedge marsh areas with tagalder perimeter and tagalder with balsam fir/spruce connector patches. Un-named creek/drainage within.
24	3104 - Degraded	3.0	No	Unspecified	Possibly dispose of property with stand 26.
29	3104 - Degraded	2.9	No	Unspecified	
31	11 - Low Intensity Urban	16.1	No	Low (NonForested)	Railroad, State Hwy M-35, electric and R.O.W.'s - some lowland shrubs, saplings within
36	3104 - Degraded	7.3	No	Unspecified	Possibly treat stand when adjacent timber is harvested.
37	790 - Other Bare/Sparsely Vegetate	1.4	No	Unspecified	Ditched out lowland area with some saplings around perimeter.



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 – 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.