



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32233

Entry Year 2016

Acreage: 1154.33730000

County Marquette

Management Area: Chain Lakes Moraine

Revision Date: 2014-09-18

Stand Examiner: Jason Caron

Legal Description:

T45N, R29W, Sec. 01, 02, 04.

Identified Planning Goals:

Harvest older stands of aspen, birch and poorer quality oak to encourage regeneration of these deciduous species. Look for opportunities to convert poor quality aspen sites to pine types due to areas of droughty soils within the compartment.

Soil and topography:

Surface sediments consist of coarse textured glacial till with peat and muck. There is very little wetland area within this compartment. Some smaller level bogs and fairly level grass openings, most of the ownership consists of rolling hills to only slightly hilly upland terrain.

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

This compartment is bordered by mostly State land on all sides except the West, but has parcels of both corporate and non-industrial small ownerships within and to the west of this compartment. Development is minimal with cottages or dwellings surrounding Helen Lake in section 3. A few seasonal hunting camps occupy the other scattered more remote private parcels. Production of forest products along with low key recreational activities such as hunting, trapping, hiking, berry picking and snowmobiling make up the land uses within this ownership.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Promote and keep intact the buffers around the kettle ponds and lake within this compartment for wildlife and aesthetic purposes.

Watershed and Fisheries Considerations:

No fisheries concerns within this compartment. Apply best management practices when cutting near any water body or stream.

Wildlife Habitat Considerations:

Compartment 233 is found within the Chain Lakes Moraine Management Area; on a Disintegration Moraine in Southwestern Marquette County. The dominant Natural Communities are dry mesic northern forests, poor conifer swamps, and mesic northern forests. This management area offers opportunities to increase diversity and perhaps long-term oak sustainability through under planting white and red pine. Another priority is to maintain or increase wildlife corridors especially along riparian corridors. 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). This management area represents approximately ¼ of the oak resource on WUP state forest.

The following have been identified as featured species for Chain Lakes Management Area: black bear, gray jay, pileated woodpecker, Northern goshawk, red crossbill.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and peat and muck. There is insufficient data to determine the glacial drift thickness. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. This rock could be used as a building or dimension stone. A gravel pit is located in Section 10 and potential appears to be good on the uplands. The abandoned Republic iron mine is located three miles to the north. None of the State land in the compartment is leased for metallic exploration, but previous leases in Sections 32 & 36 were located in the townships to the north. There is no

economic oil and gas production in the UP.

Vehicle Access:

County roads FFG & FNN provide primary access with numerous small two track roads scattered within the compartment to provide access to the public.

Survey Needs:

No survey needs are required for this year of entry.

Recreational Facilities and Opportunities:

No developed recreational facilities exist within this compartment. A groomed snowmobile trail does exist within Sections 1 & 2. Other recreational activities that occur within this compartment include hunting, hiking, biking, berry picking, bird watching, trapping, etc.

Fire Protection:

This compartment is included within the "581 Zone Dispatch" area which provides for a pre-planned dispatch of specified fire equipment from within the Gwinn and Crystal Falls Management Units. This dispatch is dependent on the severity of forecast burning conditions for the specified day. Areas of jack pine and red pine cover types with the encroachment of recreational seasonal dwellings have warranted this pre-planning. Mutual aide agreements with local township volunteer fire departments also provide critical fire suppression response, especially in the area of structure fire and/or protection, and evacuations.

Additional Compartment Information:

The following reports from the Inventory are attached:

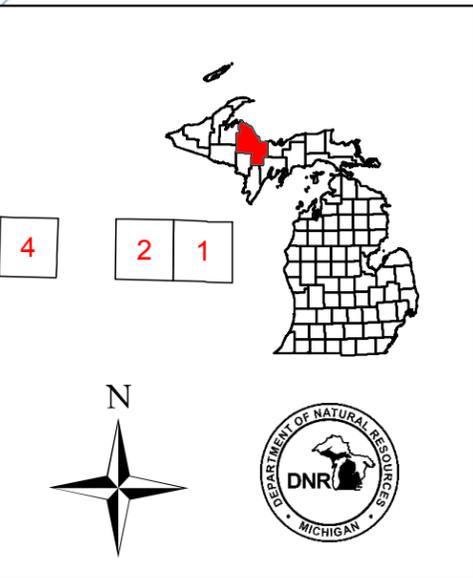
- Total Acres by Cover Type and Age Class
- Cover Type by Harvest Method
- Proposed Treatments – No Limiting Factors
- Proposed Treatments – With Limiting Factors
- Stand Details (Forested and Nonforested)
- Dedicated and Proposed Special Conservation Areas
- Site Condition Details

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

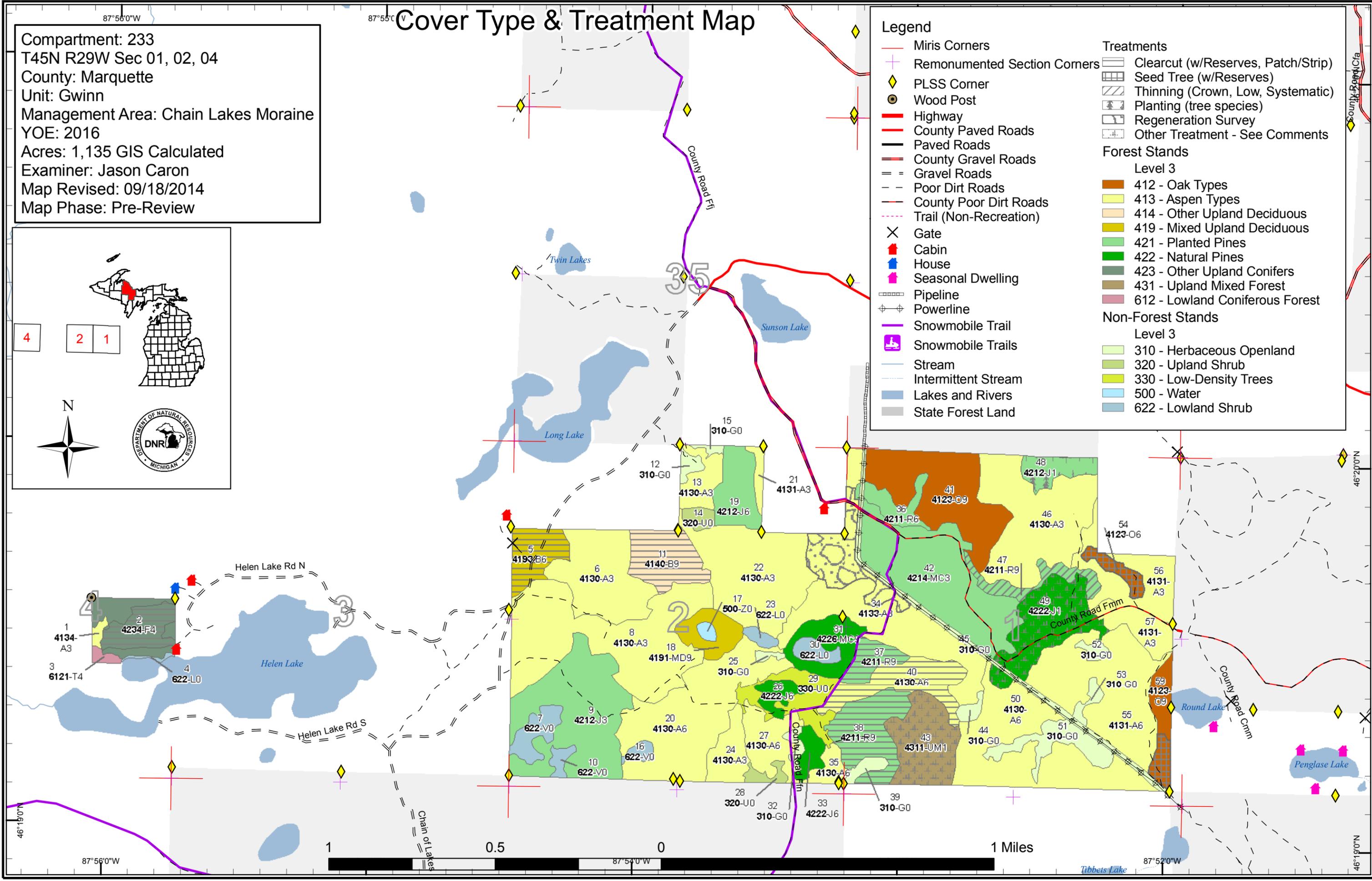
Cover Type & Treatment Map

Compartment: 233
 T45N R29W Sec 01, 02, 04
 County: Marquette
 Unit: Gwinn
 Management Area: Chain Lakes Moraine
 YOE: 2016
 Acres: 1,135 GIS Calculated
 Examiner: Jason Caron
 Map Revised: 09/18/2014
 Map Phase: Pre-Review



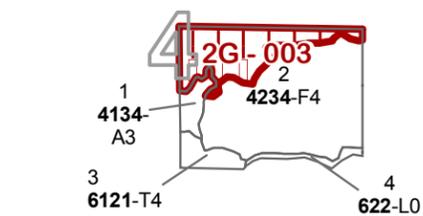
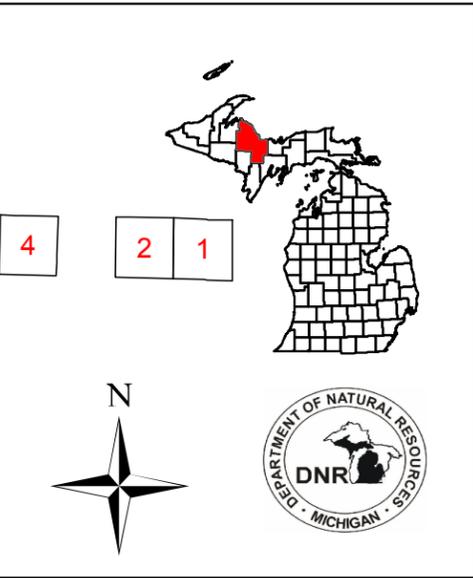
Legend

- | | |
|--|--|
| <ul style="list-style-type: none"> — Miris Corners ⊕ Remonumented Section Corners ◆ PLSS Corner ● Wood Post — Highway — County Paved Roads — Paved Roads — County Gravel Roads — Gravel Roads — Poor Dirt Roads — County Poor Dirt Roads - - - Trail (Non-Recreation) ⊗ Gate 🏠 Cabin 🏠 House 🏠 Seasonal Dwelling — Pipeline — Powerline — Snowmobile Trail 🛷 Snowmobile Trails — Stream — Intermittent Stream 🌊 Lakes and Rivers 🌲 State Forest Land | <h3>Treatments</h3> <ul style="list-style-type: none"> ▭ Clearcut (w/Reserves, Patch/Strip) ▭ Seed Tree (w/Reserves) ▭ Thinning (Crown, Low, Systematic) ▭ Planting (tree species) ▭ Regeneration Survey ▭ Other Treatment - See Comments <h3>Forest Stands</h3> <p>Level 3</p> <ul style="list-style-type: none"> 412 - Oak Types 413 - Aspen Types 414 - Other Upland Deciduous 419 - Mixed Upland Deciduous 421 - Planted Pines 422 - Natural Pines 423 - Other Upland Conifers 431 - Upland Mixed Forest 612 - Lowland Coniferous Forest <h3>Non-Forest Stands</h3> <p>Level 3</p> <ul style="list-style-type: none"> 310 - Herbaceous Openland 320 - Upland Shrub 330 - Low-Density Trees 500 - Water 622 - Lowland Shrub |
|--|--|



Special Conservation Areas & Site Conditions Map

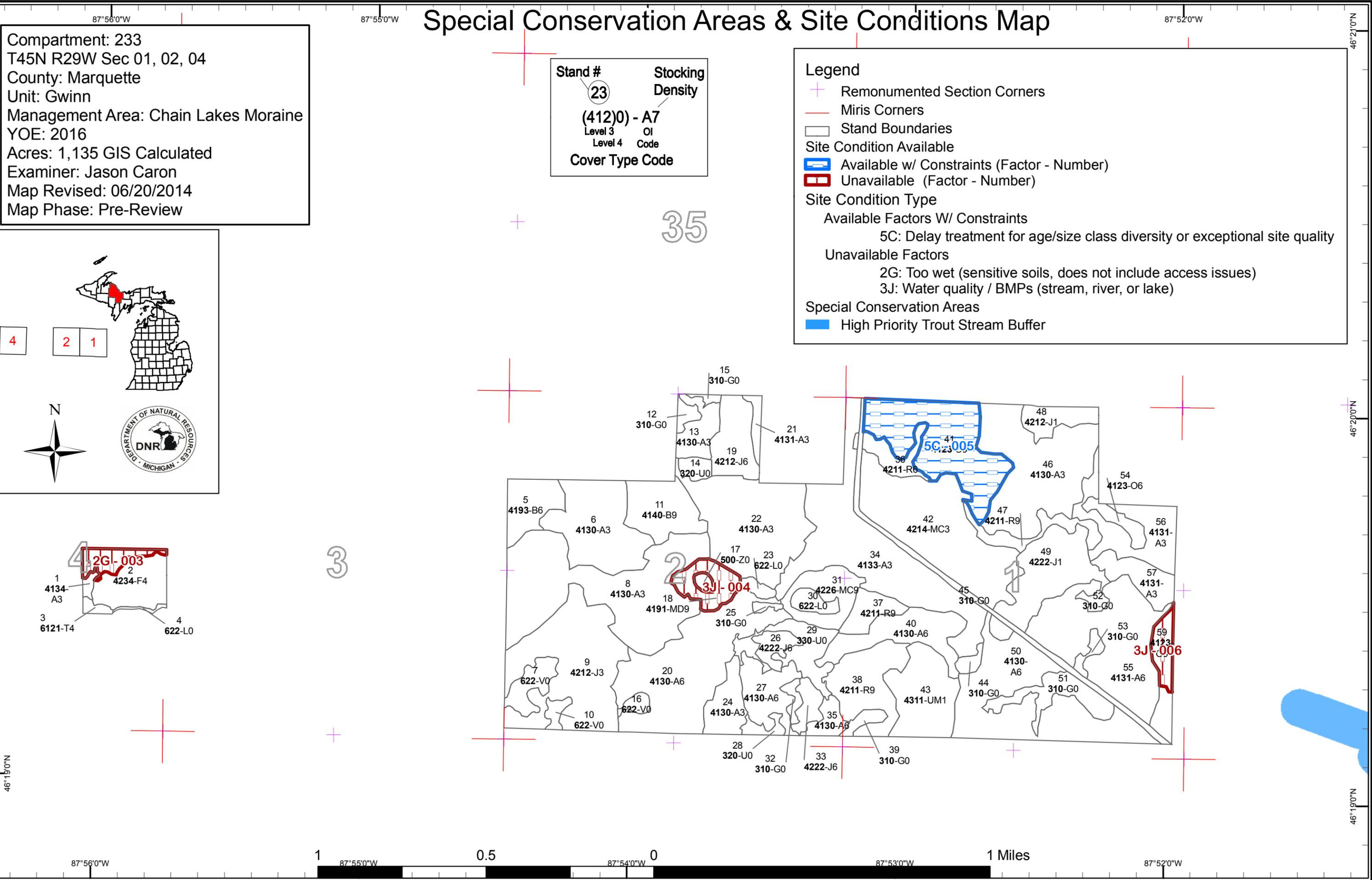
Compartment: 233
 T45N R29W Sec 01, 02, 04
 County: Marquette
 Unit: Gwinn
 Management Area: Chain Lakes Moraine
 YOE: 2016
 Acres: 1,135 GIS Calculated
 Examiner: Jason Caron
 Map Revised: 06/20/2014
 Map Phase: Pre-Review



Stand #	Stocking Density
23	(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
 - 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
 - 2G: Too wet (sensitive soils, does not include access issues)
 - 3J: Water quality / BMPs (stream, river, or lake)
- Special Conservation Areas
 - High Priority Trout Stream Buffer



1 0.5 0 1 Miles

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	176	64	194	144	24	0	0	0	0	0	0	0	0	0	601
Bog	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Herbaceous Openland	47	0	0	0	0	0	0	0	0	0	0	0	0	0	47
Jack Pine	10	0	112	12	0	0	0	0	0	0	0	0	0	0	134
Low-Density Trees	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Lowland Shrub	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16
Oak	0	0	0	0	0	0	0	0	67	0	0	0	0	0	67
Paper Birch	0	0	0	0	0	0	15	21	0	0	0	0	0	0	36
Planted Mixed Pines	0	64	0	0	0	0	0	0	0	0	0	0	0	0	64
Red Pine	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55
Tamarack	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Upland Mixed Forest	0	0	29	0	0	0	0	0	0	0	0	0	0	0	29
Upland Shrub	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Upland Spruce/Fir	0	0	0	0	0	0	0	25	0	0	0	0	0	0	25
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	281	127	335	156	24	55	15	47	67	2	27	0	0	0	1135



Report 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2016

Compartment 233
Total Compartment Acres: 1,135

Acres by Treatment Type

Commercial Harvest - 125 Tree Planting - 70 Other - 63
 Habitat Cut - 5 Opening Maintenance - 0

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
(Habitat Cut)Oak Types	0	0	5	0	0	0	0	5
Aspen Types	24	0	0	0	0	0	0	24
Mixed Upland Deciduous	15	0	0	0	0	0	0	15
Oak Types	0	0	6	0	0	0	0	6
Other Upland Conifers	14	0	0	0	0	0	0	14
Other Upland Deciduous	21	0	0	0	0	0	0	21
Planted Pines	36	0	0	0	10	0	0	46
Total	110	0	10	0	10	0	0	130



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	32233002- Cut_exp-0	13.9	42340 - Upland Spruce/Fir	Low Density Pole	70		Harvest	Clearcut with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal

Prescription Clearcut with reserves. Do not cut white pine. Adjust the stand boundary to exclude a patch of merchantable timber for retention purposes.

Specs:

Other Will be set up as an Out of YOE sale due to extensive blowdown. Out of YOE approved on 3-22-14

Comments: Adjusted the treatment boundary to exclude a buffer along the South edge of the stand for BMP guidelines.

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration includes: aspen, maple, cherry, birch,
Steps: balsam fir, white and black spruce, red and white pine.

Proposed

Start Date: 02/27/2014

5	32233005-Cut	14.9	4193 - Birch, Aspen	High Density Pole	60		Harvest	Clearcut with Reserves	4137 - Aspen, Birch	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Retention will be a no cut on pine and oak. Also reserve a patch of mature aspen (if available) per wildlife's request. A

Specs: clump of red pine exists in the NE corner of the stand.

Other

Comments:

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration includes: aspen, maple, cherry, birch,
Steps: balsam fir, white spruce, red and white pine.

Proposed

Start Date: 10/01/2015

11	32233011-Cut	21.3	4140 - Other Upland Deciduous	High Density Log	73		Harvest	Clearcut with Reserves	4137 - Aspen, Birch	Cmpt. Review Proposal
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Prescription Clearcut with reserves. Adjust the stand boundary to exclude a patch of merchantable timber for retention purposes. Green tree (do not cut) 3-4

Specs: oak per acre but cut all others.

Other

Comments:

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration includes: aspen, maple, cherry, birch,
Steps: balsam fir, white and black spruce, red and white pine.

Proposed

Start Date: 10/01/2015

37	32233037-Cut	9.1	42110 - Planted Red Pine	High Density Log	53	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Clearcut stand but reserve aspen. Retention edge will be along NE edge which contains a ridge. Keep red line on the top of ridge for retention

Specs: purposes.

Other

Comments:

Next Trench and plant to red pine. Herbicide if aspen flush creates too much competition. Monitor the plantation for survival.

Steps:

Proposed

Start Date: 10/01/2015



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
38	32233038-Cut	27.0	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	51	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand with retention of live trees on the edges of the treatment. Standing trees within the stand after harvest create a hazard for aerial										
<u>Specs:</u> spraying of the stand for release and pest management so all retention must be along the edges.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Trench and plant to red pine. Herbicide if aspen flush creates too much competition. Monitor the plantation for survival.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
40	32233040-Cut	23.5	4130 - Aspen	High Density Pole	43		Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with reserves. Patch retention or keep retention along the edges of stand with red line. Restrict harvest to winter only to maximize										
<u>Specs:</u> regeneration.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration includes: aspen, maple, cherry, yellow and										
<u>Steps:</u> paper birch, ironwood, balsam fir, white spruce, white pine and red pine.										
--Bill Rollo : 09/03/2014 comments: discussed at pre-review. WLD may be interested in planting oaks after harvest to promote diversity. Plant only in the open areas.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
47	32233047-Cut	10.0	42110 - Planted Red Pine	High Density Log	51	141-170	Harvest	Crown Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin to around 120 Basal Area. Leave species diversity within the stand where present. Do not cut aspen within the stand.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
54	32233054-Cut	5.5	4123 - Red Oak	High Density Pole	82	141-170	Harvest	Seed Tree	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Seed tree cut to promote oak regeneration. Leave 30-40 square feet of residual oak within the stand.										
<u>Specs:</u>										
<u>Other</u> Discuss scarification options with the TMS to try and promote oak regeneration within this stand.										
<u>Comments:</u>										
<u>Next</u> Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration includes: maple, oak, cherry, birch, red and										
<u>Steps:</u> white pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
59	32233059_sm all-Cut	4.8	4123 - Red Oak	High Density Log	82	51-80	Harvest	Seed Tree	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Perform a seed tree cut to promote oak regeneration and to release the white pine saplings within the understory. Leave 30-40 square feet of										
<u>Specs:</u> residual oak within the stand.										
<u>Other</u> A good amount of white pine saplings exist within the understory.										
<u>Comments:</u>										
<u>Next</u> Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration includes: oak, aspen, maple, cherry, birch,										
<u>Steps:</u> balsam fir, white spruce, red and white pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
48	32233048- Plant	9.9	42120 - Planted Jack Pine	Low Density Sapling	2		Tree Planting	Hand Plant	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Re-plant stand to jack pine. Previous plantation has failed.										
<u>Specs:</u> FTP # 32-646										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
43	32233043- Other	28.9	4311 - Pine, Aspen Mix	Low Density Sapling	24		Other	Other - Specify	4311 - Pine, Aspen Mix	Cmpt. Review Proposal
<u>Prescription</u> Planting of hard/soft mast trees/shrubs to benefit wildlife species.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> Unspecified										
49	32233049- Other	33.7	42220 - Natural Jack Pine	Low Density Sapling	25		Other	Other - Specify	4222 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Planting of hard/soft mast trees/shrubs to benefit wildlife species.										
<u>Specs:</u>										
<u>Other</u> Drier in north part of this stand, may want to concentrate in southern part.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> Unspecified										

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	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
34	32233034-Survey_small	21.2	4133 - Aspen, Mixed Pine	High Density Sapling	5		Regeneration Survey	Artificial Regeneration (3yr)	4212 - Planted Jack Pine	Cmpt. Review Proposal

Prescription. Monitor stand to see if the jack pine regeneration is adequate. Access aspen competition to see if stand needs herbicide treatment.

Specs:

Other 2012 regen survey results showed 564 jack pine/ac.

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014

**Total Treatment
Acreage Proposed: 223.7**



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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! #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
Jason Caron : Examiner

Compartment 233
Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	Dominant Site Conditions			
	Available	Not Available		No	5C	3J	2G
601	601		Aspen	601			
134	134		Jack Pine	134			
11		11	Mixed Upland Deciduous			11	
16		16	Natural Mixed Pines			16	
67	60	7	Oak	11	49	7	
36	36		Paper Birch	36			
64	64		Planted Mixed Pines	64			
55	55		Red Pine	55			
2		2	Tamarack				2
29	29		Upland Mixed Forest	29			
25	18	7	Upland Spruce/Fir	18			7
1,041	997	43	Total Forested Acres	948	49	34	9
	96%	4%	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
003	Not Available	2G: Too wet (sensitive soils, does not include access issues)	7				
Comments:							
004	Not Available	3J: Water quality / BMPs (stream, river, or lake)	11				
Comments: Buffer around small pond.							

Report 5 – Site Conditions

Gwinn Mgt. Unit
Jason Caron : Examiner

Compartment 233
Year of Entry 2016

005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	49
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Comments:

Stand was thinned recently. Delay treatment for 10 years to determine what areas will regenerate well.

006	Not Available	3J: Water quality / BMPs (stream, river, or lake)	7
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Comments:

Buffer next to Round Lake.

007	Not Available	2G: Too wet (sensitive soils, does not include access issues)	2
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Comments:

Very wet and stagnant stand of tamarack and cedar.

008	Not Available	3J: Water quality / BMPs (stream, river, or lake)	16
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Comments:

Buffer around a small pond.



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
Comments				



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
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4134 - Aspen, Spruce/Fir	High Density Sapling	1.6	20		Thick stand of young quaking aspen mixed with balsam fir.
2	42340 - Upland Spruce/Fir	Low Density Pole	25.3	70		Stand has been hit hard by blowdown on different occasions the most recent being the summer of 2013. Large areas of balsam fir and white spruce have been blown down. Heavy budworm damage on the remaining balsam fir!
3	6121 - Tamarack	Low Density Pole	1.8	90		Stagnant stand of cedar and tamarack. Very wet ground, thick tag alder! No good age of stand due to hollow trees.
5	4193 - Birch, Aspen	High Density Pole	14.9	60		Previously LF in OI for a travel influence zone along the Casey Lake Road. Timber is decadent and is in need of a final harvest to promote regeneration.
6	4130 - Aspen	High Density Sapling	38.5	15		Cut in 1998. Thick big tooth aspen regeneration! East edge of stand contains a few red oak that have regenerated and are keeping up with the aspen regeneration!
8	4130 - Aspen	High Density Sapling	81.1	4		Fully stocked stand, nice regeneration throughout. Scattered mature red oak throughout stand as well as some patches of mature red pine.
9	42120 - Planted Jack Pine	High Density Sapling	61.4	23		Trenched and planted in 1990. Jack Pine is in good condition. Tree density is high!
11	4140 - Other Upland Deciduous	High Density Log	21.3	73		Stand was put on LF during last inventory cycle due to age class diversity. Stand is definitely ready to harvest. White birch and aspen are falling out of the stand due to age.
13	4130 - Aspen	High Density Sapling	10.4	25		Cut in 1988. Stand has pockets of decent quality aspen and pockets of poor quality. It appears that soil quality may be poor in some areas causing some small pockets of mortality, nothing major however.
18	4191 - Mixed Upland Deciduous with Conifer	High Density Log	11.4	100	111-140	Stand consists of a mix of deciduous and conifer. Nice retention area around pond. Large red pine scattered throughout the stand. OI notes say: Water influence zone around un-named pond. Manage for aesthetics
19	42120 - Planted Jack Pine	High Density Pole	17.4	23		OI says stand was trenched and planted in 1990. Nice quality jack pine stand. Tree density is high!
20	4130 - Aspen	High Density Pole	64.8	24		Cut in 1989. Aspen is decent quality. A few stems are falling out of the stand but nothing major at this time.
21	4131 - Aspen, Oak	High Density Sapling	3.4	25		Was cut in 1988. A mix of species has regenerated back. Regeneration is good quality. Red oak regeneration is especially nice!
22	4130 - Aspen	High Density Sapling	55.3	25		Cut in 1988. Well stocked, healthy aspen regeneration throughout!



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	4130 - Aspen	High Density Sapling	12.3	4		Cut in 2009. Aspen regeneration looks good. A few scattered red pine exist throughout the stand. A few red pine and oak have blowdown in the summer 2013 wind storm.
26	42220 - Natural Jack Pine	High Density Pole	6.1	30		OI has the stand origin as 1983. Dense stand of jack pine, stem quality is good.
27	4130 - Aspen	High Density Pole	16.6	34		Nice stand of aspen, some areas are decent quality some areas poorer quality.
31	42260 - Natural Pine, Mixed Deciduous	High Density Log	15.7	100	81-110	Stand surrounds a small pond. Nice red and white pine within the stand. Birch and aspen is in poorer condition. Former OI notes say: Water influence zone around Stephenson pond. Manage for aesthetics.
33	42220 - Natural Jack Pine	High Density Pole	5.9	30		OI states the stand is most likely the result of a Rx burn. Stand origin is 1983. Decent stand of dense jack pine. Stem quality is good.
34	4133 - Aspen, Mixed Pine	High Density Sapling	69.6	5		Cut in 2008. North half of stand was trenched and seeded in 2009. Not enough of a difference right now to split, check in 10 yrs! A fair amount of retention left in the stand of oak and pine. The aspen regeneration looks ok in some spots and poor in others.
35	4130 - Aspen	High Density Pole	5.8	30		OI states the stand is most likely the result of a Rx burn. Decent stand of aspen, a few stems have fallen out off stand most likely due to droughty soils.
36	42110 - Planted Red Pine	High Density Pole	8.8	53	51-80	Small red pine plantation. Jack pine and aspen cut out in 2008. Parts of the stand are low basal area while other parts decent basal area. Let the stand grow for 10 years and thin again.
37	42110 - Planted Red Pine	High Density Log	9.1	53	81-110	OI notes say this stand was machine planted in 1962. Stand is mixed with a few aspen. Red pine quality is ok. Density of stand is patchy. A few small openings exist within the middle of the stand.
38	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	27.0	51	111-140	Machine planted in 1962. Stand is very patchy with low basal area. OI notes say the south half of stand was cut in 1989 in which the jack pine and aspen were removed. North half of stand currently contains a mix of red pine and aspen.
40	4130 - Aspen	High Density Pole	23.5	43		OI states stand was treated with a KG tree cutter blade in 1970. Stand is smaller diameter but pockets of stand are falling apart due to droughty soils. Poor quality aspen within the stand. The red pine that exist within the stand or next to it are good quality with good growth. 25-30 percent of stand is non-stocked. 25-30 percent aspen mortality within the stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	4123 - Red Oak	High Density Log	49.3	82	51-80	Cut in the summer of 2008. All oak, red and white pine were left. Stand is regenerating back to a mix of red maple and aspen. Some oak regeneration here and there. Red oak is the dominant stand but regeneration underneath makes it interesting for future management.
42	42140 - Planted Mixed Pine	High Density Sapling	63.8	13		Planted in 2000. A mix of jack pine and red pine within the stand, very high tress per acre. Looks like red pine was planted and jack pine filled in. The plantation looks good. A couple of small patches of mature red pine exists in the south east corner of stand, but too small to delineate out.
43	4311 - Pine, Aspen Mix	Low Density Sapling	28.9	24		Stand was cut in 1989. OI notes say that a review was held on 9-9-04, it was agreed to at the time to leave this stand as is for wildlife purposes, and have a management objective of grass. Stand has regenerated back but in clumps. Openings still exists throughout the stand.
46	4130 - Aspen	High Density Sapling	58.1	27		Cut in 1986. Stand of decent quality big tooth aspen with a few scattered larger diameter red oak here and there.
47	42110 - Planted Red Pine	High Density Log	10.0	51	141-170	Stand of planted red pine. Good quality pine.
48	42120 - Planted Jack Pine	Low Density Sapling	9.9	2		Stand was cut in 2005. Many failed planting occurred. Planted again in 2011 with 3-0 jack pine. Clump of large diameter red pine in the East half of stand. Could still see the tops of the jack pine through the snow, it appears the stand is fully stocked.
49	42220 - Natural Jack Pine	Low Density Sapling	33.7	25		A grass opening that's filling in with poor quality jack pine with a few small clones of aspen as well.
50	4130 - Aspen	High Density Pole	61.0	30		An escaped Rx burn burned this stand in 1977. Parts of the stand were treated with a KG blade to promote regeneration. Poorer quality quaking aspen with a few big tooth aspen. Poorer quality red oak scattered throughout the stand.
54	4123 - Red Oak	High Density Pole	5.5	82	141-170	Small stand of oak of poor quality. Browse is evident on young oak in adjacent stand. Scattered red maple and a few white pine and red pine in the understory.
55	4131 - Aspen, Oak	High Density Pole	60.8	34		An escaped Rx burn burned this stand in 1977. Parts of the stand were treated with a KG blade to promote regeneration. Stand of well stocked aspen, good quality as well.
56	4131 - Aspen, Oak	High Density Sapling	25.1	16	1-50	Stand consists of patches of mature oak amongst patches of nice big tooth aspen regeneration. Aspen and maple were cut out of the stand in 1998.
57	4131 - Aspen, Oak	High Density Sapling	12.8	6	1-50	Stand cut in 2008. Red oak was left.
59	4123 - Red Oak	High Density Log	12.5	82	51-80	Stand of poor quality oak mixed with a few pine. Paper birch is falling apart. White pine regeneration in the understory is nice!



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	622 - Lowland Shrub	0.9	Unspecified	Unspecified	Bog Edge
7	6225 - Bog	9.0	Unspecified	Unspecified	
10	6225 - Bog	2.8	Unspecified	Unspecified	
12	310 - Herbaceous Openland	2.8	Unspecified	Unspecified	
14	3201 - Sweet Fern	3.8	No	Unspecified	
15	310 - Herbaceous Openland	1.1	No	Unspecified	
16	6225 - Bog	2.5	No	Unspecified	
17	50 - Water	1.6	No	Unspecified	
23	622 - Lowland Shrub	2.5	No	Unspecified	
25	310 - Herbaceous Openland	1.3	No	Unspecified	
28	3201 - Sweet Fern	3.0	No	Unspecified	
29	3301 - Low Density Deciduous Tree	16.7	No	Unspecified	Stand is slowly filling in with conifer and deciduous.
30	622 - Lowland Shrub	4.8	No	Unspecified	
32	310 - Herbaceous Openland	2.6	No	Unspecified	
39	310 - Herbaceous Openland	3.1	No	Unspecified	
44	310 - Herbaceous Openland	2.5	Unspecified	Unspecified	
45	310 - Herbaceous Openland	14.5	No	Unspecified	
51	310 - Herbaceous Openland	14.3	No	Unspecified	I'm assuming the stand was a former lake at one time. Stand is essentially a large bowl.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
52	310 - Herbaceous Openland	2.2	Unspecified	Unspecified	
53	310 - Herbaceous Openland	2.8	Unspecified	Unspecified	