



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32288

Entry Year 2018

Acreage: 1,264

County Marquette

Management Area: Sand River Lake Plain

Revision Date: 2016-10-20

Stand Examiner: John Hamel

Legal Description:

T47N-R23W, sections 22, 27

Identified Planning Goals:

Vegetative management in the Sand River Lake Plain management area will provide a variety of forest products; maintain or enhance wildlife habitat; protect areas with unique characteristics; and provide for forest based recreational uses. Timber management objectives for the 10-year planning period include improving the age-class distribution of aspen; maintaining the conifer component in northern hardwood stands; maintaining the presence of minor cover types on the landscape; and maintaining non-forest vegetation types. Management activities may be constrained by site conditions and the skewed age-class distributions. Balancing age classes and ensuring reliable regeneration of lowland species will be issues for this 10-year planning period.

Soil and topography:

Old lake bed plains form topography that is level to gently rolling. Soils are moderately to poorly drained sandy loams and loams that are shallow over sand stone bedrock.

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

This compartment is part of a large block of State land. Two small private ownerships border the southeast line of section 27. Land use is primarily for forest production, passive recreation.

Unique Natural Features:

There is a Mesic Northern Forest and a Hardwood Conifer Swamp Ecological Reference Area (ERA) in this compartment.

Archeological, Historical, and Cultural Features:

Old logging camps are common in this area.

Special Management Designations or Considerations:

There are two ERA's in this area for a Mesic Northern Forest and a Hardwood Conifer Swamp. These area's have old growth characteristics and should not be operated in.

Watershed and Fisheries Considerations:

Fisheries Values: minimal

Fisheries Concerns: A small unnamed tributary draining to the Sand River. No treatments are near the stream so there are not any fisheries concerns for this compartment at this time. As always, best management practices (BMP's) should be applied when working in proximity to surface water.

Wildlife Habitat Considerations:

Compartment 288 is found within the Sand River Lake Plain Management Area; on a Till-floored Lake Plain in northeastern Marquette County. The dominant Natural Communities are mesic northern forest and poor conifer swamps. Major forest cover types include Northern Hardwoods, Aspen, and Hemlock. Wildlife species considerations in the Sand River Lake Plain Man include managing to provide coniferous thermal cover for deer wintering complexes. The emphasis should be on hemlock in this management area as it represents approximately 20% of the WUP hemlock resource. Along with maintaining wildlife movement corridors along vernal and permanent riparian watercourses is also very important. Wildlife management issues in the management area are: habitat fragmentation; course woody debris; retain or develop large living and dead standing trees (for cavities); mesic conifer; mature forest; within-stand diversity; and deer wintering complexes.

The following have been identified as featured species for the Sand River Lake Plain Management Area: American marten, Blackburnian warbler, red-shouldered hawk, and white-tailed deer.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of thin to discontinuous glacial till over bedrock. Glacial drift is typically less than 50 feet thick in

the area. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was previously used as a building stone. Sand/gravel pits are located in sections 12 and 14 to the northeast and there may be additional potential within the compartment. There is no known metallic mineral potential in this area, and there has been no economic oil and gas production in the UP.

Vehicle Access:

Access is good to this compartment and internally in this compartment

Survey Needs:

None needed

Recreational Facilities and Opportunities:

There is no developed recreation in this compartment. The heaviest public use is for hunting and trapping.

Fire Protection:

Fire occurrence is low in this area due to the wet nature of the landscape

Additional Compartment Information:

The following reports from the Inventory are attached:

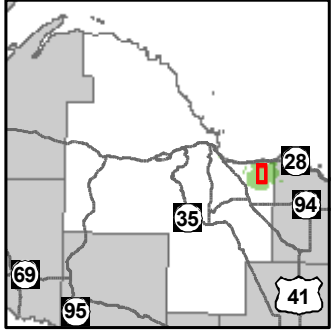
- Total Acres by Cover Type and Age Class
- Cover Type by Harvest Method
- Proposed Treatments – No Limiting Factors
- Proposed Treatments – With Limiting Factors
- Stand Details (Forested and Nonforested)
- Dedicated and Proposed Special Conservation Areas
- Site Condition Details

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

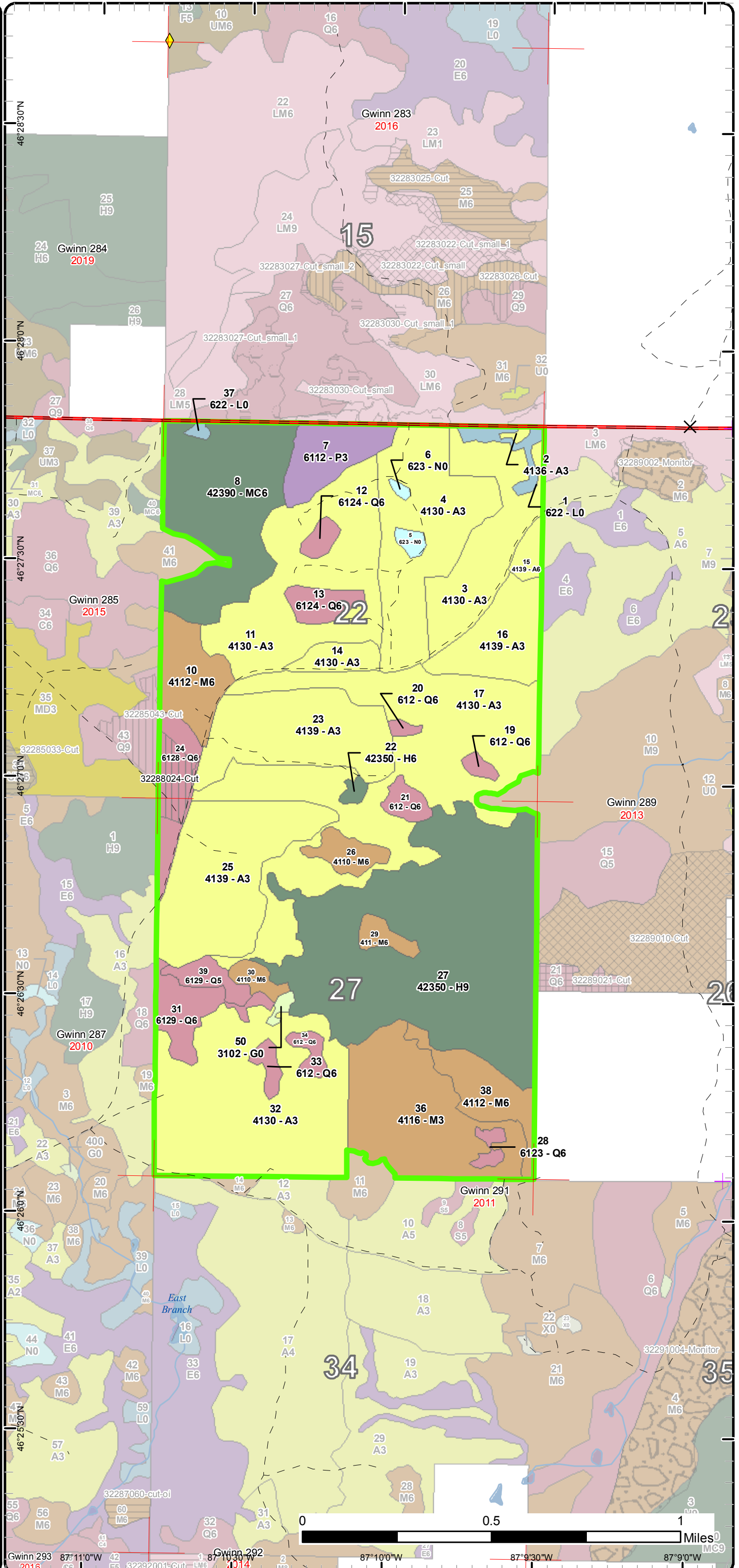
- Base feature information, stand boundaries, cover types, and numbers
- Proposed treatments
- Site condition boundaries
- Details on the road access system

Cover Type & Treatments Map

Compartment: 288
 T47N, R23W, Sec. 22, 27
 County: Marquette
 Unit: Gwinn
 Mgmt Area: Sand River Lake Plain
 YOE: 2018
 Acres: 1263.7 GIS Calculated
 Examiner: John Hamel
 Map Revised: 2/8/2017
 Map Phase: Post-Review

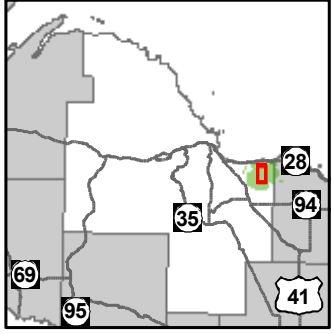


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- X Gate
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- Shelter Wood (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes

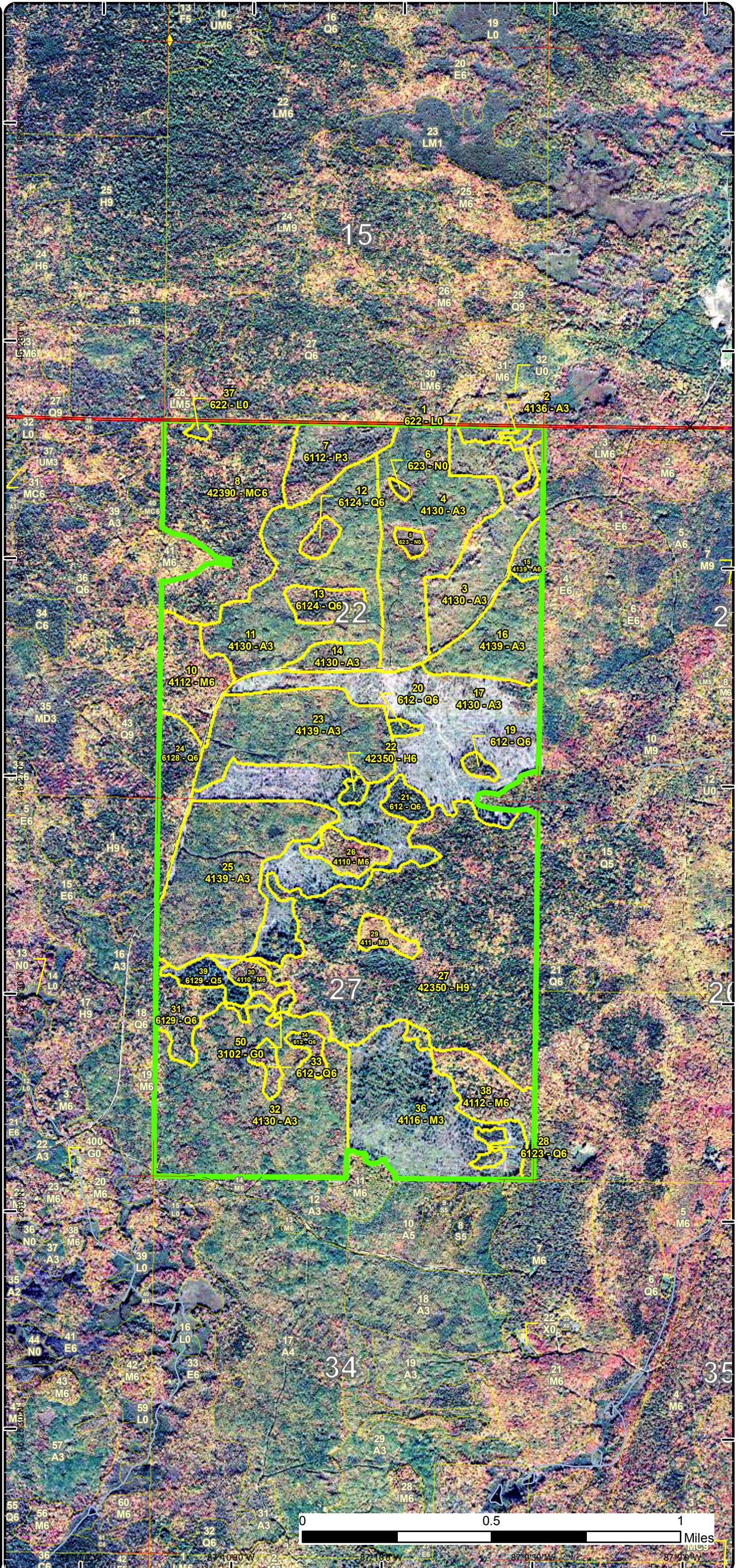


Stand Boundary Map

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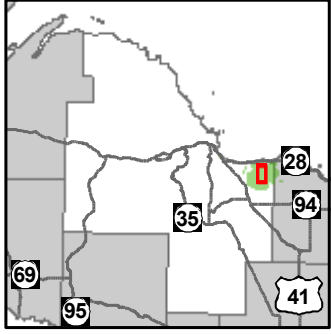


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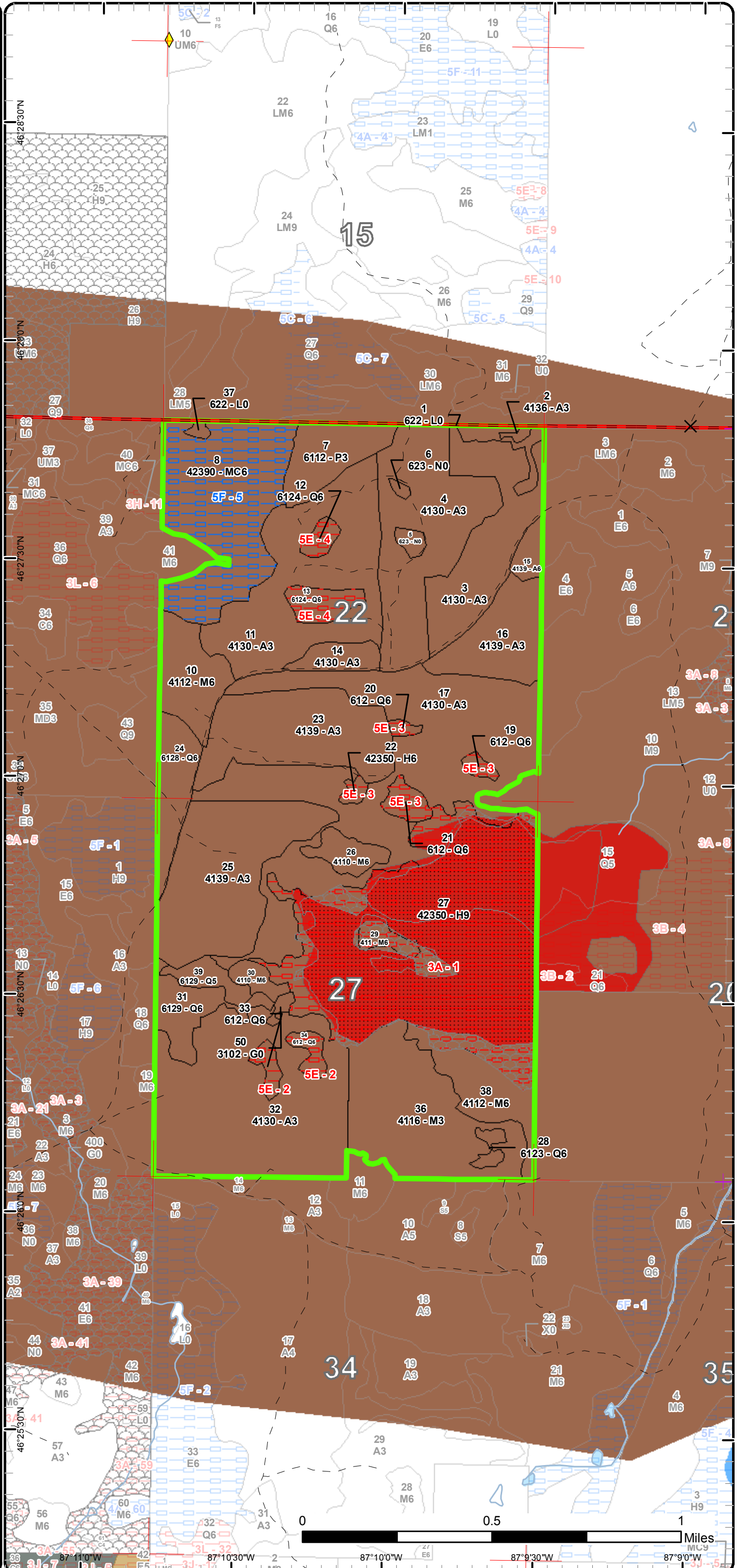


Special Conservation Areas & Site Conditions Map

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- X Gate
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- County Gravel Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 3A: Potential old growth / biodiversity
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Forest Habitat Core Interior
- Cold Water Streams
- Cold Water Lakes
- Deer Winter Range
- Riparian Area



Report 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit
John Hamel : Examiner

Compartment 288 Year of Entry 2018



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	215	10	381	78	7	0	0	0	0	0	0	0	0	0	0	0	0	690
Hemlock	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	209	211
Herbaceous Openland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24
Lowland Conifers	0	0	0	0	0	0	0	12	33	11	0	0	22	0	0	0	0	9	87
Lowland Shrub	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Northern Hardwood	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	150
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	86
Total	14	291	10	381	78	7	0	12	33	14	0	0	22	0	0	0	0	402	1262



Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 288

Total Compartment Acres: 1,264

Commercial Harvest - 11
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

		Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Lowland Conifers		0	0	0	0	11	0	0	0	0	11
	Total	0	0	0	0	11	0	0	0	0	11

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		11	0	0	0	0	0	0	0	0	11
Next Step		0	0	0	0	0	11	0	0	0	11
	Total	11	0	0	0	0	11	0	0	0	21



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
24 32288024-Cut	10.6	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	111	111-140	Harvest	Shelterwood	6128 - Lowland Coniferous, Mixed Deciduous	Two-Aged	Field Boundary

Habitat Cut: No

Site Condition:

Prescription Remove all spp except for the hemlock and cedar, there is occasional Lg wp and those can be left. Could mark some residual deciduous especially in the hemlock clumps.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Any lowland softwood species is acceptable
Regen:

Other Harvest with stand 43 In compartment 285
Comment:

Proposed Start Date: 07/27/2016

Total Treatment Acreage Proposed: 10.6

Report 4 – Site Conditions

Gwinn Mgt. Unit
John Hamel : Examiner

Compartment: 288
Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	5F	3A	5E
		With Condition	Not Available				
691	691	0	0	Aspen			
212	0	0	212	Hemlock		209	2
2	2	0	0	Herbaceous Openland			
24	24	0	0	Lowland Aspen/Balsam Poplar			
86	52	0	34	Lowland Conifers			34
9	9	0	0	Lowland Shrub			
4	4	0	0	Marsh			
150	144	0	6	Northern Hardwood		6	
86	0	86	0	Upland Conifers	86		
1,264	926	86	252	Total Forested Acres	86	215	37
	73%	7%	20%	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	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3A: Potential old growth / biodiversity	216	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This area is part of an ERA							
2	Unavailable	5E: Long-Term Retention	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Use as Long term Retention for Stand 32							
3	Unavailable	5E: Long-Term Retention	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: long term retention for stand 17							

Report 4 – Site Conditions

Gwinn Mgt. Unit
John Hamel : Examiner

Compartment: 288
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4	Unavailable	5E: Long-Term Retention	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for stand 11							
5	Available	5F: Evaluated for Forest Health Considerations	86	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 2017-Majority of canopy species are hemlock and cedar.							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 5 – 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 6 – 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	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4136 - Aspen, Mixed Conifer	Sapling Well	1.1	5	Immature	Harvested in 2012: TS#125-08-01.
3	4130 - Aspen	Sapling Well	53.1	5	Immature	Harvested in 2012: TS#125-08-01.
4	4130 - Aspen	Sapling Well	74.1	28	Immature	CUT BETWEEN 1988 AND 1989: PERMIT #12-88. K-G'D WINTER OF 89-90.
7	6112 - Lowland Aspen	Sapling Well	24.1	5	Immature	OPIC - FMD: Harvested in 2012: TS#125-08-01. Designed sale to stay out of wetlands. Hemlock and miscellaneous other species were retained.
8	42390 - Mixed Non-Pine Upland Conifers	Poletimber Well	85.7	161	141-170	OPIC - FMD: This stand is mottled land form generally with dense hemlock on the uplands and cedar in the lowlands.
10	4112 - Maple, Beech, Cherry Association	Poletimber Well	26.9	96	81-110	CUT IN 1999, TS# 29-98-01.
11	4130 - Aspen	Sapling Well	87.5	27	Immature	CUT IN 1990: PERMIT #12-88.
12	6124 - Lowland Spruce-Fir	Poletimber Well	4.4	71	51-80	Mixed conifers on a lowland site left as an exclusion in an earlier final harvest.
13	6124 - Lowland Spruce-Fir	Poletimber Well	9.7	71	51-80	Mixed conifers on a lowland site left as an exclusion in an earlier final harvest.
14	4130 - Aspen	Sapling Well	10.2	18	Immature	CUT IN 1999, TS# 29-98-01.
15	4139 - Aspen, Mixed Deciduous	Poletimber Well	6.6	44	51-80	Cut in 1973 with stand 5 in the adjacent compartment.
16	4139 - Aspen, Mixed Deciduous	Sapling Well	33.9	27	Immature	CUT IN 1990 PERMIT #12-88.
17	4130 - Aspen	Sapling Well	160.3	3	Immature	Harvested in 2014: TS# 126-09-01.
19	612 - Lowland Coniferous Forest	Poletimber Well	2.7	81	81-110	Leave this patch for wildlife when the surrounding stand 17 is harvested.
20	612 - Lowland Coniferous Forest	Poletimber Well	1.8	85	81-110	Leave this small lowland conifer patch for wildlife cover.
21	612 - Lowland Coniferous Forest	Poletimber Well	6.4	85	81-110	Leave this small patch for wildlife cover.
22	42350 - Upland Hemlock	Poletimber Well	2.5	85	111-140	Leave this patch for wildlife.
23	4139 - Aspen, Mixed Deciduous	Sapling Well	62.5	26	Immature	CUT IN 91 PERMIT #20-88. CEDAR & HEMLOCK LEFT.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	21.7	111	111-140	Drainage varies widely in this stand. Uplands are primarily hemlock and lowlands are mostly mixed conifers with some minor cedar patches.
25	4139 - Aspen, Mixed Deciduous	Sapling Well	78.3	37	1-50	KG'ed AREA IN 1980.
26	4110 - Sugar Maple Association	Poletimber Well	10.1	96	51-80	Select harvest in 2013: TS# 126-09-01.
27	42350 - Upland Hemlock	Sawtimber Well	209.3	111	111-140	Class 2 old growth. Contains some areas of more mixed forest. Upland areas tend to be hemlock and lowlands more to mixed conifers.
28	6123 - Lowland Fir	Poletimber Well	3.5	61	Unspecified	
29	411 - Northern Hardwood	Poletimber Well	6.1	180	111-140	old growth Cass 2
30	4110 - Sugar Maple Association	Poletimber Well	5.7	96	51-80	Select harvest in 2013: TS# 126-09-01.
31	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	18.6	71	111-140	Stand contains a wet drain and is generally hemlock in the uplands and cedar in the lowlands.
32	4130 - Aspen	Sapling Well	123.4	27	Immature	CUT IN 1990.PERMIT #9-88. PATCHES OF SWAMP & SMALL MAPLE LEFT.
33	612 - Lowland Coniferous Forest	Poletimber Well	4.4	71	81-110	Patch of swamp conifers left when stand 32 was cut. Stand contains some of the original mixed forest that was in the surrounding harvest back in 1990. Do not schedule.
34	612 - Lowland Coniferous Forest	Poletimber Well	4.8	180	81-110	Patch of swamp conifers left when stand 32 was cut. Do not schedule.
36	4116 - Mixed N. Hardwood - Aspen	Sapling Well	76.1	4	Immature	Cut in 2013: TS# 127-08-01. Stand contains wet drains and various other timber type inclusions. Design the sale to protect the drains and exclude hemlock, cedar, and miscellaneous other tree species.
38	4112 - Maple, Beech, Cherry Association	Poletimber Well	25.3	96	81-110	Selectively cut in 2013: TS# 127-08-01.
39	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	8.4	61	51-80	Stand contains a wet drain and is generally hemlock in the uplands and cedar in the lowlands.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	622 - Lowland Shrub	7.2	No	Standing water year round. Beaver have blocked this drain in the past.
5	623 - Emergent Wetland	2.9	No	Beaver meadow. Was a forested wetland drain before beaver moved in.
6	623 - Emergent Wetland	1.1	No	Beaver meadow. Was a forested wetland drain before beaver moved in.
37	622 - Lowland Shrub	1.3	No	
50	3102 - Grass	1.9	No	