

Compartment Review Presentation

Sault Ste. Marie Forest Management Unit

Compartment 122 Entry Year 2015

Acreage: 1,814
County Mackinac

Management Area: Mackinac Mix

Revision Date: 07/08/2013

Stand Examiner: Matthew Edison

Legal Description:

T43N-R6W, Section 30 & T43N-R7W, Sections 24 & 25

Identified Planning Goals:

Compartment 122 is located approximately 3 miles northeast of Epoufette and Highway U.S. 2. The only proposed management in this compartment this entry is a Shelterwood-seed Tree cut in a mature White Pine stand. There is very limited access to most of this compartment and cover types are predominantly wetland and lowland cover types with intermittent ridges.

Soil and topography:

The predominant topography of the compartment is flat lowland with some intermittent ridges. The soil type dominating the entire compartment is Markey-Carbondale muck. The few ridges in section 25 are Pullup sand and the remaining ridges and upland stands of section 24 are Wallace sands.

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

There is 80 acres of private ownership (NWSW, NESW of section 24) connecting with private lands to the west. There is no development on this property. The remainder of the compartment is consisted of and is surrounded by State owned land.

Unique Natural Features:

There is a potential for rare threatened or endangered plant and animal species within the compartment. Any management will be per work instructions and guidelines for the species found.

Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

The headwaters of Paquin Creek and The Little Brevort River are in this compartment.

Watershed and Fisheries Considerations:

This compartment contains a reach of the Little Brevoort River. Previous surveys have captured brook trout, brown trout, central mudminnow, creek chub, northern pike, sculpins, and American brook lamprey. This compartment also contains a stream reach in the upper Paquin Creek. Paquin Creek is a cold-water stream that supports stream-resident fish community of brook trout, pearl dace, slimy sculpin, central mudminnow, brook stickleback. Paquin Creek is also important that is supports natural reproduction of Lake Michigan adfluvial fishes such as steelhead, Chinook salmon, and coho salmon. Implementation of BMP's that will aid in preventing sediment input from road crossings and upland areas are critically important to protect spawning areas for trout and other stream-resident fishes. Buffering the river is also critical to ensure future inputs of woody material to the stream channel, discourage aspen regeneration close to the stream channel, and provide shading to protect water temperature from warming to a degree that will inhibit trout survival.

Wildlife Habitat Considerations:

This compartment lies within the Mackinac Mix Management Area. Cedar and lowland conifer swamp cover most of the compartment. These stands will be left to provide cover for wildlife like deer, bear, bobcat, snowshoe hare and other species. A few stands in higher settings contain birch, aspen, and white pine. White pine will be encouraged in one stand, and young early successional growth will also be promoted. This will benefit species including ruffed grouse, deer, woodcock, and black bear. Other species benefitting from the plans for this compartment include, but are not limited to coyote, beaver, otter, mink, eagle, osprey, common yellowthroat, yellow warbler, and various other species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel and minor peat and muck. There is insufficient data to determine the glacial drift thickness. The Silurian Engadine Group subcrops below the glacial drift. The Engadine is

quarried for stone/limestone eight miles to the northeast. Gravel pits are not located in the area and potential appears to be very limited. There is no economic oil and gas production in the UP.

Vehicle Access:

There is very poor vehicle access into this compartment. The Bennett Road (poor dirt) is the only road that enters the compartment. Bennett Road just cuts across the very corner of the NWNW of section 24. The road turns back and reenters the compartment passing through NENE Section 24 before leaving the compartment again. During wet seasons Bennett road may become impassable without, or even with four-wheel drive vehicles. Access to the interior of the compartment is non-existent.

Survey Needs:

None

Recreational Facilities and Opportunities:

There are no developed recreation facilities within this compartment.

Fire Protection:

Given the topography and cover types throughout this stand, fire is of minimal overall concern. However, in the event of a fire the many isolated ridges would make initial attack difficult at best. Lightning would be the most probable ignition source for most of the remote areas. In the case of a fire, water sources are available along Bennett Road at two different bridge locations. Fires in this compartment could be expected to be mop-up intensive due to the thick organic soils that dominate.

Additional Compartment Information:

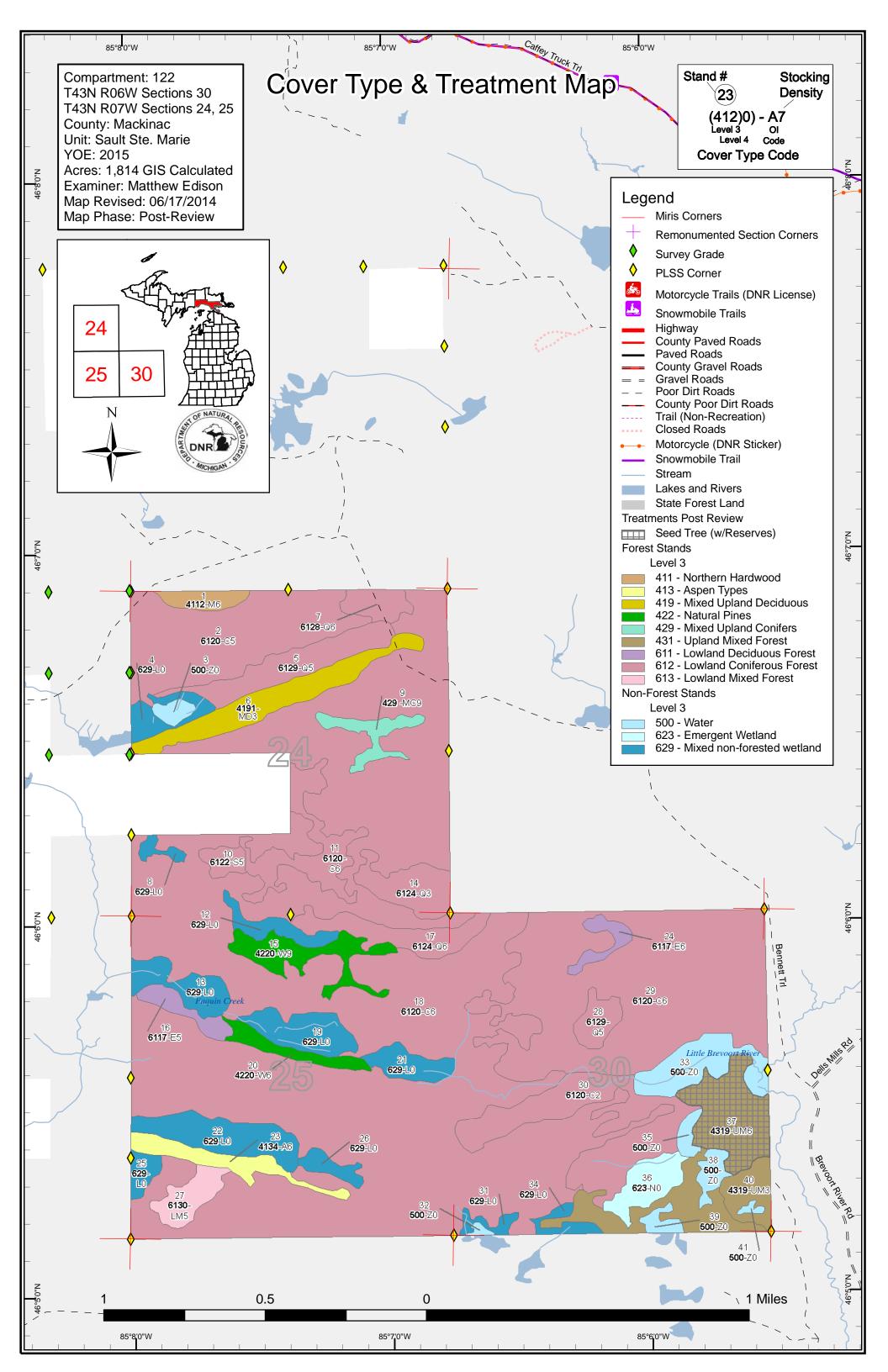
None

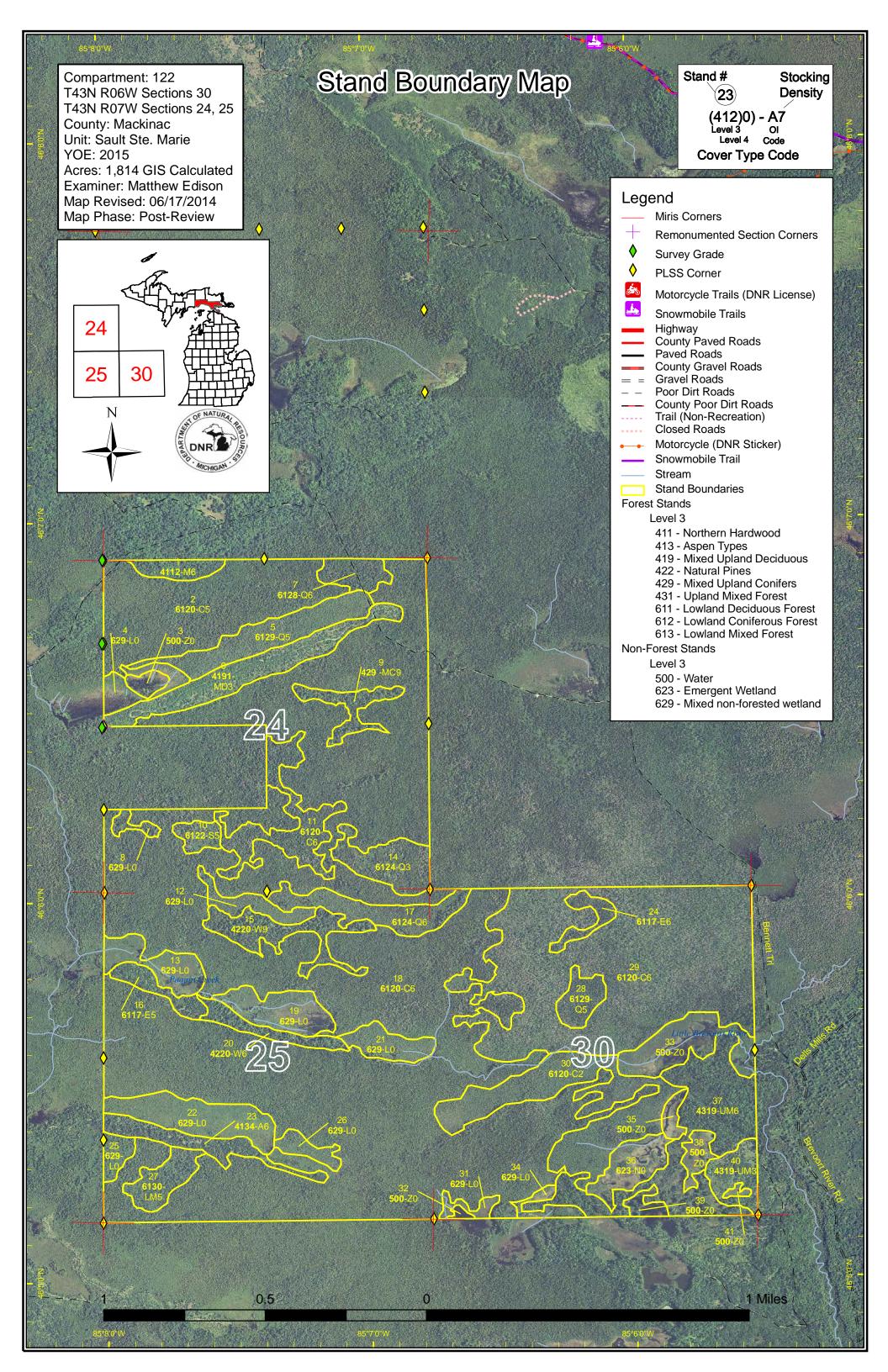
The following reports from the Inventory are attached:

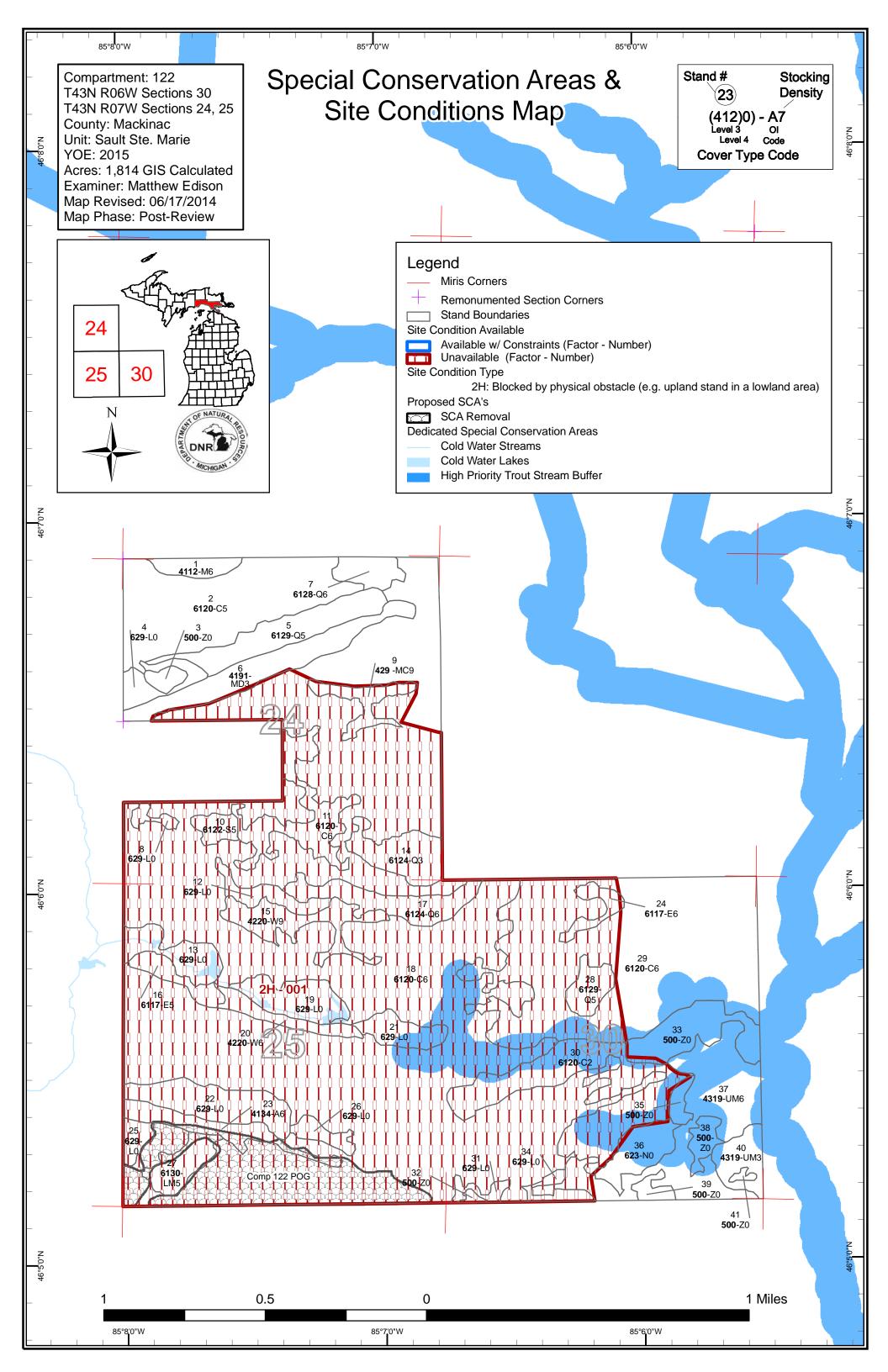
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

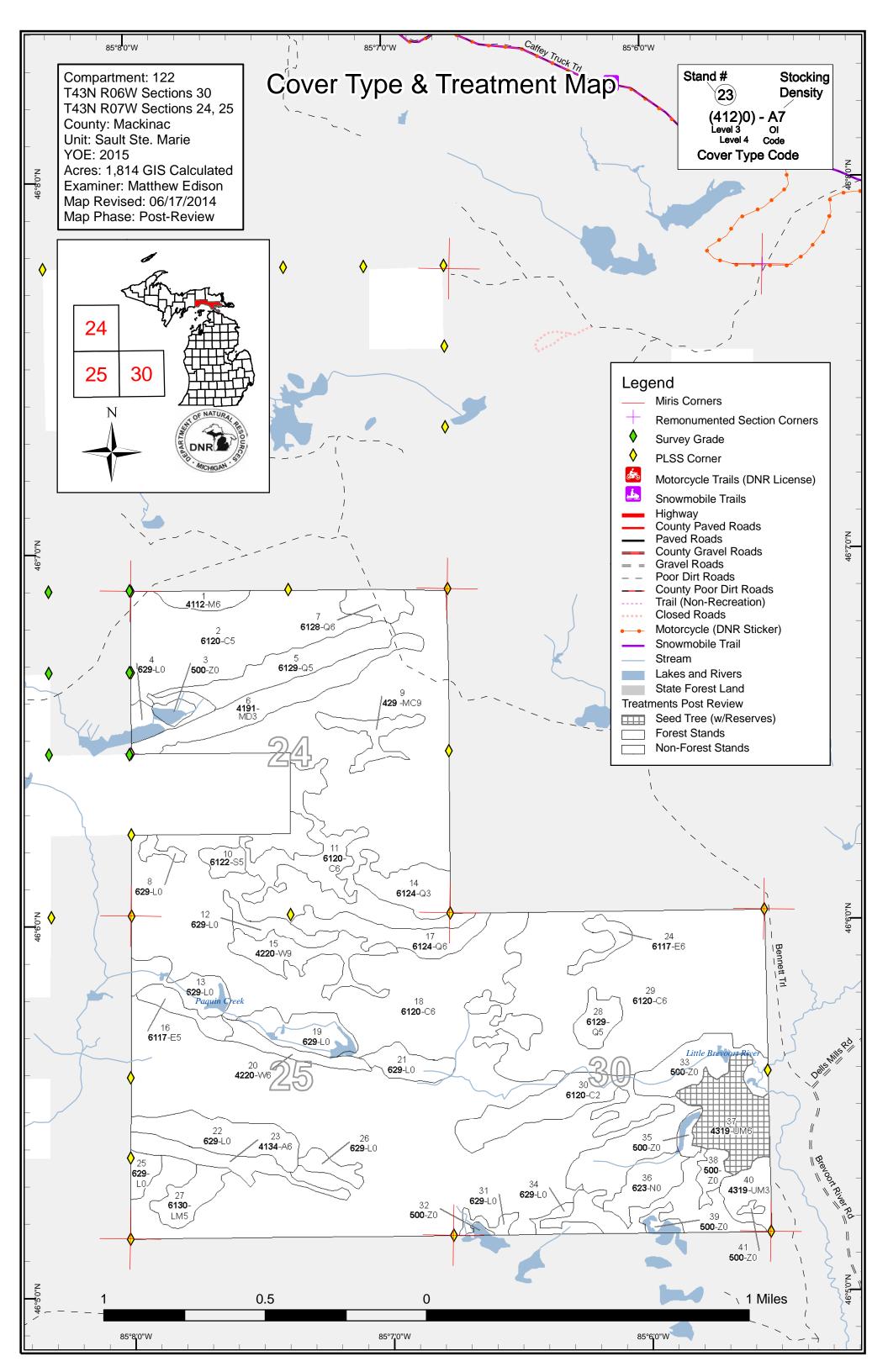
The following information is displayed, where pertinent, on the attached compartment maps:

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









Compartment 122 Year of Entry 2015

Sault Ste. Marie Mgt. Unit

Matthew Edison : Examiner



Age Class 11.00 M 700,709 70,79 10,0 ⁶0, 20.25 70°× Aspen Cedar **Lowland Conifers** Lowland Deciduous **Lowland Mixed Forest** Lowland Shrub Lowland Spruce/Fir Marsh Mixed Upland Deciduous Northern Hardwood **Upland Conifers** Upland Mixed Forest Water White Pine Total



Report 2 – Proposed Treatment Summaries

Sault Ste. Marie Mgt. Unit Year of Entry 2015

Compartment 122 Total Compartment Acres: 1,814

Acres by Treatment Type

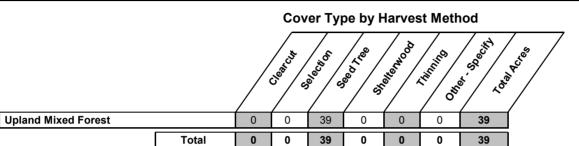
Commercial Harvest - 39

Tree Planting - 0

Other - 0

Habitat Cut - 0

Opening Maintenance - 0



Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 122 Year of Entry 2015

DEPARTMEN	DNR	A
\	MICHIGAN	

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37	45122037-Cut	38.9	4319 - Mixed Upland Forest	High Density Pole	52	111-140	Harvest	Seed Tree with Reserves	4220 - Natural White Pine	Fld. Tr. Bdy Incomplete

Specs:

S

Prescription Stand has some areas of good white pine. Harvest all other species with representation left as reserve. Thin to 50 ba or so to allow the existing white pine regeneration to grow and to recruit new regeneration. Actual treament shape will reflect the actual ground conditions and relation to the surrounding wetlands. Do not cut any Hemlock within the stand. Cut in dry summer or winter depending on conditions. Buffer wetlands 75-

Other Comments:

Next

Conduct a regeneration survey following harvest according to work instruction guidelines. Acceptable regeneration will consist of anymix of white pine, aspen, birch, maple, spruce/fir, red pine, or hemlock.

Steps: Proposed

10/01/2014 Start Date:

Total Treatment

Acreage Proposed: 38.9

Sault Ste. Marie Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 122 a Site Condition s Year of Entry 2015 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Objective Method Status Name Range Density Age Type #Type! #Type! **Prescription** Specs: Other Comment: <u>Next</u> Steps: <u>Proposed</u> #Type! Start Date:

Total Treatment

Limiting Factor

Acreage Proposed: 0.0

Matthew Edison: Examiner

Compartment 122 Year of Entry 2015

Availability for Management

Total	Acres	Acres		Domina	nt Site	Conditions
Acres	Available	Not Available		No	2H	
19		19	Aspen		19	
1268	282	986	Cedar	282	986	
104	44	59	Lowland Conifers	44	59	
18	0	17	Lowland Deciduous	0	17	
15		15	Lowland Mixed Forest		15	
7		7	Lowland Spruce/Fir		7	
38	38	0	Mixed Upland Deciduous	38	0	
9	9		Northern Hardwood	9		
12		12	Upland Conifers		12	
87	80	7	Upland Mixed Forest	80	7	
36		36	White Pine		36	
1,611	453	1,158	Total Forested Acres	453	1,158	
	28%	72%	Relative Percent		=	1

*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 Dominant Si No. Cond Availab		Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
001 Not Availab	obstacle (e.g. upland soils, does not in		2G: Too wet (sensitive soils, does not include access issues)	4A: No merchantable products (see product standards)	4A: No merchantable products (see product standards)	5D: Unproductive Forest Land

Comments:

Very large area of lowland cedar/ lowland forest mix. Several stands contained in this area that are not accessible through this large lowland forest. Some areas within do not produce any merchantable timber due to wetland.

Compartment: 122 Year of Entry: 2015



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
Comp 122 POG	Potential Old Growth		SCA Removal	88.8
Comments				
Doesn't Meet Criteria				

Sault Ste. Marie Mgt. Unit Compartment: 122





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.

Conservation Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	es to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildle and Waterfowl Production Areas, deer wintering complexes in low openings and savannas. Habitat areas are distinct from critical hendangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in cooperations.	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more endangered species, and are not
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high documunities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well



s t	Sault Ste. Marie Mgt. Unit			Report 8	Forested	Stands Compartment: 122 Year of Entry: 2015		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
1	4112 - Maple, Beech, Cherry Association	High Density Pole	8.9	70	81-110	Stand was thinned in 2008 (Culvert Set Hardwood).		
2	6120 - Lowland Cedar	Medium Density Pole	96.7	96	51-80	Stand of wet graound lowland cedar15-20 ft. tall. Poor quality and variable density. Tag Alder scattered. Some widely scattered balsam and black spurce. No merchantability.		
5	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	33.1	68	51-80	Wet, lowground of sparse, oor quality cedar and tamarack. There is some black spruce, but a good amount of it is flooded/dead.		
6	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	38.2	18		Stand was cut last entry. Absolute mix of variable cherry, birch aspen, balsam and spruce regeneration. There is a good amoutn of cedar regeneration scattered throughout.		
7	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	11.2	59	111-140	Mixed stand of cedar, paper birch, and black spruce. Some merchantable birch, but variable. Most cedar is small diameter, as is the spruce. Density is variable. Overall, not enough volume of birch or spruce to warrant any treatment on this wet of ground.		
9	429 - Mixed Upland Conifers	High Density Log	12.3	85	111-140	Stand of Larger White Pine with mix of Aspen, balsam, and poor quality red maple. This is a very low ridge surrounded by large wet cedar stand.		
10	6122 - Black Spruce	Medium Density Pole	6.8	83	1-50	Small stand of mixed conifer. Slightly higher ground than surrounding stand. A low amount of balsam, but predominantly black spruce.		
11	6120 - Lowland Cedar	High Density Pole	32.6	66	81-110	Stand is a slight variant of the much larger urrounding cedar stand. There is a component of aspen and tamarack in the north part mixed with the small cedar and black spruce.		
14	6124 - Lowland Spruce- Fir	High Density Sapling	22.5	83		Isolated island stand within very large surrounding cedar stand. Very limited access.		
15	42200 - Natural White Pine	High Density Log	24.3	87		Some large White Pine on ridge with Spruce gradiating down to wetland cedar. Very limited access.		
16	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	10.1	75		West part of stand 22. Lower ground with mix of lowland deciuous and conifer with highly scattered White pine.		
17	6124 - Lowland Spruce- Fir	High Density Pole	25.7	83		Stand is an isolated island within very large cedar stand, making access very limited and difficult.		
18	6120 - Lowland Cedar	High Density Pole	848.2	100	81-110	Very large stand of variable density cedar. Very small diameter overall, but some areas of decent cedar. There are areas mixed with variable amounts of black spruce and paper birch, but mostly un-merchantable. There are large white pine scattered throughout.		

S



t						Year of Entry: 2015		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
20	42201 - Natural White Pine, Mixed Deciduous	High Density Pole	11.5	71		Isolated Ridge adjacent to paquin Creek. Scattered White Pine and birch. Access is very limited due to surrounding cedar and wetlands.		
23	4134 - Aspen, Spruce/Fir	High Density Pole	19.0	66	81-110	Ridge of Aspen mixed with balsam and spruce. Virtually no access for treatment. Blocked by very wet cedar stand and wetlands.		
24	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	7.6	71		Stand is a variant of surrounding stand. Appears to have a hiher spruce content. No access for treatment.		
27	6130 - Fir, Aspen, Maple	Medium Density Pole	14.7	46	51-80	Small stand of poorer quality aspen, balm, paper birch mix with balsam and spruce. Very limited access. Lower basal areasa, check again in ten years.		
28	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	11.0	66		Stand is variant of surrounding large cedar stand. Stand appears to have a higher component of spruce. No access for any treatment.		
29	6120 - Lowland Cedar	High Density Pole	219.7	111	81-110	Stand of mixed cedar, tamarack, and black spruce. Very wet ground.		
30	6120 - Lowland Cedar	Medium Density	71.5	91		Stand appears is much wetter than adjacet cedar stand and cover is more sparse, with higher mortality. Very limited access		
37	4319 - Mixed Upland Forest	High Density Pole	71.7	52	111-140	Variable stand of birch, aspen, spruce/fir, hardwood and white pine. There is white pine regeneration comin in good. Some white pine have dead tops.		
40	4319 - Mixed Upland Forest	High Density Sapling	14.9	26	51-80	Pole stand of mixed aspen, spruce, and balsam. Stand was cut in 1998 (Mystery Birch).		

Compartment: 122 Year of Entry: 2015



50 - Water					
	4.6	No	Unspecified		
629 - Mixed non-forested wetland	11.2	No	Unspecified		
629 - Mixed non-forested wetland	3.5	No	Unspecified		
629 - Mixed non-forested wetland	11.2	No	Unspecified		
629 - Mixed non-forested wetland	18.0	No	Unspecified		
629 - Mixed non-forested wetland	21.4	No	Unspecified		
629 - Mixed non-forested wetland	13.1	No	Unspecified		
629 - Mixed non-forested wetland	31.0	No	Unspecified		
629 - Mixed non-forested wetland	6.4	No	Unspecified		
629 - Mixed non-forested wetland	6.8	No	Unspecified		
629 - Mixed non-forested wetland	4.2	No	Unspecified		
50 - Water	1.2	No	Unspecified		
50 - Water	28.6	No	Unspecified		
629 - Mixed non-forested wetland	5.9	No	Unspecified		
50 - Water	4.5	Unspecified	Unspecified		
6239 - Mixed Emergent Wetland	17.6	No	Unspecified		
50 - Water	6.9	No	Unspecified		
50 - Water	4.5	No	Unspecified		
	29 - Mixed non-forested wetland 20 - Mixed non-forested wetland 20 - Mixed non-forested wetland 20 - Water 20 - Water 21 - Mixed non-forested wetland 22 - Mixed non-forested wetland 30 - Water 31 - Mixed non-forested wetland 32 - Mixed non-forested wetland 33 - Mixed Emergent Wetland 34 - Water	29 - Mixed non-forested wetland 29 - Mixed non-forested wetland 29 - Mixed non-forested wetland 21.4 29 - Mixed non-forested wetland 21.4 29 - Mixed non-forested wetland 31.0 29 - Mixed non-forested wetland 31.0 29 - Mixed non-forested wetland 6.4 29 - Mixed non-forested wetland 6.8 29 - Mixed non-forested wetland 4.2 0 - Water 1.2 0 - Water 28.6 29 - Mixed non-forested wetland 5.9 0 - Water 4.5 239 - Mixed Emergent Wetland 17.6	29 - Mixed non-forested wetland 11.2 No 29 - Mixed non-forested wetland 18.0 No 29 - Mixed non-forested wetland 21.4 No 29 - Mixed non-forested wetland 13.1 No 29 - Mixed non-forested wetland 31.0 No 29 - Mixed non-forested wetland 31.0 No 29 - Mixed non-forested wetland 6.4 No 29 - Mixed non-forested wetland 6.8 No 29 - Mixed non-forested wetland 4.2 No 0 - Water 1.2 No 0 - Water 28.6 No 0 - Water 28.6 No 0 - Water 4.5 Unspecified 239 - Mixed Emergent Wetland 17.6 No 0 - Water 6.9 No	29 - Mixed non-forested wetland 11.2 No Unspecified 29 - Mixed non-forested wetland 18.0 No Unspecified 29 - Mixed non-forested wetland 21.4 No Unspecified 29 - Mixed non-forested wetland 13.1 No Unspecified 29 - Mixed non-forested wetland 31.0 No Unspecified 29 - Mixed non-forested wetland 31.0 No Unspecified 29 - Mixed non-forested wetland 6.4 No Unspecified 29 - Mixed non-forested wetland 6.8 No Unspecified 29 - Mixed non-forested wetland 4.2 No Unspecified 20 - Water 1.2 No Unspecified 20 - Water 28.6 No Unspecified 20 - Water 28.6 No Unspecified 20 - Water 4.5 Unspecified Unspecified 239 - Mixed Emergent Wetland 17.6 No Unspecified	29 - Mixed non-forested wetland 11.2 No Unspecified 29 - Mixed non-forested wetland 11.2 No Unspecified 29 - Mixed non-forested wetland 18.0 No Unspecified 29 - Mixed non-forested wetland 21.4 No Unspecified 29 - Mixed non-forested wetland 13.1 No Unspecified 29 - Mixed non-forested wetland 31.0 No Unspecified 29 - Mixed non-forested wetland 31.0 No Unspecified 29 - Mixed non-forested wetland 6.4 No Unspecified 29 - Mixed non-forested wetland 6.8 No Unspecified 29 - Mixed non-forested wetland 4.2 No Unspecified 0 - Water 1.2 No Unspecified 0 - Water 28.6 No Unspecified 0 - Water 4.5 Unspecified Unspecified

Report 9 - Nonforested Stands

Compartment: 122 Year of Entry: 2015



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
41	50 - Water	1.3	No	Unspecified	