



Compartment Review Presentation

Roscommon Forest Management Unit

Compartment 71

Entry Year 2016

Acreage: 868

County Roscommon

Management Area: Houghton Lake Wetlands

Revision Date: 06/24/2014

Stand Examiner: Doug Bates

Legal Description:

T23N R04W Sections 2 and 11

Identified Planning Goals:

Maintain current cover types staggering age classes providing healthy forests for both natural and human uses.

Soil and topography:

Mostly Rifle Peat for soils. The terrain is flat coupled with a high water table. Standing water persists throughout most of the year in several areas.

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

The state land is a solid block containing no private inholdings. Private property lies on the east and west boundaries.

Unique Natural Features:

Houghton Lake

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

The Houghton Lake State Forest Campground is found in this compartment.

Watershed and Fisheries Considerations:

None noted.

Wildlife Habitat Considerations:

None noted.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of peat and muck and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum elsewhere in the State. Most of the nearby gravel pits are associated with upland areas. There are no uplands areas near here and gravel potential appears to be limited. Enterprise Field is located four miles to the west. The field has produced over 4.7 million BO primarily from the Devonian Richfield Formation, and is in secondary recovery operations currently. The compartment is currently leased for oil and gas development.

Vehicle Access:

Vehicular access is very poor due to the wet soils limiting any forest road construction. North Shore Drive bisects the stand at the south end and is heavily used by the residential communities surrounding Houghton Lake. A seasonal county road, Lakewood Drive passes through the southeast corner of the stand.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

The Houghton Lake State Forest Campground is the primarily used feature in the compartment. Some hunting evidence is found but main usage is from the surrounding residences that border the parcel or are within short walking distance too since no area(s) exist to park/access the interior portions of the site.

Fire Protection:

This compartment is swamp hardwoods and swamp type cover. Access is poor but compartment is of low fire protection

concerns.

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**

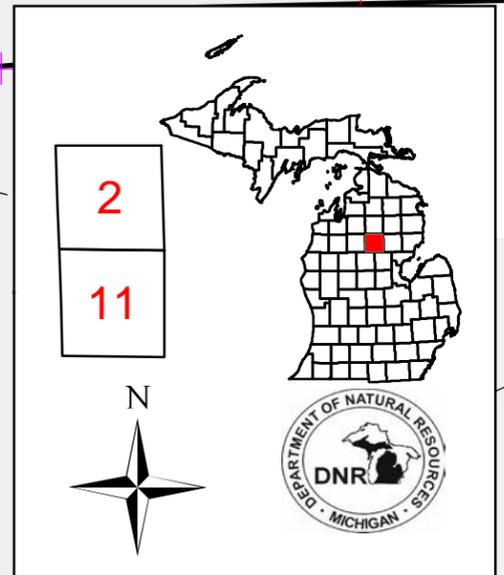
The following information is displayed, where pertinent, on the attached compartment maps:

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

Cover Type & Treatment Map

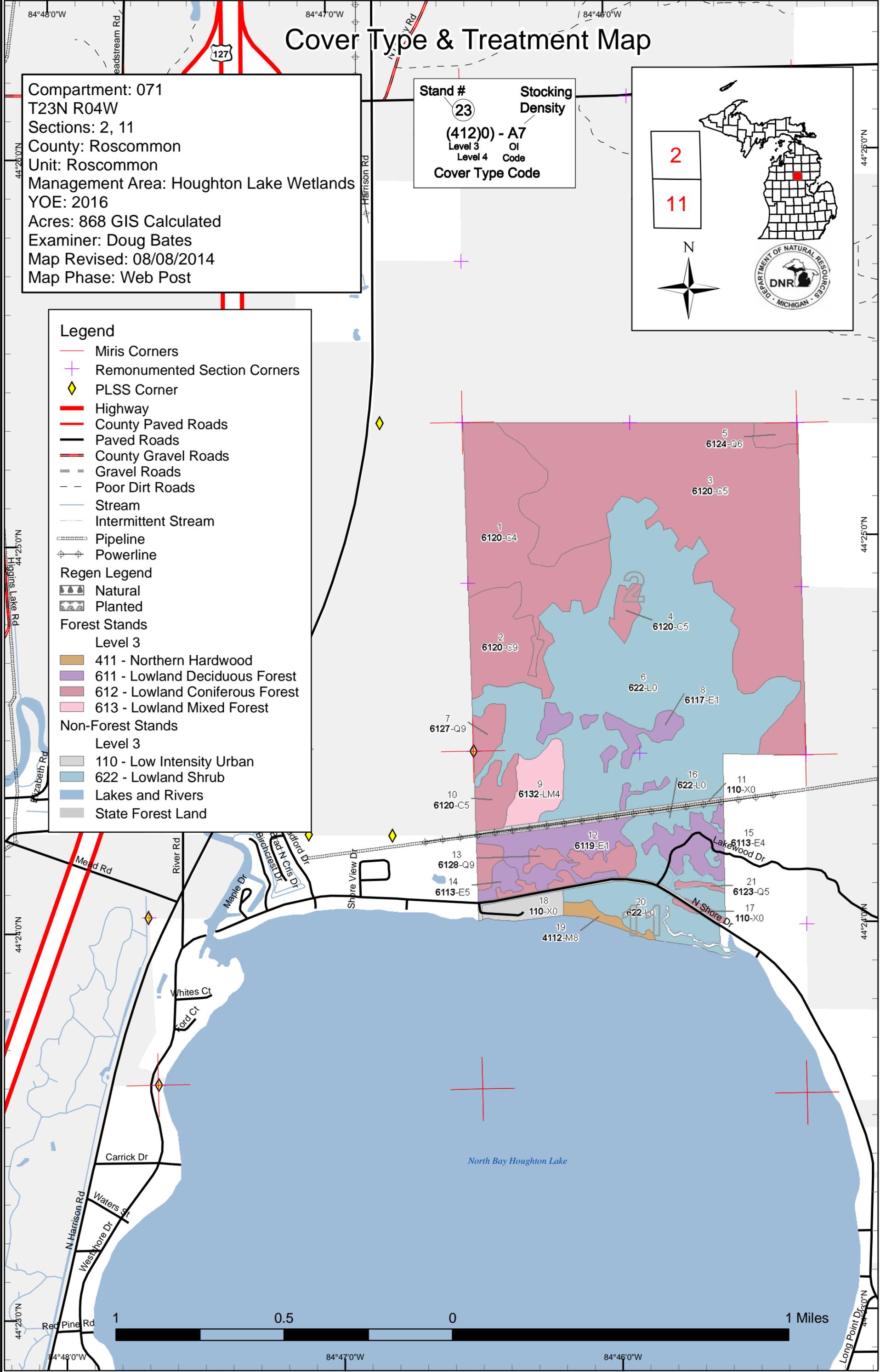
Compartment: 071
 T23N R04W
 Sections: 2, 11
 County: Roscommon
 Unit: Roscommon
 Management Area: Houghton Lake Wetlands
 YOE: 2016
 Acres: 868 GIS Calculated
 Examiner: Doug Bates
 Map Revised: 08/08/2014
 Map Phase: Web Post

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



Legend

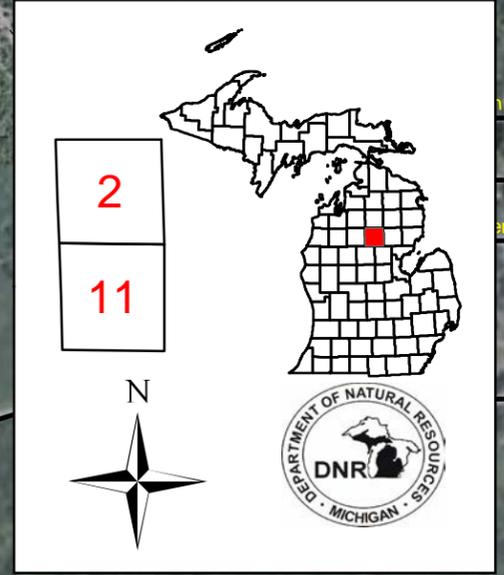
- Miris Corners
 - + Remonumented Section Corners
 - ◆ PLSS Corner
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - Stream
 - Intermittent Stream
 - Pipeline
 - Powerline
- Regen Legend**
- Natural
 - Planted
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 110 - Low Intensity Urban
 - 622 - Lowland Shrub
 - Lakes and Rivers
 - State Forest Land



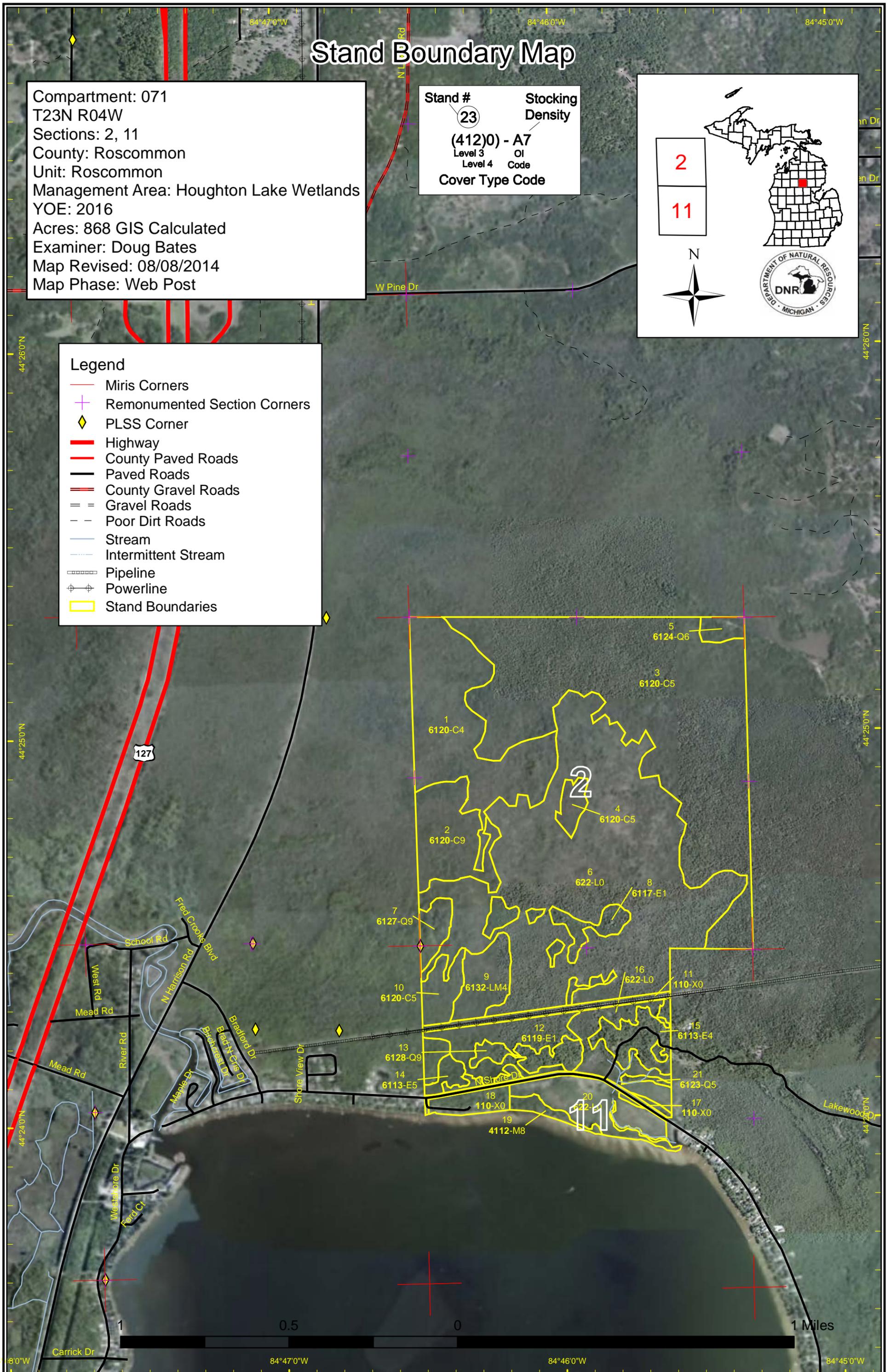
Stand Boundary Map

Compartment: 071
 T23N R04W
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Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



- Legend**
- Miris Corners
 - + Remonumented Section Corners
 - ◆ PLSS Corner
 - Highway
 - County Paved Roads
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 - Pipeline
 - Powerline
 - Stand Boundaries

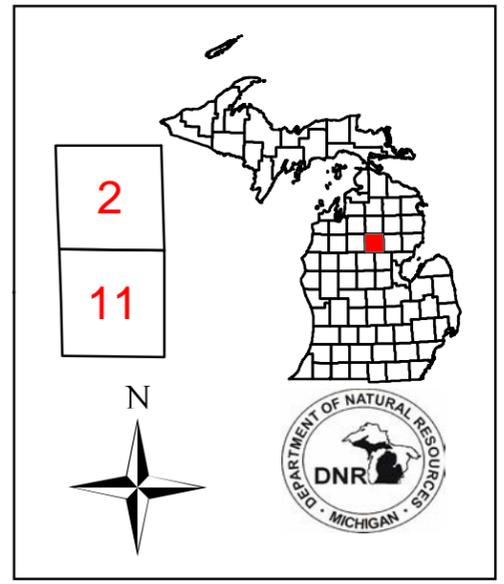


84°48'0"W 84°47'0"W 84°46'0"W 84°45'0"W

Special Conservation Areas & Site Conditions Map

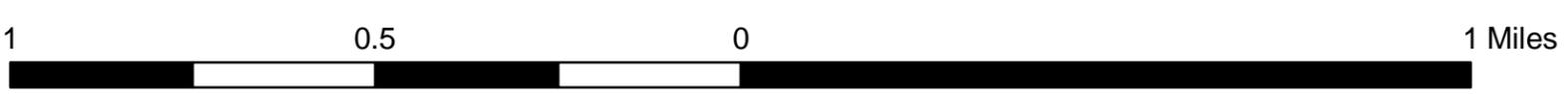
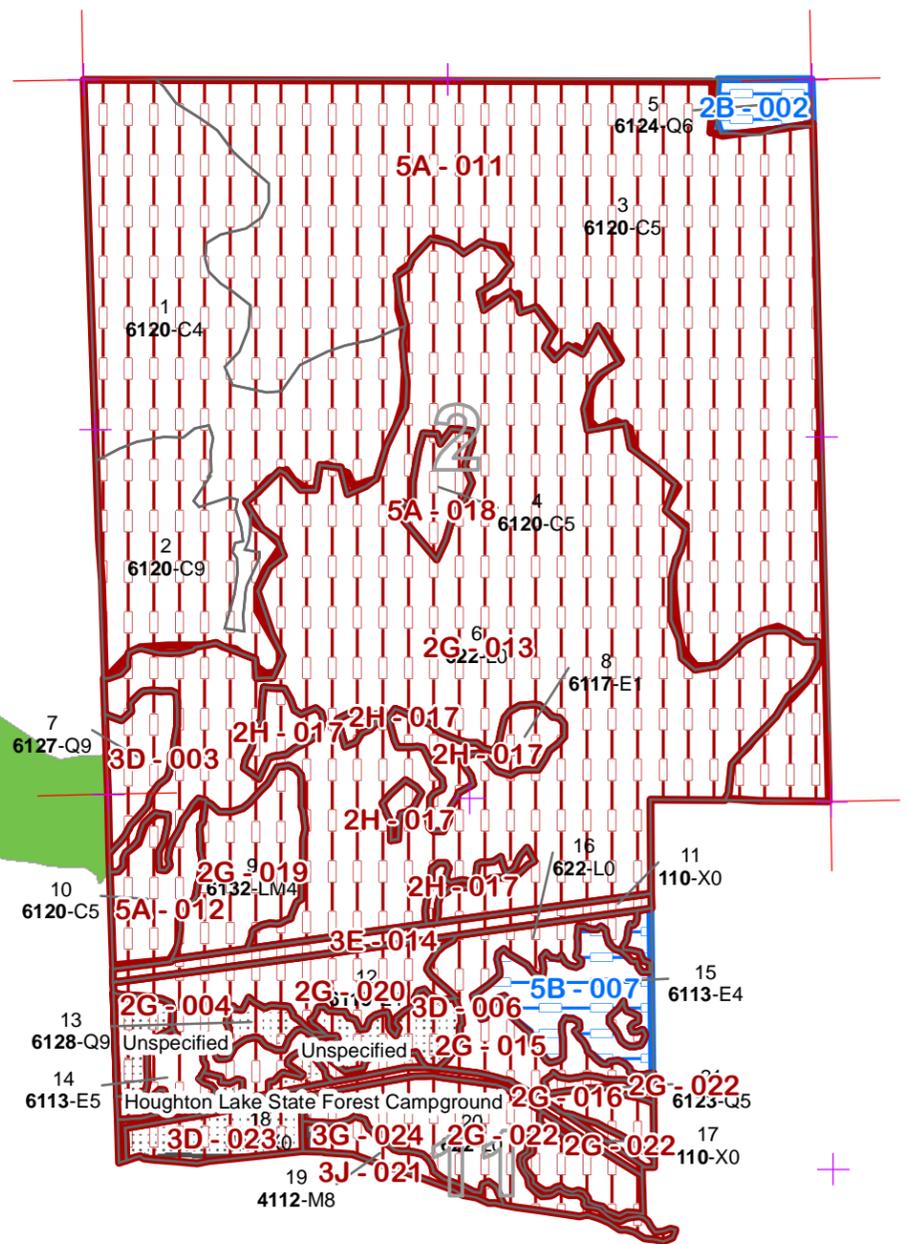
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Stand #
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Stocking Density
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Cover Type Code



Legend

- Miris Corners
- Remonumented Section Corners
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Reviewable SCAs
- Proposed SCA
- SCA Removal
- Special Conservation Areas
- Verified Type 1 Old Growth
- Verified Type 2 Old Growth
- Wildlife Management Areas
- Stand Boundaries



44°26'0"N
44°25'0"N
44°24'0"N

84°47'0"W
84°46'0"W
84°45'0"W

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
Cedar	0	0	0	0	0	0	0	0	0	144	245	0	0	0	388
Lowland Conifers	0	0	0	0	0	0	0	0	6	3	0	0	29	0	38
Lowland Deciduous	27	0	18	0	0	0	0	0	5	18	0	0	0	0	68
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19
Lowland Shrub	324	0	0	0	0	0	0	0	0	0	0	0	0	0	324
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5
Urban	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Total	376	0	18	0	0	0	0	0	11	184	250	0	29	0	868



Report 2 – Proposed Treatment Summaries

Roscommon Mgt. Unit
Year of Entry 2016

Compartment 071
Total Compartment Acres: 868

Acres by Treatment Type

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

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
		#Error	#####	#Error	#####	#Error	#####	
Total		0	0	0	0	0	0	0



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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
Comments:

Next
Steps:

Proposed
Start Date: #Type!

**Total Treatment
Acreage Proposed: 0.0**

S
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n
d

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
	#Type!	#Type!							

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Roscommon Mgt. Unit

Doug Bates : Examiner

Compartment 071

Year of Entry 2016

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions								
				No	5B	5A	3J	3D	2H	2G	2B	
387	6	381	Cedar	6		381						
38	6	32	Lowland Conifers					29		3	6	
68	18	50	Lowland Deciduous	0	18				18	32		
19		19	Lowland Mixed Forest							19		
5		5	Northern Hardwood				5					
517	30	488	Total Forested Acres	6	18	381	5	29	18	54	6	
	6%	94%	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
002	Available	2B: Unknown if access through adjacent landowner(s) is possible	6				
Comments:							
003	Not Available	3D: Recreational / Scenic values	9	3A: Potential old growth / biodiversity			
Comments:							
004	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5				
Comments:							

Report 5 – Site Conditions

Roscommon Mgt. Unit

Doug Bates : Examiner

Compartment 071

Year of Entry 2016

005 Not Available 3D: Recreational / Scenic values 5

Comments:

006 Not Available 3D: Recreational / Scenic values 12

Comments:

007 Available 5B: Maintain for regeneration purposes 18

Comments:

009 Not Available 3D: Recreational / Scenic values 2

Comments:

010 Not Available 3D: Recreational / Scenic values 2

Comments:

011 Not Available 5A: Not able to obtain desirable regeneration 363 2G: Too wet (sensitive soils, does not include access issues)

Comments:

Report 5 – Site Conditions

Roscommon Mgt. Unit

Compartment 071

Doug Bates : Examiner

Year of Entry 2016

012	Not Available	5A: Not able to obtain desirable regeneration	12	2G: Too wet (sensitive soils, does not include access issues)
Comments:				
013	Not Available	2G: Too wet (sensitive soils, does not include access issues)	269	
Comments:				
014	Not Available	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	10	
Comments:				
015	Not Available	2G: Too wet (sensitive soils, does not include access issues)	25	
Comments:				
016	Not Available	2G: Too wet (sensitive soils, does not include access issues)	30	
Comments:				
017	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	18	
Comments:				

Report 5 – Site Conditions

Roscommon Mgt. Unit

Doug Bates : Examiner

Compartment 071

Year of Entry 2016

018	Not Available	5A: Not able to obtain desirable regeneration	7	2G: Too wet (sensitive soils, does not include access issues)	
Comments:					
019	Not Available	2G: Too wet (sensitive soils, does not include access issues)	19	5B: Maintain for regeneration purposes	
Comments:					
020	Not Available	2G: Too wet (sensitive soils, does not include access issues)	27		
Comments:					
021	Not Available	3J: Water quality / BMPs (stream, river, or lake)	5	3D: Recreational / Scenic values	
Comments:					
022	Not Available	2G: Too wet (sensitive soils, does not include access issues)	3		
Comments:					
023	Not Available	3D: Recreational / Scenic values	10		
Comments:					

Roscommon Mgt. Unit

Report 5 – Site Conditions

Compartment 071

Doug Bates : Examiner

Year of Entry 2016

024	Not Available	3G: Other Influence zones - See comments	6
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Comments:
COunty Road

**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
Unspecified Comments	Visual Management Area	Recreational/Scenic Value Area	SCA	1.6
Unspecified Comments	Visual Management Area	Recreational/Scenic Value Area	SCA	1.7
Unspecified Comments	Visual Management Area	Recreational/Scenic Value Area	SCA	4.8
Houghton Lake State Forest Campground Comments	Concentrated Recreation Area	State Forest Campground	SCA	9.7
Unspecified Comments	Visual Management Area	Recreational/Scenic Value Area	SCA	11.9



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	Low Density Pole	87.9	93		Poor quality cedar that is failing. Regeneration is just balsam fir. The stand is sparse though. Mostly open areas with tag alder and canary grass. Access, low ground, and loss of what cedar is there completely especially with the heavy amount of deer sign in the area eliminates this from treatment. Clump of supercanopy with pine along east end.
2	6120 - Lowland Cedar	High Density Log	37.0	98		Moderately healthy cedar with little blowdown. Some cedar regeneration present but all over 30 foot tall. Only regeneration in sub-canopy within the deer's reach not being eaten is ash.
3	6120 - Lowland Cedar	Medium Density Pole	244.6	100	141-170	Cedar blowdowns, more open canopy with large log-sized cedar being either blown over or dead. Sapling sized cedar in overstory. Understory mainly fir and then tag alder. Leave for diversity and to keep the cedar component there for as long as we can. The deer sign is very heavy in here along with browsing. Illegal fencing on us from property owner to the east along with signs of cutting down on us within site of hunting blinds.
4	6120 - Lowland Cedar	Medium Density Pole	6.6	99		Cedar/fir stand on slightly higher ground in the middle of a tag alder sea.
5	6124 - Lowland Spruce- Fir	High Density Pole	5.9	81	111-140	Ridge top that is open. Has illegal road from private to the east. As ridge slopes down this is where find the spruce, oak and paper birch on the top. The south end turns to dense cedar with scattered spruce. Some spruce/fir regeneration under the cedar, but mostly tag alder. Spruce/fir regeneration mainly under this overstory, no cedar.
7	6127 - Lowland Pine	High Density Log	8.9	125	111-140	Hemlock/white pine mixed stand. Some hemlock and white pine 20 inches and up. Rare site with amount of hemlock and size(diameters). Grades to more maple at the south end. Part of larger stand in compartment to the west.
8	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Sapling	17.8	26		Barely canopy closure. Was a habitat cut from 1988. Poor site, regeneration is sparse and still sapling sized. Some scattered pole trees left from cut. Dense tag alder. Still hanging in there though, just very slow going.
9	6132 - Mixed Lowland Forest with Cedar	Low Density Pole	18.7	90	51-80	Less component of cedar, higher to red maple and fir. Was a lot of ash in overstory that is now dead. Ash and maple regeneration is in pockets with a lot of tag alder intermixed in understory. Lower quality site, pole size trees 90+ years old. Cedar is starting to fail heavily too. The ground conditions are poor for treatment and would be best if left stand to manage itself.
10	6120 - Lowland Cedar	Medium Density Pole	12.4	98		Heavy component of cedar with numerous blow downs. All the overstory ash has died within the past year or so from the bore. Access, wet ground conditions, etc. does not make salvage feasible. No cedar regeneration but the ash is still alive and heavy with moderate red maple densities also.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	27.3	4	1-50	This was an ash stand couple years ago but is all dead now. There are 1/2 - 3/4 acre pockets of red maple and cedar pole overstory scattered about with regeneration of red maple and ash in the understory. Where primarily was ash, there is light regeneration of both maple and ash. Heavier to the tag alder sub-canopy. With the overstory and regeneration it just makes forest canopy closure but not by much. Not sure with last is the bore comes back and takes out the ash saplings.
13	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	20.2	151	171-200	The west stand is almost entirely hemlock with scattered super-canopy white pines. Trave amounts of paper birch and red maple in here also. The fringes though have some hemlock but mainly red maple and some cedar be dipping into real low ground. As the stand(s) go east the percentage of hemlock decreases but still major component of stand. Vast areas of no regeneration, especially under the dense hemlock. Mostly on the fringes, Leave for unique diversity,
14	6113 - Lowland Maple	Medium Density Pole	5.1	84	1-50	Red maple with some cedar and hemlock. Had some ash in it but all dead. Wetter ground with some regeneration pockets. Stand would be better if left alone instead of harvesting.
15	6113 - Lowland Maple	Low Density Pole	18.0	92	1-50	Heavier percentage of red maple. 4 acre pocket on the west side. Grades more to balsam fir, cedar, and red maple to the east on lower ground. This area had 40 basal area of ash which of course is all dead now. Maple and ash is regenerating in these spots but also alot of tag alder too. Fir regeneration heavier on the higher ground. A mixed stand, could cut the 4 acre chunk which is on operable ground or leave due to the large block of ash lost.
19	4112 - Maple, Beech, Cherry Association	Medium Density Log	5.1	100	81-110	Old beach ridge along Houghton Lake. Log sized red maple mainly with little regeneration. Light amounts of white pine and balsam fir regenerating. Mainly grass.
21	6123 - Lowland Fir	Medium Density Pole	3.4	90	1-50	Heavy overstory of ash that is all dead now. Mainly left is red maple with balsam fir in mid-overstory and understory. Small beach ridges with fir filling in completely. Small and inaccessible to treat. The fir was suppressed through the first 40+ years.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
6	6220 - Alder/willow	268.9	No	Unspecified	Tag alder and dogwood brush with pockets of higher ground with some red maple, cedar, and dead ash.
11	11 - Low Intensity Urban	9.8	Yes	Medium	Overhead powerline cleared right-of-way corridor
16	6220 - Alder/willow	25.1	No	Unspecified	tag alder and dogwood with pockets of cattail
17	11 - Low Intensity Urban	6.2	Yes	High	North Shore Drive
18	11 - Low Intensity Urban	9.7	Yes	High	Houghton Lake State Forest Campground managed by Parks & Recreation Division
20	6220 - Alder/willow	29.6	No	Unspecified	Tag alder with canary grass