

Compartment Review Presentation

Sault Ste. Marie Forest Management Unit

Compartment 45019
Entry Year 2018
Acreage: 4,256
County Chippewa

Management Area: Drummond Island

Revision Date: 2016-08-10 Stand Examiner: Josh Brinks

Legal Description:

T41N R7E, Sections 1, 2, 11, 12 T41N R8E, Section 6 T42N R7E, Sections 35, 36 T42N R8E, Section 31

Identified Planning Goals:

To develop an optimal age class distribution of aspen stands for sustainable forestry and wildlife values. To rotate hardwood treatments for optimum regeneration and stocking of all age classes. To maintain a component of large canopy hardwood trees on the landscape. Maintain current openings as needed for diversity and enhancement of wildlife benefits. To provide reasonable public access for multiple use benefits such as hunting, trail riding, camping, and hiking, while protecting the natural resources.

Soil and topography:

Shelter-Posen-Summerville: deep and shallow, level to steep, poorly drained and well drained, loamy soils on ground moraines and glacial lake benches. Topography is gently rolling to flat with lower wet areas and large, open, scenic vistas

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

Contiguous block of State land with no developments. Primarily used for hunting, trail riding, and timber and wildlife management. There is one private parcel adjoining the compartment on the west side with a camp. And a narrow strip along the shoreline with a few camps. State land surrounding the compartment maintains landscape level management.

Unique Natural Features:

Marblehead, a limestone bluff with a scenic vista accessed on foot, by ORV, snowmobile and four wheel drive vehicles, is a major destination for sight seers. The east side contains miles of Great Lakes shoreline with cobble/pebble beach and a view of Canada. Michigan Natural Features Inventory lists several plant and animal species that have the potential for occurring in this compartment. See the MNFI website for details.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

The east side of the compartment is being proposed as a Habitat Area or corridor SCA. This area contains unique geological features and habitats similar to Alvar, including Marblehead, and Great Lakes shoreline.

Watershed and Fisheries Considerations:

This compartment contains some Lake Huron coastline, a small unnamed watershed that drains to Sitgreaves Bay, and some small unnamed ponds. Prescribed activities are appropriate for protection of these waterbodies and the coastline

Wildlife Habitat Considerations:

This compartment is part of the Drummond Island Management Area where featured wildlife species include black bear, snowshoe hare, white-tailed deer, ruffed grouse, sharp-tailed grouse, and northern goshawk. The compartment is located on the east end of the island, and the entire eastern border of the compartment is Great Lakes shoreline. Common habitat types include aspen, some northern hardwood pockets, cedar, mixed stands that include a variety of species including aspen and cedar, and wetlands. Stands vary in density throughout the area influenced, in part, by the shallow soils over limestone bedrock; shrub and herbaceous cover are prominent in canopy gaps and in semi-open areas on the east end. Dogwoods, buffalo berry, juniper, and hazel are common shrubs depending on location. The eastern edge of the compartment has been identified as the Marble Head unique geological area. It contains limestone cliff as well as the unique semi-open habitat resulting from the limestone bedrock, and supports a number of rare species. The southern portion of the compartment is part of the deer wintering complex. Cedar is common. It is a dominant canopy species in some stands and a component in most remaining stands. The cedar provides cover for wintering deer in many locations, and stands near the shoreline are important for migratory songbirds for resting and feeding sites.

Shoreline areas and stands on the east end of the compartment near Marble Head will be retained to maintain the unique habitats, features, and species in this area. Aspen will be managed to promote early successional habitat while maintaining age class diversity in patches to benefit ruffed grouse, deer, snowshoe hare, and bear. Diversity will be promoted in northern hardwood stands by leaving snags, coarse woody debris, and some larger trees with multi-branched tops to encourage use by hawks and cavity nesters. Beech will be the primary target for selection harvests where it exists in these stands due to the presence of beech bark disease, but some beech will be left for diversity. Harvests in deer wintering complex will take place during the winter so tops are available as browse to wintering deer. Cedar will be left to maintain cover for wintering deer. Wetlands will be buffered to maintain travel corridors and wetland wildlife habitats. Treatments will avoid any rare species or habitat occurrences to protect these rare features. Activities in this compartment should remain consistent with the Drummond Island Comprehensive Resource Management Plan (Nov. 2015).

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of thin to discontinuous glacial deposits over bedrock. There is insufficient data to determine the glacial drift thickness. The Silurian Manistique, Burnt Bluff and Engadine Groups subcrop below the glacial drift. The Engadine is quarried for stone/dolomite on the west side of the island. A gravel pit is located five miles to the southwest and potential is unknown. Two Trenton exploratory tests were drilled in 1934 and 1943 to the southwest of the Compartment. There is no current economic oil and gas production in the UP. The Compartment is primarily surface only.

Vehicle Access:

Jeep trails, and ORV trails are throughout the compartment. Most are passable with four wheel drive vehicles. The Marblehead Road is one and is strictly four wheel drive access only. The Plywood camp Road, in the southern part of the compartment is more or less a logging road but is also strictly four wheel drive access. A new logging road was constructed for a timber sale completed earlier this year, and future management purposes, and has been closed to the public.

Survey Needs:

A survey is needed for the private on the west side of the compartment for both timber sales and to verify a cabin trespass. A survey is also needed in the southeast corner of the compartment to determine if there is a trespass.

Recreational Facilities and Opportunities:

Snowmobile, ORV and jeep trails are throughout the compartment. Hunting is one of the main sporting opportunities along with camping, hiking, and sight seeing.

Fire Protection:

Vehicle access is not good for fire equipment and only fair for other types of off road vehicles. Water sources are scarce. Structure protection would be a concern on the west and south side for hunting camps.

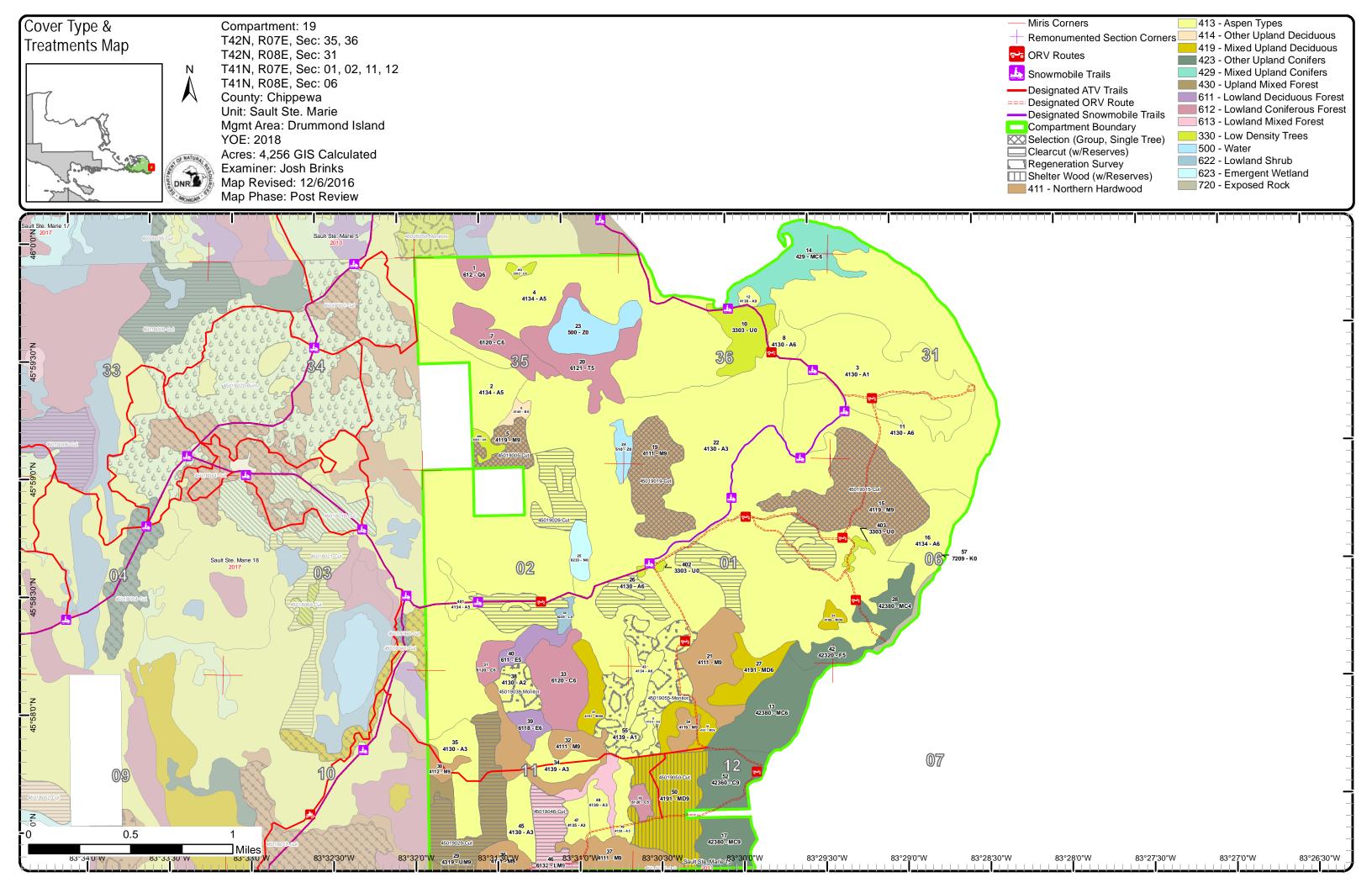
Additional Compartment Information:

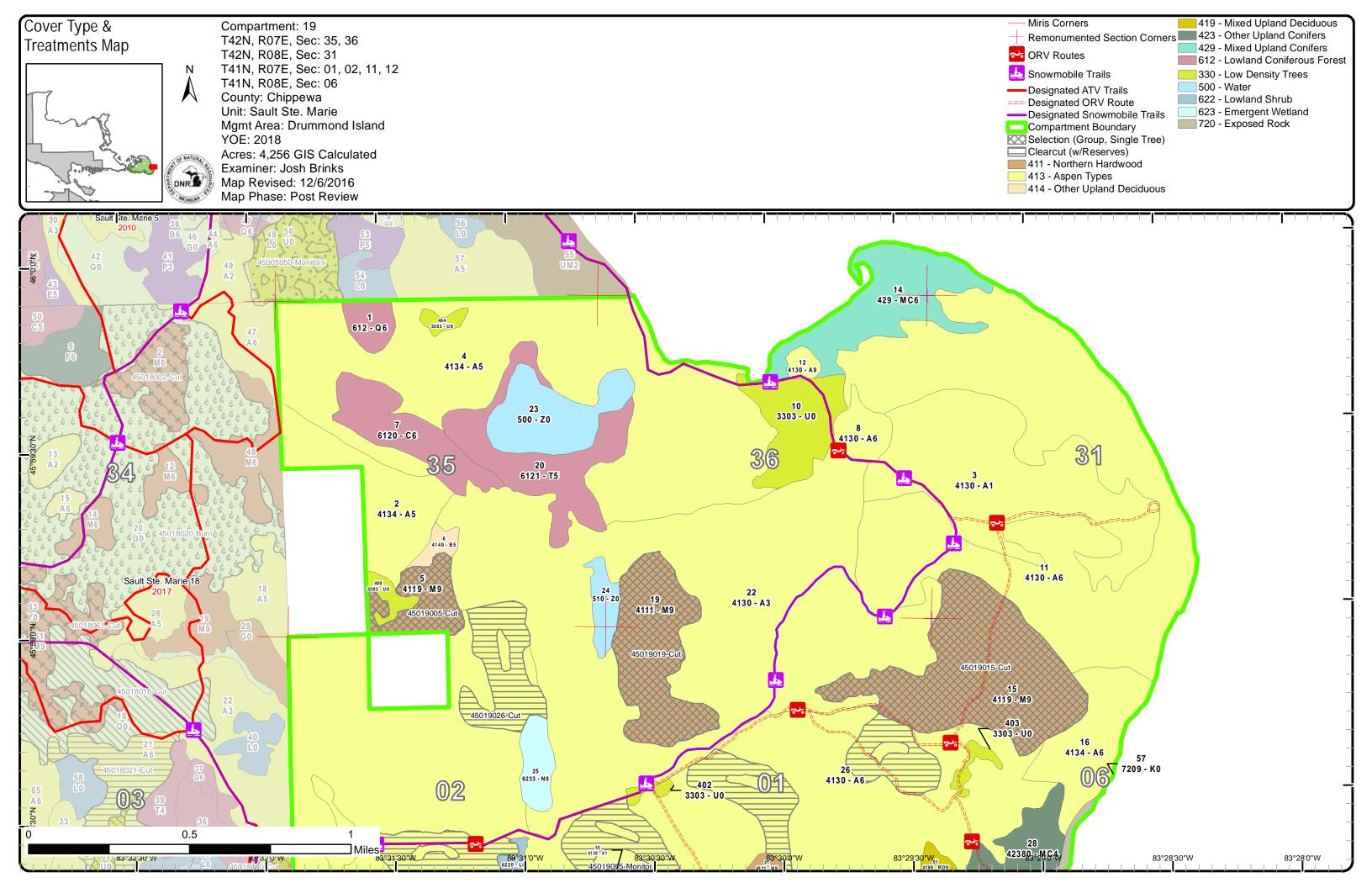
The following reports from the Inventory are attached:

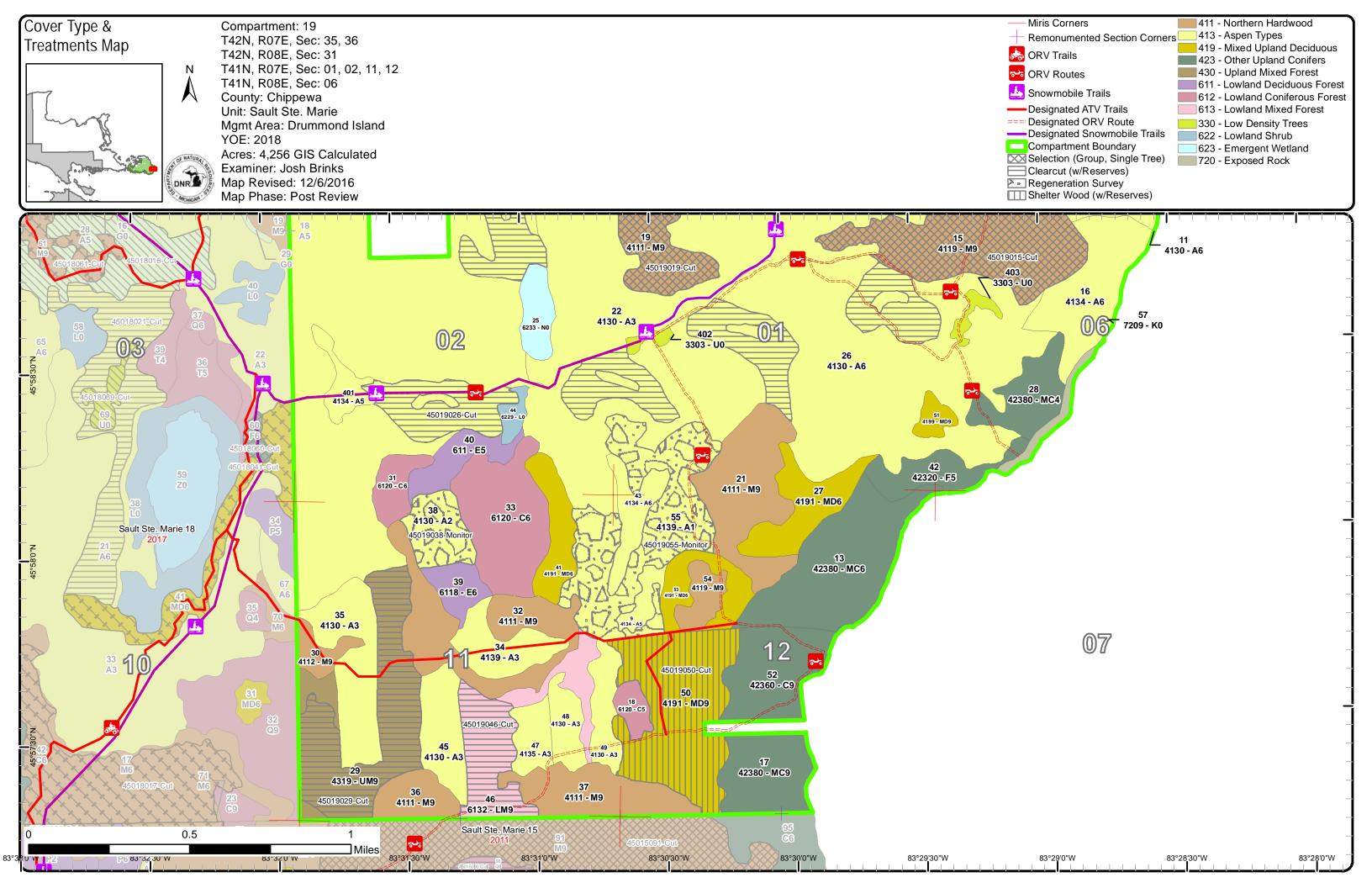
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

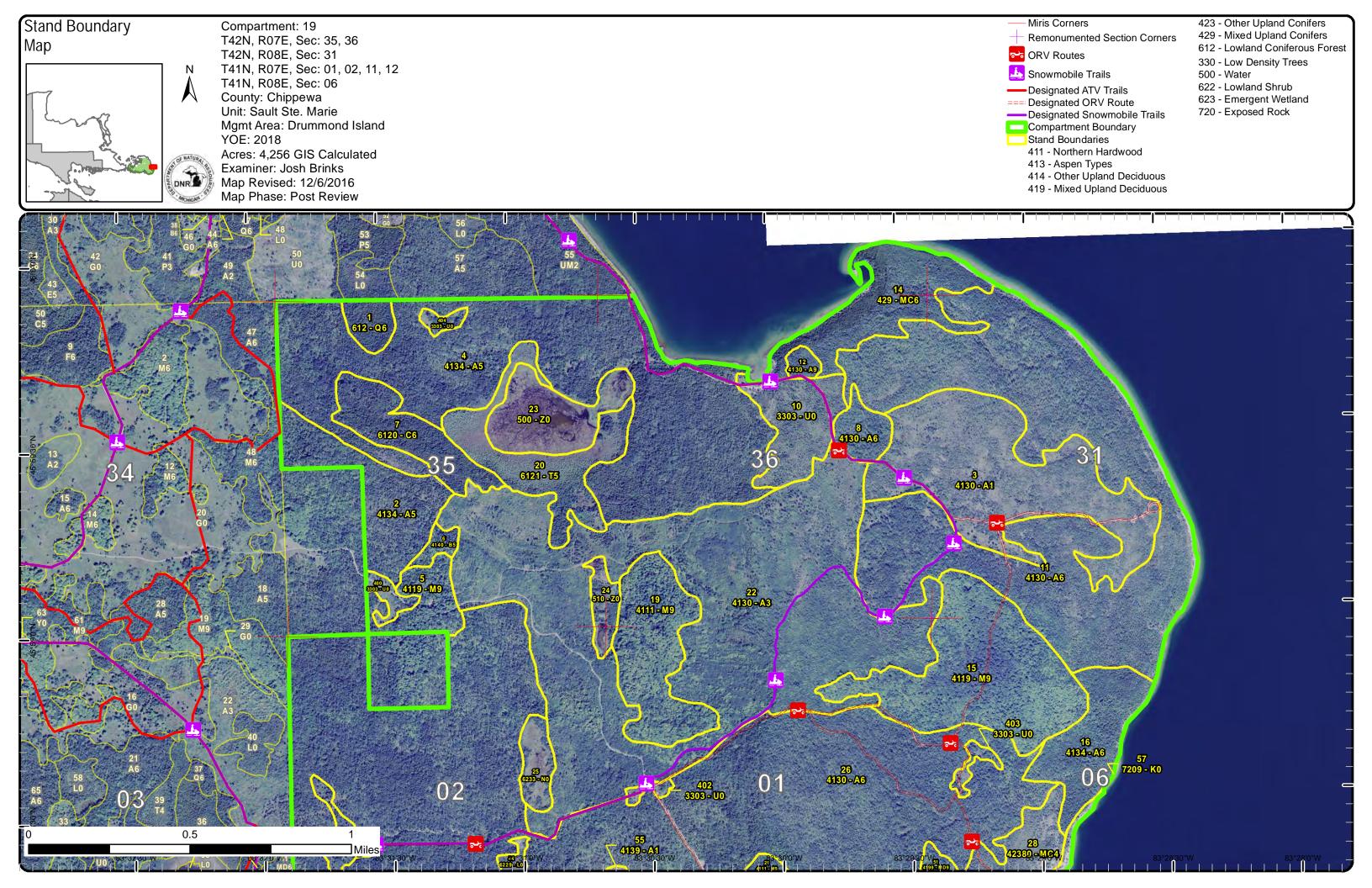
The following information is displayed, where pertinent, on the attached compartment maps:

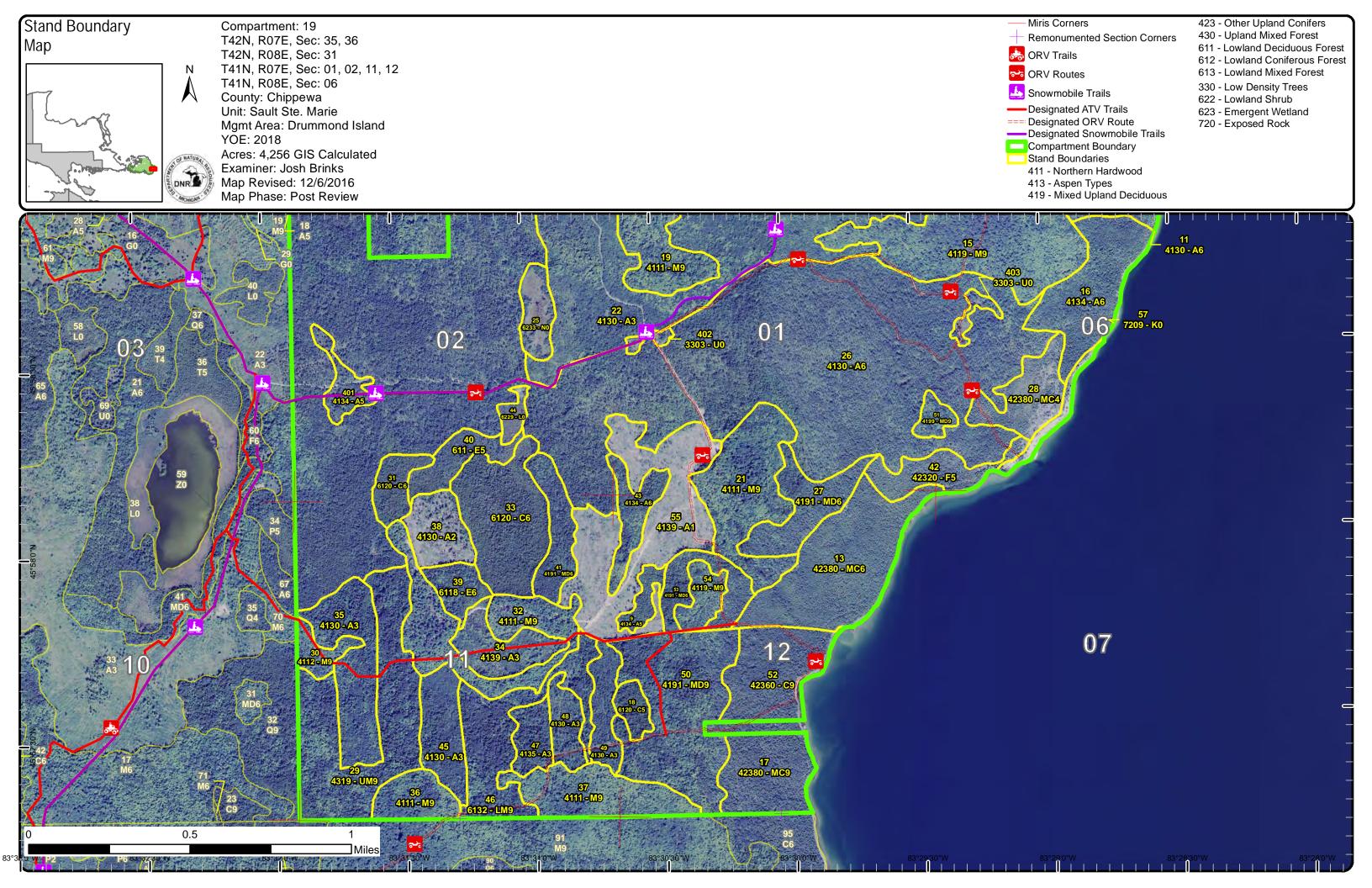
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

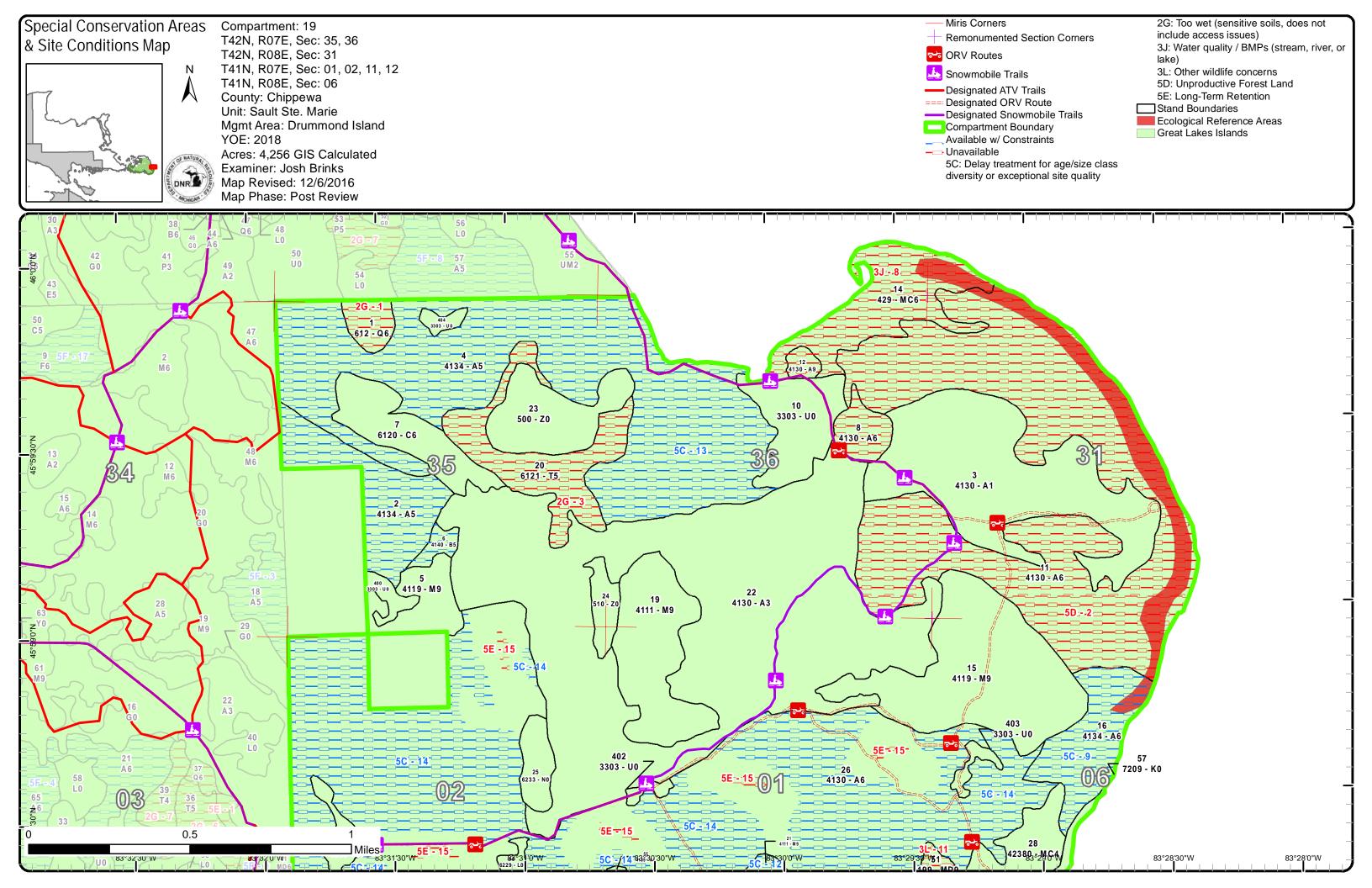


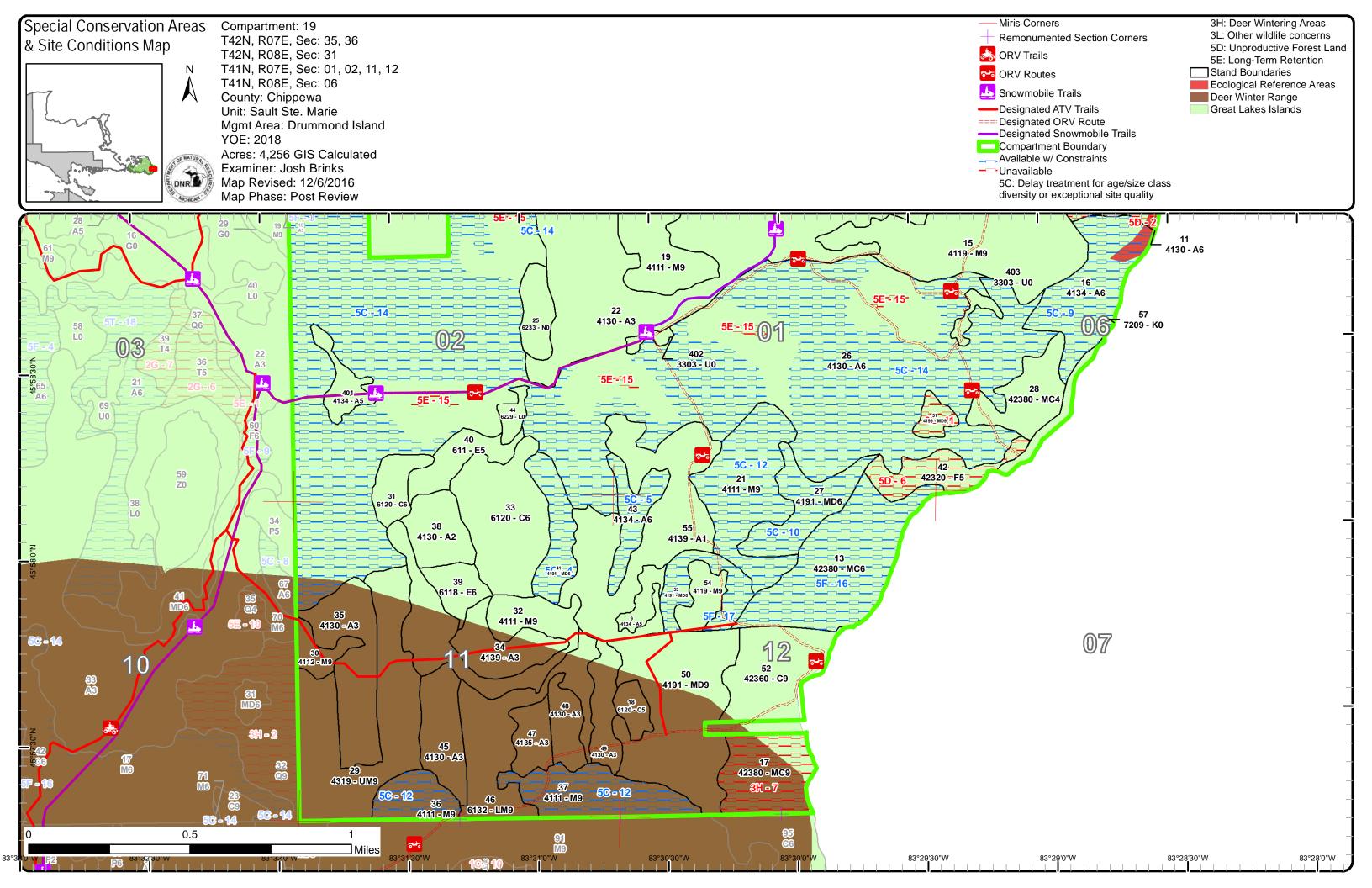












Josh Brinks: Examiner

Sault Ste. Marie Mgt. Unit

Compartment 19 Year of Entry 2018



Age Class

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Aspen	0	126	551	115	22	169	808	936	5	0	0	0	0	0	0	0	0	0	2730
Cedar	0	0	0	0	0	0	0	0	0	9	61	64	0	0	50	0	0	0	184
Exposed Rock	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Low-Density Trees	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Lowland Conifers	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	13
Lowland Deciduous	0	0	0	0	0	20	0	0	15	0	0	0	0	0	0	0	0	0	35
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	59	0	0	0	0	0	59
Lowland Shrub	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Marsh	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Mixed Upland Deciduous	0	0	0	0	0	0	83	0	0	8	0	0	98	0	0	0	0	0	189
Northern Hardwood	0	0	0	0	0	0	0	0	105	202	14	0	0	0	0	0	0	137	458
Paper Birch	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
Tamarack	0	0	0	0	0	0	0	65	0	0	0	0	0	0	0	0	0	0	65
Upland Conifers	0	0	0	0	0	0	119	0	73	0	0	0	43	0	0	0	0	0	235
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	97	0	0	0	0	0	96
Upland Spruce/Fir	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	25
Water	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Total	159	126	551	115	22	189	1042	1001	198	232	75	64	297	0	50	0	0	137	4255



Report 2 – Treatment Summary

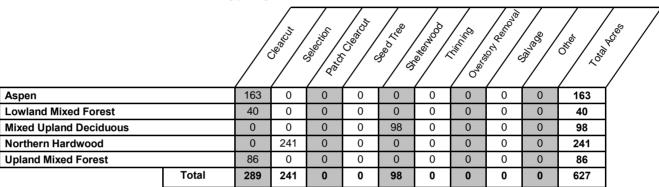
Sault Ste. Marie Mgt. Unit Year of Entry: 2018

Acres of Harvest

Compartment 19
Total Compartment Acres: 4,256

Commercial Harvest - 627 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method

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Current		627	0	0	0	0	0	126	0	0	753	
Next Step		0	0	241	0	0	0	627	0	0	868	
	Total	627	0	241	0	0	0	753	0	0	1621	

Compartment: 19

Year of Entry: 2018

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a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
5	45019005-Cut	28.1	4119 - Mixed Northern Hardwoods	Sawtimber Well	79	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

Specs:

Prescription Mark stand to 80-90 basal area with beach as the priority to remove due to beech bark disease being present. Leave smooth bark beech trees with little sign of disease and wildlife trees. Leave all hemlock, cedar, and a component of ash (3-5 or more per acre where present) due to their value to wildlife. Some larger canopy gaps may be desirable around aspen, yellow birch and oak trees to enhance the regeneration of those species and promote food sources for deer, bear, and other wildlife. Consider scarification around hemlock to promote regeneration if practical during harvest and no impacts to existing hemlock is expected, and planting oak and hemlock in canopy gaps. Buffer the drainage that runs through the stand.

Next Step

Monitoring, Natural Regen (Intermediate); Planting, Underplant

Treatments:

Acceptable Acceptable regeneration includes maple, ash, beech, birch, aspen, basswood, oak, hemlock, white pine, oak.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

45019015-Cut 137 4 4119 - Mixed Sawtimber 111-Harvest Single Tree 411 - Northern Uneven-Draft Field Northern Hardwoods Well 140 Selection Hardwood Aged Boundary

Habitat Cut: No Site Condition:

Specs:

Prescription Mark stand to 80-90 basal area with beach as the priority to remove to enhance the diversity of the stand for deer, bear, hawks, and other species. Do big tree management in this stand attempting to enhance the canopy of large trees. Leave smooth bark beech trees with little sign of disease and wildlife trees resulting in 3-5 or more beech left per acre where present. Leave 3 -5 or more ash per acre where present to maintain a component of ash in the stand. Some larger canopy gaps may be desirable around aspen, yellow birch and oak trees to enhance the regeneration of those species and promote food sources for bear and other wildlife. Consider planting oak and hemlock in canopy gaps. Avoid impacts to any rare species occurrences.

Next Step

Monitoring, Natural Regen (Intermediate); Planting, Underplant

Treatments:

Acceptable Acceptable regen includes maple, ash, beech, oak, ironwood, aspen, birch, pine and hemlock.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

45019019-Cut 4111 - S.Maple, 411 - Northern Draft Field 75.1 Sawtimber 82 111-Harvest Single Tree Uneven-Hard Mast Well 140 Selection Hardwood Aged Boundary Association

Habitat Cut: No Site Condition:

Specs:

Prescription Mark stand to 80-90 basal area with beach as the priority to remove. Do big tree management in this stand attempting to enhance the canopy of large trees to benefit hawks and other wildlife. Leave smooth bark beech trees with little sign of disease and wildlife trees. Some larger canopy gaps may be desirable around aspen, yellow birch and oak trees to enhance the regeneration of those species and promote food sources for deer, bear, and other wildlife. Leave all conifers. Buffer vernal features. Consider planting oak and hemlock in canopy gaps.

Next Step

Monitoring, Natural Regen (Intermediate); Planting, Underplant

Treatments:

Acceptable Acceptable regen includes maple, basswood, oak, ash, beech, birch, aspen, pine, hemlock.

Regen:

Other Comment:

Proposed Start Date:

10/01/2017

Compartment: 19 Year of Entry: 2018

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a n d	Treatment Name	Acres	Stand CoverType		Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status	8/
26	45019026-Cut	162.5	4130 - Aspen	Poletimber Well	62	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary	

Site Condition: **Habitat Cut: No**

Specs:

Prescription The purpose of this treatment is to break up the age classes of this stand to benefit ruffed grouse, snowshoe hare, deer, and other species. We are looking to harvest around 150-200 acres in 30-40 acre patches. These patches should focus, as best as possible, around areas of more mature aspen. It is okay to harvest smaller dbh trees as long as it is merchantable. Cut all deciduous trees 2" or more and conifer trees 4" or more. Leave all cedar, pine, oak and hemlock. The treatment shapes are in a rough proximity of where we would like to cut but they can be moved within the stand boundary. Stay out of wet areas and vernal ponds. Strategically place retention islands in all cut areas to maintain mature habitat patches in the treatment. Preferably to be a long narrow strip for a travel corridor. The size and shape can change from what is drawn but keep them between 2-2.5 acres. Where practical, pile slash during processing and consider hinging some larger trees to encourage hare use. Leave oak and other mastproducing trees where present.

Next Step Treatments: Monitoring, Natural Regen (Intermediate)

Acceptable Acceptable regen includes aspen, bam, spruce, fir, birch, maple, ironwood, oak, pine, cedar.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

86.4 45019029-Cut 4319 - Mixed Sawtimber 110 141-Harvest Clearcut with Draft Field 413 - Aspen Even-Aged **Upland Forest** Well 170 Retention Boundary

Habitat Cut: No Site Condition:

Prescription Cut all deciduous trees that are 2" or more in DBH and all conifers that are 4" or more in DBH. Do not cut cedar, pine, hemlock, oak and yellow Specs: birch. Stay out of areas of cedar. Leave brush piles for hare. Try to cut all areas of aspen that are operable within the stand boundary. This

treatment size will vary once cedar areas are dropped.

Next Step

Monitoring, Natural Regen (Intermediate) **Treatments:**

Acceptable Acceptable regen includes aspen, birch, maple, pine, cedar, spruce, hemlock and fir

Regen: Other

Work with WLD Biologist while putting in sale boundary lines.

Comment:

Proposed Start Date: 10/01/2017

38 45019038-25.0 Natural Regen Draft Field 4130 - Aspen Sapling **Immatu** Monitoring 413 - Aspen Even-Aged Monitor Medium (Intermediate) Boundary re

Habitat Cut: No Site Condition:

Prescription Regen check as per the work instructions.

Specs:

Next Step

Treatments:

Acceptable Acceptable regen includes aspen, bam, birch, maple, oak, pine and cedar.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

Compartment: 19

Year of Entry: 2018

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a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
46	45019046-Cut	40.1	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	110	141- 170	Harvest	Clearcut with Retention	6112 - Lowland Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Cut all deciduous trees that are 2" or more in DBH and all conifers that are 4" or more in DBH. Do not cut cedar, pine, hemlock, oak and yellow birch. Stay out of areas of cedar. Leave brush piles for hare. Try to cut in all aspen patches that are operable within the stand boundary. This Specs:

treatment size will vary once cedar areas are dropped.

Next Step Treatments:

Acceptable Acceptable regeneration includes aspen, birch, maple, spruce, fir, pine, cedar and hemlock.

Regen:

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Other Work with WLD Biologist to put in sale boundary lines.

Monitoring, Natural Regen (Intermediate)

Comment:

10/01/2017 Proposed Start Date:

45019050-Cut 97.8 Sawtimber 4199 - Other 4191 - Mixed 110 111-Harvest Shelterwood with Uneven-Draft Field **Upland Deciduous** 140 Retention Mixed Upland Aged Boundary with Conifer Deciduous

Habitat Cut: No Site Condition:

Prescription Remove all aspen, birch, spruce and fir to maintain these early successional species for ruffed grouse, deer, and snowshoe hare. Retain scattered Specs: pockets of mature aspen and birch. Leave all cedar and stay out of patches of cedar to retain cover for wintering deer. Thin the hardwood areas to 90 basal area focusing on big tree management. Buffer the drainage so that no equipment runs through it except at approved crossings. Winter cut

(Dec. 1 - Mar. 31) so tops are available as browse to wintering deer. Where practical, pile some slash during processing and consider hinging some

trees to encourage hare use.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

<u>Acceptable</u> Acceptable regen includes maple, aspen, birch, oak, pine, hemlock, cedar, basswood, beech, ash, spruce and fir.

Regen:

Other Treatment size may vary when red line is painted around this stand.

Comment:

Proposed Start Date: 10/01/2017

45019055-100.5 4139 - Aspen, Mixed Natural Regen Draft Field 55 Sapling **Immatu** Monitoring 413 - Aspen Even-Aged Monitor Deciduous Poor (Intermediate) Boundary re

Habitat Cut: No Site Condition:

Prescription Regen check as per the work instructions.

Specs:

Next Step Treatments:

Acceptable Acceptable regen includes aspen, bam, birch, maple, oak, pine and cedar.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

Total Treatment 752.9 **Acreage Proposed:**

Sault Ste. Marie Mgt. Unit

Josh Brinks: Examiner

Compartment: 19
Year of Entry: 2018

Availa	ability for	Managemer	nt									
Total	Acres	Acres Avail	Acres	Ι	Dominar	nt Site	e Cond	dition	s			
Acres	Available	With Condition	Not Available		5C	5F	2G	3Н	3J	3L	5D	5E
2732	1146	1164	422	Aspen	1,164				5		404	12
184	184	0	0	Cedar								
9	9	0	0	Exposed Rock								
67	67	0	0	Low-Density Trees								
13	0	0	13	Lowland Conifers			13					
35	35	0	0	Lowland Deciduous								
59	59	0	0	Lowland Mixed Forest								
6	6	0	0	Lowland Shrub								
16	16	0	0	Marsh								
188	98	83	8	Mixed Upland Deciduous	59	23				8		
458	327	131	0	Northern Hardwood	131							
7	0	7	0	Paper Birch	7							
65	0	0	65	Tamarack			65					
203	0	88	115	Upland Conifers		88		43	73			
97	97	0	0	Upland Mixed Forest								
25	0	0	25	Upland Spruce/Fir							25	
62	62	0	0	Water								
4,225	2,104	1,472	649	Total Forested Acres	1,360	111	78	43	78	8	430	12
	50%	35%	15%	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.

	2G: Too wet (sensitive soils, does not include	13	Unspecified	Unspecified	Unspecified	Unspecified
	access issues)				Chapcomed	onspecified
Comments:						

Report 4 – Site Conditions

Sault Ste. Marie Mgt. Unit

Josh Brinks : Examiner

2	Unavailable	5D: Unproductive Forest Land	404	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	65	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
	Comments: NO SBW and is be	eing left because of green up w	ith adja	acent cut.			
6	Unavailable	5D: Unproductive Forest Land	25	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	3H: Deer Wintering Areas	43	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
	Comments: Too much cedar fo	or SBW salvage plus its in the d	eer ya	rd.			

Report 4 – Site Conditions

Sault Ste. Marie Mgt. Unit

Josh Brinks : Examiner

8	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	78	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Not harvesting the	se stands bc they are close to t	he lake	eshore.			
9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	56	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
	Comments: NO SBW in area t	this time. Hold off on harvest.					
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	35	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
	Comments: NO sign of SBW						
11	Unavailable	3L: Other wildlife concerns	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Leave the stand for	or biodiversity. Neat area of oak	and n	naple in a sea of aspen.			
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	131	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Decided we are cu	utting enough of the hardwoods	in this	area. We will look at it ag	ain in 10 years.		
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	410	2E: Road needed	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified
	Comments: Stand 4 is closer to	o being ready to harvest than st	and 2	which has had a lot of the	canopy die out over the years		

Report 4 – Site Conditions

Sault Ste. Marie Mgt. Unit

Josh Brinks : Examiner

14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	684	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
15	Unavailable	5E: Long-Term Retention	13	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
16	Available	5F: Evaluated for Forest Health Considerations	88	Unspecified	Unspecified	Unspecified	Unspecified
	omments: O SBW at this tir	ne. Might be difficult to harvest	because	of proximity to shoreline).		
17	Available	5F: Evaluated for Forest Health Considerations	24	Unspecified	Unspecified	Unspecified	Unspecified
	omments: o sign of SBW ha	ave to hold because of green up)				

Compartment: 019
Year of Entry: 2018



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	
	Habitat Areas or Corridors	Other Habitat Area	Proposed SCA	739	
Comments					
Marble Head unique ge	ological area.				
	Other SCA		SCA Removal	933	
Comments					
Does not meet SCA crit	eria at this time.				

Sault Ste. Marie Mgt. Unit Compartment:
Year of Entry



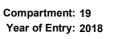
Report 6 - EXISTING SPECIAL CONSERVATION AREA DETAILS

* 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.

Conservation Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Great Lakes Islands	Great Lakes Islands provide significant habitat for numerous speanimals, several of which are endemic or largely restricted to the isolation, islands provide good examples of many Great Lakes-a ecosystems, and thus have potential to provide insights for undedisturbance on the increasingly fragmented ecosystems of the management of the	e Great Lakes region. Due to their ssociated natural communities and erstanding the consequences of human
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildle and Waterfowl Production Areas, deer wintering complexes in lo 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 rendangered species, and are not
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Elemen (Excellent) or B (Good) and a Global (G) or State (S) element (rathreatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations managed for restoration and maintenance of natural ecological public recommendations for lands as ERAs using the DNR Con	al Features Inventory (MNFI) within the toccurrences with viability ranks of A arity) ranking of endangered (1), may be located upon any ownership in of natural community types that are processes and values. The public may



s t	Sault Ste. Marie Mgt. Unit			Report 7	– Forested	Stands Compartment: 19 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	612 - Lowland Coniferous Forest	Poletimber Well	13.3	87	111-140	Low ground with a poor quality cedar stand.
2	4134 - Aspen, Spruce/Fir	Poletimber Medium	65.2	58	51-80	Stand is a mix of young and old aspen. It looks like some of that aspen has fallen out of the stand resulting in pockets of sapling size advanced regen. The canopy is pretty thin in most of the stand but there are a few patches of fully stocked mature timber. There is a rocky slope down to the stand to the north. This stand is different from the stand to the north because the ground is less rocky and there is less canopy closure and varying ages of aspen. May have a trepass cabin but no good control exists for a survey.
3	4130 - Aspen	Sapling Poor	168.5	44	1-50	This stand has just enough canopy closure to call it a forested stand. It is A1 with opening of upland brush. Some of the patches of aspen are pretty well stocked. Lots of juniper in the understory. Scattered oak and spruce. Rocky shallow soils.
4	4134 - Aspen, Spruce/Fir	Poletimber Medium	338.4	58	51-80	Northeast side of the stand near the road is a variable size aspen/spruce stand with lots of shrub species in the understory like dogwood, juniper. Some tamarack can be found near the shoreline. The ground is a bit rocky. Some cedar and sugar maple exists in the stand. Watch out for poison ivy.
5	4119 - Mixed Northern Hardwoods	Sawtimber Well	28.1	79	111-140	Cut in 2001, SALE 008-99, scattered ash and ironwood, some raspberry in the regen gaps, good regen. There is a drainage that runs through the stand. Birch found along the fringes of the stand Aspen can be found mixed in with the hardwood especially south of the road. Remove beech, Ash, Aspen, birch.
6	4140 - Other Upland Deciduous	Poletimber Medium	6.6	50	51-80	Stand of open canopy pole and small log size birch over maple and ironwood regen.
7	6120 - Lowland Cedar	Poletimber Well	45.4	99	141-170	Patch of lowland cedar with spruce, birch and aspen.
8	4130 - Aspen	Poletimber Well	17.2	58	51-80	This is a stand of Serengeti aspen. Old aspen trees that are only 2 stickers. There is scattered spruce and oak in the stand.
9	4134 - Aspen, Spruce/Fir	Poletimber Medium	8.9	31	51-80	Pole size aspen over a very thick understory of conifer most of which was cedar.
11	4130 - Aspen	Poletimber Well	387.1	59	51-80	I was able to see this stand from many different locations from the beech and along the trails\roads. Stand is dominated by aspen with dogwood understory. Stand varies from patches of fully stocked Serengeti aspen to patches of shrub openings and areas of higher quality, taller aspen. Scattered oak and maple throughout the stand. Lots of poison ivy. The stand is fairly rocky with shallow soils. There are rock ledges running down to the beach.
12	4130 - Aspen	Sawtimber Well	5.4	75	111-140	Very nice stand of log sized aspen. Some conifer in the understory but it is dominated by thick dogwood. Aspen is looking healthy right now but a few trees are starting to decline.





s t	Sault Ste. Marie Mgt. Unit			Report 7	– Forested	Stands Compartment: 19 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	87.7	55	81-110	Mixed conifer stands some areas of cedar/spruce saplings scattered throughout the stand. Nice cedar regen. Could harvest the merchantable areas of this stand.
14	429 - Mixed Upland Conifers	Poletimber Well	72.8	76	111-140	Was able to se the entire stand adjacent to the shoreline. It was a mix of conifers dominated by spruce and cedar with aspen and birch mixed in. A lot of cedar regen can be found along the shoreline. The stand has more birch and aspen mixed in on top of the hill. Scattered pine is found throughout the stand.
15	4119 - Mixed Northern Hardwoods	Sawtimber Well	137.4	79	111-140	Very nice stand of mixed hardwoods. The stand was last cut around 1990. The south end of the stand is a little heavier to pole size trees but the north is full of large log size trees. This stand could be accessed via the new snowmobile trail. Lots of beech in the stand that looks healthy but has scale which mean it is just starting to be affected by BBD. Some large ridges in the stand east of the ORV route. North East corner of the stand is and open canopy of oak and birch with regen underneath.
16	4134 - Aspen, Spruce/Fir	Poletimber Well	56.0	63	111-140	This stand is fairly mixed dominated by aspen/spruce, Along the hardwood edge the conifer is more thick in the understory. As you get closer to the lake there is more dogwood in the understory than anything else. Quite a bit of scattered red pine in the stand. Some large rock ledges drop down to the lake. Cedar can be found on these ledges.
17	42380 - Non Pine Upland Conifer, Mixed Deciduous	Sawtimber Well	42.6	110	141-170	This stand has me conflicted as to whether it is a cedar stand with areas of mixed aspen/spruce or is it a mixed stand with patches of cedar. Some areas like the Northeast corner and along the western edge of the stands are really nice cedar that is very large in DBH and tall with little in the understory. There are other areas that are dominate by a mix of large aspen and spruce. In some places the aspen has fallen out of the stand and there is thick spruce/fir in the understory.
18	6120 - Lowland Cedar	Poletimber Medium	9.3	87	51-80	This stand is a lowland stand that empties out to the east through a drainage in stand 50. There is scattered pole and log size cedar, bam, and ash with a thick understory of ash, fir and spruce saplings.
19	4111 - S.Maple, Hard Mast Association	Sawtimber Well	75.1	82	111-140	Very nice hardwood stand that is dominated by sugar maple and beech. Lots of big trees in this stand. Very little conifer component in this stand but you can find a white spruce or a cedar. Stand should be thinned. South end is a little more mixed and smaller in diameter.
20	6121 - Tamarack	Poletimber Medium	65.1	60	51-80	Saw this stand from the north side of the wetland. Looks like a mixed conifer lowland dominated by tamarack.
21	4111 - S.Maple, Hard Mast Association	Sawtimber Well	65.4	86	111-140	Some impressively large hardwoods in this stand. Aspen mixed in along the edges. Not much in the understory.



s t	Sault Ste. Marie Mgt. Unit			Report 7	- Forested	Stands Compartment: 19 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4130 - Aspen	Sapling Well	507.7	11	Immature	OPIC - FMD: New stand, was parts of many stands, Sale 99-01 Marblehead Aspen large area put up for regen cut, contains man types, low-wet areas, scattered, small, hardwood knobs, cedar thickets, and grass openings, will type out when this stand sorts itself, white birch left - approx 20 BA, good gravel area, new roac constructed through private future DNR. use only, possible snow trail route.Birch retention.Wet, rocky.Hardwood.
26	4130 - Aspen	Poletimber Well	859.1	62	81-110	Super variable stand that is dominated by aspen. Areas of nice mature, large trees and other with scattered log or pole size tree with saplings coming in. There are areas of low ground scattered throughout the stand. Vernal ponds with ash. Need to start breakig up age classes in this stand. East side of the stand near the shale beach road has larger DBH(possible harvest) near spl rock the stand looks to be converting to maple.
27	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	34.5	58	111-140	Spruce/aspen stand that has a soft transition from hardwoods. Bordered on the east side by a hill down to stand 13. Some area look like it will be converting to a maple stand as the aspen and spruce die out.
28	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Poor	30.8	56	1-50	Very rocky stand with shallow soils. Some areas are more oper than others. Poor stocking, shrubs in the understory along with wildflowers. Poison ivy.
29	4319 - Mixed Upland Forest	Sawtimber Well	96.5	110	141-170	These strips were set up and then never sold. This is a good mix of aspen spruce/fir with patches of cedar and patches of hardwoods. The furthest west strip is very mixed and has opportunity to manage around the cedar.
30	4112 - Maple, Beech, Cherry Association	Sawtimber Well	11.1	79	81-110	Small ridge of hardwoods. Aspen is mixed in along the edges of the stand. Scattered hemlock, cedar and white pine. BBD has he this stand hard and has caused a lot of mortality. There are som patches of pole sized timber.
31	6120 - Lowland Cedar	Poletimber Well	15.3	91	111-140	Cedar stand that has some pretty large trees along the upland edges but interior in some of the wet areas it transitions to a patchy cedar canopy over tag alder and ash.
32	4111 - S.Maple, Hard Mast Association	Sawtimber Well	61.3	86	81-110	Stand was last thinned in 2013 as part of the marble head south sale. The western portion has a little lower BA.
33	6120 - Lowland Cedar	Poletimber Well	64.2	101	141-170	Saw this stand from the south and from across the clearcut. Decent cedar stand with wet areas of ash.
34	4139 - Aspen, Mixed Deciduous	Sapling Well	27.5	13	Immature	Sale 015-98, cut in 2003. Great aspen regen that is doing really well. The stand gets a little wet on the west side and there is some willow mixed in. Scattered pole size sugar maple, cedar, oak, white pine and aspen can be found throughout the stand.
35	4130 - Aspen	Sapling Well	50.7	25	Immature	Stand was cut in 1991. Very good regen of aspen, BAM. Stand is still mostly sapling size but around 15% is in the pole size category.

s t	Sault Ste. Marie	Sault Ste. Marie Mgt. Unit			– Forested	Stands Compartment: 19 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
36	4111 - S.Maple, Hard Mast Association	Sawtimber Well	21.1	79	111-140	Stand of large hardwood trees. There is a "drainage" that runs through the stand and flows to the south. At the north end of the drainage is an inclusion in the stand of large cedar and aspen trees. As with most Drummond hardwood stands there is aspen and spruce along the edges of the stand.
37	4111 - S.Maple, Hard Mast Association	Sawtimber Well	44.5	79	111-140	Stand of very large hardwoods. There is a pretty good amount of oak in this stand, some are monstrous. Most of the stand is fairly open in the understory.
38	4130 - Aspen	Sapling Medium	25.0	3	Immature	Stand was cut as part of Marblehead South sale in 2013. Cedar and sugar maple trees were reserved during the sale along with some birch. The deciduous reserve trees are almost all dead and the cedar is looking pretty thin. Good regen in most of the stand but there are patches of thick slash with grass that has very little regen in it.
39	6118 - Lowland Deciduous with Cedar	Poletimber Well	14.7	74	81-110	Mixed stand. In some areas the timber is very large but in others it is pole size. Wet ground with some upland. As you get closer to the really wet spot in the south there is more ash mixed in.
40	611 - Lowland Deciduous Forest	Poletimber Medium	20.0	48	51-80	Stand looks like a mix of BAM/ash over tag alder with patches of cedar. Wet low ground.
41	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	24.7	58	111-140	The south end of this stand is mostly spruce which is experiencing some mortality due to age and overstocking. As you go north in the stand it becomes more mixed with some nice areas of regen. The aspen is still small but is not far away from needing to be managed.
42	42320 - Upland Spruce	Poletimber Medium	25.3	56	51-80	Stand is similar in composition to stand 28 but there is more stocking and larger trees. Mixed conifer stand with aspen. Rocky soil with multiple old beaches. Lots of poison ivy. Some open patches on the interior.

111-140

Immature

141-170

Immature

Mixed stand of aspen,spruce/fir with pockets of maple. Decent

amount of maple advance regen suggests that the stand will most likely convert given time. North end is more mixed. In the middle there is a patch of small pole and sapling size maple.

Stand was cut in 1991. Very nice regen that is doing well. A mix

of aspen, BAM and striped maple. Most of the stand is in the sapling size class but around 15% is in poles. Scattered pole size trees were left during the harvest most of which are cedar.

This strip was set up for harvest but was never sold. This strip is a

bit heavier to cedar but still has areas that are more mixed and could be managed.

Stand was cut with the rest of the strips. This one is a little harder

to see on imagery bc of the heavy cedar component left after the cut. There is scattered pole/log size cedar over nice regen of aspen and bam.

4134 - Aspen, Spruce/Fir

4130 - Aspen

6132 - Mixed Lowland

Forest with Cedar

4135 - Aspen, Cedar

43

45

46

47

Poletimber

Well

Sapling Well

Sawtimber

Well

Sapling Well

20.4

29.6

58.6

15.6

64

25

110

25

s



t a n	Level 4 Cover Type	Size Density		Stand	ВА	Year of Entry: 2018 General
d	Cover Type	Delisity	Acres	Age	Range	Comments:
48	4130 - Aspen	Sapling Well	16.0	14	Immature	Stand was harvest in 2002 as the only unit of Bear Camp Strips that was harvested. Regen is just a little bit smaller than the surrounding strip and is doing really well. There are scattered pole and log size trees throughout the stand.
49	4130 - Aspen	Sapling Well	19.3	25	Immature	Sale 16-89, was cut in 1991. The resulting stand is really nice regen of quacking aspen and Bam with some big toothed aspen. There are scattered pole and log size trees of many species in the stand most are cedar. Some wet areas have tag alder. I would say about 15% of the canopy of aspen is in the pole size category.
50	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	97.8	110	111-140	This stand is a conglomeration of hardwoods, aspen and cedar. Some of the higher drier ground is growing decent hardwood dominated by sugar maple and oak. There are also areas of aspen/spruce and areas of cedar. Some of the cedar looks to have been picked through in the early 90's as was evident by the stumps in the stands. A drainage runs east-west through the stand which drains stand 18 out to the east.
51	4199 - Other Mixed Upland Deciduous	Sawtimber Well	7.6	86	111-140	Very neat stand of aspen/hardwood mixed. Lots of oak. Good advanced regen of maple and ironwood. Very large DBH aspen. Mostly open in the subcanopy. The actual hardwood component of the stand might be a little smaller than the shape.
52	42360 - Upland Cedar	Sawtimber Well	49.8	132	171-200	Stand of large cedar which is mostly open in the understory and park like. Aspen is very large. There was at least one rocky drainage which ran down to the lake.
53	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	23.5	58	81-110	Stand is a mix of spruce, aspen and birch. There is a very soft transition to the hardwood stand. The north has a lot of maple advanced regen which makes me think we will se a site conversion if this stand is left alone for too many more years.
54	4119 - Mixed Northern Hardwoods	Sawtimber Well	14.1	92	81-110	Small area of hardwoods surrounded by aspen. The core interior part of the stands is sugar maple but as you get closer to the edges there is more aspen/ birch mixed in. Most advanced regen is sugar maple or ironwood.
55	4139 - Aspen, Mixed Deciduous	Sapling Poor	100.5	3	Immature	Stand was part of Marblehead South timber sale which was completed in 2013. Some areas of the stand have awesome regen but in other areas it is very poor with just grass and cattails. Paper birch and cedar were left during the harvest. About half of the birch is dead now.
401	4134 - Aspen, Spruce/Fir	Poletimber Medium	13.5	33	51-80	This stand was typed as an opening during the last inventory. It has since closed in with enough trees to call it a forested stand. It has grown in with aspen, bam, and spruce along with some brush. DBH is smaller in this stand than the surrounding aspen stand.



Stand	Cover Type	Acres	Managed Site	General Comments:
10	3303 - Mixed Low Density Trees	45.7	No	Shallow rocky soils with low SI. There are patches of trees throughout the stand. Ground cover is mostly juniper with paper birch, tamarack, black spruce and aspen. Trees are stunted. Might become a forested stand next time if trees continue to grow in the opening.
23	500 - Water	48.8	No	A the time of inventory this stand was mostly water with wetland grasses and tag alder along the edges. Some scattered snags throughout the stand. Good duck area.
24	510- Water (OI)	12.9	No	This area must have been a lowland at the time of the Marblehead sale. Since the cut, beavers have moved in and flooded this area. There is some aspen regen located within this stand.
25	6233 - Wet Meadow	16.4	No	Lowland grass opening that holds water during parts of the year. Surrounded by BAM and tag alder. Mostly grass, willow and shrubs. Natural flow through the stand.
44	6229 - Mixed lowland shrub	6.3	No	Stand was once a beaver pond. The north end has open water the south it mostly tag alder and willow shrubs.
57	7209 - Exposed Rock (OI)	9.4	No	BEACH, very remote and scenic pebble beach, an awsome place to see, ORV trail going to the shore, may become a BMP issue.
400	3303 - Mixed Low Density Trees	7.4	No	Stand is starting to fill in with spruce and aspen. If we want to maintain an opening here we should look at doing some management.
402	3303 - Mixed Low Density Trees	3.6	No	Stand contains an old marked grave. Grassy opening filling in with aspen, BAM and spruce.
403	3303 - Mixed Low Density Trees	5.4	Yes	This stand is on the edge of being converted to a forested stand. Old grassy opening that is a popular place to set up deer camps. Some trash around. Filling in with aspen and spruce
404	3303 - Mixed Low Density Trees	4.6	No	Grassy opening that is filling in with aspen, spruce and shrubs. Needs opening maintenance if we are going to retain the opening on the landscape.