



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32078

Entry Year 2019

Acreage: 1,563

County Marquette

Management Area: Dead Horse Moraines

Revision Date: 2017-08-01

Stand Examiner: Kevin LaBumbard

Legal Description:

T43N R24W, Sec. 7,8,9

Identified Planning Goals:

Improve the quality of the Northern Hardwoods stands through selective management while maintaining species diversity, (including the conifer content) and den trees for wildlife. While no Aspen stands are scheduled for management this treatment period, previous cuttings have provided age-class distribution of aspen by harvesting selected stands. Considerations for species diversity, retention, coarse woody debris, and BMPs will be included with every harvest plan. The large wetland complex in this compartment will remain as is to provide the many wildlife and vegetative values contained within.

Soil and topography:

Geologic features include a nearly level glacial drainage way, ground moraines and till plains. Soils range from organic swamps and poorly drained loamy soils to well drained loams. Major soil series include Carbondale, Trenary loams and Kalkaska sands.

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

This compartment is surrounded by additional State land with only a relatively small private land holding to the south. Primary land use around the compartment is production of commercial forest products and low key recreation.

Unique Natural Features:

Very remote hardwood stand, excellent candidate for Type 2 old growth.

Archeological, Historical, and Cultural Features:

Contains evidence of old logging camps.

Special Management Designations or Considerations:

Special Conservation Area Stands: 15,16,18, and 20. Stand 18 is a new addition and proposed as possible ERA.

Watershed and Fisheries Considerations:

This compartment contains no lake or stream fishery but several drainages and a massive beaver flooding.

Wildlife Habitat Considerations:

Compartment 078 is found within the Dead Horse Moraines Management Area; on Ground Moraines in southeastern Marquette, southwestern Alger, and northwestern Delta Counties. The dominant Natural Communities are poor conifer swamps, mesic northern forests, and dry northern forests. Major forest cover types include Northern Hardwood, Aspen, and Mixed Lowland Conifer. This management area contains a large proportion of hardwood forest which regenerates well partly due to the heavier snow cover and lower deer numbers than the southern portion of this Management Area. The most significant wildlife management issues in the management area are: mast (hard and soft); mature forest (upland deciduous, especially aspen and mixed forest with little understory); coarse woody debris, early successional forest, and deer wintering complexes.

The following have been identified as featured species for the Dead Horse Moraines Management Area: black bear, pileated woodpecker, ruffed grouse, and white-tailed deer.

Mineral Resource and Development Concerns and/or Restrictions

Sections 7 - 9, T43N-R24W, Marquette County

Sand/gravel pits are not located in the area and potential appears to be limited within the compartment. There may be some potential for crushed stone within the compartment sourced from the bedrock formations, but production potential could be inhibited by wetlands. There has been no past metallic mineral production in this area, but parcels in Sec 8 were

briefly leased in the 1980s. Metallic mineral production is considered low at this time. There is no economic oil and gas production in the UP.

Vehicle Access:

Access to the compartment is via Hamilton Homestead Road and the Escanaba River Road.

Survey Needs:

none

Recreational Facilities and Opportunities:

The primary recreational activity for this area is for ruffed grouse and whitetail deer hunting.

Fire Protection:

This compartment has a very low risk for wildfire.

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**

Report 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit

Compartment 78

Year of Entry 2019

Kevin LaBumbard : Examiner

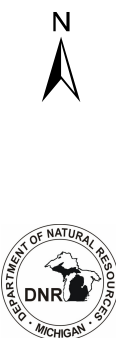
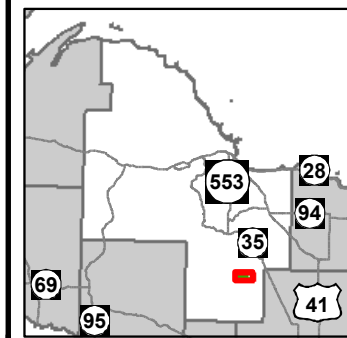


Age Class

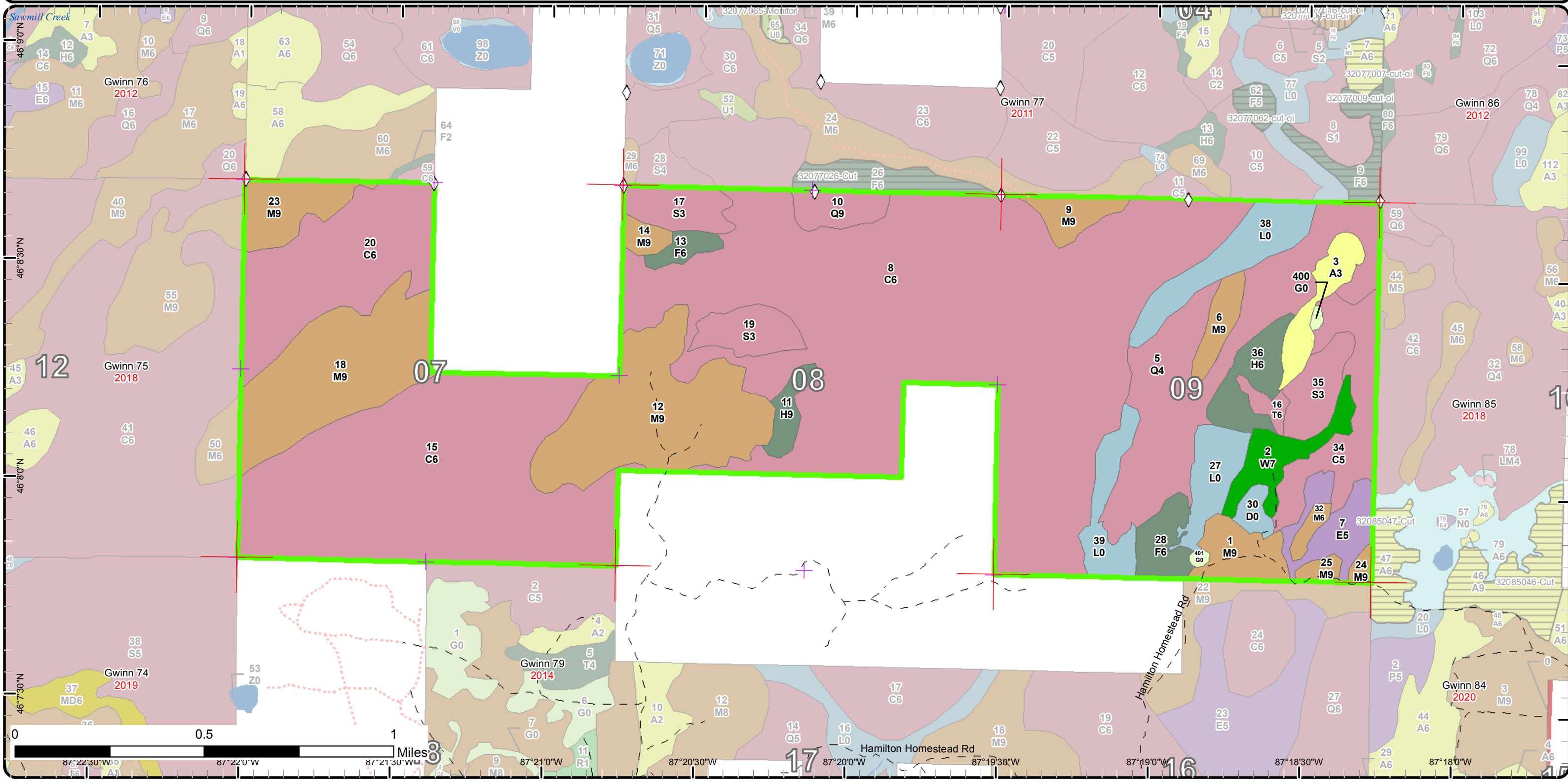
	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Cedar	0	0	0	0	0	0	0	0	0	0	0	382	510	0	0	0	0	0	891
Hemlock	0	0	0	0	0	0	0	0	0	0	0	22	10	0	0	0	0	0	32
Herbaceous Openland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	15	0	0	111	0	0	0	0	126
Lowland Deciduous	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	23
Lowland Shrub	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	58
Northern Hardwood	0	0	0	0	0	0	0	0	4	0	0	28	0	0	0	0	0	249	281
Tamarack	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
Treed Bog	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Upland Spruce/Fir	0	0	0	0	0	0	0	0	16	0	0	7	0	0	0	0	0	0	23
White Pine	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22
Total	84	0	18	0	0	23	0	0	20	22	78	439	520	111	0	0	0	249	1563

Cover Type & Treatments Map

Compartment: 78
 T43N, R24W, Sec: 07, 08, 09
 County: Marquette
 Unit: Gwinn
 Mgmt Area: Dead Horse Moraines
 YOE: 2019
 Acres: 1562.9 GIS Calculated
 Examiner: Kevin LaBumbard
 Map Revised: 1/11/2018
 Map Phase: Post-Review

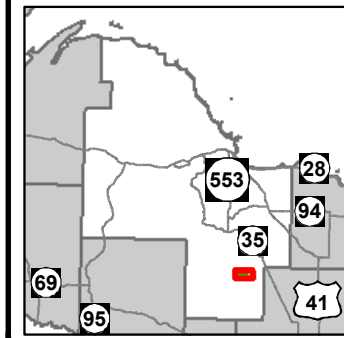


- Miris Corners
- + Remonumented Section Corners
- Field Grade GPS Corners
- Counties
- Poor Dirt Roads
- Closed
- Streams
- Lakes and Rivers All
- Compartment Boundary
- 411 - Northern Hardwood
- 413 - Aspen Types
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- Lakes

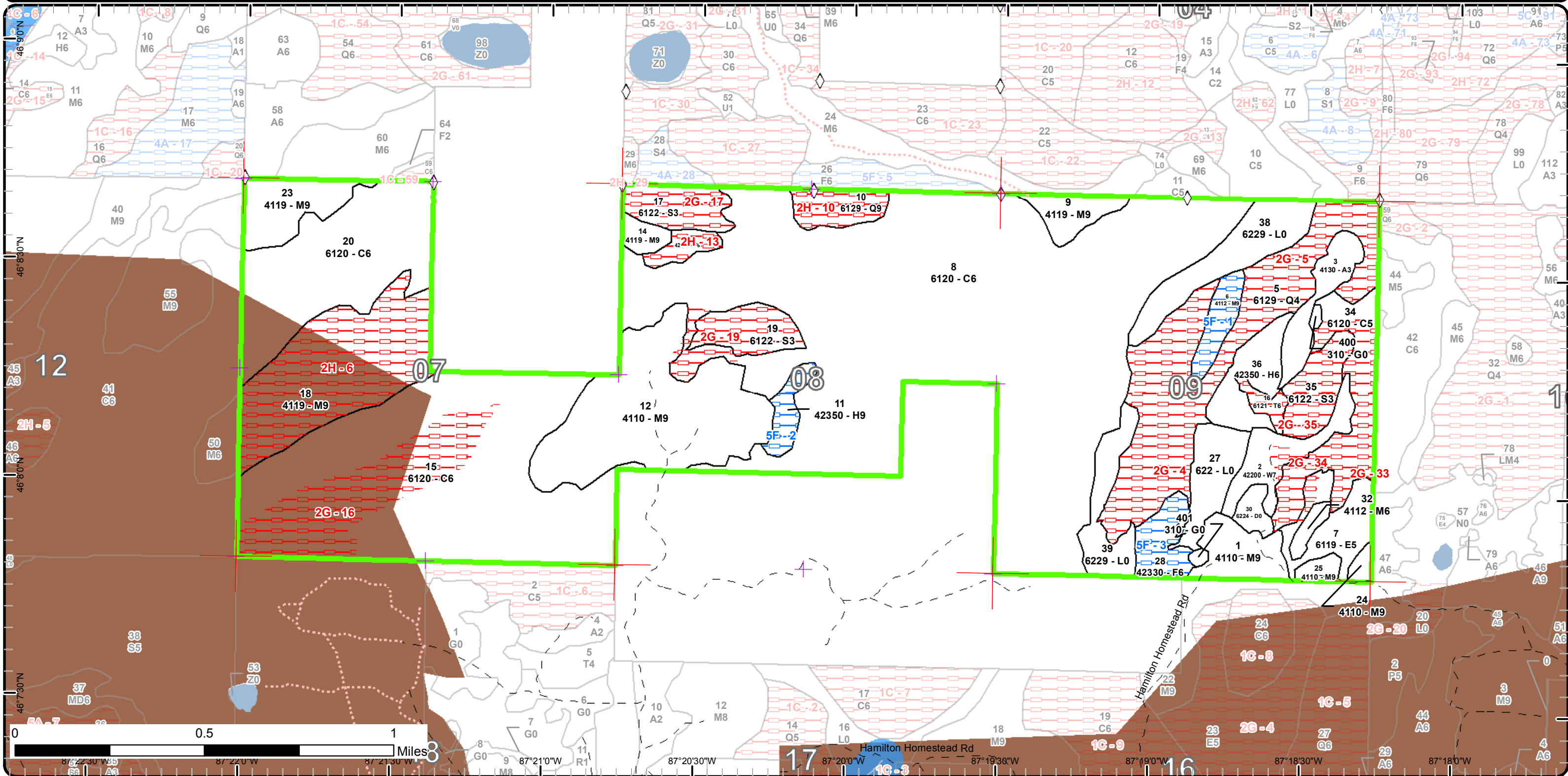


Special Conservation Areas & Site Conditions Map

Compartment: 78
 T43N, R24W, Sec: 07, 08, 09
 County: Marquette
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- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Counties
- Poor Dirt Roads
- Closed
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Deer Winter Range





Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2019

Acres of Harvest

Compartment 78

Total Compartment Acres: 1,563

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



S t 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
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#Type!

Habitat Cut:

Prescription
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date:

Site Condition:

**Total Treatment
Acreage Proposed: 0.0**

Report 4 – Site Conditions

Gwinn Mgt. Unit

Kevin LaBumbard : Examiner

Compartment: 78

Year of Entry: 2019

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	5F	2G	2H
		With Condition	Not Available				
18	18	0	0	Aspen			
892	782	0	110	Cedar		110	
31	22	10	0	Hemlock	10		
2	2	0	0	Herbaceous Openland			
126	0	0	126	Lowland Conifers		111	15
23	21	0	2	Lowland Deciduous		2	
76	76	0	0	Lowland Shrub			
58	0	0	58	Lowland Spruce/Fir		58	
281	181	12	89	Northern Hardwood	12	1	88
5	0	0	5	Tamarack		5	
6	6	0	0	Treed Bog			
23	0	16	7	Upland Spruce/Fir	16		7
21	19	0	3	White Pine		3	
1,563	1,125	37	400	Total Forested Acres	37	290	110
	72%	2%	26%	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
1	Available	5F: Evaluated for Forest Health Considerations	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 12 acre hardwood ridge in a swamp.							
2	Available	5F: Evaluated for Forest Health Considerations	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 10 acre hemlock stand.							

Report 4 – Site Conditions

Gwinn Mgt. Unit

Kevin LaBumbard : Examiner

Compartment: 78

Year of Entry: 2019

3	Available	5F: Evaluated for Forest Health Considerations	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 2017-Currently being inventoried for YOE 2019.							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	70	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	42	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	88	3A: Conservation Values incompatible with harvest at this time	Unspecified	Unspecified	Unspecified
Comments: Excellent candidate for Type 2 Old Growth.							
10	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gwinn Mgt. Unit

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16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	65	1C: Other dept or div proc/practices	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
Comments:							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	27	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
33	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments:							
34	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	31	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gwinn Mgt. Unit

Compartment: 78

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35	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
Comments:							

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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Sawtimber Well	20.2	101	81-110	OPIC - FMD: Nice hardwood stand growing on a high quality site. Primarily all sugar maple with basswood and a few large yellow birch on the edges. No conifers are present except for a few on the fringe. Maple regeneration is fair except in the old "elm gaps" where it has a medium stocking. Last thinning was in 1993. Retain all yellow birch and large basswood for species diversity. ***Stand thinned as "H.H. Patches" #021-09-01 (Unit 1, 2) - Sept, 2010. Den trees/snags retained, as well as YB, and large basswood, red maple found. Wildlife underplanting still needs to be completed. 2016-Stand looks healthy, decent regeneration but red maple stump sprouts and sm seedlings being browsed heavily along west side. Interesting to see the difference in browsing from west to east. Contains a small borrow pit.
2	42200 - Natural White Pine	Sawtimber Poor	21.5	87	1-50	OPIC - FMD: Cut under permit #24-99-01. Large white pine and hemlock over fir and white pine seedlings with dense 5-7' cherry. The desired future stand will be a mix of white pine and fir.
3	4130 - Aspen	Sapling Well	17.5	17	Immature	Cut in 2001 under #008-99-01. A2F1. Where the aspen sprouted is dense A3, moderately stocked F2 elsewhere. 2016-Very dense aspen with red maple, fir, and scattered cherry. Northern half wetter with more fir. Also, the north end contains 2 acre red maple stand thinned in 2001.
5	6129 - Mixed Coniferous Lowland Forest	Poletimber Poor	111.2	128	51-80	Mixed lowland conifers. Very wet.
6	4112 - Maple, Beech, Cherry Association	Sawtimber Well	11.7	101	111-140	Was a mixed even-aged stand of soft maple, fir, and spruce. Most of the fir is dead and down leaving a fair stocking of super canopy white spruce among the soft maple. Occasional yellow birch and hemlock. Lower site index with no sugar maple present. Remote, poor access.
7	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	23.0	42	1-50	Mixed E and Q. Higher ground has poor soft maple. Pockets of A3 and P3.
8	6120 - Lowland Cedar	Poletimber Well	510.3	118	51-80	OPIC - FMD: SCA Very large cedar complex Mixed conifers consists of spruce, fir, and tamarack.
9	4119 - Mixed Northern Hardwoods	Sawtimber Well	13.2	101	81-110	Managed with the stands of the adjacent northern compartment (77), this stand was cut in 2005 under permit # 027-01-01.
10	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	14.9	94	51-80	OPIC - FMD: A remote stand of larger diameter trees, almost an upland fir and hemlock type. Large balm.
11	42350 - Upland Hemlock	Sawtimber Well	9.6	119	81-110	A mix of hardwoods and hemlock with upland cedar and fir.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	4110 - Sugar Maple Association	Sawtimber Well	104.8	101	81-110	OPIC - FMD: Cut under permit #23-99-01 Kanerva in 2003, this stand has a very good distribution of large size class hard maple. 2016-Stand still has canopy room and not yet ready for harvest, although further review may be prudent. Large number of legacy trees scattered throughout the stand with a lack of poletimber. Excellent 5-15' tall sugar maple regeneration except for the very southwestern tip which has essentially no regeneration.
13	42340 - Upland Spruce/Fir	Poletimber Well	7.3	109	51-80	OPIC - FMD: Isolated semi-upland stand with fir, cedar, and red maple. Stand degrades to cedar swamp.
14	4119 - Mixed Northern Hardwoods	Sawtimber Well	6.2	101	81-110	OPIC - FMD: Very isolated inaccessible hardwood of soft maple, fir, hard maple, and a few hemlock.
15	6120 - Lowland Cedar	Poletimber Well	245.0	108	111-140	Large cedar stand. Mixed conifers consist of spruce, fir, tamarack.
16	6121 - Tamarack	Poletimber Well	5.3	98	1-50	: Scattered 1-stick black spruce and tamarack poles over 6' tall well stocked S3. T4S4 stand, not T6.
17	6122 - Black Spruce	Sapling Well	19.4	98	1-50	Stunted black spruce swamp in the sapling stage. Scattered one stick poles. Very wet and remote.
18	4119 - Mixed Northern Hardwoods	Sawtimber Well	87.9	181	111-140	Remote, large island of mature hardwoods that has seen no management activity since the early 1900's. Stand contains large, remnant forest of huge hard maple and yellow birch. Canopy gaps from former elm areas have regenerated to dense M3 1-3" in diameter. Excellent old growth stand. 2016-Stand was visited last entry period. Still a good candidate for Type 2 old growth.
19	6122 - Black Spruce	Sapling Well	18.7	98	1-50	Black spruce swamp in the sapling stage. Scattered one stick poles. Very wet and remote.
20	6120 - Lowland Cedar	Poletimber Well	93.5	108	81-110	Continuation of stand 15. A Large cedar stand. Mixed conifers consist of spruce, fir, tamarack.
23	4119 - Mixed Northern Hardwoods	Sawtimber Well	25.0	181	81-110	OPIC - FMD: Cut in January of 2004 with stands in compartments 75 and 77 under permit # 026-01-01. Fair to good quality hardwoods with difficult access.
24	4110 - Sugar Maple Association	Sawtimber Well	3.0	101	81-110	Small sugar maple stand with soft maple and basswood. Fringe contains a few huge yellow birch. ***Stand thinned as "H.H. Patches" #021-09-01 (unit 4) - Sept., 2010. Den trees and YB retained. Wildlife underplanted still needs to be completed.
25	4110 - Sugar Maple Association	Sawtimber Well	4.3	101	81-110	Essentially a pure sugar maple stand with a few soft maple and basswood. Occasional yellow birch. ***Stand treated as "H.H. Patches" #021-09-01 (unit 3) - Sept., 2010. Retained snags/den trees. Wildlife underplanting still needs to be completed.
28	42330 - Upland Fir	Poletimber Well	15.9	77	51-80	Mixed soft maple and fir stand. Heavy fir regeneration. Poor access.

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Gwinn Mgt. Unit

Report 7 – Forested Stands

Compartment: 78
Year of Entry: 2019

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4112 - Maple, Beech, Cherry Association	Poletimber Well	4.4	78	81-110	This stand was originally a fir stand but a large percentage of the fir is dead and down. The remainder is a mix of soft maple, upland cedar, hemlock and huge yellow birch. Regeneration varies from an F2 to an M2. Several ash swales are located within the stand.
34	6120 - Lowland Cedar	Poletimber Medium	43.1	100	1-50	Low and wet. Black ash and lowland conifers present in canopy.
35	6122 - Black Spruce	Sapling Well	19.9	98	1-50	Scattered 1-stick black spruce and tamarack poles over 6' tall well stocked S3.
36	42350 - Upland Hemlock	Poletimber Well	21.8	101	81-110	Hemlock pole stand with red maple, cedar, fir, and occasional white birch and large white pine.



Stand	Cover Type	Acres	Managed Site	General Comments:
27	622 - Lowland Shrub	20.9	No	Former beaver flooding, this stand is currently non-stocked with dead black ash and swamp conifers. 2017-starting to fill in with willow and tag alder.
30	6224 - Treed Bog	6.1	No	2" sparse black spruce bog.
38	6229 - Mixed lowland shrub	33.2	No	OPIC - FMD: tag alder
39	6229 - Mixed lowland shrub	21.7	No	OPIC - FMD: Tag alder with a few black spruce.
400	310 - Herbaceous Openland	1.1	No	OPIC - FMD: Old logging camp site with remains of old camp still standing.
401	310 - Herbaceous Openland	1.2	No	Created opening.