



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32230

Entry Year 2017

Acreage: 1,369

County Marquette

Management Area: Chain Lakes Moraine

Revision Date: 2015-07-10

Stand Examiner: Tom Seablom

Legal Description:

T45N R28W Sec's 9, 10, 15, and 16

Identified Planning Goals:

See Chain Lakes Moraine Management Area section of the WUP Regional State Forest Management Plan.

Soil and topography:

Generally level to slightly rolling terrain. Soils range from well drained to very poorly drained and consist of Sayner-Rubicon, Rubicon-Keweenaw, and Sagola-Rubicon in the uplands, and Tawas-Derford mucks and Carbondale-Tawas soils in the lowlands. Surface cobbles/boulders exist throughout most of the upland soil types.

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

Ownership is predominantly State with intermixed private inholdings. An exception being the Michigan Northwoods Club, owning approximately 10,000 acres to the east of this compartment. Development in this vicinity is very limited and is predominantly seasonal camps. Two miles to the north is the end of Marquette County Rd. 581 and there are permanent residences in that location. Land use in and around the compartment is commercial forest production, hunting, fishing, berry picking, trapping, and snowmobiling.

Unique Natural Features:

The headwaters of both the Wild West Creek and the Camp Eleven Creek are in and around this compartment.

Archeological, Historical, and Cultural Features:

Historically, sharptail grouse management took place in and around this compartment. Several old railroad spurs exist in the general area as a result of the pine logging era.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Compartment 230 is found within the Chain Lakes Moraine Management Area; on a Disintegration Moraine in Southwestern Marquette County. The dominant Natural Communities are dry mesic northern forests, poor conifer swamps, and mesic northern forests. This management area offers opportunities to increase diversity and perhaps long-term oak sustainability through under planting white and red pine. Another priority is to maintain or increase wildlife corridors especially along riparian corridors. Wildlife management issues in the management area are: mast (hard and soft); habitat fragmentation; mature forest conditions; mesic conifer; coarse woody debris; and retention or development of large living and dead standing trees (for cavities). This management area represents approximately ¼ of the oak resource on WUP state forest.

The following have been identified as featured species for Chain Lakes Management Area: black bear, gray jay, pileated woodpecker, Northern goshawk, red crossbill.

Mineral Resource and Development Concerns and/or Restrictions

Sections 9, 10, 15, & 16, T45N R28W, Marquette County

Surface sediments consist of coarse-textured glacial till, glacial outwash sand and gravel and postglacial alluvium, and peat and muck. The glacial drift thickness varies between 10 and 100 feet (less than 50 feet in most places). Archean granite/gneiss subcrops below the glacial drift. This rock could be used as a dimension stone. Gravel pits are not located in the area and potential is probably low. Iron mining districts are located more than ten miles away. Section 16 was previously leased for metallic mineral exploration, and active leases are located four miles to the southwest. There is no economic oil and gas production in the UP.

Vehicle Access:

Primary access to the compartment is via Co. Rd. CAA (Flat Rock Road) which originates at the terminus of Marquette Co. Rd. 581. Various two-track woods roads and county roads traverse the compartment providing good access. Some roads are winter access only.

Survey Needs:

A remonumentation is needed as the corner has been removed after it was set last entry.

Recreational Facilities and Opportunities:

No recreational facilities exist and there are no opportunities exist for development.

Fire Protection:

This compartment is located at the extreme south end of the 581 Zone dispatch. With the boundary change to the zone dispatch area, only a portion of the north part of the compartment is within the zone.

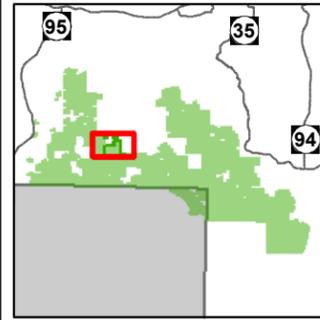
Additional Compartment Information:**The following reports from the Inventory are attached:**

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

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

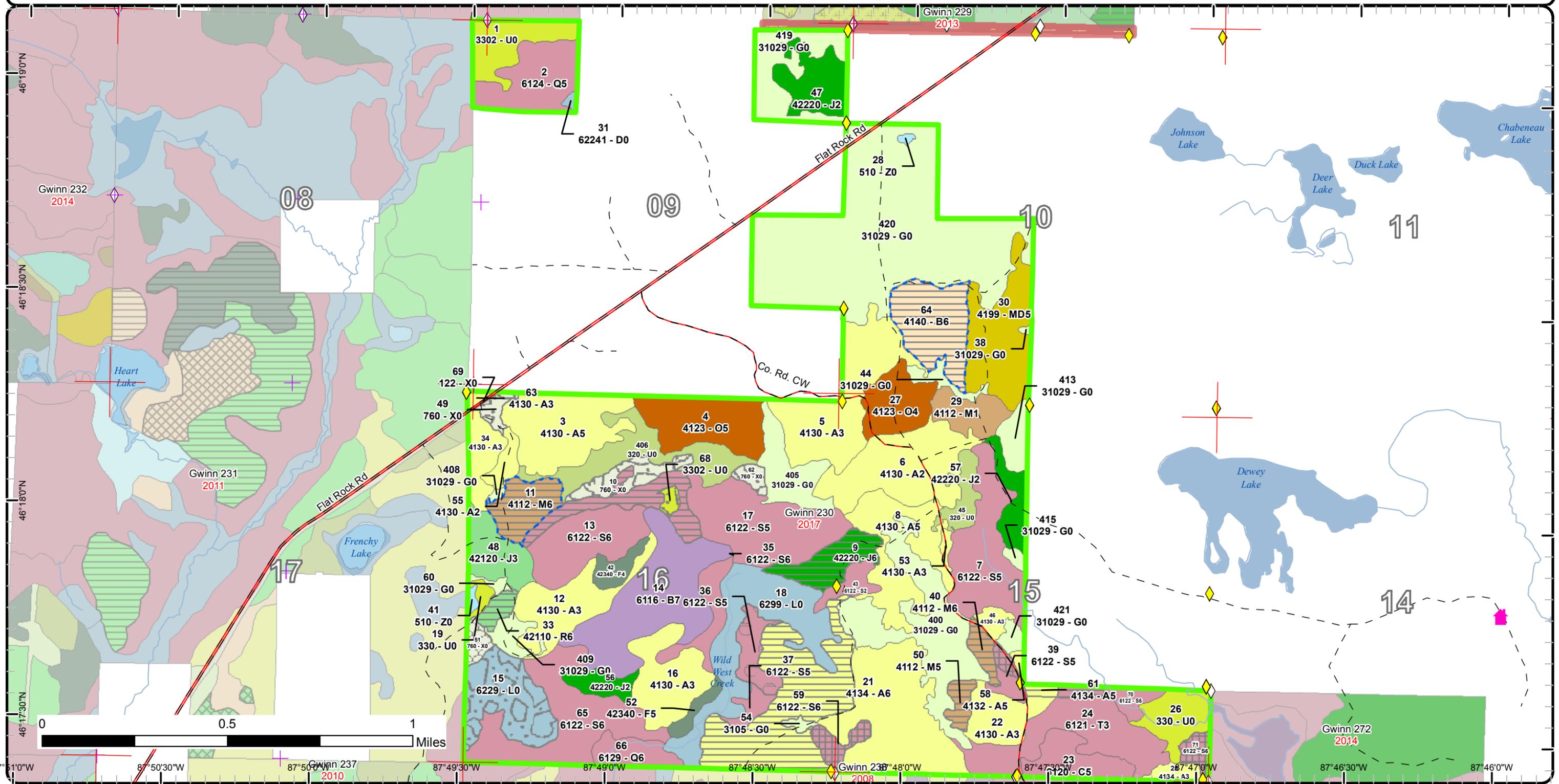
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments

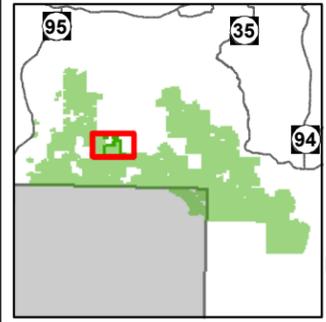


Compartment: 230
 T45N,R28W, Sec. 09, 10, 15, 16
 County: Marquette
 Unit: Gwinn
 Mgmt Area: Chain Lakes Moraine
 YOE: 2017
 Acres: 1369 GIS Calculated
 Examiner: Tom Seablom
 Map Revised: 7/29/2015
 Map Phase: Pre-Review

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|---|--|--|---|
| <ul style="list-style-type: none"> ✚ Remonumented Section Corners ◆ Survey Grade GPS Corners ◇ Field Grade GPS Corners — Miris Corners — County Gravel Roads - - Poor Dirt Roads - - County Poor Dirt Roads ■ Structures, Seasonal Dwelling — Rivers — Lakes ▨ Treatments with Site Conditions | <ul style="list-style-type: none"> ▨ Patch/Strip Cut (Femelschlag) ▨ Site Prep ▨ Clearcut (w/Reserves) ▨ Regeneration Survey ▨ Seed Tree (w/Reserves) <p>Forest Covertype</p> <ul style="list-style-type: none"> 411 - Northern Hardwood 412 - Oak Types 413 - Aspen 414 - Other Upland Deciduous 419 - Mixed Upland Deciduous | <ul style="list-style-type: none"> 421 - Planted Pines 422 - Natural Pines 423 - Other Upland Conifers 611 - Lowland Deciduous Forest 612 - Lowland Coniferous Forest <p>Non-Forest Covertype</p> <ul style="list-style-type: none"> 122 - Roads/Parking Lot 310 - Herbaceous Openland 320 - Upland Shrub 330 - Low Density Trees 500 - Water 622 - Lowland Shrub | <ul style="list-style-type: none"> 790 - Other Bare/Sparsely Vegetated |
|---|--|--|---|

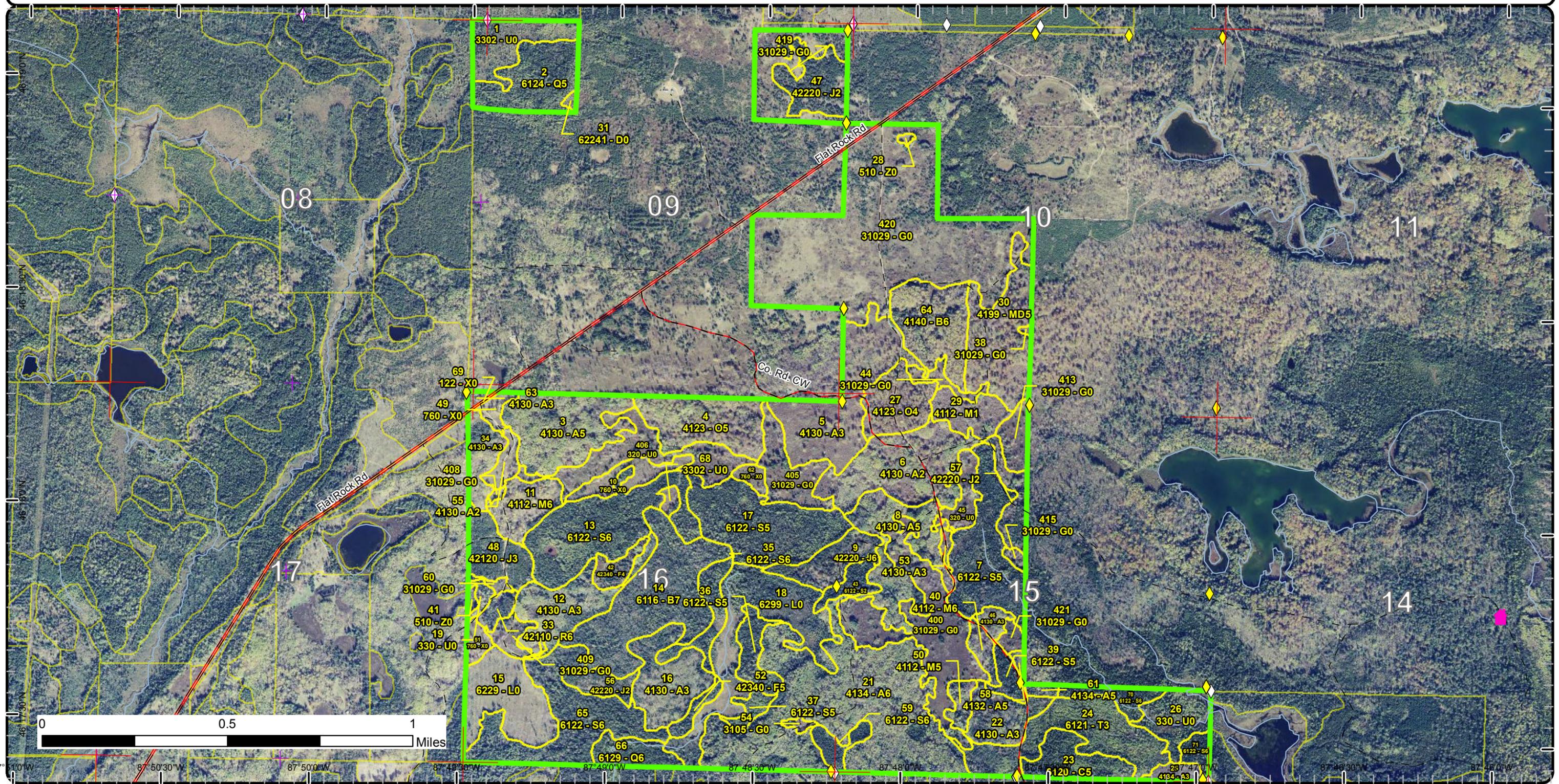


Stand Boundary Map



Compartment: 230
 T45N,R28W, Sec. 09, 10, 15, 16
 County: Marquette
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|---|---|-------------------------|-------------------------|-----------------|---------------------------|-------------|--------------------|------------------------------|-------------------------|------------------------------|-------------|---------------------|---------------------|---------------------|-------------------------------------|-----------------------------|--|--------------------------------|--|---------------------------------|--|
| <ul style="list-style-type: none"> ✦ Remonumented Section Corners Forest Covertypes ◆ Survey Grade GPS Corners ◇ Field Grade GPS Corners — Miris Corners — County Gravel Roads - - Poor Dirt Roads - - County Poor Dirt Roads ■ Structures, Seasonal Dwelling — Rivers ▭ Stand Boundaries | <p>Non-Forest Covertypes</p> <table border="0"> <tr> <td>411 - Northern Hardwood</td> <td>122 - Roads/Parking Lot</td> </tr> <tr> <td>412 - Oak Types</td> <td>310 - Herbaceous Openland</td> </tr> <tr> <td>413 - Aspen</td> <td>320 - Upland Shrub</td> </tr> <tr> <td>414 - Other Upland Deciduous</td> <td>330 - Low Density Trees</td> </tr> <tr> <td>419 - Mixed Upland Deciduous</td> <td>500 - Water</td> </tr> <tr> <td>421 - Planted Pines</td> <td>622 - Lowland Shrub</td> </tr> <tr> <td>422 - Natural Pines</td> <td>790 - Other Bare/Sparsely Vegetated</td> </tr> <tr> <td>423 - Other Upland Conifers</td> <td></td> </tr> <tr> <td>611 - Lowland Deciduous Forest</td> <td></td> </tr> <tr> <td>612 - Lowland Coniferous Forest</td> <td></td> </tr> </table> | 411 - Northern Hardwood | 122 - Roads/Parking Lot | 412 - Oak Types | 310 - Herbaceous Openland | 413 - Aspen | 320 - Upland Shrub | 414 - Other Upland Deciduous | 330 - Low Density Trees | 419 - Mixed Upland Deciduous | 500 - Water | 421 - Planted Pines | 622 - Lowland Shrub | 422 - Natural Pines | 790 - Other Bare/Sparsely Vegetated | 423 - Other Upland Conifers | | 611 - Lowland Deciduous Forest | | 612 - Lowland Coniferous Forest | |
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| 412 - Oak Types | 310 - Herbaceous Openland | | | | | | | | | | | | | | | | | | | | |
| 413 - Aspen | 320 - Upland Shrub | | | | | | | | | | | | | | | | | | | | |
| 414 - Other Upland Deciduous | 330 - Low Density Trees | | | | | | | | | | | | | | | | | | | | |
| 419 - Mixed Upland Deciduous | 500 - Water | | | | | | | | | | | | | | | | | | | | |
| 421 - Planted Pines | 622 - Lowland Shrub | | | | | | | | | | | | | | | | | | | | |
| 422 - Natural Pines | 790 - Other Bare/Sparsely Vegetated | | | | | | | | | | | | | | | | | | | | |
| 423 - Other Upland Conifers | | | | | | | | | | | | | | | | | | | | | |
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| 612 - Lowland Coniferous Forest | | | | | | | | | | | | | | | | | | | | | |



Report 1 – Total Acres by Cover Type and Age Class



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	54	38	86	0	179	0	0	2	0	0	0	0	0	0	0	0	0	359
Bare/Sparsely Vegetated	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Cedar	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16
Herbaceous Openland	253	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	253
Jack Pine	0	0	23	28	0	14	0	0	0	0	0	0	0	0	0	0	0	0	65
Low-Density Trees	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Lowland Conifers	0	0	0	0	0	0	0	26	0	11	0	0	0	0	0	0	0	0	37
Lowland Shrub	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
Lowland Spruce/Fir	0	0	0	0	0	0	6	5	42	149	20	0	0	0	0	0	0	0	222
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	0	35
Northern Hardwood	0	0	0	12	0	0	0	0	25	0	0	0	0	0	0	0	0	0	37
Oak	0	0	0	0	0	0	0	28	18	0	0	0	0	0	0	0	0	0	46
Paper Birch	0	0	0	0	0	0	0	0	28	52	0	0	0	0	0	0	0	0	80
Red Pine	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Tamarack	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Treed Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Upland Shrub	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Upland Spruce/Fir	0	0	0	0	6	0	4	0	0	0	0	0	0	0	0	0	0	0	10
Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	421	54	61	163	6	193	14	59	150	212	20	16	0	0	0	0	0	0	1369



Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2017

Acres of Harvest

Compartment 230

Total Compartment Acres: 1,369

Commercial Harvest - 130
 Harvests with Site Condition - 42
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	60	0	0	0	0	0	0	0	0	60
Jack Pine	14	0	0	0	0	0	0	0	0	14
Lowland Spruce/Fir	19	0	10	13	0	0	0	0	0	42
Northern Hardwood	24	0	0	0	0	0	0	0	0	24
Paper Birch	28	0	0	0	0	0	0	0	0	28
Red Pine	4	0	0	0	0	0	0	0	0	4
Total	150	0	10	13	0	0	0	0	0	173

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	173	4	0	0	0	0	47	0	0	224
Next Step	0	50	50	14	0	61	161	0	0	337
Total	173	54	50	14	0	61	208	0	0	561



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
9	32230009-Cut	14.4	42220 - Natural Jack Pine	Poletimber Well	48	51-80	Harvest	Clearcut with Retention	4212 - Planted Jack Pine	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Final harvest, cutting all trees except 1-2 small patches that make up 3% of the treated stand for retention.											
<u>Specs:</u>											
<u>Next Step</u> Pesticide, Skidder/Mechanical; Seeding, Machine Seed											
<u>Treatments:</u>											
<u>Acceptable</u> Jack pine											
<u>Regen:</u>											
<u>Other</u> Retention patches, along the edge of the stand, are to include black spruce to provide habitat for the red crossbill. Some larger aspen that may											
<u>Comment:</u> be in the stand are to be retained as well. Old next step comments:											
<u>Proposed Start Date:</u> 10/1 /2016											
10	32230010-Monitor	9.6	760 - Non-stocked Forest	Nonstocked	0	Unspecified	Monitoring	Artificial Regen(1yr)	4212 - Planted Jack Pine	Even-Aged	Proposal
Habitat Cut: Yes			Site Condition:								
<u>Prescription</u> Regen survey as per work instructions and TMS direction.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Jack pine.											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
11	32230011-Cut	14.7	4112 - Maple, Beech, Cherry Association	Poletimber Well	70	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
Habitat Cut: No			Site Condition: Community/Species of Concern or T&E								
<u>Prescription</u> Final harvest, cutting all trees except retain 8-10 oak trees. Follow up harvest with herbicide, trench, and plant red pine.											
<u>Specs:</u>											
<u>Next Step</u> Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Red pine											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
13	32230013-Cut	17.4	6122 - Black Spruce	Poletimber Well	87	81-110	Harvest	Clearcut	6122 - Black Spruce	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Final harvest this portion of the stand cutting all trees greater than 2" dbh, except don't cut any cedar or white pine.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Black spruce, tamarack, cedar, balsam fir, balsam poplar.											
<u>Regen:</u>											
<u>Other</u> The northern fringe of this stand has the most merchantable timber and the least amount of cedar. The treatment boundary is rudimentary and											
<u>Comment:</u> may be expanded east and south upon sale prep. Retention will include white pine for black bear, and black spruce and tamarack for the grey jay and red crossbill. Old next step comments:											
<u>Proposed Start Date:</u> 10/1 /2016											



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
15	32230015-Monitor	28.7	6229 - Mixed lowland shrub	Nonstocked	0	Unspecified	Monitoring	Natural Regen (Intermediate)	6124 - Lowland Spruce-Fir	Even-Aged	Proposal

Habitat Cut: Yes**Site Condition:**

Prescription Intermediate natural regen survey. Seedlings are starting to show up in stand. Need to monitor to ensure adequate regeneration.

Specs:Next Step

Treatments:

Acceptable Black spruce, tamarack, cedar, balsam poplar.

Regen:

Other Regen appears to be showing up around stumps and areas where sphagnum is present. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

21	32230021-Cut	57.8	4134 - Aspen, Spruce/Fir	Poletimber Well	40	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest cutting all aspen and those fir trees greater than 2" dbh. Retention will be in patches along the west edge of the stand composing

Specs: no more than 5%. Retention will include white pine and black spruce, as well as some white birch (southwest corner) for seed and habitat for pileated woodpecker. Some larger aspen will be retained for northern goshawk.

Next Step

Treatments:

Acceptable aspen, spruce, fir.

Regen:

Other Budworm is prevalent in the fir within this stand with the majority of the fir being in the southwest part of this stand as a whole. There is a

Comment: drainage in the northwest lobe that will need to be crane matted to provide access to that portion of the stand. Old next step comments:

Proposed Start Date: 10/1 /2016

33	32230033-Cut	4.2	42110 - Planted Red Pine	Poletimber Well	50	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest with no retention due to small stand size. Herbicide, trench, and plant red pine.

Specs:

Next Step Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Red pine

Regen:

Other Pair site prep and planting operations with adjacent stand 51. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

36	32230036-Cut	9.9	6122 - Black Spruce	Poletimber Medium	92	51-80	Harvest	Strip/Patch/Gap Cut (Femelschlag)	6122 - Black Spruce	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Strip cut this stand, leaving a 2-3 chain strip along the south, west, and north edge of this stand. Cut all trees greater than 4-in. dbh, leave any

Specs: clumps of cedar.

Next Step

Treatments:

Acceptable Black spruce, tamarack, balsam fir, jack pine, aspen.

Regen:

Other Harvest as much of this stand as possible. May get too wet as you head west and north in the stand. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
39	32230039-Cut	2.2	6122 - Black Spruce	Poletimber Medium	83	51-80	Harvest	Seed Tree with Retention	6122 - Black Spruce	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Seed tree harvest leaving approx. 10-20 trees of various species scattered across the stand. This treatment shape may change due to a drainage running through the stand and exiting in the south. Retain all cedar.

Specs:
Next Step
Treatments:

Acceptable Black spruce, tamarack, jack pine, cedar
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

40	32230040-Cut	4.9	4112 - Maple, Beech, Cherry Association	Poletimber Well	76	51-80	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest cutting all trees. No retention as stand is only 5 acres.

Specs:
Next Step
Treatments:

Acceptable Maple, aspen, birch, spruce, fir, pine.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

49	32230049-Monitor	3.6	760 - Non-stocked Forest	Nonstocked	0	Unspecified	Monitoring	Artificial Regen(1yr)	4212 - Planted Jack Pine	Even-Aged	Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription Regen survey as per work instructions and TMS recommendation. If seeding fails, plant jack pine. Herbicide may be necessary before replant can occur.

Next Step
Treatments:

Acceptable Jack pine.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2015

50	32230050-Cut	4.8	4112 - Maple, Beech, Cherry Association	Poletimber Medium	77	51-80	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest, cutting all trees. No retention due to small stand size.

Specs:
Next Step
Treatments:

Acceptable Maple, aspen, birch, spruce, fir, pine.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016



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
51	32230051- Prep	3.9	760 - Non-stocked Forest	Nonstocked	0	Unspec ified	SitePrep	Other - Specify	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: Yes**Site Condition:**

Prescription If desirable, harvest remaining standing timber. Then herbicide, trench, and plant red pine.

Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)
Treatments:

Acceptable Red pine

Regen:

Other This treatment should coincide with the site prep and regen treatment in stand 33. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

59	32230059-Cut	6.2	6122 - Black Spruce Well	Poletimber	75	81-110	Harvest	Seed Tree with Retention	6122 - Black Spruce	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Seed tree harvest, leaving approximately 30 seed trees scattered across the stand. Harvest all spruce greater than 4 inches dbh.

Specs:

Next Step
Treatments:

Acceptable Black spruce, tamarack, aspen

Regen:

Other If any dwarf mistletoe is present, clearcut the entire stand. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

61	32230061-Cut	1.7	4134 - Aspen, Spruce/Fir	Poletimber Medium	78	1-50	Harvest	Clearcut	413 - Aspen	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final harvest cutting all trees except leave some mature aspen along the stand edge.

Specs:

Next Step
Treatments:

Acceptable Aspen, maple, spruce, fir.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

62	32230062- Monitor	3.1	760 - Non-stocked Forest	Nonstocked		Unspec ified	Monitoring	Artificial Regen(1yr)	4212 - Planted Jack Pine	Even-Aged	Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription Regen survey as per work instructions and TMS direction

Specs:

Next Step
Treatments:

Acceptable Jack pine

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



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
64	32230064-Cut	27.6	4140 - Other Upland Deciduous	Poletimber Well	76	111- 140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: No**Site Condition: Community/Species of Concern or T&E**

Prescription Clearcut retaining a few clumps of oak. Herbicide, trench, and plant red pine.

Specs:

Next Step Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant
Treatments:

Acceptable Red pine

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

68	32230068- Monitor	2.0	3302 - Low Density Conifer Trees	Nonstocked	0	Unspec ified	Monitoring	Artificial Regen(1yr)	4212 - Planted Jack Pine	Even-Aged	Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription Regen survey as per work instructions and TMS direction.

Specs:

Next Step
Treatments:

Acceptable Jack pine

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

70	32230070-Cut	2.0	6122 - Black Spruce	Poletimber Well	86	1-50	Harvest	Clearcut with Retention	6122 - Black Spruce	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Harvest all trees greater than 2" dbh except cedar.

Specs:

Next Step
Treatments:

Acceptable Spruce, tamarack, fir, aspen

Regen:

Other Evidence of mistletoe in this stand so all black spruce needs to be harvested. Cedar is to be left as a seed source. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

71	32230071-Cut	4.7	6122 - Black Spruce	Poletimber Well	86	51-80	Harvest	Seed Tree with Retention	612 - Lowland Coniferous Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Seed tree harvest this stand, cutting all trees larger than 4-in dbh, except cedar. Leave approx. 40 seed trees scattered across the stand.

Specs: Retention is to include black spruce and tamarack.

Next Step
Treatments:

Acceptable Black spruce, balsam fir, tamarack, white spruce, balsam poplar, cedar.

Regen:

Other Stand may become too wet as it progresses to the north. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

**Total Treatment
Acreage Proposed: 223.5**

Report 5 – Site Conditions

Gwinn Mgt. Unit
Tom Seablom : Examiner

Compartment: 230
Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions			
		With Condition	Not Available		5C	3B	3J	5A
358	358	0	0	Aspen				
20	20	0	0	Bare/Sparsely Vegetated				
16	16	0	0	Cedar				
253	253	0	0	Herbaceous Openland				
66	66	0	0	Jack Pine				
37	37	0	0	Low-Density Trees				
36	26	0	11	Lowland Conifers			11	
73	73	0	0	Lowland Shrub				
223	92	81	50	Lowland Spruce/Fir	81		50	
35	35	0	0	Mixed Upland Deciduous				
37	22	0	15	Northern Hardwood		15		
46	46	0	0	Oak				
80	0	0	80	Paper Birch		28		52
4	4	0	0	Red Pine				
37	37	0	0	Tamarack				
1	1	0	0	Treed Bog				
35	35	0	0	Upland Shrub				
10	10	0	0	Upland Spruce/Fir				
0	0	0	0	Urban				
2	2	0	0	Water				
1,369	1,134	81	155	Total Forested Acres	81	42	60	52
	83%	6%	11%	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	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	55	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
Headwaters to the Wild West Creek are throughout this stand. A very limited portion of the stand would be harvestable. The western portion of the stand was excluded from harvest last entry due to this factor.							

Report 5 – Site Conditions

Gwinn Mgt. Unit
Tom Seablom : Examiner

Compartment: 230
Year of Entry: 2017

2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: 6/17/2015: Camp 11 Creek runs through this stand. Buffering it would eliminate a good portion of the stand.</p>							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	42	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: 6/17/2015: Larger diameter and heights are along the northern fringe. smaller diameter and heights in the middle and south part of the stand. Hold till next entry.</p>							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: 6/17/2015: Hold stand till next entry. Large amount of lowland being harvested this current YOE.</p>							
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	28	5T: Contingency Treatment for Forest Health Concerns	Unspecified	Unspecified	Unspecified
<p>Comments: 6/15/2015: Merchantable portion of stand is prescribed. More cedar present in this portion as well as smaller diameter spruce and this portion of the stand is more wet. If mistletoe is found in treatment area in the north, than we may need to go forth and treat portions of this stand as well.</p>							
6	Unavailable	3B: Threatened, endangered, and special concern species/communities	15	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: This treatment, as it is written, is being put on hold until further clarification is provided on the 4D rule with regards to deciduous stand conversion to pine for the Northern Long Eared Bat.</p>							

Report 5 – Site Conditions

Gwinn Mgt. Unit
Tom Seablom : Examiner

Compartment: 230
Year of Entry: 2017

7	Unavailable	3B: Threatened, endangered, and special concern species/communities	28	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: This treatment, as it is written, is being put on hold until further clarification is provided on the 4D rule with regards to deciduous stand conversion to pine for the Northern Long Eared Bat.</p>							
14	Unavailable	5A: Not able to obtain desirable regeneration	52	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: This is a wet birch site with heavy tag alder in the understory. If we did cut it, there is a really good chance that it would not regenerate to birch and we would only get scattered red maple stump sprouts and some conifer where they are present. A fully stocked stand is highly unlikely.</p>							



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
SCA Removal 1	Other SCA		SCA Removal	58
Comments Potential biodiversity mgt area. See cmpt header for additional comments. Wild West Creek flows thru this stand.				
SCA Removal 2	Other SCA		SCA Removal	37
Comments Potential biodiversity mgt area. See cmpt header for more comments. This stand may eventually produce some merchantable poletimber. Generally submerchantable spruce/tamarack at present.				
SCA Removal 3	Other SCA		SCA Removal	24
Comments This is a potential biodiversity mgt area which serves to buffer the Camp Eleven Creek and tributaries. See cmpt header for additional comments. The fringes of this stand have the best timber, mostly spruce, grading into more tamarack/alder as you get cl				
SCA Removal 4	Other SCA		SCA Removal	3
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
SCA Removal 5	Other SCA		SCA Removal	9
Comments This is a biodiversity mgt area for the purpose of buffering the Wild West Creek. See cmpt header for additional comments.				
SCA Removal 6	Other SCA		SCA Removal	4
Comments This stand is a biodiversity mgt area. See cmpt header for additional comments. This is a buffer that was left when stand 16 was cut. It serves as a beaver deterrent, for aesthetics and diversity.				
SCA Removal 7	Other SCA		SCA Removal	11
Comments This is a potential biodiversity mgt area buffering the Wild West Creek. See cmpt header for additional comments.				
SCA Removal 8	Other SCA		SCA Removal	4
Comments This stand is a potential biodiversity mgt area buffering the Wild West Creek. See cmpt header for additional comments.				



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	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6124 - Lowland Spruce-Fir	Poletimber Medium	25.7	61	1-50	9/20/2005: OPIC - FMD: The vast majority of this stand is swampy with leatherleaf ground cover, primarily spruce/tamarack & only a trace of cedar. The slightly higher elevation small inclusions support a few jack pine (like on the southwest boundary of the forty) and also balsam fir occupy the dryer sites. Most larger fir was killed off by spruce budworm and seedling/sapling fir as well as spruce is very abundant in the stand. A few birch are present also that are mostly dead now. Thus, overall this is a rather young stand on the average.
3	4130 - Aspen	Poletimber Medium	35.3	42	1-50	1/9/15: Aspen in good shape. Small patches of jack pine scattered throughout the stand. Scattered spruce fir in the understory, possibly a trace in the overstory. Beaked hazel in the understory, more so on the east end of the stand. Diameter is variable across the stand. some areas the trees are approaching 10" whereas the majority are in the 7-8" range. Some open areas exist where there are depressions. These are not wetland depressions. Stand is harvestable. OPIC - FMD: Was commercially cut in summer of 1973 by Holli Forest Products, Inc., permit #16/73. All merchantable aspen, birch, and mixed hardwood was to be cut. Apparently jack pine was not to be cut and what about oak? Also, birch located within 200 ft of the Flat Rock or Camp Hope Rd was not to be cut. I (Warren Heikkila) found an FTP #W3-438 which was for K-G cutter treatment of this stand (and stand 4 also) to knock down residual trees following the commercial cut of stand 3 which they say occurred in Spring of 1973. Purpose was to get maximum aspen stocking & survival in the new stand. It was written by Jack C.Mauer when he was a Game Area Manager in Gwinn. Oak was to be left as well as jack pine. Actual treatment occurred between July to Oct of 1973.
4	4123 - Red Oak	Poletimber Medium	28.1	69	51-80	1/9/15: Predominantly an oak log stand. Basal area ranges from 90-100 sq. ft/ac. Pockets of quaking and big tooth aspen exist. Understory (actually mid-canopy) is all red maple, both stump sprout and seed origin. These exist where there are essentially gaps so they aren't truly part of the canopy yet. East end and south are more open. Scattered jack pine groups and along the edge of the stand. Stand is very beneficial to wildlife at this point in development. OPIC - FMD: Stand is semi-open in places with hazel brush common, and red maple saplings & small poles. Northern fringes have more birch. Bordered on the south by a heavily stocked A6 stand or clone of young aspen (yr of origin 1971). Was this young aspen a result of a KG Wildlife operation? Overall, this stand probably is very beneficial to wildlife in it's present condition. I found an FTP (#W3-438) written for K-G cutter treatment of this stand (and also stand 3), leaving all oak & jack pine, and a clump of birch on the north property boundary in the NWNE. Purpose here was to improve deer habitat and it did stimulate some aspen sprouting on the south edge of stand 4, where currently is found a well stocked young A6 stand. Actual treatment occurred between July to Oct. 1973.
5	4130 - Aspen	Sapling Well	43.2	7	Immature	12/8/2014: Most of the birch seed trees that were left have died. Regen doing well. Birch had sprouted but were browsed too much to survive. 6/20/2008: OPIC - FMD: Harvested during spring breakup 2008 by Holli Forest Products: TS#110-07-01, Three Tick Sale. Left all oak as well as marked birch seed trees.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6	4130 - Aspen	Sapling Medium	40.6	28	Immature	OPIC - FMD: Was commercially cut in Nov 1987 by Oscar Antilla from Republic, permit #12-87, "Camp Eleven Creek Block". Red & white pine was left as well as some birch & oak marked with green paint. FTP #W31-185 was for K-G treecutter of residual hardwood to maximize aspen regeneration, after commercial logging of the stand. No oak was to be cut nor any other marked trees. Accomplished in 1989.
7	6122 - Black Spruce	Poletimber Medium	35.8	76	1-50	OPIC - FMD: Quite variable in stocking and size class. Significant younger sapling size conifers. Rather unevenaged in places. When any cut is made, an adequate buffer (minimum of 100 ft) must be left along headwaters of Camp 11 Creek.
8	4130 - Aspen	Poletimber Medium	30.2	45	51-80	12/22/14: Stand is in good shape. Small pockets of jack pine within the stand as well as some small open areas. Stand is bordered by larger opening. OPIC - FMD: There are old plow furrows apparently from a past burn here, whether it was a wildfire or a prescribed burn is not known. This fire may have stimulated aspen sprouting and been the start of the heavily stocked eastern portion of this stand. Very good site index, tall trees. Parts of stand are already A6 stocking, & some small patches of jack pine inclusions also exist.
9	42220 - Natural Jack Pine	Poletimber Well	14.4	48	51-80	12/22/14: Stand is in good shape. Ready to be harvested as there is over mature jack pine present. OI notes indicate past partial harvest in stand. Aspen, spruce, and some maple mixed in stand. OPIC - FMD: Stand is somewhat unevenaged In that it has some residual older jack pine (60 yrs +), but the average age is mid-30's. From annual rings, a release event took place in the early 1970's. (a cutting?) Semi-open or parklike in places, but the heaviest stocking is on the west end and a 2 chain wide strip on the north bordering the swamp. Commercial timber sale permit #20/63 issued to Herbert Romback of Princeton covers the SENE of Sec 15. It allowed cutting of aspen & birch, plus all jack pine within 200 ft of marked jack pine seed trees. This is an unusual sale -- I don't recall seeing jack pine seed trees used before. I wonder if any scarification was used. It was cut in Nov 1963 thru Feb 1964.
11	4112 - Maple, Beech, Cherry Association	Poletimber Well	14.7	70	81-110	OPIC - FMD: Birch appears to be relatively healthy here. Delay treatment to prolong the aesthetic benefits this birch/maple stand provides at this time. Hazel brush is quite heavy in this stand.
12	4130 - Aspen	Sapling Well	25.0	27	Immature	1/7/2015: Scattered semi-open patches within stand; amounts to approx. 2-3 acres. OPIC - FMD: Was commercially cut in summer of 1988 by Jay Mattila from Republic, permit #006-87-01, "Frenchy Lake Block". All oak & cherry was left. In 2005, some patches on east end are semi-open with some scattered fir also, but this is desirable for wildlife and diversity.
13	6122 - Black Spruce	Poletimber Well	45.6	87	81-110	1/9/2015: More spruce than in stand to east. Heavier concentration of cedar in pockets as well. OPIC - FMD: Timber is somewhat patchy (eg. Most cedar in center of stand). Best timber is found in the transition zone or edges of the swamp. Some areas of mostly small poles and regeneration. Tiny pond in west end of stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	6116 - Lowland Birch	Sawtimber Poor	52.1	80	1-50	OPIC - FMD: Note: The minimum site index for birch for a site capable of producing 20 cubic ft/acre/yr of wood fiber is 46. Thus this is not commercial forest land and falls in the area classification of "Non-timber producing forest land. Other commercial species (spruce,tam,balm, & red maple make up 10 sq.ft/A). Natural succession here seems to be to spruce/fir/tam. (Mostly fir). Birch is dying out.
16	4130 - Aspen	Sapling Well	25.2	16	Immature	OPIC - FMD: This stand was commercially cut in Dec.1998 by Tom St.John (Oro Logging Co.) under permit # 5-97, "Camp Hope Road Sale". Access was from the northwest across narrow strip of swamp. Future stand will likely be a mix of aspen, balsam fir, spruce and jack pine, with aspen being dominant. Oak, cherry, red and white pine were left uncut. Soil is sandy here. This stand is essentially an island of high ground surrounded by swamp. This "A3" stand is about the eastern 2/3's of the timber sale that was cut.
17	6122 - Black Spruce	Poletimber Medium	41.9	81	Unspecified	1/9/15: Smaller diameter spruce and tamarack. Tamarack is occurring in the more open areas of the stand. Appears to be two aged. Smaller diameter trees as one heads south in to the stand. Northern fringe is fairly merchantable. Semi-open areas heavy to tag alder exist throughout the stand. OPIC - FMD: Potential biodiversity mgt area. See cmpt header for more comments. This stand may eventually produce some merchantable poletimber. Generally submerchantable spruce/tamarack at present.
21	4134 - Aspen, Spruce/Fir	Poletimber Well	112.9	40	81-110	4/6/2015: Small pocket with some left over white birch is in the southwest corner of the stand. It had previously been it's own stand but isn't any different that the aspen stand. 12/19/2014: There are a few black spruce inclusions within this stand that had previously been typed out as separate stands. OPIC - FMD: Was commercially cut by Holli Forest Products, Inc. between 1973 - 75, permit #41/70 A, "Dewey Lake Block". This was a 180 acre sale which extended south into Cmpt 237. Specs were to cut all merchantable aspen, birch, & maple --- all black spruce & fir with 2 or more sticks --- all white spruce 12 inch or larger in stump diameter --- and all jack pine in the spruce/fir & aspen/birch types. No cutting within 100 feet of Wild West Creek. This sale was a scale sale & it was cut manually by chain saw (piece cutters).
22	4130 - Aspen	Sapling Well	15.3	24	Immature	12/19/2014: A few open patches within the stand. OPIC - FMD: Was commercially cut in 1991 by Minerick Logging Inc., permit #14-87, "Swamp Stripcut Block".
23	6120 - Lowland Cedar	Poletimber Medium	16.1	100	1-50	OPIC - FMD: This stand began as strip cuts made in 1960, but also was included in permit #014-87-01, "Swamp Stripcut Block", cut by Minerick Logging, Inc, in the winter of 1993-94. All cedar was left as well as 1 & 2 stick spruce/fir. Currently in 2005, this stand consists of patches of cedar, ranging from heavily stocked to sparse , with spruce, fir; tamarack regeneration, but cedar regen is lacking. Somewhat twoaged in character. Ground cover ranges from grass to leatherleaf & sphagnum moss. Some alder & balm present also.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	6121 - Tamarack	Sapling Well	37.4	21	Immature	OPIC - FMD: Was commercially cut in winter of 1993-94 by Minerick Logging, Inc., permit #014-87-01, "Swamp Stripcut Block". All cedar was left as well as 1 & 2 stick spruce/fir. In April of 2005, still a scattering of residual smallish spruce poletimber, but the dominant regeneration present is tamarack (about 10 to 15 ft tall). Spruce & fir are an understory beneath, fewer in number and about 1 to 3 ft tall. Alder present also as tall as the tamarack, and some balm present in patches. We will feature the tamarack as current cover type "T2". Mostly grass ground cover with some leatherleaf & dogwood brush.
25	4134 - Aspen, Spruce/Fir	Sapling Well	4.2	6	Immature	OPIC - FMD: 2010 Comments: Harvested with compartment 238 to the south in the fall of 2009 by Mark Anderson for Verso Paper TS#32-110-08-01.
27	4123 - Red Oak	Poletimber Poor	18.3	76	1-50	12/8/2014: Stand was broken out of the larger past treatment area due to the amount of residual oak. WLD underplanted this area with white pine at a rate of 300 tpa in June of 2009. 6/28/2008: OPIC - FMD: Harvested during spring breakup 2008 by Holli Forest Products: TS#110-07-01, Three Tick Sale. Left all oak as well as marked birch seed trees.
29	4112 - Maple, Beech, Cherry Association	Sapling Poor	12.2	26	Immature	12/15/2014: Very patchy stand. Stand is primarily red maple clumps with scattered aspen patches. Stand as it is composed and structured now only has wildlife benefit. Could almost consider interplanting or clearing stand and starting it over with pine. OPIC - FMD: Was commercially cut in 1988 by Oscar Antilla from Republic, permit #12-87, "Camp Eleven Creek Block". This was followed by a K-G treecutter treatment under FTP #W31-185 to fell the residual hdwd, esp. maple. Aspen regen. was scarce in this stand.
30	4199 - Other Mixed Upland Deciduous	Poletimber Medium	35.2	76	1-50	12/8/2014: All oak was left when harvested so we now have a two-aged stand. Regen is light in areas where there is a heavy canopy. 9/20/2005: OPIC - FMD: Was comm. cut spring 1998, permit #1-97, Minerick Logging, "Flat Rock Birch Sale". All oak was left. In Dec. 1997, Wildlife tried scarifying this sale prior to cutting with a small dozer & rock rake blade (FTP W31-378) , since birch was the management objective and birch seed trees were left. Dominant regeneration present now in 2005 is red maple, mostly stump sprouts (8 to 16 ft tall) , and some aspen as well. A trace of birch was found, but these are 2 foot high or less seedlings. Time will tell if they develop. Thus we will manage type in place.
33	42110 - Planted Red Pine	Poletimber Well	4.2	50	81-110	1/7/2015: Stand should be final harvested. OPIC - FMD: 2011 Comments: Stand harvested in October 2010 by Holli Forest Products, Inc. TS#32-111-07-01 (Mother Goose Mix). Stand was marked to about 50 ft/ac. Limbs and tops were ground/chipped. 2005 Comments: Stand was planted to red pine about 1965, with jack pine volunteers seeding in soon after (furrow rows oriented north-south). Jack pine now outnumber red pine, but red pine are of good form, etc. Thin stand in 2007 to benefit the red pine, leaving some jack pine also for optimum stocking of 60 sq.ft/A or above. Site index for red pine (70) exceeds that for jack pine (65). This stand will provide aesthetic benefits as seen from Camp Hope Road and this may be a reason it was originally planted here. I found a planting form No. 112 for machine planting red pine here in Oct. 1965.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	4130 - Aspen	Sapling Well	11.0	16	Immature	1/9/2015: Aspen with some scattered jack pine and a patch of red pine. OPIC - FMD: This stand was commercially cut in Dec. 1998 by Tom St. John (Oro Logging Co.) under permit # 5-97, "Camp Hope Road Sale". Oak, cherry, red and white pine were left for aesthetics and diversity. A small patch of remnant planted red pine in rows exists in the north end of this stand. These red pine were machine planted in Oct 1965 under planting form #112. A few birch were marked to leave (mostly dead in April 2005) also on the hill or knob, the highest part of this stand.
35	6122 - Black Spruce	Poletimber Well	10.4	92	51-80	5/28/15: Wet stand, lots of sphagnum. Decent quality black spruce. OPIC - FMD: This is a potential biodiversity mgt area buffering the Wild West Creek. See cmpt header for additional comments.
36	6122 - Black Spruce	Poletimber Medium	9.9	92	51-80	OPIC - FMD: This stand is a potential biodiversity mgt area buffering the Wild West Creek. See cmpt header for additional comments.
37	6122 - Black Spruce	Poletimber Medium	4.7	60	Unspecified	5/28/15: Edge call from west side of stand 18. Lots of small trees. Must be starting to fill in. Between looking at the 1997 air photo's and the new imagery, it appears to be filling in from east to west. OPIC - FMD: Potential biodiversity mgt area. See cmpt header for additional comments. Wild West Creek flows thru this stand.
39	6122 - Black Spruce	Poletimber Medium	5.6	83	51-80	Small stand with relatively open canopy. Wet site, scattered cedar, jack pine occurring on the northern tip of the stand. Unsure of where drainage begins in stand. OPIC - FMD: Small creek drains this swamp and exits from the southeast corner, passing through a 12 inch plastic culvert under the road. Stand appears somewhat unevenaged, a variety of size classes. Some jack pine in north end.
40	4112 - Maple, Beech, Cherry Association	Poletimber Well	4.9	76	51-80	12/22/14: Small hardwood stand, dominated by red maple. Is in need of harvesting. OPIC - FMD: Stand is generally an east facing slope. It has been burned in the past (whether by wildfire or prescribed burn?) -- plow furrows are still visible. Narrow strip of aspen on western boundary - large trees - good wildlife trees. Delay a cut here for wildlife benefits that this stand provides, being situated on the edge of a large grass opening.
42	42340 - Upland Spruce/Fir	Poletimber Poor	5.9	30	1-50	1/8/2015: Open area that was previously part of aspen stand to the south west. This portion of the stand didn't regenerate and is now predominantly an open stand with residual fir, spruce, and some oak. Spruce budworm is in this stand feeding on both the balsam and the white spruce. Not being impacted heavily, only evidence of about one years worth of feeding.
43	6122 - Black Spruce	Sapling Medium	6.2	52	1-50	OPIC - FMD: A small spruce type with some merchantable volume, especially along fringes.
46	4130 - Aspen	Sapling Well	3.5	24	Immature	OPIC - FMD: Was commercially cut in 1991 by Minerick Logging Inc., permit #14-87, "Swamp Stripcut Block".



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	42220 - Natural Jack Pine	Sapling Medium	17.8	26	1-50	12/8/2014: Stand is filling in with jack pine. Some areas are sparse, but trees are entering the pole size class and could be harvested for either cordwood or chips if paired with a stand in the main part of the compartment. 9/20/2005: OPIC - FMD: Stand is variable at present, ranging from G to J3 in stocking (overall a J2 average). Averages 3 to 4 inch dbh, 12 to 20 ft tall. Parts of stand were roller chopped in past - marks still visible in the sod layer. The private forty west of this one has been cut recently (jack pine regeneration about 3 ft tall). Also I found corners of unknown origin (pipe, rebar, and/or steel fence posts) at three of the approx forty corners, and a registered corner exists at the Sec. Corner. I found a wildlife FTP #31-16 for roller chopping this stand (extending north into Sec 4) dated Nov 1978, - purpose was for sharptail grouse habitat. Note: at our 9/14/05 mini-review, wildlife expressed their desire to manage this stand for grass. Thus it should be prescribe burned, or as an alternative, mechanically treated to eliminate the existing jack pine stand. Latest update: Robert Ziel field examined this stand for possibility of burning here, and recommended we hold till a merchantable cut can be made to liquidate this stand (possibly chipping slash for boiler fuel), and follow up with a burn. Thus long term objective for this stand is grass.
48	42120 - Planted Jack Pine	Sapling Well	15.8	16	Immature	5/28/215: Stand is in good shape. The few white birch that were left along the road have started to die off. OPIC - FMD: This stand was commercially cut in Dec. 1998 by Tom St.John (Oro Logging Co.) under permit # 5-97, " Camp Hope Road Sale". Oak, cherry, red and white pine were left as well as a few birch for aesthetics near the road. Herbicide as needed, disk trench, and planted to jack pine (in 1999 or 2000) . FTP #C31-391.
50	4112 - Maple, Beech, Cherry Association	Poletimber Medium	4.8	77	51-80	12/19/2014: Evidence of fire within this stand, not sure if it's from a prescribed burn or natural fire. Plow furrows are still visible.
52	42340 - Upland Spruce/Fir	Poletimber Medium	4.1	55	51-80	5/28/2015: Stand is just a thin strip of predominantly balsam fir that was left as a buffer when the aspen to the east was harvested. Spruce budworm is evident in the stand. Stem diameters are quite variable throughout the stand; balsam is mainly 4-5 inches with some around 8", aspen, red maple, and jack pine are around 7-8", with the spruce in that same area. Probably a result of the last spruce budworm outbreak. Stand is harvestable. OPIC - FMD: This stand is a biodiversity mgt area. See cmpt header for additional comments. This is a buffer that was left when stand 16 was cut. It serves as a beaver deterrent, for aesthetics and diversity.
53	4130 - Aspen	Sapling Well	1.5	7	Immature	OPIC - FMD: Harvested in 2008: TS#110-07-01.
55	4130 - Aspen	Sapling Medium	5.1	4	Immature	1/8/2015: Stand meets stocking, however, the site is fairly sandy and aspen seems to be struggling somewhat. Would be worth monitoring stocking levels to see if a conversion may be in order. OPIC - FMD: Stand harvested in October 2010 by Holli Forest Products, Inc. TS# 32-111-07-01 (Mother Goose Mix). All oak were left, scattered birch and red maple were marked to satisfy retention. Tops and limbs were ground/chipped.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	42220 - Natural Jack Pine	Sapling Medium	7.3	16	Immature	5/28/2015: Stand is quite thick in places with jack pine, and then thins out as you head east. East end is more aspen than jack pine. OPIC - FMD: This stand was commercially cut in Dec. 1998 by Tom St. John (Oro Logging Co.) under permit # 5-97, "Camp Hope Road Sale". Access was from the northwest across narrow strip of swamp. Future stand will likely be a mix of aspen, balsam fir, spruce and jack pine, with jack pine being dominant. This jack pine is natural and not the result of disk trenching & seeding. Oak, cherry, red and white pine were left uncut. Soil is sandy here. This stand is essentially an island of high ground surrounded by swamp. This "J2" stand is about the western 1/3 of the timber sale island that was cut here.
57	42220 - Natural Jack Pine	Sapling Medium	10.3	26	Immature	OPIC - FMD: Was commercially cut in 1988 by Oscar Antilla from Republic, permit #12-87, "Camp Eleven Creek Block". This was followed by a K-G treecutter treatment under FTP #W31-185. This post-treatment or the logging itself initiated this natural regeneration of jack pine here. A significant and surprising amount of white pine regeneration is mixed in as well, plus a trace of fir and red pine. Scattered larger remnant red maple, but few in number.
58	4132 - Aspen, Jack Pine	Poletimber Medium	1.3	21	51-80	OPIC - FMD: Was commercially cut in 1991 by Minerick Logging Inc., permit #14-87, "Swamp Stripcut Block". A trespass occurred here on Mich. Northwoods Club property on the NWSE of Sec 15, because we used their north-south fenceline as the sale boundary. Now as of Sept 2003, Paul Bressette set the 1/16th corner falling on the west edge of the road and revealed that their fence is in error (too far east about 100 ft). Their fence is also too far south (approx 2.5 chs) where it runs east-west, but Minerick's cutting stopped at the fence for stand 24.
59	6122 - Black Spruce	Poletimber Well	6.2	75	81-110	4/16/2015: Small black spruce stand, more merchantable timber is located near the edges of stand.
61	4134 - Aspen, Spruce/Fir	Poletimber Medium	1.7	78	1-50	12/189/2014: Harvest with adjacent stand. OPIC - FMD: This parcel was made known following a 2003 survey when the 1/16th corner just west of the road was set. It was not cut in 1994 by Minerick's swamp sale in stand 24 because the Mich. Northwoods Club fenceline was in trespass on State land here.
63	4130 - Aspen	Sapling Well	1.3	16	Immature	This stand was cut with the adjacent compartment on the west side of the Flat Rock Rd. Partially trenched and seeded and the remainder is volunteer aspen regen.
64	4140 - Other Upland Deciduous	Poletimber Well	27.6	76	111-140	OPIC - FMD: Stand is situated east of trail road and a harvest here will be delayed for 10 yrs to provide aesthetic benefits since essentially all surrounding stands have been or are being cut at this time.
65	6122 - Black Spruce	Poletimber Well	44.6	80	81-110	OPIC - FMD: See stand 15 with comments. This is the stand which will be reserved for future treatment, and although the exact boundaries will be adjusted when we set stand 15 up for sale, this stand will possess the bulk of the cedar stocking since it is unavailable for harvest by Wildlife policy.

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Gwinn Mgt. Unit

Report 8 – Forested Stands

Compartment: 230

Year of Entry: 2017



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
66	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	10.7	80	51-80	5/28/15: Mixed stand, very clumpy in nature. Tamarack, cedar, and black spruce all occur in essentially their own patch. The confluence of two creeks are in this stand that form the beginning of the Wild West Creek. OPIC - FMD: This is a biodiversity mgt area for the purpose of buffering the Wild West Creek. See cmpt header for additional comments.
70	6122 - Black Spruce	Poletimber Well	7.0	86	1-50	Stand is fairly wet. Some evidence of mistletoe. OPIC - FMD: This is a potential biodiversity mgt area which serves to buffer the Camp Eleven Creek and tributaries. See cmpt header for additional comments. The fringes of this stand have the best timber, mostly spruce, grading into more tamarack/alder as you get closer to the water course. Perhaps the westernmost finger of spruce bordering private could be treated seperately in the future. We intended to cut up to the property line when stand 24 was cut, but newer survey work was done in 2003.
71	6122 - Black Spruce	Poletimber Well	4.7	86	51-80	12/19/2014: The south end of this stand has some upland to it.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	3302 - Low Density Conifer Trees	17.7	No	9/20/2005: OPIC - FMD: A treed bog with open lowland brush interspersed with very slow growing tamarack, black spruce, & a trace of cedar. Tree cover is of seedling/sapling size class with some small poles.
10	760 - Non-stocked Forest	9.6		12/10/2014: Site was trenched and seeded in the fall of 2013. 2011: OPIC - FMD: Stand cut in October of 2010 by Holli Forest Products, Inc TS# 32-111-07-01 (Mother Goose Mix). Limbs and tops were ground/shipped.
15	6229 - Mixed lowland shrub	28.7		1/7/2015: Needs a regen survey to see where it's at. OPIC - FMD: Stand cut in October 2010 and January 2011 by Holli Forest Products, Inc TS# 32-111-07-01 (Mother Goose Mix). They started cutting in October but skidding was rutting beyond acceptable levels so they piled the cut wood and came back in January to finish. Some cedar was cut as it was not listed to not cut and mixed softwood was listed on the front page of the prospectus so they assumed it fell under that. A mutual agreement was reached and they stopped cutting it. There was very little present in the stand, only along the south fringe where it transitioned into the adjacent stand. 11 patches of 15 trees were left within the stand for a seed source.
18	6299 - Lowland Shrub (OI)	44.1	No	12/23/14: Scattered trees on north end of the stand. Wild West Creek starts here. OPIC - FMD: Potential biodiversity mgt area. See cmpt header for additional comments. Wild West Creek flows thru this stand.
19	330 - Low-Density Trees	2.4	No	5/28/2015: Site was anchor chained in fall of 2013 with little success. Red maple stump sprouts are present. Scattered oak and some birch are still alive. OPIC - FMD: 2011 Comments: Stand harvested in October 2010 by Holli Forest Products, Inc. TS# 32-111-01-01 (Mother Goose Mix). All oak were left and scattered white birch clumps were marked to leave to satisfy retention. Tops and limbs were ground/chipped. 2005 Comments: Stand occupies a small hill. Red maple is of stump sprout origin. Larger oak & birch present. All oak will be left. Hazel brush present also. Scarify or summer log to encourage oak regeneration. Stand adjacent to the west has been cut & oak was left. The portion of the stand north of the Camp Hope Rd. should be selectively cut for aesthetic purposes since it influences a small pond and bog.
26	330 - Low-Density Trees	15.2	No	OPIC - FMD: This is a potential biodiversity mgt area which serves to buffer the Camp Eleven Creek and tributaries. See cmpt header for additional comments. The fringes of this stand have the best timber, mostly spruce, grading into more tamarack/alder as you get closer to the water course. Perhaps the westernmost finger of spruce bordering private could be treated seperately in the future. We intended to cut up to the property line when stand 24 was cut, but newer survey work was done in 2003.
28	510- Water (OI)	0.6	No	12/8/2014: Stand is a small pond within a larger opening complex. Possibly a vernal pool. A smaller one exists to the east of this stand. 9/20/2005: OPIC - FMD: Stand consists of two separate small vernal ponds (drawn as one), with a narrow fringe of larger, merchantable size jack pine & aspen which we would leave unscheduled for harvest for wildlife purposes.
31	62241 - Treed Bog (OI)	0.9	No	9/20/2005: OPIC - FMD: Treed bog, black spruce & tamarack.
38	31029 - Grass (OI)	0.4	Yes	OPIC - FMD: Located in the SESW of Sec 10, adjacent to the Northwoods Club fence line.
41	510- Water (OI)	1.0	No	Small pond.



Stand	Cover Type	Acres	Managed Site	General Comments:
44	31029 - Grass (OI)	4.5	Yes	OPIC - FMD: Located midway between the SWSW & SESW of Sec 10.
45	320 - Upland Shrub	8.5	No	12/18/14: Part of this stand was a grass opening, the remainder (northern portion) was part of the adjacent stand that failed to regenerate and is now filling in with hazel brush.
49	760 - Non-stocked Forest	3.6		1/8/2015: Stand was trenched & seeded November 2013. OPIC - FMD: 2011 Comments: Stand harvested in October of 2010 by Holli Forest Products, Inc. TS# 32-111-07-01. All birch were left. Tops and limbs from this stand were ground/chipped. 2005 Comments: Most of birch would be left for aesthetics here due to travel influence. Also the oak if any present. Small triangle of land north of Flat Rock Road was cut in 2001 as part of an adjacent sale (#106-01-01) in Sec 8 (Cmpt 231). It was subsequently disk trenched & seeded with jack pine, but no birch were cut during the timber sale. Oak, cherry, red & white pine were left as well. I believe it was trenched & seeded in 2003. The alternative acceptable management objective here is aspen - red maple.
51	760 - Non-stocked Forest	3.9		1/7/2015: Stand was scarified in November of 2013 using the JD 440 and small chains. Scarification was very poor as the ground was partially frozen. Recommend conversion to red pine. OPIC - FMD: 2011 Comments: Stand harvested in October 2010 by Holli Forest Products, Inc. TS# 32-111-01-01 (Mother Goose Mix). All oak were left and scattered white birch clumps were marked to leave to satisfy retention. Tops and limbs were ground/chipped. 2005 Comments: Stand occupies a small hill. Red maple is of stump sprout origin. Larger oak & birch present. All oak will be left. Hazel brush present also. Scarify or summer log to encourage oak regeneration. Stand adjacent to the west has been cut & oak was left. The portion of the stand north of the Camp Hope Rd. should be selectively cut for aesthetic purposes since it influences a small pond and bog.
54	3105 - Mixed Upland Herbaceous	1.4	No	12/19/2014: Small grass opening within a larger aspen stand. Scattered white birch clumps and a handful of single aspen trees.
60	31029 - Grass (OI)	1.6	No	5/28/15: Grass and sweet fern. OPIC - FMD: Was herbicided in July 1989.
62	760 - Non-stocked Forest	3.1		1/8/2015: Stand trenched & seeded 11/2013. Harvested in fall of 2010 by Holli Forest Products, TS #32-111-07-01 (Mother Goose Mix)
68	3302 - Low Density Conifer Trees	2.0		1/9/2015: Stand was trenched and seeded in November 2013, FTP #32-765 . OPIC - FMD: Stand harvested in October 2010 by Holli Forest Products, Inc. TS# 32-111-07-01 (Mother Goose Mix). Stand is an island of high ground surrounded by swamp.
69	122 - Road/Parking Lot	0.3	No	Flat Rock Road
400	31029 - Grass (OI)	45.6	No	OPIC - FMD: This large opening has had past treatment for sharptail grouse habitat, eg. Roller chopping and prescribed burning, etc. Patches of jack pine in this stand -- these serve to enhance the usefulness of this opening for wildlife.
405	31029 - Grass (OI)	16.7	No	12/23/14: Scattered red oak, small cluster of jack pine, and a few aspen. OPIC - FMD: Some maps show an old road descending from the north off of private land into this opening.



Stand	Cover Type	Acres	Managed Site	General Comments:
406	320 - Upland Shrub	26.2	No	1/8/2015: Very brushy stand with scattered clumps and single trees. Red maple, cherry, red oak (12" dbh), and hazel. No record of maintenance in this stand. OPIC - FMD: Somewhat brushy in character with cherry (heavily damaged by feeding bear it appears), hazel brush, and some encroaching tree species such as aspen, maple, & jack pine. But it all adds to the diversity here and probably is very desirable in this condition to wildlife. In late March, there were badgers actively digging and spewing fresh dirt out upon the snow. They are becoming quite numerous in recent years in southern Marquette Co. (probably have no natural prey species that will tackle them). Buck rubs aren't hard to find in this area.
408	31029 - Grass (OI)	0.7	No	1/8/2015: No records exist in the FTP folder for this small opening. All records are for the opening east and north of this and further south down the Camp Hope Rd. OPIC - FMD: Located in the northwest corner of the SWNW of Sec 16, west of Camp Hope Road. OI
409	31029 - Grass (OI)	5.9	Yes	1/7/2015: Grass opening between aspen stand and lowland conifer swamp. Part of opening is on a hill side. Very sandy soil. OPIC - FMD: Located in the NWSW of Sec 16, bordering swamp to the south. OI Stand Year Origin was
413	31029 - Grass (OI)	7.7	No	OPIC - FMD: Was herbicided in 1989. A natural opening, generally devoid of trees.
415	31029 - Grass (OI)	1.7	No	OPIC - FMD: Stand was herbicided in 1989. This is a south facing slope dropping down to the swamp. Although it is not totally devoid of trees, it is nearly so. A few red maple & birch & conifer, etc. It was never rock raked or disked & seeded - simply a natural opening.
419	31029 - Grass (OI)	21.7	Yes	12/8/2014: Semi-open grass opening mixed with pockets of and scattered jack pine make up this stand today. Historically it had been managed for sharp-tailed grouse. 9/20/2005: OPIC - FMD: Currently it has sparse jack pine regeneration present. Per our mini-review held on 9/14/05, Wildlife would like to have this stand prescribe burned, or mechanically treated as an alternative. Robert Ziel visited this stand after the mini-review to assess it for prescribed burning.
420	31029 - Grass (OI)	142.6	Yes	12/8/2014: Grass opening complex that was historically managed for sharp-tailed grouse. Scattered clumps of jack pine and aspen. Scattered areas of shrubs. Historical notes state that Autumn Olive, hawthorn, and Siberian crab were planted here along the south east edge. 9/20/2005: OPIC - FMD: Some sparse to medium stocking of natural jack pine regeneration already exists in patches here. Per our mini-review held on 9/14/05, Wildlife would like this stand burned by prescribed fire, or mechanical treatment is also an acceptable alternative to burning. Robert Ziel visited this stand after the mini-review and concluded a prescribed burn here is feasible.
421	31029 - Grass (OI)	3.0	No	OPIC - FMD: Grass opening mostly east of trail road and bounded by Mich, Northwoods Club on east.