



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32057

Entry Year 2023

Acreage: 1,649

County Marquette

Management Area: Ralph Ground Moraine

Revision Date: 2021-08-03

Stand Examiner: Eric Brolin

Legal Description:

T44N R26W Section(s) 19, 20, 21

Identified Planning Goals:

To maintain the health and sustainability of the forest while providing for recreational, wildlife and fisheries concerns and needs.

Soil and topography:

Terrain is relatively level swamp to slightly rolling uplands with soils ranging from mucks in the bog areas to well-drained sands in the southwest portion of the compartment. Major soils associations include: Sagola-Rubicon, Emmet-Escanaba, Paquin-Finch and Rubicon sands.

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

Lies within a large block of land entirely owned by the State.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Potential for climbing fumitory, goblin fern, large toothwort, ginseng, showy orchis, and Assiniboia sedge in mature hardwoods. Potential for pine drops, purple clematis, and rayless mountain ragwort in mature pines. Potential for calypso orchid, Ram's-head orchid, limestone oak fern, and rayless mountain ragwort in cedar swamps. Potential for submergent and emergent marsh species in small lake and creeks: auricled tway-blade, autumnal water starwort, alternate-leaved water-milfoil, Farwell's water-milfoil, alga pondweed, small yellow water-lily, American shore-grass, linear-leaved gentian and veiny meadow-rue.

Watershed and Fisheries Considerations:

This compartment contains Big Brook, Bryan Creek and the West Branch of the Escanaba River. These waterbodies are designated Type 1 trout streams less than 50' width and have predicted mean July temperatures that range from 63.0 to 66.9 °F (cold to cool streams). 300' buffers are recommended for these waterbodies in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope; buffers are recommended to protect these areas in accordance with Best Management Practices.

Wildlife Habitat Considerations:

Compartment 57 is found within the Ralph Ground Moraine Management Area; on Ground Moraines in northern Dickinson and southern Marquette Counties. The dominant Natural Communities are mesic northern forest, poor conifer swamps, and dry mesic northern forest. Major forest cover types include Aspen, Northern Hardwoods, and Mixed Lowland Conifers. Almost every cover type and associated species can be found within the management area including several deer wintering complexes. This management area provides some of the finest grouse and woodcock hunting in the Midwest and this is a wildlife management priority that will continue. Wildlife management issues in the management area are: early successional forest conditions (associated with alder, riparian zones, or forested wetlands); mast (hard and soft); habitat fragmentation; mature forest (upland deciduous, especially aspen and mixed forest with little understory); coarse woody debris; and deer wintering complexes.

The following have been identified as featured species for Chain Lakes Management Area: American woodcock, black bear, Northern goshawk, ruffed grouse, and whitetail deer.

Mineral Resource and Development Concerns and/or Restrictions

Sections 19 - 21, T44N-R26W, Marquette County

Surface sediments consist of peat and muck and medium-textured till. There is insufficient data to determine the glacial drift thickness. The Cambrian Trempealeau Formation subcrops below the glacial drift. The Trempealeau could be used for stone. A gravel pit is located in Section 18, and potential is good on the uplands. Abandoned iron mines are located eight miles to the northeast. Section 18 was previously leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access:

Compartment is spilt by Kate's Grade, which provides good year-round access. Several two-track road systems provide access through most of the remaining areas. Some roads have become less accessible, due to beaver activity flooding roadway.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

No formal facilities, but area is heavily used for hunting and fishing.

Fire Protection:

Low risk for wildfres.

Additional Compartment Information:

State gravel pit on Kate's Grade just north of this compartment.

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

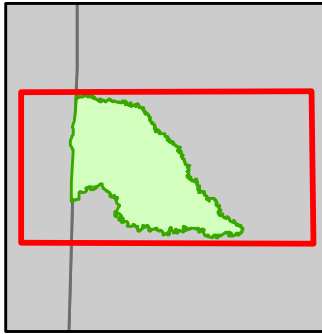


Age Class

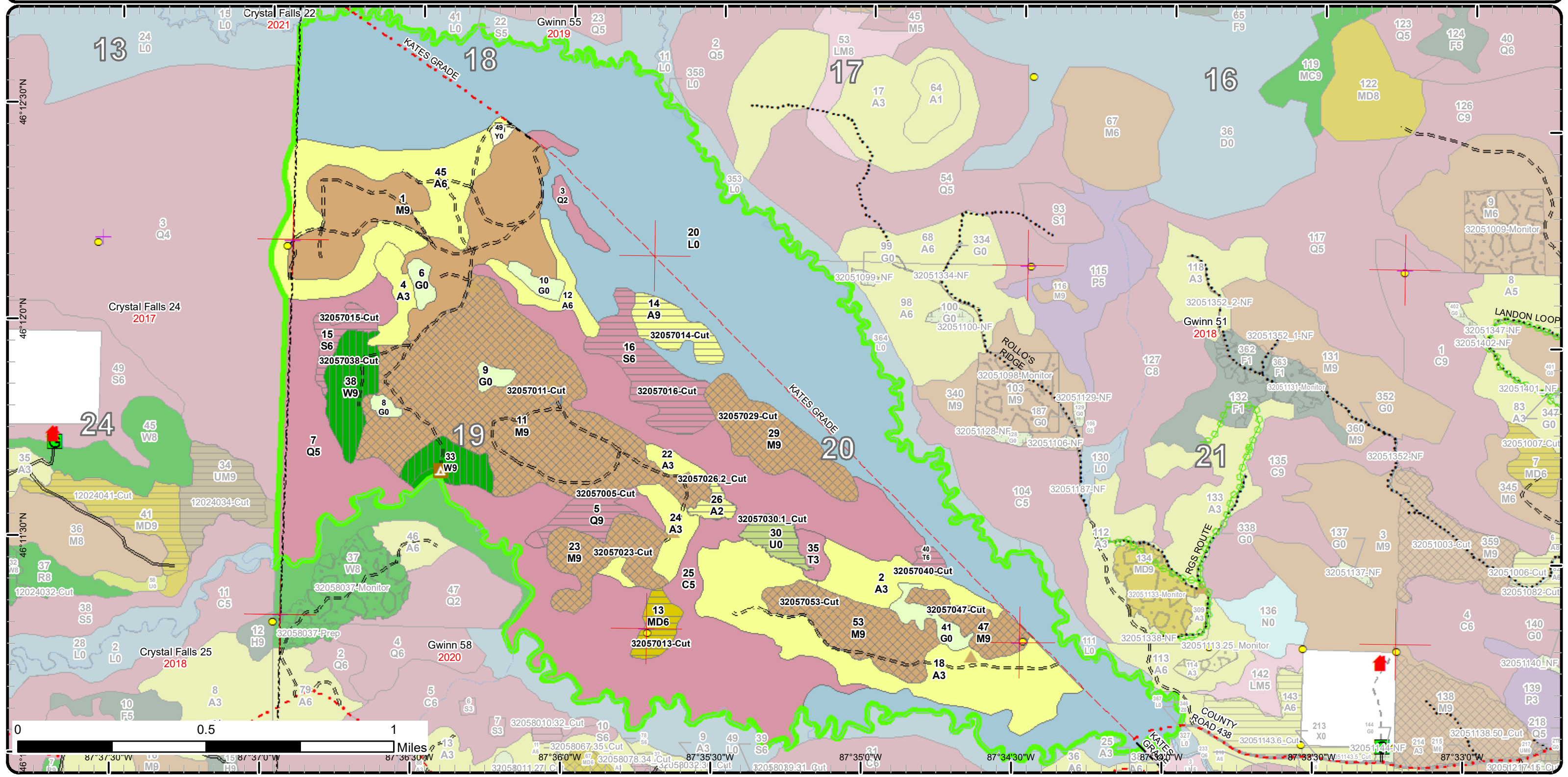
	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	4	11	43	168	0	0	0	0	0	0	0	0	0	0	0	0	15	241
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	249	0	0	0	0	249
Herbaceous Openland	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Lowland Conifers	0	0	8	0	0	0	0	77	0	16	0	0	0	0	0	0	0	0	100
Lowland Shrub	553	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	553
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	41
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	10
Northern Hardwood	0	0	0	0	0	0	0	0	0	50	290	0	0	0	0	0	0	37	377
Sand, Soil	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Tamarack	0	0	0	0	5	0	0	0	0	3	0	0	0	0	0	0	0	0	8
Upland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	36
Total	586	4	19	43	173	0	0	0	77	0	120	326	0	249	0	0	0	52	1648

Cover Type & Treatments Map

Compartment: 57
 T44N, R27W, Sec: 13, 24
 T44N, R26W, Sec: 17-21, 28-30
 County: Marquette
 Unit: Gwinn
 Mgmt Area: Ralph Ground
 Moraine
 YOE: 2023
 Acres: 1648.8 GIS Calculated
 Examiner: Eric Brolin
 Map Revised: 8/20/2021
 Map Phase: Review

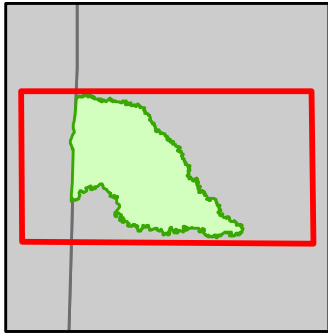


- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- DNR - Management Access
- Designated Hunter Walking Trails
- ▲ Cabin
- ▲ Berms
- G Gate
- C Culvert
- A Campground
- Intermittent Stream
- Perennial River
- Compartment Boundary
- X Selection (Group, Single Tree)
- / Clearcut (w/Reserves)
- | Shelter Wood (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 622 - Lowland Shrub
- 710 - Sand/Soil

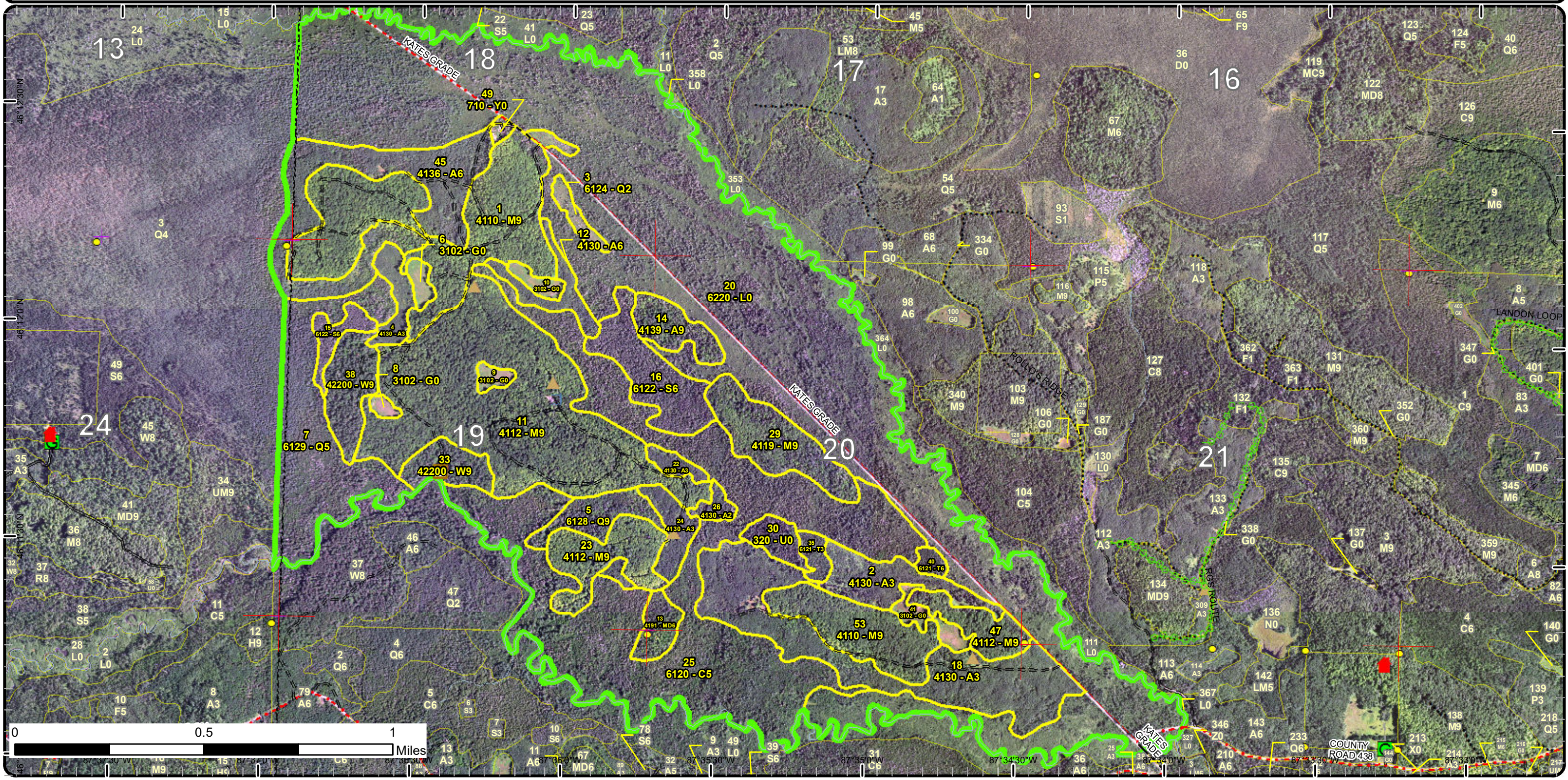


Stand Boundary Map

Compartment: 57
 T44N, R27W, Sec: 13, 24
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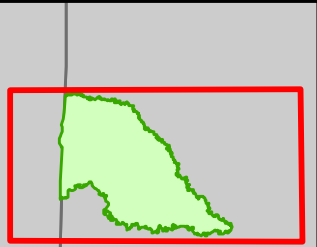


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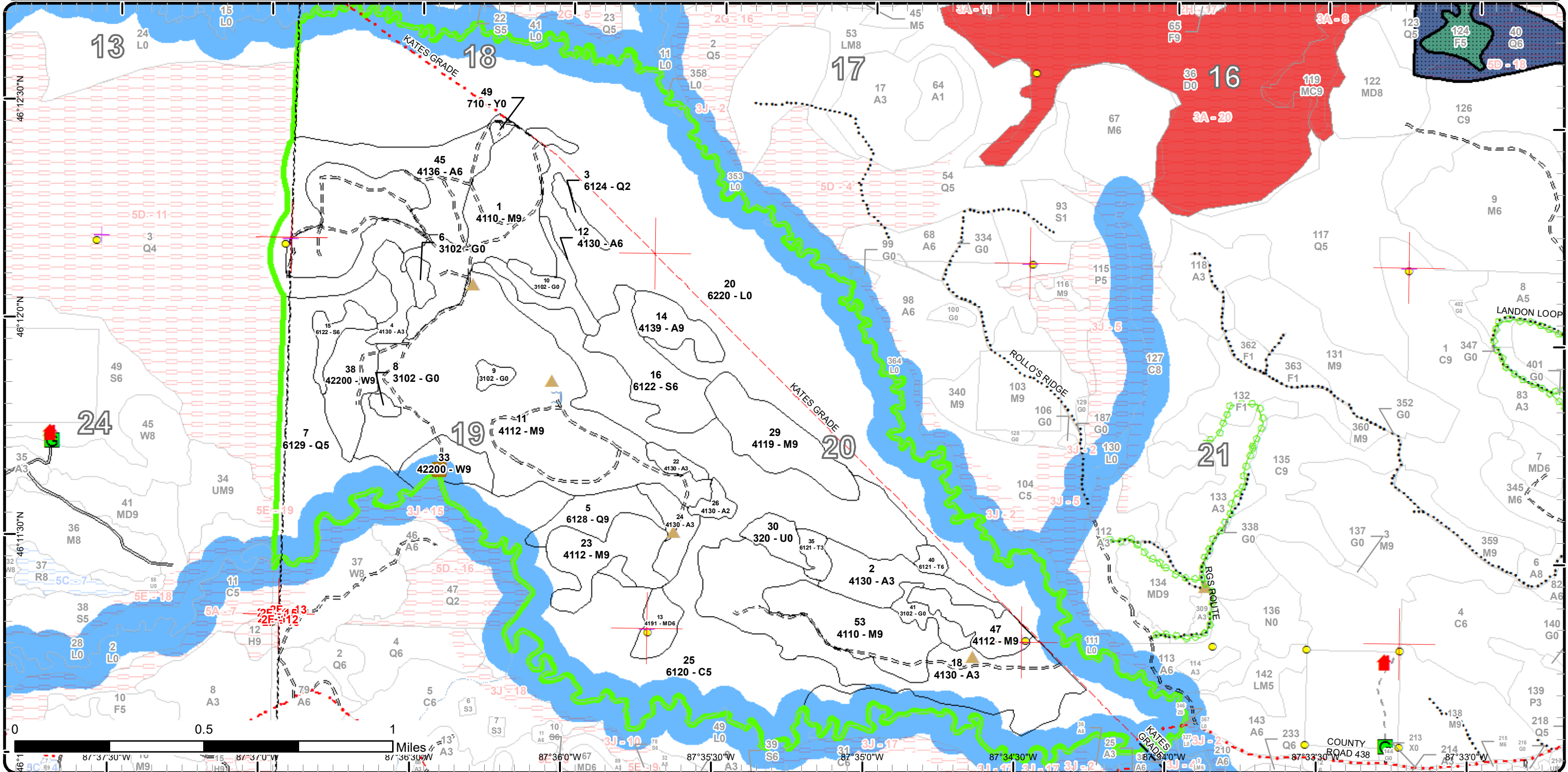


Special Conservation Areas

Compartment: 57
 T44N, R27W, Sec: 13, 24
 T44N, R26W, Sec: 17-21, 28-30
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 Unit: Gwinn
 Mgmt Area: Ralph Ground
 Moraine
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- Designated Hunter Walking Trails
- ▲ Cabin
- ▲ Berms
- Gate
- Culvert
- Campground
- Intermittent Stream
- Perennial River
- Compartment Boundary
- Unavailable
- 2F: Too steep
- Stand Boundaries
- SCA
- Ecological Reference Areas
- Cold Water Streams
- High Priority Trout Stream Buffer
- Spring or Seep
- Habitat Corridor





Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2023

Acres of Harvest

Compartment 57
Total Compartment Acres: 1,649

Commercial Harvest - 407
Harvests with Site Condition - 0
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	20	0	0	0	0	0	0	0	0	20
Lowland Conifers	12	0	0	0	0	0	0	0	0	12
Lowland Spruce/Fir	41	0	0	0	0	0	0	0	0	41
Mixed Upland Deciduous	10	0	0	0	0	0	0	0	0	10
Northern Hardwood	0	278	0	0	0	0	0	0	0	278
Tamarack	3	0	0	0	0	0	0	0	0	3
Upland Shrub	9	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	0	35	0	0	0	0	35
Total	94	278	0	0	35	0	0	0	0	407

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	407	0	0	0	0	0	0	0	0	407
Next Step	0	0	0	41	0	0	407	0	0	448
Total	407	0	0	41	0	0	407	0	0	855



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat
											Cut

Proposed Treatments:

5	32057005-Cut	12.0	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	92	111-140	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Two-Aged	No
<p><u>Prescription</u> Harvest to a 2" spec to promote lowland conifer and aspen regeneration. Retention will be in the east 1/3 of the stand that becomes too wet/sparse and will include large diameter, forked crown aspen. Leave cedar, hemlock, red pine, and white pine.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> lowland conifer, pine, aspen</p> <p><u>Regen:</u></p> <p><u>Other</u> Evaluate during prep for frozen condition harvest. Push treatment lines against adjacent hardwood stands to capture declining paper birch and aspen in clearcut. Buffer West Branch Escanaba River 300', treatment has been updated for buffer.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
11	32057011-Cut	162.3	4112 - Maple, Beech, Cherry Association	Sawtimber Well	105	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No
<p><u>Prescription</u> Mark stand to 70 - 90 BA. Focus on improving quality by removing larger, defected trees and creating/maintaining canopy gaps to release advanced maple regeneration. Remove all merchantable spruce/fir and aspen. Leave some larger future snags for wildlife. Favor species diversity, especially basswood, black cherry, and yellow birch, while marking.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> northern hardwood</p> <p><u>Regen:</u></p> <p><u>Other</u> Possible white pine legacy trees within stand.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
13	32057013-Cut	9.8	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	90	111-140	Harvest	Clearcut with Retention	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	No
<p><u>Prescription</u> Harvest to a 2" spec to promote conifer and hardwood regeneration. Include a retention patch in the center to include large diameter, forked crown aspen. Leave cedar and white pine.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> lowland conifer, pine, hardwoods, spruce/fir</p> <p><u>Regen:</u></p> <p><u>Other</u> Access from stand 23 to the north. Push treatment lines hard up to the cedar/alder to capture all merchantable trees available for harvest.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
14 32057014-Cut	15.4	4139 - Aspen, Mixed Deciduous	Sawtimber Well	97	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Harvest to a 2" spec to promote aspen and mixed hardwood regeneration. Retention should include large diameter, forked crown aspen.</p> <p><u>Specs:</u> Leave cedar and white pine.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> aspen, hardwood, conifer</p> <p><u>Regen:</u></p> <p><u>Other</u> Short access from Kates grade will require freezing a road and/or timber mats to access across alder. Possible white pine legacy trees within stand.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										
15 32057015-Cut	8.6	6122 - Black Spruce	Poletimber Well	92	81-110	Harvest	Clearcut	6122 - Black Spruce	Even-Aged	No
<p><u>Prescription</u> Harvest to a 2" spec to promote black spruce regeneration. Leave cedar and white pine. Leave no retention, surrounding seed source is sufficient for this narrow, smaller stand.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory); Seeding, Machine Seed</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> black spruce, lowland conifer, white pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Recommend harvest during dry or frozen conditions.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										
16 32057016-Cut	32.2	6122 - Black Spruce	Poletimber Well	90	111-140	Harvest	Clearcut with Retention	6122 - Black Spruce	Even-Aged	No
<p><u>Prescription</u> Harvest to a 2" spec to promote lowland conifer regeneration. Retention should include a mix of spruce and some larger tamarack. Leave cedar and white pine.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory); Seeding, Machine Seed</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> mixed lowland conifer, black spruce</p> <p><u>Regen:</u></p> <p><u>Other</u> Short access from Kates grade will require freezing a road and/or timber mats to access across alder.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										
23 32057023-Cut	28.9	4112 - Maple, Beech, Cherry Association	Sawtimber Well	100	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No
<p><u>Prescription</u> Mark stand to 70 - 90 BA. Focus on improving quality while creating canopy gaps and improving canopy gaps where advanced maple regen is present. Remove all merchantable spruce/fir and aspen. Leave cedar and hemlock. Leave some larger future snags for wildlife. Favor species diversity, especially basswood, black cherry, and yellow birch, while marking.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> northern hardwood</p> <p><u>Regen:</u></p> <p><u>Other</u> Access will require a temporary culvert or bridge across a drainage between stands 23/24.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										

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	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
29	32057029-Cut	33.4	4119 - Mixed Northern Hardwoods	Sawtimber Well	97	111-140	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Uneven-Aged	No
<p><u>Prescription</u> Mark stand to 79 - 90 BA. Focus on improving quality while maintaining target BA in areas dense to maple. Edges along lowland and south</p> <p><u>Specs:</u> 1/3 may just be walkthrough. Remove all merchantable aspen, paper birch, and spruce/fir. Leave some large future snag trees for wildlife. Leave cedar and white pine. Favor species diversity while marking.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> hardwood, aspen, conifer</p> <p><u>Other Comment:</u> Approximately 1/3 of the stand (edges and south) will be walk through and are more dense to aspen and paper birch. Short access from Kates grade will require freezing a road and/or timber mats to access across alder. Possible white pine legacy trees within stand.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
33	32057033-Cut	12.9	42200 - Natural White Pine	Sawtimber Well	107	141-170	Harvest	Shelterwood with Retention	4220 - Natural White Pine	Two-Aged	No
<p><u>Prescription</u> Harvest to a 2" spec to remove competition for pine regeneration. Leave cedar, hemlock, and red pine. In combination with leave species, green mark healthy white pine to maintain a residual cover of 30-50 BA across the stand.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> white pine, conifer</p> <p><u>Other Comment:</u> Summer harvest for scarification? Old roadbeds have seeded in well with pine. Buffer the West Branch Escanaba River 100', treatment has been updated for buffer.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
38	32057038-Cut	21.8	42200 - Natural White Pine	Sawtimber Well	107	141-170	Harvest	Shelterwood with Retention	4220 - Natural White Pine	Two-Aged	No
<p><u>Prescription</u> Harvest to a 2" spec to remove competition for pine regeneration. Leave cedar, hemlock, and red pine. Also, leave white pine that is 24" or larger at the stump. In combination with leave species, green mark healthy white pine to maintain a residual cover of 30-50 BA across the stand.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> white pine, conifer</p> <p><u>Other Comment:</u> Summer harvest for scarification? Old roadbeds have seeded in well with pine.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
40	32057040-Cut	3.3	6121 - Tamarack	Poletimber Well	90	141-170	Harvest	Clearcut	6121 - Tamarack	Even-Aged	No
<p><u>Prescription</u> Harvest to a 2" spec to promote tamarack regeneration. Leave no retention, surrounding seed source is sufficient for this smaller stand.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> tamarack, black spruce, fir</p> <p><u>Other Comment:</u> Access from Kates Grade or push a skid trail south out to the G0.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
47 32057047-Cut	16.5	4112 - Maple, Beech, Cherry Association	Sawtimber Well	97	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No
<p><u>Prescription</u> Mark stand to 70 - 90 BA. Focus on improving quality while creating / improving canopy gaps to release the dense maple regeneration that is currently present. Remove all merchantable spruce/fir and aspen. Leave some larger future snags for wildlife. Favor species diversity, especially basswood and yellow birch, while marking.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> northern hardwood</p> <p><u>Other Comment:</u> Include merchantable spruce/fir and aspen strip along Kates Grade.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										
53 32057053-Cut	37.3	4110 - Sugar Maple Association	Sawtimber Well	98	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No
<p><u>Prescription</u> Mark stand to 70 - 90 BA. Focus on improving quality while creating / improving canopy gaps to release the dense maple regeneration that is currently present. Remove all merchantable spruce/fir and aspen. Leave some larger future snags for wildlife. Favor species diversity, especially basswood and yellow birch, while marking.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> northern hardwood</p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										

Approved Treatments:

26 32057026.2_Cut	4.2	4130 - Aspen	Sapling Medium	1	Immature	Harvest	Clearcut	4134 - Aspen, Spruce/Fir	Even-Aged	No
<p><u>Prescription</u> Older, overmature aspen with some hardwood. Cut all aspen, paper birch, balsam poplar, maple, and balsam fir. Leave small cherry and any windfirm white spruce.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Aspen, birch, spruce/fir and some maple.</p> <p><u>Other Comment:</u> No retention due to small stand size. Possibly access and treat with stand 30 to the east in order to create marketable sale. May still be too small to sell. Old next step comments: Monitor for successful regeneration of aspen, spruce/fir.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2017</p>										

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
30 32057030.1_C ut	8.7	320 - Upland Shrub	Nonstocked		Immature	Harvest	Clearcut	6122 - Black Spruce	Even-Aged	No
<p><u>Prescription</u> Quite a bit of blowdown has occurred. Some slightly higher patches within with old red and white pine - retain pine and any cedar. Also</p> <p><u>Specs:</u> retain some large aspen along edges if possible.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Black spruce, red and white pine, cedar, some aspen.</p> <p><u>Regen:</u></p> <p><u>Other</u> Clearcut no reserve due to small stand size; adjacent stand will provide seed source. Treat with stand 26, if possible, for more marketable</p> <p><u>Comment:</u> sale. May still be too small to sell. Old next step comments: Monitor for successful regeneration of spruce/fir. Additional regeneration of cedar, pine, aspen and birch</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2017</p>										

Total Treatment 407.3
Acreage Proposed:

Report 4 – Site Conditions

Gwinn Mgt. Unit
Eric Brolin : Examiner

Compartment: 57
Year of Entry: 2023

Availability for Management

Total Acres	Acres Available	Acres Avail With Condition	Acres Not Available	Dominant Site Conditions	3J
242	242	0	0	Aspen	
249	249	0	0	Cedar	0
22	22	0	0	Herbaceous Openland	
100	100	0	0	Lowland Conifers	0
553	553	0	0	Lowland Shrub	0
41	41	0	0	Lowland Spruce/Fir	
10	10	0	0	Mixed Upland Deciduous	
377	377	0	0	Northern Hardwood	
2	2	0	0	Sand, Soil	
9	9	0	0	Tamarack	
9	9	0	0	Upland Shrub	
36	36	0	0	White Pine	0
1,649	1,649		0	Total Forested Acres	0
	100%		0%	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
11	Unavailable	2F: Too steep	0	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	5B: Maintain for regeneration purposes	Unspecified
Comments: North finger of site is for regeneration purposes - delay for now, but will be possible to treat.							
12	Unavailable	2F: Too steep	0	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	5B: Maintain for regeneration purposes	Unspecified
Comments: North finger of site is for regeneration purposes - delay for now, but will be possible to treat.							
13	Unavailable	2F: Too steep	0	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	5B: Maintain for regeneration purposes	Unspecified
Comments: North finger of site is for regeneration purposes - delay for now, but will be possible to treat.							

Report 4 – Site Conditions

Gwinn Mgt. Unit
Eric Brolin : Examiner

Compartment: 57
Year of Entry: 2023

14	Unavailable	2F: Too steep	0	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	5B: Maintain for regeneration purposes	Unspecified
Comments: North finger of site is for regeneration purposes - delay for now, but will be possible to treat.							
15	Unavailable	2F: Too steep	0	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	5B: Maintain for regeneration purposes	Unspecified
Comments: North finger of site is for regeneration purposes - delay for now, but will be possible to treat.							
16	Unavailable	2F: Too steep	0	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	5B: Maintain for regeneration purposes	Unspecified
Comments: North finger of site is for regeneration purposes - delay for now, but will be possible to treat.							

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
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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	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.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																								
1	4110 - Sugar Maple Association	Sawtimber Well	98.8	108	81-110	N/A	Sugar maple log stand. Moderate quality with larger diameter trees mixed in. Crowns are open with canopy gaps and a lot of room to grow. Dense maple saplings across most of the stand. Old notes claim numerous hemlock seedlings were planted across areas of these stands, no hemlock regen was observed. 100 100 110 120 90 110 Average of 105 BA. Last treated under contract #32-30-03 by Sheski. Almost pure sugar maple with a few soft maple stems. (See wildlife comments below). 17,000 hemlock seedlings were planted within the east portion of Kate's Grade Big Pit sale boundary (#32-030-03) in May 2005. An additional 18,750 hemlock seedlings were planted in May 2006 to completely stock the remainder of the available sale area. The planting rate was 441 hemlock seedlings per acre.																																								
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2	4130 - Aspen	Sapling Well	23.7	20	Immature	N/A	Aspen sapling stand with scattered spruce/fir patches. Dense lowland conifer regen along lowland stand transitions.																																								
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3	6124 - Lowland Spruce-Fir	Sapling Medium	8.1	15	Immature	N/A	Small lowland patches regenerating well to conifer. Stand cut 2004 by Giguere logging permit #031-03-01. Stand regenerating to black spruce and fir. Good regen in the sphagnum moss areas, lesser so on the dryer sites.																																								
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Tamarack	40	Sapling	1	15																																											
White Pine	5	Sapling	2																																												
4	4130 - Aspen	Sapling Well	10.9	11	Immature	N/A	Very dense pure aspen sapling stand. May be some softer ground along the west edge. "Jerry's Trespass" sale #009-06 (unit 4) - cut Dec, 2009. Trace amount of balsam fir, lower edges with more balsam poplar. Aspen ~10-16' hts.																																								
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																										
5	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	15.8	92	111-140	N/A	Lowland conifer strip between hardwood stands with some higher ground areas growing pine and aspen. Ground is soft across stand.																																																										
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6	3102 - Grass	Nonstocked	4.1			Managed Opening	Grass opening with dense raspberry brush across most. W32-422 : 4.4 acres cleared and seeded 7/1991, 7/1992																																																										
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7	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	76.5	75		N/A	Wet, lowland conifers with trace amount of birch, aspen, and maple. Flooded ground with most areas dense to alder and standing water.																																																										
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8	3102 - Grass	Nonstocked	2.2			Managed Opening	Grass opening. W32-422: 1.5 acres cleared and seeded 9/1993, 8/1994.																																																										
9	3102 - Grass	Nonstocked	3.4			Managed Opening	Grass opening. W32-422: 3.8 acres cleared and seeded 9/1993, 8/1994.																																																										
10	3102 - Grass	Nonstocked	4.4			Managed Opening	Grass opening with a couple of conifers growing in. Dense raspberry brush. W32-422: 3.7 acres cleared 7/1991 and seeded 7/1992.																																																										



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
11	4112 - Maple, Beech, Cherry Association	Sawtimber Well	162.3	105	111-140	N/A	Maple log stand with moderate to good quality trees. Higher average BA with very few areas dropping below 120 BA. A fair amount of large white pine is mixed in, especially in the SW area. Dense maple and ironwood saplings found across a majority of this stand. Old notes claim numerous hemlock seedlings were planted across areas of these stands, no hemlock regen was observed. More paper birch mixed in the north. 150 130 110 150 150 140 170 130 Average of 140 BA.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Sugar Maple		67	Log	14	105	Ironwood		High	Variable	Sapling	
Red Maple		13	Log	14		Sugar Maple		High	Variable	Sapling	
Yellow Birch		3	Log/Pole	10							
Basswood		5	Log/XLog	16							
Paper Birch		5	Log/Pole	11							
White Pine		6	XLog	22							
Black Cherry		1	Pole/Log	9							
12	4130 - Aspen	Poletimber Well	12.2	32	Immature	N/A	Far SE tip transitions into a few acres of a lowland type with smaller diameter lowland conifer and more balsam poplar. This tip was harvested at the same time as the rest of the stand but will probably not be ready for harvest at next rotation. "Kate's Grade Block" #013-84 (unit 3) - cut Su, 1987. Just transitioning into pole stand. Lower portions of stand with conifers.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Paper Birch		10	Sapling/Pole	4		Red Maple		Medium	5 - 10 feet	Sapling	
Quaking Aspen		65	Pole/Sapling	5	32	Balsam Fir		Medium	Variable	Sapling	
Balsam Poplar		15	Sapling	4		White Pine		Low	< 5 feet	Seeding	
Balsam Fir		5	Sapling/Pole	2							
Black Spruce		3	Sapling	2							
Tamarack		2	Sapling	1							
13	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	9.8	90	111-140	N/A	Mixed stand that transitions from sparser black spruce / dense maple saplings in the north to denser black spruce to an elevation rise of declining hardwoods. Stand is surrounded by dense cedar and/or alder areas.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		15	Log/Pole	10		Red Maple		Medium	>20 feet	Sapling	
Paper Birch		31	Log	12	90	Balsam Fir		Medium	Variable	Sapling	
Balsam Fir		5	Pole/Sapling	6		Black Ash		Trace	10 - 20 feet	Sapling	
Black Spruce		15	Pole	8	90	Tag Alder		Trace	5 - 10 feet	Tall Shrub	
Northern White Cedar		5	Pole/Log	9	124						
Tamarack		2	Pole/Log	9							
White Pine		5	XLog	20							
Black Ash		2	Pole/Sapling	5							
14	4139 - Aspen, Mixed Deciduous	Sawtimber Well	15.4	97	111-140	N/A		Poor quality mix of maple logs and pole sized trees with declining aspen and paper birch. Transitions to more sparse red maple with large aspen and paper birch along the edges and a bit of conifer. Dense maple saplings found in areas of the stand, more dense in areas with canopy gaps.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Sugar Maple		13	Log/Pole	10	97	Red Maple			Medium	Variable	Sapling
Red Maple		20	Pole/Log	9	97	Paper Birch			Low	>20 feet	Sapling
Paper Birch		15	Log	12		Quaking Aspen			Low	Variable	Sapling
Quaking Aspen		40	Log	14	97	Balsam Fir			Medium	Variable	Sapling
Balsam Fir		5	Pole/Sapling	5		Black Cherry			Low	>20 feet	Sapling
White Spruce		3	Log	12		Sugar Maple			Medium	Variable	Sapling
Northern White Cedar		2	Pole/Log	8							
White Pine		2	XLog	22							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																															
15	6122 - Black Spruce	Poletimber Well	8.6	92	81-110	N/A	Dense black spruce showing some decline with individual dead standing trees across the stand. Smaller diameter with average 3-4 stick trees. Some small tamarack patches in the south.																																															
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16	6122 - Black Spruce	Poletimber Well	32.2	90	111-140	N/A	Dense black spruce poles with tamarack scattered within. Denser, larger black spruce found along most edges with slightly higher elevation flats. Alder patches within can become more dense in areas with canopy gaps.																																															
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18	4130 - Aspen	Sapling Well	87.7	30	Immature	N/A	Aspen sapling stand with scattered spruce/fir patches. Average diameter varies on different quality ground but overall sapling stand transitioning to pole sized trees. Dense lowland conifer regen along lowland stand transitions.																																															
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20	6220 - Alder/willow	Nonstocked	552.9			No	Flooded lowland flat dense to alder with areas of standing water. Scattered, small, sparse patches of lowland conifer within the stand.																																															
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22	4130 - Aspen	Sapling Well	5.0	22		N/A	Dense aspen sapling stand. "Big West Branch Sale" #021-96 (unit 6) - cut fall, 1998. Trace amount of paper birch, most notably along old road edges.																																															
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23	4112 - Maple, Beech, Cherry Association	Sawtimber Well	28.9	100	111-140	N/A	Nearly open understory except patches along roadways and the south finger have some saplings. Moderate quality sugar maple logs with better quality poles mixed in. Stand is heavier to large pole sized trees than logs. Narrow ridge is the south tip has lighter BA. Lower ground cuts stand in half and may have to be excluded from future management. 130 140 130 Average of 135 BA.																																																																														
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25	6120 - Lowland Cedar	Poletimber Medium	248.9	124	81-110	N/A	Stand ranges from nice cedar areas to sparser alder ground with mixed conifer. Very wet across entire stand.																																																																														
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26	4130 - Aspen	Sapling Medium	4.4	1	Immature	N/A	Near fully stocked aspen sapling stand. It should have no problem growing in 100% stocked in the coming years. Stand was harvested in winter 2019-20 by St John as West 438 Mix sale #32-008-18.																																																																														
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
29	4119 - Mixed Northern Hardwoods	Sawtimber Well	33.4	97	111-140	N/A	Poor quality mix of maple logs and pole sized trees. Dense to sugar maple on the higher elevation across the center and north. About 2/3 of the stand is dense to maple and can be thinned. Transitions to more sparse red maple with large declining aspen and paper birch along the edges with a bit of conifer. Dense maple saplings found in areas of the stand, more dense in areas with canopy gaps.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Sugar Maple	40	Log/Pole	10	97	Red Maple	Medium		Variable	Sapling
Red Maple	25	Pole/Log	9	97	Paper Birch	Low		>20 feet	Sapling
Paper Birch	5	Log	12		Quaking Aspen	Low		Variable	Sapling
Quaking Aspen	18	Log	14	97	Balsam Fir	Medium		Variable	Sapling
Balsam Fir	5	Pole/Sapling	5		Black Cherry	Low		>20 feet	Sapling
White Spruce	3	Log	12		Sugar Maple	Medium		Variable	Sapling
Northern White Cedar	2	Pole/Log	8						
White Pine	2	XLog	22						
30	320 - Upland Shrub	Nonstocked	8.9		Immature	6122 - Black Spruce	Ground slightly rises in elevation from adjacent cedar stand. Surrounded by lowland conifer along the north edge and dense tamarack/white pine saplings along the south half. No black spruce regen visible above snow yet from recent harvest. Stand was harvested in winter 2019-20 by St John as West 438 Mix sale #32-008-18.		
33	42200 - Natural White Pine	Sawtimber Well	14.6	107	141-170	N/A	Large white pine logs with spruce/fir and maple poles mixed in. Less of a sapling understory than other WP stands in the area but still a fair amount of maple saplings in patches. Standing snags are scattered within from growing conditions that are too dense.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Sugar Maple	10	Pole/Log	8		Balsam Fir	Medium		Variable	Sapling
Red Maple	3	Pole/Log	8		White Spruce	Low		Variable	Sapling
Paper Birch	2	Log/Pole	10		White Pine	Low		< 5 feet	Seeding
Balsam Fir	3	Pole/Sapling	6		Hazelnut (Beaked)	Medium		< 5 feet	Tall Shrub
White Spruce	3	Pole/Log	8		Maple (spp.)	High		10 - 20 feet	Sapling
White Pine	77	Log/XLog	17	107					
Red Pine	2	Log	16						
35	6121 - Tamarack	Sapling Well	5.3	30	Immature	N/A	Small lowland patch that was clearcut with adjacent aspen stand in the past. Stand has regenerated well to lowland conifer mix.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Paper Birch	5	Sapling	3		Tag Alder	Low		< 5 feet	Tall Shrub
Quaking Aspen	10	Sapling	3	30					
Balsam Fir	5	Sapling	2						
Black Spruce	15	Sapling	2	30					
Tamarack	55	Sapling	2	30					
White Pine	10	Sapling	2	30					
38	42200 - Natural White Pine	Sawtimber Well	21.8	107	141-170	N/A	High BA, large diameter white pine stand averaging 16"-24"+ trees. Dense maple sapling understory. Scattered maple within. Most fir and paper birch has died out. Only white pine regen observed was in the road bed, 2'-4' tall. Standing snags are scattered within from growing conditions that are too dense.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Sugar Maple	7	Pole/Log	9		Balsam Fir	Medium		Variable	Sapling
Red Maple	5	Pole/Log	9		White Spruce	Low		Variable	Sapling
Paper Birch	3	Log	12		White Pine	Low		< 5 feet	Seeding
White Pine	83	XLog	20	107	Maple (spp.)	High		10 - 20 feet	Sapling
Red Pine	2	Log/XLog	16						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																		
40	6121 - Tamarack	Poletimber Well	3.3	90	141-170	N/A	Small tamarack patch with alder understory on the verge of decline. Can access from Kate's Grade or punch a skid trail south into the opening.																																																		
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41	3102 - Grass	Nonstocked	7.7			Managed Opening	Opening with a few scattered trees.																																																		
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45	4136 - Aspen, Mixed Conifer	Poletimber Well	68.0	33	Immature	N/A	Aspen sapling stand transitioning to pole sized trees. Ranges from areas of higher elevation with aspen to lower swales with spruce/fir and mixed lowland conifer, sometimes topped with sparser aspen poles. Old openings within are dense to white pine and mixed conifer sapling/poles.																																																		
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47	4112 - Maple, Beech, Cherry Association	Sawtimber Well	16.5	97	111-140	N/A	Very little diversity, dense to sugar maple log stand. A majority of the trees are log sized with a good amount of poorer quality, lower forked trees, mixed in. Large snags are found scattered across the stand. Dense saplings across most areas of the stand of ironwood but predominately sugar maple, more dense and taller in old canopy gaps. Strips of merchantable fir and larger aspen along Kates Grade and in the NW tip. 130 140 120 Average of 130 BA.																																																		
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49	710 - Sand, Soil	Nonstocked	1.6			Managed Opening	Gravel pit.																																																		



Stand **Level 4 Cover Type** **Size Density** **Acres** **Stand Age** **BA Range** **Managed Site** **General Comments**

53 4110 - Sugar Maple Association Sawtimber Well 37.3 98 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	1	Log/Pole	12	
White Pine	1	XLog/Log	22	
Sugar Maple	84	Log	14	98
Red Maple	2	Log/Pole	10	
Basswood	12	Log/XLog	14	

Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	High	10 - 20 feet	Sapling
Ironwood	Medium	10 - 20 feet	Sapling

Very little diversity, dense to sugar maple log stand. A majority of the trees are log sized with a good amount of poorer quality, lower forked trees, mixed in. Large snags are found scattered across the stand. Dense saplings across most areas of the stand of ironwood but predominately sugar maple, more dense and taller in old canopy gaps. 130 140 120 Average of 130 BA.

OPIC - FMD: Manage with the stand to the north. Last treated in 1997-1998. Still a pole stand but moving toward M9. Better maple regeneration in this stand. Contains a small patch of white pine sawtimber on the south edge.