



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32001

Entry Year 2020

Acreage: 1,316

County Marquette

Management Area: Dead Horse Moraines

Revision Date: 2018-08-06

Stand Examiner: Eric Brolin

Legal Description:

Sections 34-36, T45N - R23W, Marquette County

Identified Planning Goals:

Strive to perpetuate the component of aspen, mixed conifer swamp types, and dry mesic conifers where they now occur.

Soil and topography:

Ranges from level swamps and wetland drainages to upland ridges.

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

One private camp in section 36. Adjacent lands are similar with state ownership to the south and private ownership elsewhere.

Unique Natural Features:

Sucker Creek and tributaries run through the compartment.

Archeological, Historical, and Cultural Features:

None

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

The western and eastern regions of this compartment contain reaches of Sucker Creek and reaches of an unnamed stream located within the Whitefish River watershed. Sucker Creek is a designated Type 1 trout stream less than 50' width. A 300' buffer is recommended for Sucker Creek in riparian areas susceptible to Aspen regeneration (specifically stand 51). 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 (specifically stands 18, 23, and 32). The unnamed stream, which serves as a tributary to Werners Creek, is a designated Type 1 trout stream less than 50' width. A 300' buffer is recommended in riparian areas of the unnamed stream 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 (specifically stands 12 and 62).

Wildlife Habitat Considerations:

Compartment 001 is found within the Dead Horse Moraines Management Area; on Ground Moraines in southeastern Marquette, southwestern Alger, and northwestern Delta Counties. The dominant Natural Communities are poor conifer swamps, mesic northern forests, and dry northern forests. Major forest cover types include Northern Hardwood, Aspen, and Mixed Lowland Conifer. This management area contains a large proportion of hardwood forest which regenerates well partly due to the heavier snow cover and lower deer numbers than the southern portion of this Management Area. The most significant wildlife management issues in the management area are: mast (hard and soft); mature forest (upland deciduous, especially aspen and mixed forest with little understory); course woody debris, early successional forest, and deer wintering complexes.

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

Mineral Resource and Development Concerns and/or Restrictions

Marquette County

Surface sediments consist of medium-textured glacial till. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Black River Group subcrops below the glacial drift. This formation is quarried in the UP for dolostone. A gravel pit is located one mile to the north and potential appears to be good on uplands. Abandoned iron mines are located twelve

miles to the west. This compartment has not been previously leased for metallic exploration. There is no economic oil and gas production in the UP

Vehicle Access:

East of County Road 533 is through private property and gates. West of the road is through private property or has very saturated grounds.

Survey Needs:

Up to eight survey corners could be needed for accurate private property line. A request will be filed with the land surveyor.

Recreational Facilities and Opportunities:

Hunting, fishing, trapping, ORV, and snowmobile use.

Fire Protection:

Within the Gwinn Management Unit. Difficult and wet access across much of the compartment.

Additional Compartment Information:

The following reports from the Inventory are attached:

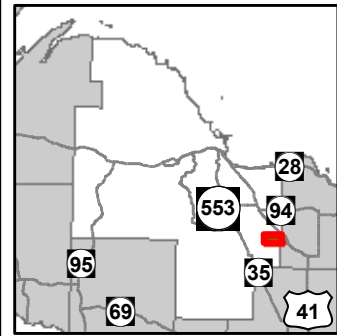
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

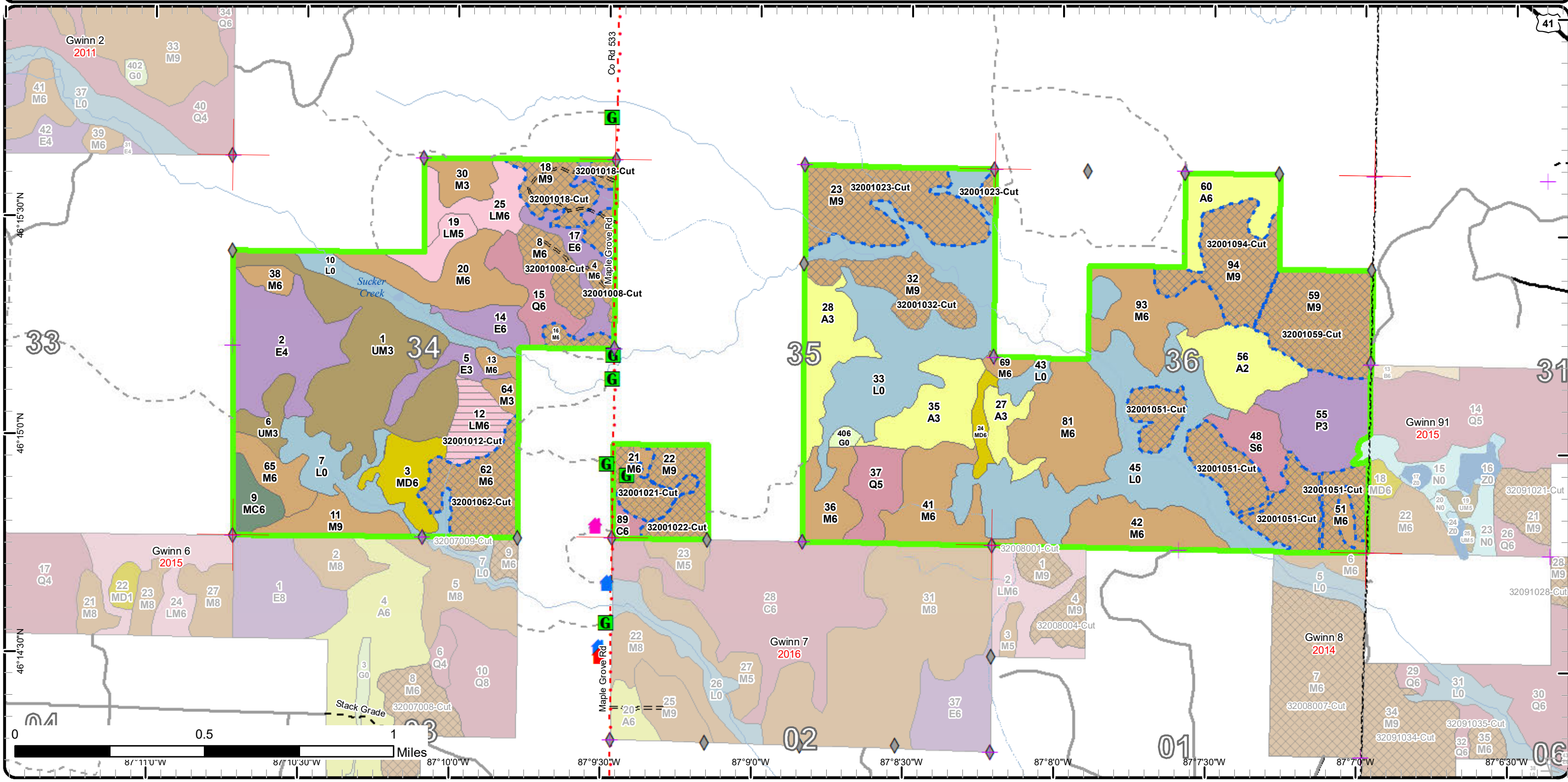
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 1
 T45N, R23W, Sec: 34, 35, 36
 County: Marquette
 Unit: Gwinn
 Mgmt Area: Dead Horse Moraines
 YOE: 2020
 Acres: 1,316 GIS Calculated
 Examiner: Eric Brolin
 Map Revised: 8/13/2018
 Map Phase: Web-Post

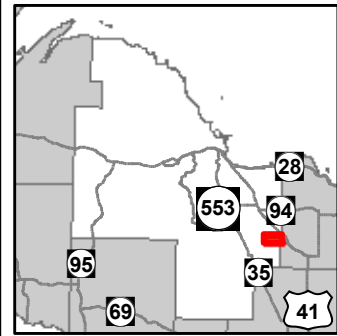


- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State Highway
- Federal / State / County - Paved Road
- County - Gravel Road
- Private - Paved Road
- Private - Dirt / Gravel Road
- 🏠 Cabin
- 🏠 House
- 🏠 Structure, Seasonal Dwelling
- G Gate
- 🏠 Structures
- Intermittent Stream
- Lake/Pond
- Perennial River
- 🌊 Lakes and Rivers All
- Compartment Boundary
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- Lakes

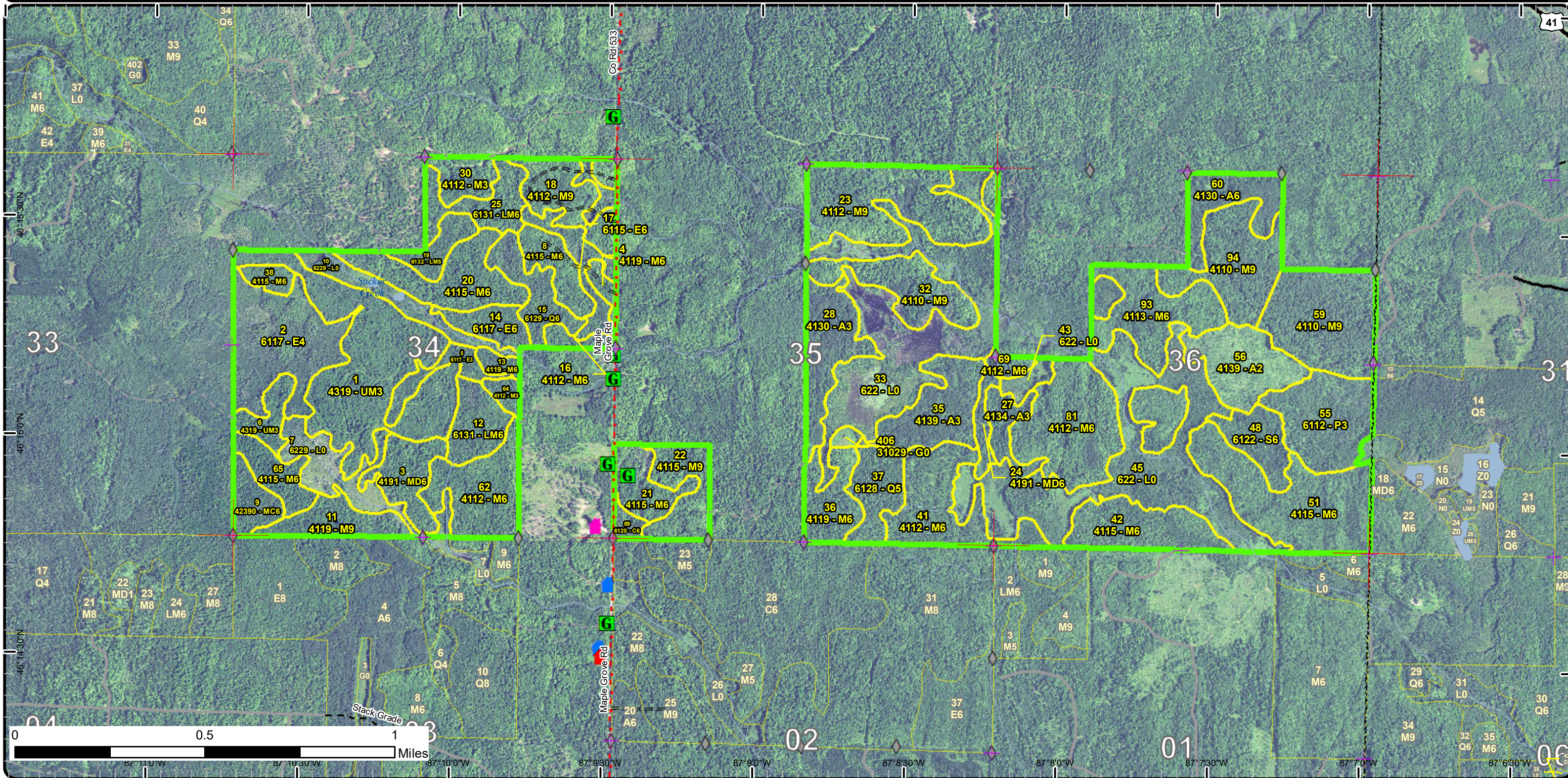


Stand Boundary Map

Compartment: 1
T45N, R23W, Sec: 34, 35, 36
County: Marquette
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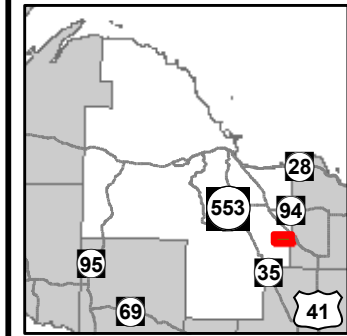


- Miris Corners
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- Field Grade Corners
- Counties
- DNR - Secondary Forest Road
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- House
- Structure, Seasonal Dwelling
- Gate
- Structures
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 310 - Herbaceous Openland
- 622 - Lowland Shrub

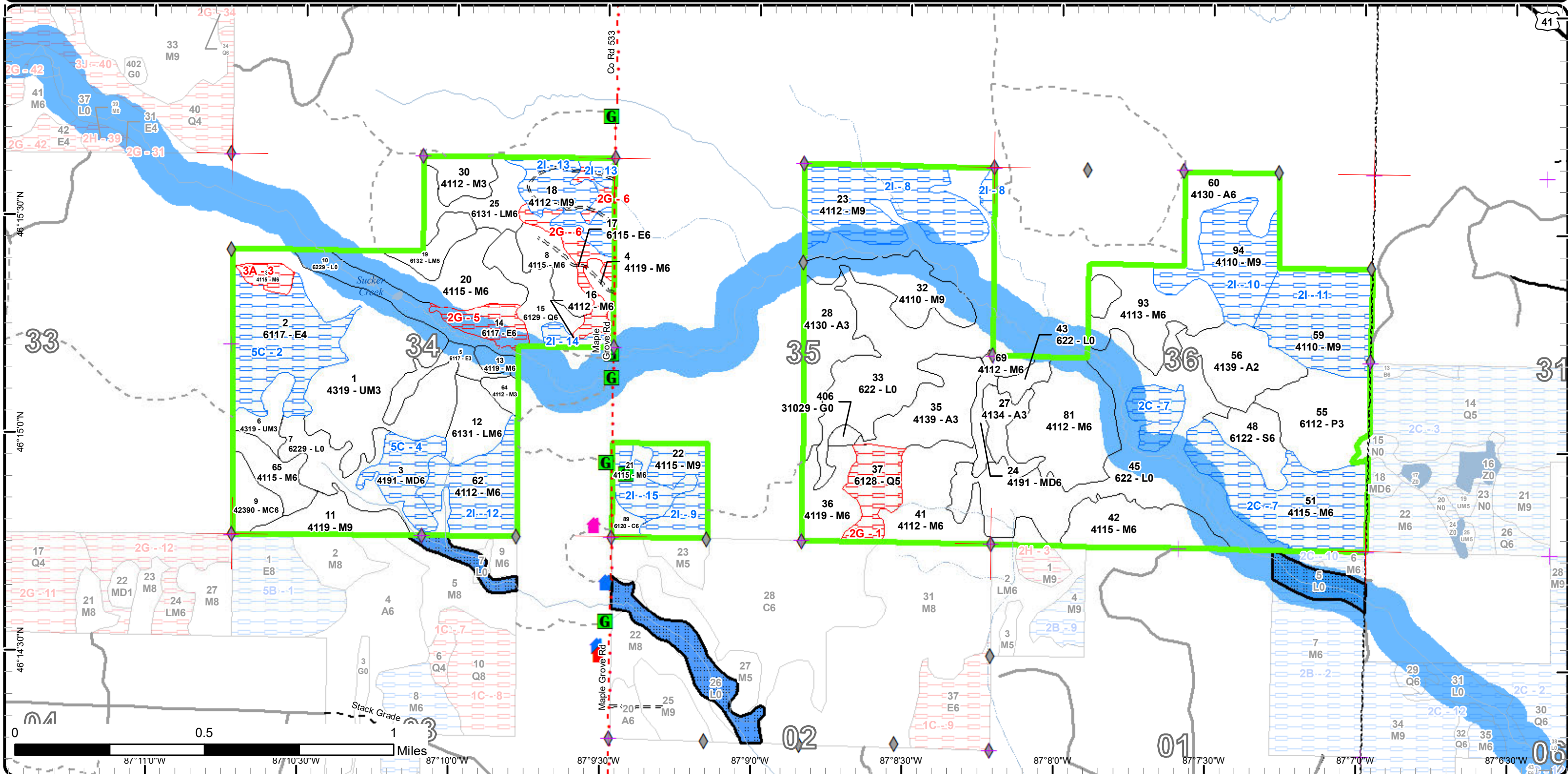


Special Conservation Areas & Site Conditions Map

Compartment: 1
 T45N, R23W, Sec: 34, 35, 36
 County: Marquette
 Unit: Gwinn
 Mgmt Area: Dead Horse Moraines
 YOE: 2020
 Acres: 1,316 GIS Calculated
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- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
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- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Paved Road
- Private - Dirt / Gravel Road
- 🏠 Cabin
- 🏠 House
- 🏠 Structure, Seasonal Dwelling
- G Gate
- 🏠 Structures
- ~ Intermittent Stream
- ~ Lake/Pond
- ~ Perennial River
- ~ Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 2C: Engineered Bridge Needed (Dept. portable bridge not available or inadequate)
- 2I: Survey needed
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 3A: Conservation Values incompatible with harvest at this time
- Stand Boundaries
- SCA
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Riparian Area



Report 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit
Eric Brolin : Examiner

Compartment 1

Year of Entry 2020



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	29	11	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118
Cedar	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Herbaceous Openland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Aspen/Balsam Poplar	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Lowland Conifers	0	0	0	0	0	0	0	18	0	18	0	0	0	0	0	0	0	0	36
Lowland Deciduous	0	0	0	10	0	0	0	0	0	66	12	0	0	0	0	0	0	0	88
Lowland Mixed Forest	0	0	0	0	0	0	0	17	0	0	0	0	0	10	0	0	0	18	45
Lowland Shrub	239	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	239
Lowland Spruce/Fir	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	16
Mixed Upland Deciduous	0	0	0	0	0	0	0	6	0	0	19	0	0	0	0	0	0	0	25
Northern Hardwood	0	0	0	15	0	0	20	18	0	143	73	197	0	0	0	0	0	138	601
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11
Upland Mixed Forest	0	0	0	83	10	0	0	0	0	0	0	0	0	0	0	0	0	0	93
Total	241	29	47	186	10	16	20	59	0	227	104	201	0	10	0	0	0	167	1314



Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2020

Acres of Harvest

Compartment 1

Total Compartment Acres: 1,316

Commercial Harvest - 62
 Harvests with Site Condition - 296
 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
Lowland Mixed Forest	17	0	0	0	0	0	0	0	0	17
Northern Hardwood	0	342	0	0	0	0	0	0	0	342
Total	17	342	0	0	0	0	0	0	0	359

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	359	0	0	0	0	0	0	0	0	359
Next Step	0	0	0	0	0	0	379	0	0	379
Total	359	0	0	0	0	0	379	0	0	738



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
8	32001008-Cut	18.3	4115 - Y.Birch, Hemlock NH	Poletimber Well	62	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Mark stand to 60-80 BA. Focus marking on poor quality stems while retaining future wildlife snag/cavity trees. Leave cedar, hemlock, and yellow birch. Remove all merchantable spruce/fir. This treatment is to release crop trees and improve overall stand quality and health. Favor diversity while marking especially for black ash and black cherry.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> northern hardwood, hemlock											
<u>Regen:</u>											
<u>Other</u> Access into the west unit will require timber mats and/or frozen conditions across the lowland drainage.											
<u>Comment:</u>											
Wildlife: Retain all Yellow Birch (5%) seed production and cavity nesters and favor larger Black Cherry (15%) for mast production – black bear; also favor Black Ash (10%) – black bear, white-tailed deer – Game Fund Purchased											
<u>Proposed Start Date:</u> 10/01/2019											

12	32001012-Cut	16.7	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Well	64	111- 140	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Two-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Harvest stand to a 2" spec. Leave cedar, hemlock, white pine, black cherry, and yellow birch. This treatment is to encourage conifer regeneration. Use patch retention in the south tip of the stand where cedar/hemlock becomes too dense for operability.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> black spruce, cedar, fir, hemlock, birch, red maple											
<u>Regen:</u>											
<u>Other</u> Harvest during frozen conditions.											
<u>Comment:</u>											
Wildlife: Retain all Black Cherry (1%) for mast production – black bear and retain all White Pine (1%) – black bear; retain all Yellow Birch (8%) seed production and cavity nesters– Game Fund Purchased											
<u>Proposed Start Date:</u> 10/01/2019											

16	32001016-Cut	5.0	4112 - Maple, Beech, Cherry Association	Poletimber Well	90	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
Habitat Cut: No			Site Condition: Survey Needed								
<u>Prescription</u> Mark stand to 70-90 BA. Focus marking on poor quality stems while retaining future wildlife snag/cavity trees. Leave cedar, hemlock, basswood, and black ash. Favor healthy black cherry. This treatment is to release crop trees and improve overall stand quality and health. Favor diversity while marking.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> northern hardwood species											
<u>Regen:</u>											
<u>Other</u> Ditch along roadway will limit access to have to cross private property. Paint treatment boundary during non frozen conditions. Do not push lines into adjoining wet stands.											
<u>Comment:</u>											
Wildlife: Favor larger Black Cherry (15%) for mast production – black bear; retain all Basswood (2%) and Black Ash (2%) white-tailed deer, pileated woodpecker and black bear – Game Fund Purchased											
<u>Proposed Start Date:</u> 10/01/2019											



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
18	32001018-Cut	25.4	4112 - Maple, Beech, Cherry Association	Sawtimber Well	85	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal

Habitat Cut: No Site Condition: Survey Needed

Prescription Mark stand to 70-90 BA. Remove larger diameter, poorer quality trees to create 40'-60' canopy gaps while removing all stems 1" > within the gaps. These larger gaps will encourage regeneration and create more diversity by favoring mid-tolerant species (yellow birch, basswood, white ash). Focus marking on poor quality while retaining cavity/snag trees for wildlife. Leave cedar, hemlock, basswood, black ash, and black cherry. This treatment is to begin to establish hardwood regeneration to create an uneven aged stand. Favor diversity while marking especially yellow birch.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable northern hardwood species
Regen:

Other Culvert installation and gravel patching may be required for access across lowland swale.

Comment: Wildlife: Retain Black Cherry (2%) for mast production – black bear; and Basswood (3%) and Black Ash (3%) white-tailed deer, pileated woodpecker and black bear; favor Yellow Birch (8%) seed production and cavity nesters– Game Fund Purchased

Proposed Start Date: 10/01/2019

21	32001021-Cut	13.7	4115 - Y.Birch, Hemlock NH	Poetimber Well	50	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
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Habitat Cut: No Site Condition: Survey Needed

Prescription Mark stand to 60-80 BA. Focus marking on poor quality stems while retaining future wildlife snag/cavity trees. Leave cedar and hemlock. Exclude black ash pocket in the northeast, may have to extend exclusion south of the road as well. This treatment is to release crop trees and improve overall stand quality and health. Favor diversity while marking especially yellow birch.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable northern hardwood, hemlock
Regen:

Other Wildlife: Favor Yellow Birch (8%) seed production and cavity nesters

Comment:

Proposed Start Date: 10/01/2019

22	32001022-Cut	20.6	4115 - Y.Birch, Hemlock NH	Sawtimber Well	85	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
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Habitat Cut: No Site Condition: Survey Needed

Prescription Mark stand to 70-90 BA. Focus marking on poorer quality trees. This treatment is meant to focus on releasing better quality crop trees for future growth and to encourage diversity. Leave cedar, hemlock, and black cherry. Favor diversity while marking especially yellow birch.

Next Step Monitoring, Natural Regen (Re-Inventory); Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable northern hardwood
Regen:

Other Wildlife: Favor Yellow Birch (8%) seed production and cavity nesters and retain Black Cherry (3%) for mast production – black bear, ruffed grouse

Comment:

Proposed Start Date: 10/01/2019

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
23 32001023-Cut	54.7	4112 - Maple, Beech, Cherry Association	Sawtimber Well	100	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal

Habitat Cut: No**Site Condition: Survey Needed**

Prescription Mark stand to 70-90 BA. Remove larger diameter, poorer quality trees to create 40'-60' canopy gaps while removing all stems 1" > within the gaps unless adequate advanced regeneration is already present within the gap. These larger gaps will encourage regeneration and create more diversity by favoring mid-tolerant species (yellow birch, basswood, white ash). This treatment is to encourage hardwood regeneration to succeed and create an uneven aged stand. Leave cedar, hemlock, and large diameter wildlife future snag trees. Favor diversity while marking especially black cherry and yellow birch.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: mixed northern hardwood, hemlock

Other Comment: Dry and/or frozen conditions will be needed for access across the stand. May require timber mats.

Wildlife: Favor Yellow Birch (5%) seed production and cavity nesters and Black Cherry (8%) for mast production – black bear, ruffed grouse

Proposed Start Date: 10/01/2019

32 32001032-Cut	27.1	4110 - Sugar Maple Association	Sawtimber Well	100	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Mark stand to 70-90 BA. Remove larger diameter, poorer quality trees to create 40'-60' canopy gaps while removing all stems 1" > within the gaps unless there is already adequate advanced regeneration in the gap. These larger gaps will encourage regeneration and create more diversity by favoring mid-tolerant species (yellow birch, basswood, white ash). Focus marking on poor quality while retaining future wildlife snag trees. Leave cedar, hemlock, and yellow birch. This treatment is to encourage hardwood regeneration to succeed and create an uneven aged stand. Favor diversity while marking especially black cherry.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: mixed northern hardwood, hemlock

Other Comment: Dry and/or frozen conditions may be needed to access across entire stand. May require timber mats. Paint boundary line during snow free conditions.

Wildlife: Retain Yellow Birch (5%) seed production and cavity nesters and favor Black Cherry (20%) for mast production – black bear, ruffed grouse

Proposed Start Date: 10/01/2019

51 32001051-Cut	61.8	4115 - Y.Birch, Hemlock NH	Poletimber Well	100	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No**Site Condition: Engineered Bridge Needed**

Prescription Mark stand to 70-90 BA. Focus marking on poor quality stems while retaining future wildlife snag/cavity trees. Leave cedar, hemlock, and black cherry. Remove all merchantable spruce/fir. This treatment is to release crop trees and improve overall stand quality and health while retaining the component of cavity trees currently found across the stand. Favor diversity while marking especially yellow birch.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: northern hardwood, cedar, hemlock

Other Comment: Access to the northwest patch will require frozen conditions and/or timber mats. Treatment line is updated for approximate exclusions.

Wildlife: Favor Yellow Birch (14%) seed production and cavity nesters and retain Black Cherry (3%) for mast production – black bear, ruffed grouse

Proposed Start Date: 10/01/2019

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
59 32001059-Cut	46.6	4110 - Sugar Maple Association	Sawtimber Well	100	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal

Habitat Cut: No Site Condition: Survey Needed

Prescription Mark stand to 70-90 BA. Remove larger diameter, poorer quality trees to create 60' canopy gaps evenly across the stand while removing all stems 1" > within the gaps. These gaps are to establish regeneration. Focus on removing poorer quality trees while leaving large future snag trees for wildlife. Leave basswood, black ash, and conifers. This treatment is to encourage and/or establish different age classes in a stand that is currently lacking diversity and regeneration. Favor diversity while marking.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: northern hardwood

Other Comment: This stand may be combined with adjoining hardwood stand in the future.

Wildlife: Retain Basswood (2%) and Black Ash (3%) white-tailed deer, pileated woodpecker

Proposed Start Date: 10/01/2019

62 32001062-Cut	31.5	4112 - Maple, Beech, Cherry Association	Poletimber Well	90	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No Site Condition: Survey Needed

Prescription Mark stand to 70-90 BA. Focus marking on poor quality stems while retaining future wildlife snag/cavity trees. Leave cedar, hemlock, white pine, black cherry, and yellow birch. Exclude drainage in the far west running north/south. This treatment is to release crop trees and improve overall stand quality and health. Favor diversity while marking.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: northern hardwood species

Other Comment: Access patch in the west from the road to the north of it. Patches in lower ground areas may not need to be marked. Paint treatment boundary during non frozen conditions. Harvest during dry or frozen conditions.

Wildlife: Retain Yellow Birch (5%) seed production and cavity nesters, Black Cherry (2%) for mast production – black bear, ruffed grouse and White Pine (1%) – black bear – Game Fund Purchased

Proposed Start Date: 10/01/2019

94 32001094-Cut	37.2	4110 - Sugar Maple Association	Sawtimber Well	100	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No Site Condition: Survey Needed

Prescription Mark stand to 70-90 BA. Remove larger diameter, poorer quality trees to create 40'-60' canopy gaps while removing all stems 1" > within the gaps. These larger gaps will encourage regeneration and create more diversity by favoring mid-tolerant species (yellow birch, basswood, white ash). Focus marking on poor quality while retaining future wildlife snag trees. Leave any conifer trees, basswood, black cherry, and yellow birch. This treatment is to encourage hardwood regeneration to succeed and create an uneven aged stand. Favor diversity while marking.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: northern hardwood

Other Comment: Wildlife: Retain Basswood (2%), Black Cherry (1%) white-tailed deer, pileated woodpecker and Yellow Birch (1%) seed production and cavity nesters

Proposed Start Date: 10/01/2019

Total Treatment Acreage Proposed: 358.6

Report 4 – Site Conditions

Gwinn Mgt. Unit
Eric Brolin : Examiner

Compartment: 1
Year of Entry: 2020

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions				
		With Condition	Not Available		2C	2I	5C	2G	3A
118	118	0	0	Aspen					
4	4	0	0	Cedar					
2	2	0	0	Herbaceous Openland					
36	36	0	0	Lowland Aspen/Balsam Poplar					
36	18	0	18	Lowland Conifers				18	
88	10	48	30	Lowland Deciduous			48	30	
45	45	0	0	Lowland Mixed Forest					
239	239	0	0	Lowland Shrub					
16	16	0	0	Lowland Spruce/Fir					
25	6	19	0	Mixed Upland Deciduous			19		
602	295	302	5	Northern Hardwood	68	235			5
11	11	0	0	Upland Conifers					
93	93	0	0	Upland Mixed Forest					
1,316	892	369	54	Total Forested Acres	68	235	67	48	5
	68%	28%	4%	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	2G: Too wet (sensitive soils, does not include access issues)	18	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments: North half too wet, south half may be accessible in the future.							
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	48	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Streams and wet access issues. Will reevaluate next YOE to winter harvest black spruce from the south and gain frozen access to patches in the center for harvest.							

Report 4 – Site Conditions

Gwinn Mgt. Unit
Eric Brolin : Examiner

Compartment: 1
Year of Entry: 2020

3	Unavailable	3A: Conservation Values incompatible with harvest at this time	5	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
Comments: Small patch with dense hemlock log understory. Scattered large snags and cavity trees. Leave for wildlife values.							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low BA, not ready for thinning this YOE.							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	2C: Engineered Bridge Needed (Dept. portable bridge not available or inadequate)	68	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comments:							
8	Available	2I: Survey needed	55	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gwinn Mgt. Unit
Eric Brolin : Examiner

Compartment: 1
Year of Entry: 2020

9	Available	2I: Survey needed	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Available	2I: Survey needed	37	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	2I: Survey needed	47	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	2I: Survey needed	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Available	2I: Survey needed	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Available	2I: Survey needed	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
15	Available	2I: Survey needed	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 5 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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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 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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4319 - Mixed Upland Forest	Sapling Well	83.3	26	Immature	Even aged maple saplings with areas more dense to fir saplings/small poles. Flat, very poorly drained ground around edges and in a lot of interior areas. Stand also has areas with higher elevation mounds that contain more fir and sugar maple. Very dense to fir and red maple saplings on lower, poorly drained ground, to more red maple transitioning higher, and areas dense to sugar maple saplings at the highest elevation knobs. There are smaller wet openings scattered across the stand. Most roads are very soft ground with marshy grass and moss or else growing in with conifers and minimally maintained by ATV use. Scattered remnant hemlocks and white pines within. Sunny patches found with healthy hemlock regeneration and even some cedar. OPIC - FMD: F2M2, with a few black cherry and hemlock poles scattered within the stand. SELECTION CUT PRMT. #20-90-1. CUT IN 1992-93
2	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Poor	48.3	80	1-50	Majority is a lowland swale of alder and black ash. Patchy black spruce is found in areas. A couple of small hardwood/aspens patches are in the center of this stand but streams and lowland alder creates access issues to it. I could not access the center in the springtime, estimated to be an aspen/maple/fir pole mix form edge observation and photos. Reevaluate a winter black spruce harvest next YOY on the more dense patch (5+ acres) in the southeast to allow easy access into the other higher ground patches for harvest. OPIC - FMD: WET , LEAVE FOR COVER
3	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	18.9	90	81-110	Diverse mix of species. Poorly drained ground across this whole stand. Poor quality hardwood species. Some areas are quite dense to hemlock, some areas to red maple poles, and other areas are more open. This stand is operable during dry or frozen conditions and could be thinned but the BA of less than 110 is not quite high enough this YOY.
4	4119 - Mixed Northern Hardwoods	Poletimber Well	3.9	68	111-140	This is an even aged stand of red maple poles and larger scattered hemlock. Some patches are dense with maple poles and some patches are dense to hemlock. Wet ground is found in small areas within the stand. The road across this stand will be the best access into stand 8.
5	6117 - Lowland Deciduous, Mixed Coniferous	Sapling Well	9.8	26	Immature	Young lowland black ash swale. This strip was cut with the adjoining stand in 1992. It contains a lot of black ash and red maple saplings. very wet ground with dense alder in areas of the understory.
6	4319 - Mixed Upland Forest	Sapling Well	9.9	32	1-50	Fir and red maple saplings with scattered hemlock and red maple poles. High knobs with lowland marsh areas.
8	4115 - Y.Birch, Hemlock NH	Poletimber Well	14.4	62	111-140	Patches of higher ground hardwood poles surrounded by lowland ash and conifer stands. More hemlock, black cherry, and red maple poles in the north and south 1/3 of the stand, with more sugar maple in the center portion. Average of 130 BA in the maple patches, a little higher in the more dense pole patches and hemlock areas. Very wet access from County Road 533 up into the north tip of this stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
9	42390 - Mixed Non-Pine Upland Conifers	Poletimber Well	11.2	32	51-80	<p>Very mixed age classes. Majority of volume is 32 years old including dense saplings/small poles of cedar, fir, and black spruce. There are also remnant trees of all species around 90 years old with ages in between. With the small component of overstory spruce/fir, this stand should be left to transition to a longer rotation lowland conifer. Any harvest activity now would ruin more regeneration than it would be worth. Main road is flooded and grown in with black spruce saplings, moss, and alder.</p> <p>OPIC - FMD: STD SEL CUT 1982-1986, # 1-82-1. COULD BE CUT THIS TP, BUT WAIT 10 YEARS AND CUT WITH STANDS 4,6,34,66, TO MAKE IT WORTH WHILE. When the stand was cut in 1986, all the fir, spruce, and cedar was cut, and only the hardwood and hemlock over 16 inches at stump height was cut, so now it is unevenaged.</p>
11	4119 - Mixed Northern Hardwoods	Sawtimber Well	17.7	100	81-110	<p>Larger diameter trees across this entire stand. A couple of wetter swales are found in the north and should be excluded from future timber sales. Rolling terrain and more hemlock along the north edge. Dense maple saplings in areas. White pine saplings 5' tall are scattered across the stand. Aspen mixed in the east tip and patchy wetter ground in the west tip. Average of 120 BA.</p>
12	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Well	16.7	64	111-140	<p>Softer ground with a lowland black spruce patch in the middle. Black spruce in the patch is smaller, pole sized with larger diameters speckled across the stand on a little higher ground. The black spruce is in good shape. Pretty much any merchantable fir within the stand is already dead. Hardwood species range from smaller poles to poor quality log sized trees across the stand. Red maple poles dominate a lot of the canopy which seem to average 64 years old. The black spruce is at least 90 with some possibly older aged hemlock/white pine. Hemlock is more dense in areas but should easily be operable.</p> <p>OPIC - FMD: NICE SPRUCE AND BALSAM, SHOULD BE CHECKED IN 10 YRS.</p>
13	4119 - Mixed Northern Hardwoods	Poletimber Well	3.9	55	81-110	<p>Older fir has died out. Non-merchantable fir is overtopped by red maple poles. Black ash swales run across the edges. Soft, saturated ground.</p> <p>OPIC - FMD: SCA, PUT INTO SCA TO PROVIDE FOR RIPARIAN VALUES.</p>
14	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	11.8	90	81-110	<p>Seasonally flooded black ash flat. Very wet ground.</p> <p>OPIC - FMD: SCA, PUT INTO SCA TO PROVIDE FOR RIPARIAN VALUES.</p>
15	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	17.7	66	111-140	<p>Lowland conifer flat. Majority species is cedar. This is a younger stand of cedar and black spruce with a component of large remnant hemlock scattered within. Area in the north half is dense to large black spruce but is inoperable without destroying the young cedar component. Dense understory of cedar and black spruce saplings (2"-4") in many areas.</p> <p>OPIC - FMD: Q4F4M4 SCATTERED POLES BUT MOST OF STAND IS SMALL, LEAVE FOR BUFFER BETWEEN MAPLE STANDS.</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	4112 - Maple, Beech, Cherry Association	Poletimber Well	5.0	90	111-140	<p>Mixed maple poles and large diameter red maple logs with a good component of black cherry. Most of the cherry is older and declining. Half of the north boundary borders a bottomless muck drainage and the other half borders a cedar stand. Ground inside the stand is a bit higher elevation and dry.</p> <p>OPIC - FMD: Cut prmt. #01-00-01, now M5M7H4</p>
17	6115 - Lowland Ash	Poletimber Well	18.3	85	81-110	<p>Lowland black ash drainage. Very wet, saturated ground. Black ash varies in age and size across the drainage. Open wetland patches are scattered within.</p> <p>OPIC - FMD: WATER</p>
18	4112 - Maple, Beech, Cherry Association	Sawtimber Well	25.4	85	111-140	<p>Hardwood log stand heavy to sugar maple. About half with full canopy cover and no understory, other half has some maple regeneration with much more dense regeneration in openings or on edges. Softer ground around edges has more red maple mixed in. Small aspen sapling clone within. About a 20 yard wide high strip connects the northwest and southeast portions of the stand. Dense fir around the south edge. Average of 130+ BA.</p> <p>OPIC - FMD: M6M7, THINNED, PRMT #9-90-1</p>
19	6132 - Mixed Lowland Forest with Cedar	Poletimber Medium	10.2	122	51-80	<p>Very wet, old lowland stand with pooled water. Elevation increases a bit along the east edge which is dense with hemlock and smaller cedar poles. Most black ash is declining.</p> <p>OPIC - FMD: E5Q4. WET. LEAVE FOR BUFFER BETWEEN UPLAND HARDWOOD AREAS</p>
20	4115 - Y.Birch, Hemlock NH	Poletimber Well	30.5	75	81-110	<p>Very diverse mix of species and age classes. Mainly a hardwood pole/sapling stand with a heavy conifer component in areas. Hardwood saplings and abundant white pine saplings should grow well under a patchier canopy of less than 75% cover in some areas. Ages of hardwood from 18 year old sapling patches to 75 year old poles. Black spruce/fir and white pine saplings estimated about 10+ years old, with older conifers such as cedar and hemlock over 100. Most sugar maple is found in the west half of this stand. The east half has more hemlock and red maple. A drainage cuts across north/south in the middle of this stand and would need a temporary crossing for access in the future.</p> <p>OPIC - FMD: Cut prmt. # 01-00-01, M6M7</p>
21	4115 - Y.Birch, Hemlock NH	Poletimber Well	15.7	50	111-140	<p>Lower ground mix around exterior. A black ash vein is found in the north that should be excluded in the future. Elevated ground in center has more maple, quite heavy to red maple poles. Average of 130 BA, even denser in the center portion with suppressed poles. Past shelterwood seemed to have worked for red maple saplings/poles and release.</p> <p>OPIC - FMD: M5M7, CUT, PRMT #15-90-1, SHELTERWOOD CUT, 10"+ ON THE HRDWOOD WAS CUT. CUTTING TOOK PLACE IN 1993-94. DEER AND PORKIE DAMAGE EVIDENT. Check stand next treatment period.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4115 - Y.Birch, Hemlock NH	Sawtimber Well	20.6	85	111-140	Hardwood log stand. Some large yellow birch and black cherry mixed in. A few little hemlock patches scattered across the stand. Average of 130 BA. OPIC - FMD: M9M4 SELECT CUT, PRMT# 15-90-1. CUT IN 1993-94
23	4112 - Maple, Beech, Cherry Association	Sawtimber Well	54.7	100	111-140	Maple log stand. Very dense sugar maple sapling understory across a majority of this stand. Seasonal drainage floods off the southwest corner, may be accessible during dry seasons. The center portion of this stand has a patch of aspen saplings approximately 20 years old. In the east half there are some poorer drained areas of ground with more hemlock mixed in. An old road runs across this stand east/west but is grown in with white spruce and aspen saplings. Average of 125 BA across the stand. Raised road through lowland accesses this section of state land from the east through private. Recommend harvest in dry or frozen conditions. OPIC - FMD: M5M7, FDF QUALITY, CUT PRMT. 3-00-01, Access from the east across private.
24	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	6.1	60	81-110	Lower ground drainage area between marshes. The fir and aspen are declining at 60 years old with some older aspen mixed in. Alder and fir is found in the understory. Look at harvesting next YOE and including the small hardwood stand off the north tip for access in the future.
25	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Well	18.1	120	81-110	Low ground diverse mix of species and ages. Stand appears to have had a shelterwood harvest in 1990 which resulted in red maple saplings very dense in any canopy openings across the stand. Many, many, many skid trails are webbed across this stand and contain extreme historic rutting. BA is much higher in the west from the hemlock and much lighter in the east turning to more saplings. OPIC - FMD: M6M7, STD WAS SHELTERWOOD CUT IN 1993, PRMT# 9-90-1,
27	4134 - Aspen, Spruce/Fir	Sapling Well	11.0	18	Immature	Lower ground aspen sapling stand with alder veins and numerous red maple stump sprouts mixed in. OPIC - FMD: Cut prmt. # 5-00-01, A3 is 1/2 to 1 inch dbh, 10-20 ft tall.
28	4130 - Aspen	Sapling Well	28.1	24	Immature	Aspen sapling stand. Lower ground wet areas within. OPIC - FMD: A2 A3 M2 BC2 X, 1-4" DBH, 10-20 FT TALL, CUT IN 1994 PRMT #21-90-1
30	4112 - Maple, Beech, Cherry Association	Sapling Well	11.2	26	1-50	This stand was broken out from the adjoining stand due to an increase in elevation and more maple poles. Edges of this stand transition into lower ground hemlock where extreme rutting occurred in the past where numerous skid trails branch out. Hardwood poles scattered but this is mainly a maple sapling stand created from a past shelterwood harvest. Dense with maple and black cherry saplings 20'+ tall and scattered poles. A small patch of aspen saplings is located along the west edge.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4110 - Sugar Maple Association	Sawtimber Well	27.1	100	111-140	<p>Poorer quality hardwood log stand. Black cherry is very large and will not hold much longer as some is already starting to decline. Dense canopy with fully stocked sugar maple whips in the understory, very dense. Average of 130 BA across the entire stand. There is a drainage bed and bank or lower ground in both the far east and far west which cuts across the stand running north/south. The best access would be from the south through the adjoining aspen stand, a new short road may have to be pushed in. Other access not explored could be through private land from the west.</p> <p>OPIC - FMD: M9M6, CUT IN 1994, PRMT.# 21-90-1</p>
35	4139 - Aspen, Mixed Deciduous	Sapling Well	28.6	24	Immature	<p>Lower ground aspen with larger component of black cherry and ironwood saplings mixed in.</p> <p>OPIC - FMD: WET AREA, CLEARCUT, IN 1994</p>
36	4119 - Mixed Northern Hardwoods	Poletimber Well	18.8	90	81-110	<p>About half lower ground hardwoods with more yellow birch and red maple, and half is a little higher in elevation with more black cherry and some sugar maple. Lower ground is more in the west half of the stand. Patchy maple and fir regeneration in the understory. A low drainage cuts across the center of the stand east/west. Average of 90 BA across the stand. Future harvests should look at extending down into the adjoining compartment to the south capturing the vein of hardwood if accessible.</p> <p>OPIC - FMD: M6M7, Cut Prmt. # 4-00-01</p>
37	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	18.3	81	1-50	<p>Very wet lowland flat. Understory is dense with alder, black ash, and fir saplings. More red maple along the edges bordering the hardwood stands. The cedar was estimated at 81 years old. Some scattered older red maple otherwise younger saplings and poles within.</p>
38	4115 - Y.Birch, Hemlock NH	Poletimber Well	5.4	80	111-140	<p>Dense hemlock pole/log sub-canopy covered by maple poles and remnant large yellow birch logs and red maple. Larger diameter trees are poor quality. Fairly open under except for patchy fir saplings. Stand is surrounded on three sides by alder lowland. Raised access across lowlands. Any harvest activity would significantly damage the hemlock component. Retain for wildlife cover/cavities and access issues.</p> <p>OPIC - FMD: M6M7F4H4, WET ACCESS TO GET TO STAND, CHK IN 10 YEARS, CUT WITH STANDS, 4,6,66, TO MAKE WORTH WHILE EFFORT.</p>
41	4112 - Maple, Beech, Cherry Association	Poletimber Well	36.1	95	81-110	<p>Maple stand transitioning from more pole sized trees in the north to more logs in the south. Alder drainage borders north edge. Lowland drainage running east/west cuts the stand in half and would need to be excluded and need a crossing for access in the future. Maple saplings are very abundant, more in the south half. Far southeast corner is lower ground with less sugar maple and more red maple with black ash, cedar, and hemlock speckled in. Fir found around edges. Average of 70 BA across the stand.</p> <p>OPIC - FMD: M6M7, CUT NOW, POOR WET ACCESS FROM THE NORTH. 2013 Treated under contract #001-10-01 by Roy III winter of 2013.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42	4115 - Y.Birch, Hemlock NH	Poletimber Well	28.5	85	81-110	Fairly open canopy around edges with a BA around 80 even lighter in areas transitioning more around 120 towards the middle. Fir and red maple more abundant around the edges. Little patches of black ash including a lower ground drainage in the east 1/4 of the stand. Hemlock and conifer dominates on the east and west edge. This stand should probably be a winter harvest in the future. OPIC - FMD: M6M7, Cut prmt.#5-00-01 FDF. Quality.
48	6122 - Black Spruce	Poletimber Well	16.1	41	51-80	Younger lowland black spruce with some hardwood species mixed in. Very wet.
51	4115 - Y.Birch, Hemlock NH	Poletimber Well	67.7	100	111-140	Areas of saturated ground. Patches of hemlock and cedar found within. Two very soft drainages cut the main body of the stand into thirds. These drainages have flowing water during wet seasons and very deep organic soil. Poorer quality hardwood logs with better quality poles which are dense in areas. More dense to poles in the south and into the adjoining compartment to the south. Large remnant trees of all species scattered across the stand. Areas too dense to hemlock/cedar should be excluded. Average BA in hardwood areas is 130. OPIC - FMD: M6M7A4F4,POCKETS OF LOW GROUND WITH ASPEN IN THIS STAND, CUT NOW . WET ACCESS COULD BE A PROBLEM. SHOULD BE WINTER CUT.
55	6112 - Lowland Aspen	Sapling Well	35.7	18	Immature	Aspen sapling stand. Poorly drained, wet, flat ground. OPIC - FMD: Cut prmt. #06-00-01, P2A1F1M1L POORLY DRAINED SITE,
56	4139 - Aspen, Mixed Deciduous	Sapling Medium	29.0	5	Immature	Aspen/red maple sapling stand about 70% stocked. Red maple is mainly stump sprouts. Lower ground with small pockets of cattails. OPIC - FMD: A4F4B4, MOST OF STAND IS WET, SEMI OPEN, POOR REPRODUCTION, HAS TO BE A WINTER CUT. For retention after the timber sale the southeast corner of the stand will be left.
59	4110 - Sugar Maple Association	Sawtimber Well	46.6	100	81-110	Sugar maple log stand. Evenly distributed poor quality, forked, wildlife, and much larger diameter trees scattered across this stand. Some open patches contain maple saplings otherwise there is a fairly consistent canopy cover with very little regeneration in the understory. Note that the patches that are open have excellent maple recruitment. The only other species besides sugar maple observed across the stand was a couple of large basswood. Average of 100-110 BA. OPIC - FMD: Cut prmt. #06-00-01 M7M6, .
60	4130 - Aspen	Poletimber Well	21.2	29	Immature	Aspen pole stand with inconsistent, patchy canopy. Very dense sugar maple saplings in all of the understory. OPIC - FMD: CUT UNDER PERMIT NO. 3-89-2. A3 IS NOW 2 TO 5" DBH, 10 TO 30 FT TALL



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
62	4112 - Maple, Beech, Cherry Association	Poletimber Well	31.5	90	111-140	Veins of lower/poorly drained grounds are found in the far east and west running north/south. These lower grounds transition more solid to poorer quality red maple with a trace of conifer or black ash. Higher ground areas are solid to sugar maple and has a closed canopy across much of it. The ground is blanketed with sugar maple seedlings. BA varies across stand. Average of 115 across the entire stand, more dense in the higher ground sugar maple area. 110 100 110 / 150 110 100 110 130 OPIC - FMD: M6M7, Cut prmt. #02-00-01, also WAS THINNED IN 1980.
64	4112 - Maple, Beech, Cherry Association	Sapling Well	4.2	26	Immature	Maple sapling stand with scattered remnant black cherry, hemlock, and a few white pine. This stand is a little heavier to red maple than sugar maple. OPIC - FMD: CUT UNDER PERMIT 20-90-01, IN 1992-93 , M5H4 NOW
65	4115 - Y.Birch, Hemlock NH	Poletimber Well	13.6	80	81-110	Poor quality red maple and hemlock ridge. Lower patches and historic rutting in the old roads and skid trails. Softer ground around the exterior edges. Average of 100 BA. OPIC - FMD: Cut prmt. #02-00-01 , also thinned in 1980, M6M7
69	4112 - Maple, Beech, Cherry Association	Poletimber Well	3.9	80	81-110	Small patch hardwood stand. Rolling terrain along the south edge. Fir around the edges. Heavier to red maple. Average of 90 BA. OPIC - FMD: Cut prmt.#5-00-01, M6M7,
81	4112 - Maple, Beech, Cherry Association	Poletimber Well	45.0	85	81-110	Nice hardwood stand. Decent logs in areas with better quality poles. Fir and red maple more abundant around the edges. Fir and red maple is more abundant on the very southeast edge. Average of 90 BA across the stand. A 2 acre patch of black spruce should be regenerated with the next harvest. OPIC - FMD: Cut prmt. #5-00-01, M6M7,
89	6120 - Lowland Cedar	Poletimber Well	3.7	101	141-170	Lowland stand with alder, black ash, and a dense patch of cedar. OPIC - FMD: SCA, C6Q4, Leave for buffer along the county road, and for potential old growth.
93	4113 - R.Maple, Conifer	Poletimber Well	33.9	65	51-80	Average BA of 80, lighter in most areas, more dense in the black spruce patch. Red maple poles dominate with abundant red maple stump sprout/seeded saplings across the stand. Small patch of maple in the southwest corner might be difficult to access. Evaluate the black spruce patch in the center of this stand for harvest during next entry.
94	4110 - Sugar Maple Association	Sawtimber Well	37.2	100	111-140	Sugar maple log stand from poles to logs to XL logs. The north half has gentle rolling terrain with a patchier canopy which allowed a more dense understory of sugar maple sapling regeneration. Very dense to sugar maple. Average of 115 BA. OPIC - FMD: Cut prmt.# 06-00-01, ASP. CUT OUT IN 1989 PRMT#40-89-2. M9M6 now



Stand	Cover Type	Acres	Managed Site	General Comments:
7	6229 - Mixed lowland shrub	25.6	No	Lowland wet grassy area. Standing dead cedar snags within. OPIC - FMD: STD WAS CUT OVER, 1982-86, #1-82-1, WET AREA, RESULTS OF BEAVER ACTIVITY.
10	6229 - Mixed lowland shrub	16.6	No	Stream corridor, seasonally flooded.
33	622 - Lowland Shrub	91.6	No	Marsh with numerous drainages and streams. Small patches of flooded lowland timber found within this stand including some black ash, cedar, and spruce/fir.
43	622 - Lowland Shrub	5.4	No	Seasonally flooded marsh.
45	622 - Lowland Shrub	99.8	No	Flooded marsh area with numerous drainage and streams. Cattail, alder, marsh grass, and small patches of cedar, spruce/fir, and black ash dominate this stand.
406	31029 - Grass (OI)	2.2	No	Opening with aspen, white pine, and white spruce saplings growing in.