



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32229

Entry Year 2023

Acreage: 1,230

County Marquette

Management Area: Voelker Plains

Revision Date: 2021-08-03

Stand Examiner: Rick Hill

Legal Description:

T45N R28W Sections 3, 4, and 5.

Identified Planning Goals:

Vegetative management in the Voelker Plains management area will provide a variety of forest products; maintain or enhance wildlife habitat; protect areas with unique characteristics; and provide for forest based recreational uses. Timber management objectives for the include improving the age-class distribution of jack pine, aspen and lowland spruce/fir; maintaining the presence of minor cover types on the landscape; and maintaining non-forest vegetation types. Wildlife management objectives include addressing the habitat requirements identified for the following featured species: American woodcock, beaver, black bear and Kirtland's warbler. Management activities may be constrained by site conditions and the skewed age-class distributions.

Soil and topography:

Landform in the east portion of the compartment consists of primarily excessively drained sands in an outwash plain. Soils here are primary comprised of "Rubicon" and "Rubicon/Keweenaw Associate" Sands. The west portion of the compartment is comprised of level lowlands with Carbondale and Tawas muck soils.

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

This compartment is surrounded by state land and smaller private ownerships. Land use is primarily for forest production and passive recreation.

Unique Natural Features:

Sagola Lakes are present within the compartment. The western areas of this compartment are near an old opening complex once managed for sharp tail grouse.

Archeological, Historical, and Cultural Features:

There are no known sites in this compartment.

Special Management Designations or Considerations:

None other than riparian management areas.

Watershed and Fisheries Considerations:

This compartment contains the Sagola Lakes and Flat Rock Creek which both serve as tributaries to the West Branch of the Escanaba River. For Sagola Lakes, a 100' plus 5' per 1% increase in slope; buffer is recommended to protect inland lake shoreland areas in accordance with Best Management Practices. Flat Rock Creek is designated a Type 1 trout stream less than 50' width and has a predicted mean July temperature of 61.3 °F (cold stream). A 300' buffer is recommended for Flat Rock Creek 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 229 is found within the Voelker Plains Management Area; on an Outwash Plain in central Marquette County. The dominant Natural Communities are dry northern forests and dry mesic northern forests. Wildlife considerations in the Voelker Plains management area consist of: managing jack pine habitat with strategies that more closely mimic natural fire disturbance regimes and increasing stand size and striving to accommodate many species associated with xeric forest habitat is desirable. 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, early successional forest; and large open land complexes.

The following have been identified as featured species for the Voelker Plains Management Area: American woodcock, beaver, black bear, and Kirtland's warbler.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium, peat and muck and coarse-textured glacial till. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. There is not a current economic use for the Granite/Gneiss. Gravel pits are located north of the compartment (possibly old ones), and potential appears to be good along the west edge. The abandoned Republic iron mine is located seven miles to the northwest. The State land to the northwest of this compartment had been leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access:

Good throughout the eastern part of this compartment and is limited due to poor drainage in the western half.

Survey Needs:

Any survey needed for timber sales will be summited after review.

Recreational Facilities and Opportunities:

There are no recreation faculties in this compartment. there is little potential for recreation development. This area will continue to be used for dispersed recreation.

Fire Protection:

The east portion of this compartment is in the 581 zone, fire response here is set by DNR fire plan. This area is accessible and good for mechanized fire suppression. The west portion of the compartment is mostly lowland spruce which would present challenges to fire suppression.

Additional Compartment Information:

The following reports from the Inventory are attached:

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

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

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

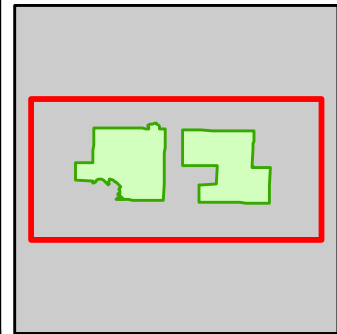
Report 1 – Total Acres by Cover Type and Age Class



Age Class

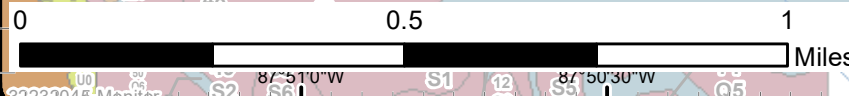
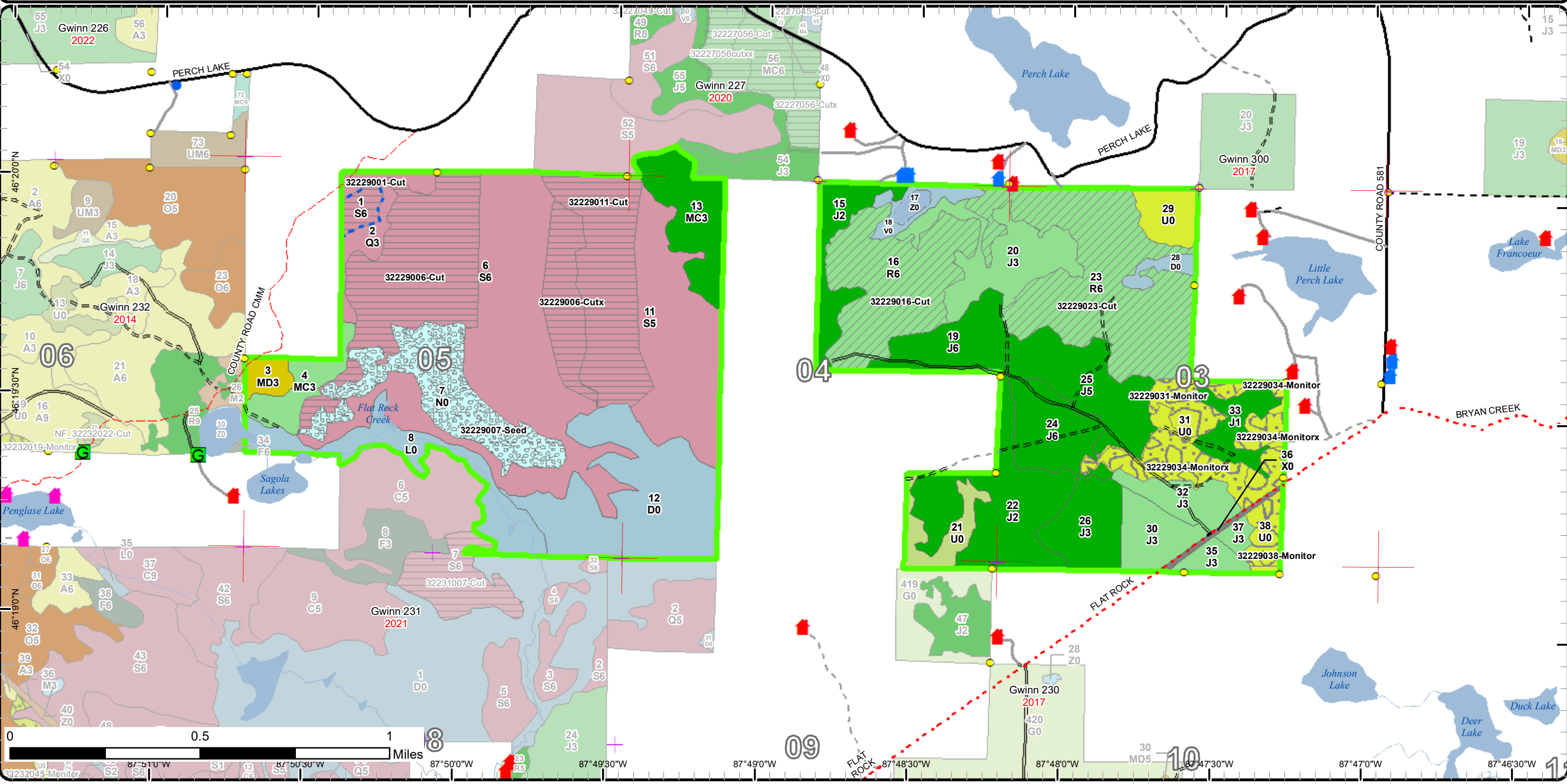
	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Bog	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Jack Pine	0	0	118	75	57	57	0	0	0	0	0	0	0	0	0	0	0	0	307
Low-Density Trees	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
Lowland Conifers	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Lowland Shrub	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	377	0	0	0	0	0	0	0	0	377
Marsh	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
Mixed Upland Deciduous	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
Natural Mixed Pines	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Planted Mixed Pines	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Red Pine	0	0	0	0	0	0	0	178	0	0	0	0	0	0	0	0	0	0	178
Treed Bog	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
Upland Shrub	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Urban	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Water	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	295	0	135	91	91	65	0	178	0	377	0	0	0	0	0	0	0	0	1231

Cover Type & Treatments Map



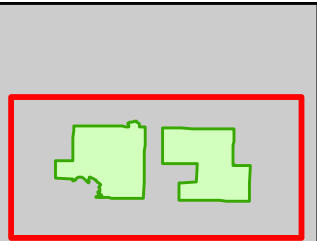
Compartment: 229
 T46N, R28W, Sec: 33
 T45N, R28W, Sec: 03, 04, 05
 County: Marquette
 Unit: Gwinn
 Mgmt Area: Voelker Plains
 YOE: 2023
 Acres: 1230.3 GIS Calculated
 Examiner: Rick Hill
 Map Revised: 8/13/2021
 Map Phase: Review

- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Paved Road
- Private - Dirt / Gravel Road
- Cabin
- House
- Structure, Seasonal Dwelling
- G Gate
- Tower
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Compartment Boundary
- Treatments with Site Conditions
- Clearcut (w/Reserves)
- Seeding (tree species)
- Thinning (Crown, Low, Systematic)
- Regeneration Survey
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

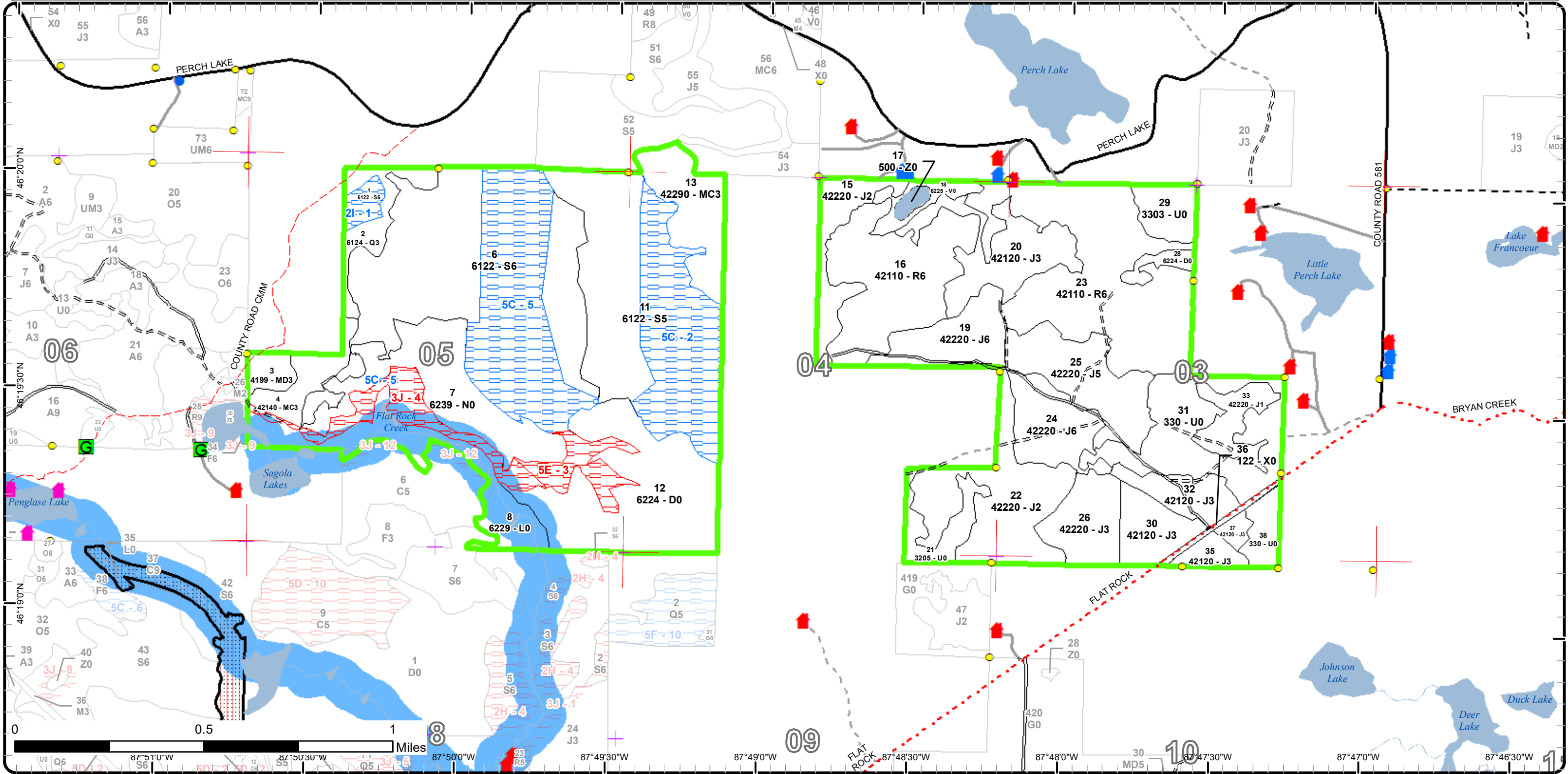


Special Conservation Areas

Compartment: 229
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 T45N, R28W, Sec: 03, 04, 05
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- 🏠 Cabin
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- 🏠 Structure, Seasonal Dwelling
- 🚪 Gate
- Tower
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- 🟩 Compartment Boundary
- 🟩 Available w/ Constraints
- 🔴 Unavailable
- 2I: Survey needed
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- 🔲 Stand Boundaries
- 🔲 SCA
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- 🔲 Other SCA (No Category Assigned)





Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2023

Acres of Harvest

Compartment 229
Total Compartment Acres: 1,230

Commercial Harvest - 349
Harvests with Site Condition - 6
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 Spruce/Fir	178	0	0	0	0	0	0	0	0	178
Red Pine	0	0	0	0	0	178	0	0	0	178
Total	178	0	0	0	0	178	0	0	0	356

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	356	0	0	55	0	0	58	0	0	469
Next Step	0	0	0	178	0	0	291	0	0	469
Total	356	0	0	233	0	0	350	0	0	938



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	Habitat Cut
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Proposed Treatments:

1	32229001-Cut	6.5	6122 - Black Spruce	Poletimber Well	83	51-80	Harvest	Clearcut with Retention	6122 - Black Spruce	Even-Aged	No
<p><u>Prescription</u> Clearcut stand leaving only cedar, red pine, and white pine. cut all other trees over 1 inch in diameter. Leave small pocket of retention 3-10 percent at edge of stand insure retention has a mix of tamarack, and spruce. Any areas of high cedar density over 60 SF of cedar should be redlined out for retention.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Seeding, Machine Seed; Monitoring, Direct Seeding</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Black Spruce, mixed conifer, mixed hardwood</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u> Survey Needed</p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
6	32229006-Cut	81.0	6122 - Black Spruce	Poletimber Well	82	51-80	Harvest	Clearcut with Retention	6122 - Black Spruce	Even-Aged	No
<p><u>Prescription</u> Clearcut stand leaving only cedar, red pine, and white pine. cut all other trees over 1 inch in diameter. Leave small pocket of retention 3-10 percent at south edge of stand insure retention has a mix of tamarack, and spruce. Any areas of high cedar density over 60 SF of cedar should be redlined out for retention.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Seeding, Machine Seed; Monitoring, Direct Seeding</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> spruce, mixed conifer, mixed hardwood.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
6	32229006-Cutx	27.3	6122 - Black Spruce	Poletimber Well	82	51-80	Harvest	Clearcut	6122 - Black Spruce	Even-Aged	No
<p><u>Prescription</u> Clearcut stand leaving only cedar, red pine, and white pine. cut all other trees over 1 inch in diameter. Leave small pocket of retention 3-10 percent at south edge of stand insure retention has a mix of tamarack, and spruce. Any areas of high cedar density over 60 SF of cedar should be redlined out for retention.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Seeding, Machine Seed; Monitoring, Direct Seeding</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> spruce, mixed conifer, mixed hardwood</p> <p><u>Regen:</u></p> <p><u>Other</u></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
7 32229007-Seed	55.2	6239 - Mixed Emergent Wetland	Nonstocked	2020	Unspecified	Seeding	Machine Seed	6122 - Black Spruce	Even-Aged	No
<p><u>Prescription</u> Snowmobile seed</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Direct Seeding</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> black spruce</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										
11 32229011-Cut	62.9	6122 - Black Spruce	Poletimber Medium	85	1-50	Harvest	Clearcut with Retention	6122 - Black Spruce	Even-Aged	No
<p><u>Prescription</u> Clearcut stand leaving only cedar, red pine, and white pine. cut all other trees over 1 inch in diameter. Leave small pocket of retention 3-10 percent at south edge of stand insure retention has a mix of tamarack, and spruce. Any areas of high cedar density over 60 SF of cedar should be redlined out for retention.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Seeding, Machine Seed; Monitoring, Direct Seeding</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> spruce, mixed conifer, mixed hardwood</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										
16 32229016-Cut	67.8	42110 - Planted Red Pine	Poletimber Well	61	81-110	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Thin stand to 100 SF remove all jack pine and aspen. Mark red pine for operability, quality and spacing. Use red line or green trees to reserve some jack pine and aspen.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										
23 32229023-Cut	110.2	42110 - Planted Red Pine	Poletimber Well	61	111-140	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Thin stand to 100 SF remove all jack pine and aspen. Mark red pine for operability, quality and spacing. Use red line or green trees to reserve some jack pine and aspen.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										

Approved Treatments:

24	32229024	14.0	220 - Low Density	Nonstocked	2020	Monitoring	Artificial	42120 - Planted	Even-Aged	No
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Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
31	Monitor	14.0	Trees		2020			Regen(3yr)	Jack Pine		
<p><u>Prescription</u> Count per regen manual. <u>Specs:</u> <u>Next Step</u> Monitoring, Direct Seeding <u>Treatments:</u> <u>Acceptable</u> Jack Pine <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2021</p>											
31	32229034-Monitor	1.0	330 - Low-Density Trees	Nonstocked	2020		Monitoring	Artificial Regen(3yr)	42120 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Count per regen manual spec. <u>Specs:</u> <u>Next Step</u> Monitoring, Herbicide Use <u>Treatments:</u> <u>Acceptable</u> Jack Pine <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2021</p>											
31	32229034-Monitorx	33.7	330 - Low-Density Trees	Nonstocked	2020		Monitoring	Artificial Regen(3yr)	42120 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Count per regen manual. <u>Specs:</u> <u>Next Step</u> Monitoring, Direct Seeding <u>Treatments:</u> <u>Acceptable</u> Jack Pine <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2021</p>											
38	32229038-Monitor	9.6	330 - Low-Density Trees	Nonstocked	2020		Monitoring	Artificial Regen(3yr)	42120 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Count per regen manual. <u>Specs:</u> <u>Next Step</u> Monitoring, Direct Seeding <u>Treatments:</u> <u>Acceptable</u> Jack Pine <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2021</p>											

Total Treatment 469.2
 Acreage Proposed:

Report 4 – Site Conditions

Gwinn Mgt. Unit
Rick Hill : Examiner

Compartment: 229
Year of Entry: 2023

Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions	2I	5C	3J	5E
9	9	0	0	Bog				
307	307	0	0	Jack Pine				
79	79	0	0	Low-Density Trees				
16	16	0	0	Lowland Conifers				
40	40	0	0	Lowland Shrub				
377	174	164	39	Lowland Spruce/Fir	7	158	23	16
55	55	0	0	Marsh				
8	8	0	0	Mixed Upland Deciduous				
34	34	0	0	Natural Mixed Pines				
17	15	0	1	Planted Mixed Pines			1	
178	178	0	0	Red Pine				
90	90	0	0	Treed Bog				
14	14	0	0	Upland Shrub				
3	3	0	0	Urban				
3	3	0	0	Water				
1,230	1,026	164	40	Total Forested Acres	7	158	25	16
	83%	13%	3%	Relative Percent				

*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	2I: Survey needed	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	71	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gwinn Mgt. Unit
Rick Hill : Examiner

Compartment: 229
Year of Entry: 2023

3	Unavailable	5E: Long-Term Retention	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	87	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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
1	6122 - Black Spruce	Poletimber Well	6.5	83	51-80	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Black Spruce		55	Pole	6	83	Red Maple	
Northern White Cedar		35	Pole	7		Balsam Fir	
Tamarack		10	Pole	7		Black Spruce	
						Tag Alder	
2	6124 - Lowland Spruce-Fir	Sapling Well	16.4	20	Immature	N/A	Harvested in 2001: TS# 120-99-01. Stand contains 2 small upland inclusions supporting mostly red pine.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Balsam Fir		10	Sapling	1		Balsam Fir	
Black Spruce		40	Sapling	1	20	Black Spruce	
Northern White Cedar		10	Pole	7		Tag Alder	
Tamarack		30	Sapling	1			
White Pine		2	Pole/Log/Sap	12			
Red Pine		5	Pole/Log/Sap	15			
Jack Pine		3	Sapling/Pole	2			
3	4199 - Other Mixed Upland Deciduous	Sapling Well	7.6	43	1-50	N/A	Cut to feed deer in 1977.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		52	Sapling	3	43	Red Maple	
Red Oak		13	Pole/Log	8		Balsam Fir	
Bigtooth Aspen		25	Sapling	4		White Pine	
Balsam Fir		3	Sapling/Pole	4		Choke Cherry	
White Pine		3	Log	15			
Red Pine		2	Log	12			
Jack Pine		2	Pole	8			
4	42140 - Planted Mixed Pine	Sapling Well	16.6	14	81-110	N/A	Harvested in 2007: TS#314-04-01. Trenched and seeded in 2007. Stand contains lowland black spruce inclusions.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Paper Birch		2	Pole	7		Red Maple	
Balsam Fir		4	Sapling	1		Choke Cherry	
Black Spruce		20	Sapling	1			
Northern White Cedar		3	Pole	7			
Tamarack		3	Sapling	1			
White Pine		2	Pole/Log	10			
Red Pine		10	Log	14			
Jack Pine		56	Sapling	1	14		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																							
6	6122 - Black Spruce	Poletimber Well	235.7	82	51-80	N/A	Large black spruce stand, some evidence of dwarf mistletoe is present.																																																							
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7	6239 - Mixed Emergent Wetland	Nonstocked	55.2	2020	Unspecified	No	Stand cut under Sagola Lakes Holli FP 32-114-14-01, Cut in the winter of 2017-2018 sale closed in summer 2018.																																																							
8	6229 - Mixed lowland shrub	Nonstocked	39.7		Unspecified	No	Lowland alder surrounding Flat Rock Creek.																																																							
11	6122 - Black Spruce	Poletimber Medium	134.9	85	1-50	N/A	Large stand stocking is lower then stand 6 but its sill operable.																																																							
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12	6224 - Treed Bog	Nonstocked	84.8	2020		No																																																								
13	42290 - Natural Mixed Pine	Sapling Well	33.8	36	51-80	N/A	Harvested in 1985 then broadcast seeded.																																																							
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15	42220 - Natural Jack Pine	Sapling Medium	22.4	26		N/A	Harvested in 1994: TS#21-93. Seeded in 1994.																																																							
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																				
17	500 - Water	Nonstocked	3.2			No	Small bog lake.																																				
18	6225 - Bog	Nonstocked	8.6			No																																					
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20	42120 - Planted Jack Pine	Sapling Well	37.0	15	1-50	N/A	Harvested in 2004: TS#113-03-01. Trenched and seeded in 2005. Red pine were planted in the 1960s.																																				
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21	3205 - Mixed Upland Shrub	Nonstocked	14.5			Managed Opening	Roller chopped in 1979. Stand is part of what used to be a larger sharptail grouse management area.																																				
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22	42220 - Natural Jack Pine	Sapling Medium	59.5	16	Immature	N/A	Harvested in 2004: TS#112-03-01. Seeding and hand planting efforts have only been marginally successful but the stand meets minimum stocking standards.																																				
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																															
25	42220 - Natural Jack Pine	Poletimber Medium	41.3	35	1-50	N/A	Disked and planted in 1985 then re-planted in 1986.																															
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26	42220 - Natural Jack Pine	Sapling Well	25.8	23		N/A	Harvested in 1997: TS# 10-93. Trenched and direct seeded in 1997.																															
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28	6224 - Treed Bog	Nonstocked	5.5		Unspecified	No																																
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29	3303 - Mixed Low Density Trees	Nonstocked	14.4			Managed Opening	Roller chopped in 1983.																															
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30	42120 - Planted Jack Pine	Sapling Well	19.7	25		N/A	Harvested in 1993: TS#10-93. Planted in 1995.																															
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31	330 - Low-Density Trees	Nonstocked	54.0	2020		4212 - Planted Jack Pine	FTP # C32-888 has been written for jack pine trench and seed. Harvested by Minerick Logging under T-Egg JP sale (32-107-13-01) in the fall of 2016. Site trenched in 2017 under FTP 32-888 see ftp for cost info. Site planted in 2018 at a rate of 1000T/A. Stand failed 1st year regen check stocking is aproximity 350-400 trees per acre. Stand was replanted in the spring of 2019. Site passed walkthrough in the fall of 2019, The stand is free to grow. Third year count is scheduled for 2021.																															



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																															
32	42120 - Planted Jack Pine	Sapling Well	17.1	15		N/A	Harvested in 2003: TS#111-03-01. Trenched and seeded in 2005. Fully stocked good looking stand.																															
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33	42220 - Natural Jack Pine	Sapling Poor	16.1	38	1-50	N/A	Roller chopped in 1983. Semi-open stand.																															
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35	42120 - Planted Jack Pine	Sapling Well	7.6	25		N/A	Harvested in 1995: TS# 10-93. Hand planted in 1995.																															
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