



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32220

Entry Year 2017

Acreage: 1,415

County Marquette

Management Area: Voelker Plains

Revision Date: 2015-07-06

Stand Examiner: Rick Hill

Legal Description:

T46N, R28W, Sec.06, 07, and 08.

Identified Planning Goals:

Vegetative management in the Voelker Plains management area (MA) (Figure 4.34.1) 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 10-year planning period 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. Balancing age classes and spruce budworm will be issues for this 10-year planning period.

Soil and topography:

Ranging from relatively level creek bottoms, swamp conifer, tag alder, and bog/marshlands, to upland which is only rolling to moderately hilly with an abundance of rock however. Rock outcropping is present also.

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

State ownership here is intermixed with relatively small private forest holdings, both corporate and non-industrial private owners and both recreational and residential. Development is very limited with a few seasonal cottages or hunting camps widely distributed. A power transmission line crosses the compartment east west. Production of forest products along with low key recreational activities such as hunting, fishing, trapping, and snowmobiling make up the land uses here

Unique Natural Features:

The Black River and it's tributaries comprise the unique natural features of this compartment.

Archeological, Historical, and Cultural Features:

None Identified.

Special Management Designations or Considerations:

None at this time.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Compartment 220 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 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 thin to discontinuous glacial out wash sand and gravel and post glacial alluvium and coarse textured glacial till over bedrock. The glacial drift thickness varies between 10 and 50 feet. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. This rock could be used as a dimension stone. Gravel pits are not located in

the area, but there may be some potential. The abandoned Republic iron mine is located five miles to the west. This compartment has not been leased for metallic exploration recently, but active leases are located one mile to the southwest. There is no economic oil and gas production in the UP.

Vehicle Access:

County Roads 478 (paved), CO, and CH provide access to and from US-41, M-95, and Co.Rd.581. Generally narrow, two track, dirt roads provide interior access within the compartment. An easement exists to ensure access via the S1/2SW of Sec 5 through corporate ownership, and work was done by Dept personnel from the Gwinn office to improve this road, including placement of a railroad car bridge across the Black River in the SWNW of Sec 8. Also an easement exists to cross the privately owned SWSW of Sec 8, and wood was trucked northward across a winter road at this site.

Survey Needs:

Corners needed in section 8 to delineate private land boundaries.

Recreational Facilities and Opportunities:

Dispersed recreation such as hunting, fishing, and trapping are popular in this area.

Fire Protection:

This compartment is dominated by aspen, fir and mixed pine fuel types. access to the north half of the compartment is fair. Access to the south west portion of the compartment will require specialized equipment due to a large bog.

Additional Compartment Information:

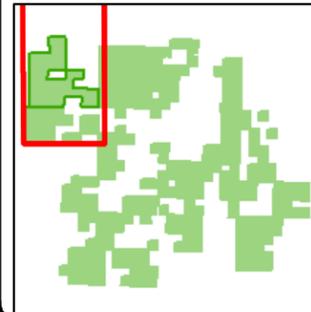
The following reports from the Inventory are attached:

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

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

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

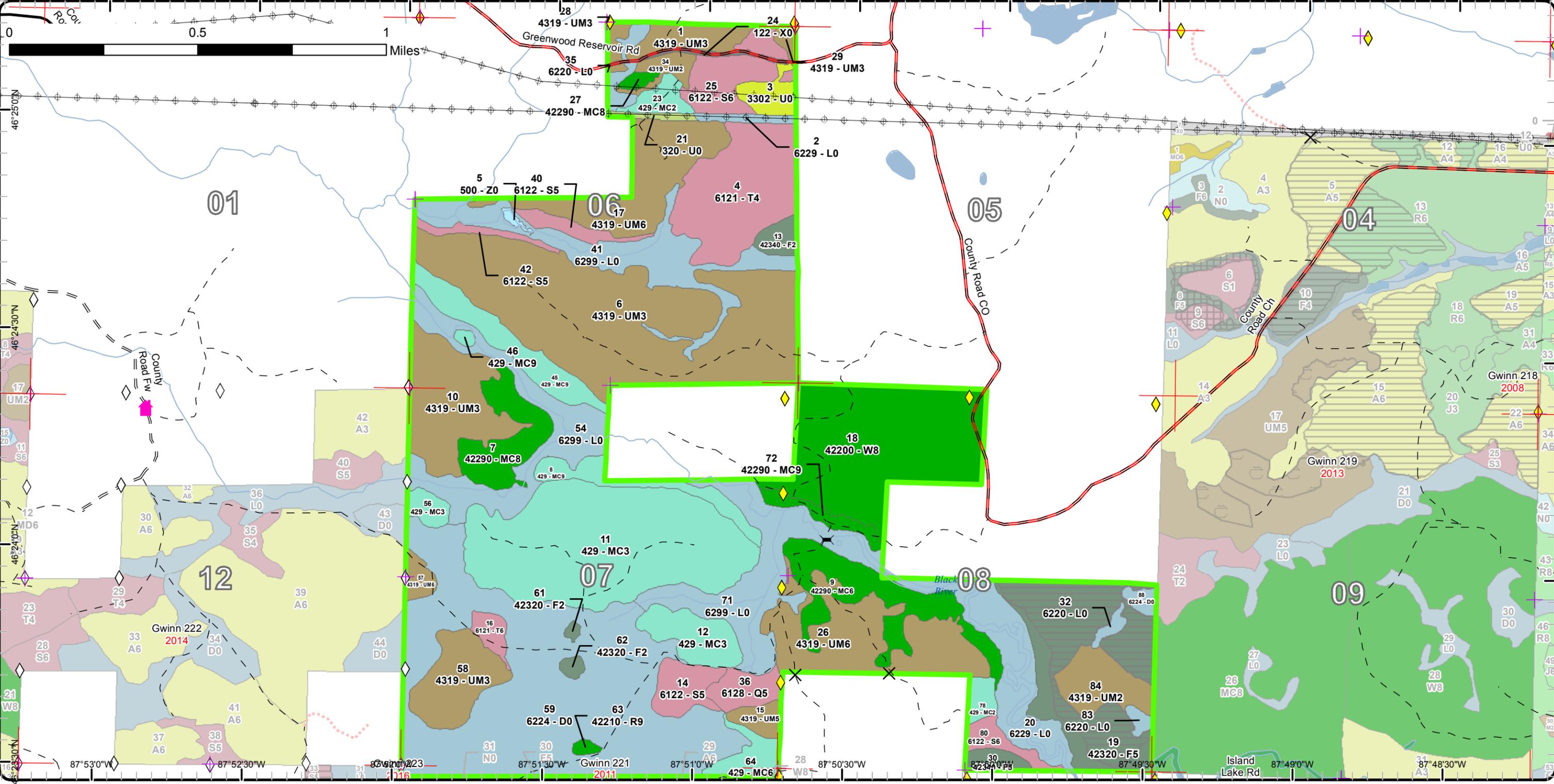
Cover Type & Treatments



Compartment: 220
 T46N, R28W, Sections. 06, 07, 08
 County: Marquette
 Unit: Gwinn
 Mgmt Area: Voelker Plains
 YOE: 2017
 Acres: 1415 GIS Calculated
 Examiner: Rick Hill
 Map Revised: 7/1/2015
 Map Phase: Pre-Review



- ✚ Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- ⋯ Closed Roads
- ✕ Gate
- ⊘ Bridges
- 🏠 Structures, Seasonal Dwelling
- Rivers
- Lakes
- ⚡ Powerline
- ▭ Clearcut (w/Reserves)
- Forest Covertype
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Fores
- 612 - Lowland Coniferous Forest
- Non-Forest Covertype
- 122 - Roads/Parking Lot
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub

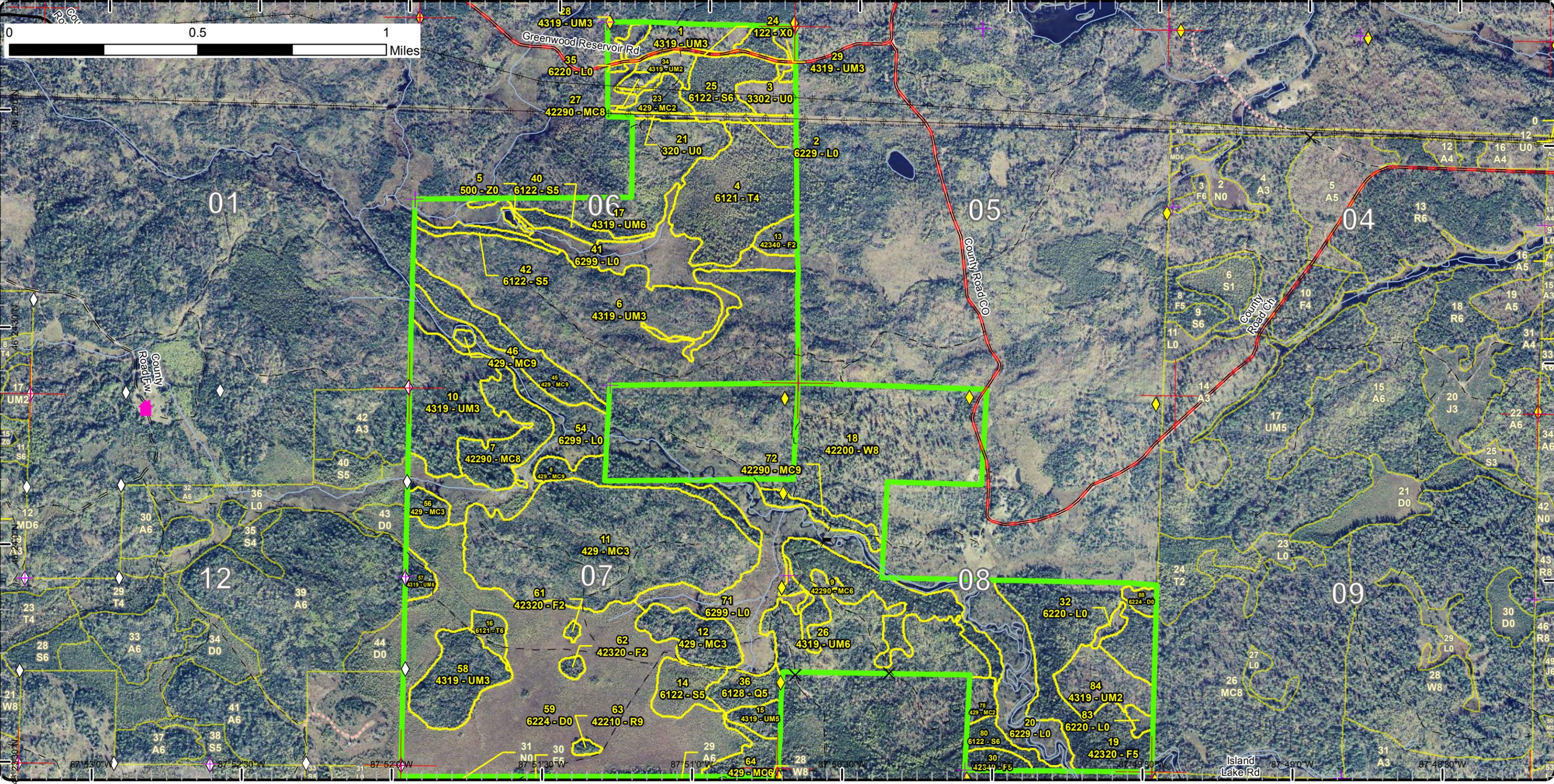


Stand Boundary Map



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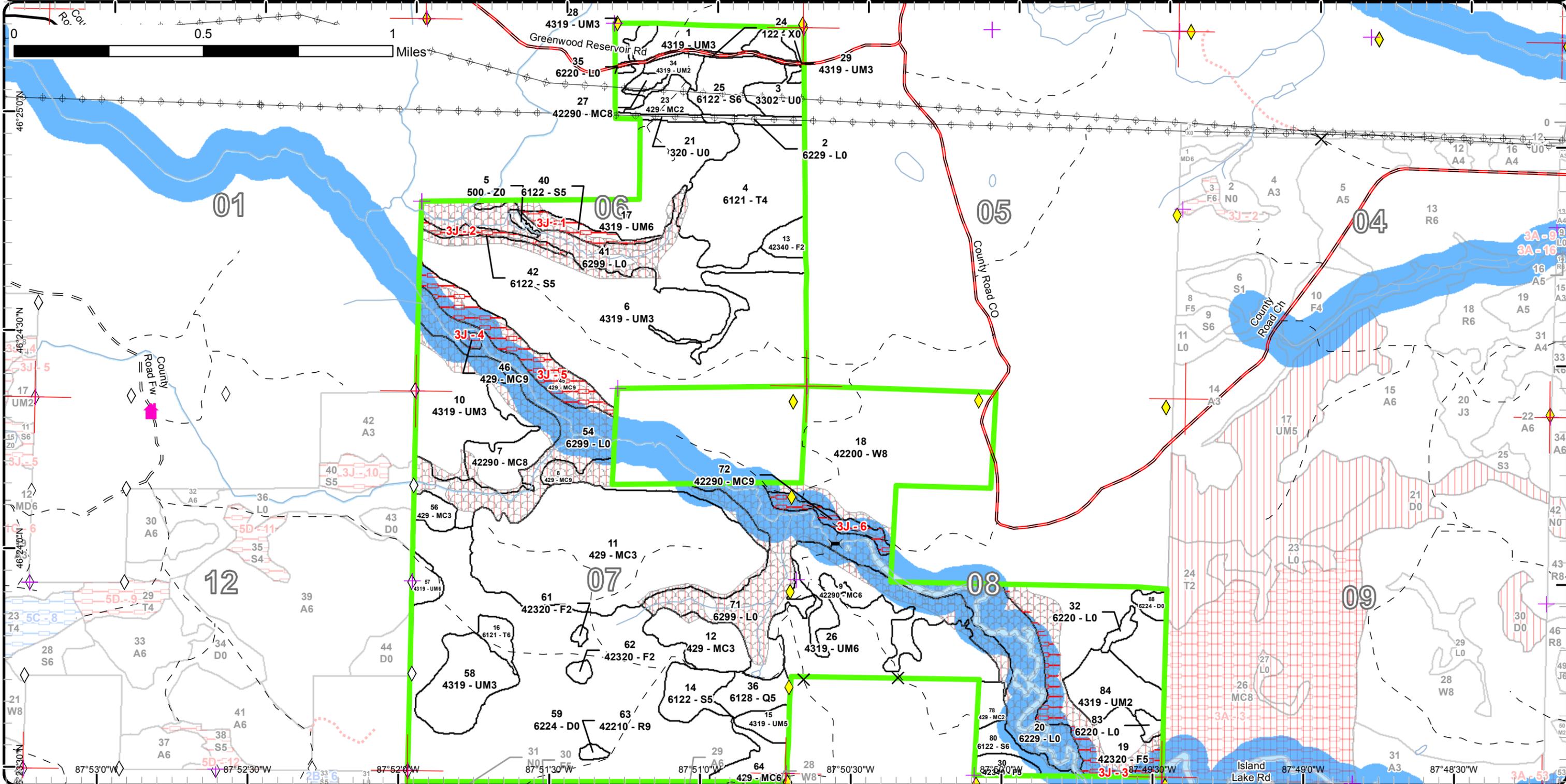


Special Conservation Areas & Site Conditions Map

Compartment: 220
 T46N, R28W, Sections. 06, 07, 08
 County: Marquette
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- X Gate
- Bridges
- + Structures, Seasonal Dwelling
- Rivers
- Powerline
- Stand Boundaries
- Reviewable SCAs (dq)
- Recommendation
- SCA Removal
- Site Condition
- Unavailable
- Unavailable Factors
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit
Rick Hill : Examiner

Compartment 220 Year of Entry 2017



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
Low-Density Trees	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Conifers	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Lowland Shrub	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203
Lowland Spruce/Fir	0	0	0	0	0	0	23	8	13	0	11	0	0	0	0	0	0	0	55
Natural Mixed Pines	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	34	72
Red Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Tamarack	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	57	62
Treed Bog	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204
Upland Conifers	0	5	132	7	29	0	0	0	15	0	0	0	0	0	0	0	0	25	213
Upland Mixed Forest	0	19	185	107	38	0	0	0	0	0	0	0	0	0	0	0	0	45	394
Upland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Upland Spruce/Fir	0	0	6	0	9	0	72	0	0	0	0	0	0	0	0	0	0	0	87
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97	97
Total	424	24	323	152	87	5	95	8	28	0	11	0	0	0	0	0	0	260	1417



Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2017

Acres of Harvest

Compartment 220

Total Compartment Acres: 1,415

Commercial Harvest - 56
 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
Upland Spruce/Fir	56	0	0	0	0	0	0	0	0	56
Total	56	0	0	0	0	0	0	0	0	56

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	56	0	0	0	0	0	0	0	0	56
Next Step	0	0	0	0	0	56	0	0	0	56
Total	56	0	0	0	0	56	0	0	0	111



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
19	32220019-Cut	55.6	42320 - Upland Spruce	Poletimber Medium	58	1-50	Harvest	Clearcut with Retention	42330 - Upland Fir	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Cut all species except leave all oak, cedar, red pine, and white pine. Access is from north though private land. This will have to be a winter sale
Specs: due to access road being though a bog. Retention will be along the Black River and along drainages and ponds.

Next Step
Treatments:

Acceptable Spruce, fir, aspen, red maple, jack pine, red pine, white pine, paper birch.
Regen:

Other There are a few crossings that may need DEQ permits reevaluate during sale prep. Buffer drains and ponds as necessary. May need some
Comment: survey work on the north end. Run lines as close to Black River as fisheries division will allow as per wildlife division wishes. Old next step
 comments:

Proposed Start Date: 10/1 /2016

**Total Treatment
 Acreage Proposed: 55.6**

Report 5 – Site Conditions

Gwinn Mgt. Unit
Rick Hill : Examiner

Compartment: 220
Year of Entry: 2017

Dominant Site Conditions

3J

Low-Density Trees	
Lowland Conifers	
Lowland Shrub	
Lowland Spruce/Fir	11
Natural Mixed Pines	7
Red Pine	
Tamarack	
Treed Bog	
Upland Conifers	25
Upland Mixed Forest	
Upland Shrub	
Upland Spruce/Fir	16
Urban	
Water	
White Pine	
Total Forested Acres	60
Relative Percent	

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Gwinn Mgt. Unit
Rick Hill : Examiner

Compartment: 220
Year of Entry: 2017

3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Other 1	Other SCA		SCA Removal	41
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 10	Other SCA		SCA Removal	15
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 11	Other SCA		SCA Removal	20
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 12	Other SCA		SCA Removal	1
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 13	Other SCA		SCA Removal	11
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 14	Other SCA		SCA Removal	29
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 15	Other SCA		SCA Removal	7
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 16	Other SCA		SCA Removal	30
Comments Potential biodiversity mgt area. See cmpt header for additional comments. Long term mgt objective is for long lived conifer such as pine. Without a doubt, the 7/21/02 windstorm took down trees in this stand, but it is not our intention to harvest trees				
Other 17	Other SCA		SCA Removal	22
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 2	Other SCA		SCA Removal	28
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 3	Other SCA		SCA Removal	16
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Other 4	Other SCA		SCA Removal	26
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 5	Other SCA		SCA Removal	5
Comments Potential biodiversity mgt area. See cmpt header for additional comments. Long term mgt objective is for long lived species such as pine.				
Other 6	Other SCA		SCA Removal	11
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 7	Other SCA		SCA Removal	29
Comments Potential biodiversity mgt area. See cmpt header for additional comments.				
Other 8	Other SCA		SCA Removal	1
Comments Potential biodiversity mgt area. See cmpt header for additional comments. Stand is sort of a knob or small hill. Long term mgt objective is for a mixture of pine, red maple, etc.				
Other 9	Other SCA		SCA Removal	3
Comments Potential biodiversity mgt area. See cmpt header for additional comments. Long term mgt objective is for a mixture of pine, red maple, etc.				



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

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



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4319 - Mixed Upland Forest	Sapling Well	12.7	5	Immature	Stand harvested in winter/pre-breakup 2010 TS#32-108-07-01 Boulder Line Sale by Holli Forest Products. NE corner of Sec 6 is a new County remonumentation corner set in 2002, as is the N1/4 corner of Sec 6.
4	6121 - Tamarack	Poletimber Poor	56.9	78	1-50	Largest diameter tamarack & spruce is along the fringes of upland. Stand probably varies somewhat & may be heavier to spruce in places. A trace of fir, cedar, & black ash also, and lots of alder.
6	4319 - Mixed Upland Forest	Sapling Well	165.3	15	Immature	Was commercially harvested in 1998 thru 2000 by Jim Carey of Sawyer Lake, permit #110-97-01, "Black River North Sale". All oak, cherry, cedar, & yellow birch was left. Only marked pine was cut. Subsequently, the stand was hardhit by the windstorm of 7/21/02 and we lost most of the residual pine. Aspen is dominant however, with a minor component of conifer. This stand is essentially a ridgetop paralleling the river.
7	42290 - Natural Mixed Pine	Sawtimber Medium	24.6	78	1-50	Had a commercial salvage cut in Jan/Feb 2003 which was brought about by severe windthrow from the 7/21/2002 windstorm. Jim Carey was salvaging his own timber in Sec 1 of T46N, R29 W at this time, being adjacent to this State damaged timber on the west side, and also controlling access. Thus, permit #133-03-02, "Black River West Salvage" was issued to salvage all trees which were broken or uprooted by the storm. Field check in May 2005 showed that most of the damage and salvage was on the west end of the stand. The east end has some windthrow that wasn't salvaged, also it has a heavy spruce/fir understory, and contains rock outcropping. Some of the swamp fringes are still adequately stocked with undamaged spruce/fir and could be harvested in the future.
8	429 - Mixed Upland Conifers	Sawtimber Well	14.7	76	Unspecified	River Buffer
9	42290 - Natural Mixed Pine	Poletimber Well	38.2	25	Immature	
10	4319 - Mixed Upland Forest	Sapling Well	44.9	11	1-50	Had a commercial salvage cut in Jan/Feb 2003 which was brought about by severe windthrow from the 7/21/2002 windstorm. Jim Carey was salvaging his own timber in Sec 1 of T46N, R29 W at this time, being adjacent to this State damaged timber on the west side, and also controlling access. Thus, permit #133-03-02, "Black River West Salvage" was issued to salvage all trees which were broken or uprooted by the storm. Field check in May 2005 showed that most of the damage and salvage was on the west end of the stand. Pine, fir, and spruce regeneration is starting to show up.
11	429 - Mixed Upland Conifers	Sapling Well	126.4	15	Immature	Harvested by Holli Forest Products, Inc., permit #109-97-01, "Black River South Sale". Access was from the east and south utilizing winter frozen roads across the treed bog. At least two winters were spent cutting this sale, maybe three. This stand was subsequently hard hit with the 7/21/02 windstorm and we lost most of the pine residual stand, and it was impractical to salvage due to the winter access needed. Currently we have a fully stocked stand with all species combined. Some portions are aspen dominant & some spruce/fir dominant, and a lot of mixed acres.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	429 - Mixed Upland Conifers	Sapling Well	18.3	35	1-50	Was commercially cut in Jan-March 1980 by Holli Forest Products, Inc., permit #2/80. This stand had been decimated by spruce bud worm at this time and Holli was in the process of freezing a large bog winter road system going right past this stand to reach a large State timber sale to the west, thus it was logical to cut this stand at the same time. All merchantable pulpwood was cut except for red & white pine which were marked.
13	42340 - Upland Spruce/Fir	Sapling Medium	6.0	17	Immature	This area is a rocky knob dropping into an adjacent low area. This stand was cut in 1998-200 by Carey Logging (sale # 32-110-97-01 Black river north sale).
14	6122 - Black Spruce	Poletimber Medium	13.0	73	51-80	A frozen winter road was used on the north side of this stand both around 1974-80 and again in 1999-2000. Stand is mostly black spruce/tamarack. Sparse on fringes.
15	4319 - Mixed Upland Forest	Poletimber Medium	6.2	35	1-50	Was commercially cut in 1979-80 by Holli Forest Products, Inc., permit #12-77A, "Fawn's Foot Block". All merchantable pulpwood was cut except for pine which was marked.
16	6121 - Tamarack	Poletimber Well	5.3	47	Unspecified	Area of better site index tamarack and spruce then surrounding bog manage with adjacent island in the future.
17	4319 - Mixed Upland Forest	Poletimber Well	43.9	26	51-80	
18	42200 - Natural White Pine	Sawtimber Medium	97.4	85	51-80	Stand was badly damaged (esp. the pine) and salvaged in winter of 2002-03 (TS#128-02-01- Minerick Logging, Inc., a scale sale) as a result of the windstorm of 7/21/2002. Van Riper State Park work crew cut marked pine here during the winters of 1984-86 for sawing into picnic table boards, etc., permits # 15-84-02, #19-85-02, & #01-86-02. We wish to manage this stand for pine, but currently, red maple is the predominant species. Stand cut by Triest Forest Products in the spring of 2008, #32-109-07-01.
19	42320 - Upland Spruce	Poletimber Medium	71.9	58	1-50	Was commercially cut in 1956-57 (permit #13-56A & #3-57) by Uno Kempainen (who lived just northwest of the sale where Loren Gray lives now). Residual conifer was left. The windstorm of 7/21/02 hit this stand also with the larger, older trees being windthrown (pine, white spruce, etc.) See access comments for stand 84.
23	429 - Mixed Upland Conifers	Sapling Medium	7.0	26	Immature	Was commercially cut between Mar.1988 & Sept.1989 by Jim Carey Logging, permit #21-87-01, "Black River Block".
25	6122 - Black Spruce	Poletimber Well	22.9	53	Unspecified	Located in the NENE of Sec 6, both sides of Co.Rd.478. OI Stand Year Origin was 1962
26	4319 - Mixed Upland Forest	Poletimber Well	56.7	25	Immature	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	42290 - Natural Mixed Pine	Sawtimber Medium	2.3	75	1-50	Stand situated on top of a rock outcropping. Was hit with blow down from the 7/21/02 windstorm, but a significant number of pine remain. Probably more valued for aesthetics than timber.
28	4319 - Mixed Upland Forest	Sapling Well	3.6	5	Immature	Stand harvested in winter/pre-breakup 2010 TS#32-108-07-01 Boulder Line Sale by Holli Forest Products. N1/4 corner of Sec 6 is a new County remonumentation corner set in 2002.
29	4319 - Mixed Upland Forest	Sapling Well	2.4	5	Immature	Stand harvested in winter/pre-breakup 2010 TS#32-108-07-01 Boulder Line Sale by Holli Forest Products. Considerable windthrow damage here from 7/21/02 storm. NE corner of Sec 6 is a new County remonumentation corner set in 2002. Private driveway leading to a camp southeast of the Sec corner crosses onto State slightly.
30	42340 - Upland Spruce/Fir	Poletimber Medium	5.6	30	1-50	Was cut as a salvage Scale sale due to damage from the 7/21/2002 windstorm by Jim Carey Logging in late Fall of 2002, permit #102-03-02, "Black River Salvage". Jim was already cutting the adjacent private (James Richards) property to the south, thus he had access from the south. He cut only those trees that were broken or uprooted. Most of damage was to the oldest, largest trees, thus what is left are younger age class and we can manage this residual type in place, expecting to get some natural regeneration of existing species as a result of the cutting and soil disturbance.
34	4319 - Mixed Upland Forest	Sapling Medium	6.3	26	Immature	Was commercially cut between Mar.1988 & Sept.1989 by Jim Carey Logging, permit #21-87-01, "Black River Block". All cherry, 1 & 2 stick spruce & fir was left, as well as some birch/maple marked with green paint for aesthetics along Co.Rd. 478. Probably were no oak present. Some aspen in north & west sides of stand, and also some tamarack near swamp edge on east.
36	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	10.8	35	51-80	Was commercially cut in 1979-80 by Holli Forest Products, Inc., permit #12/77A, "Fawn's Foot Block". All merchantable pulpwood was cut except for pine which was marked.
40	6122 - Black Spruce	Poletimber Medium	6.6	90	51-80	Narrow river buffer on small tributary of the Black River. This is an important buffer separating an aspen stand from the riparian area adjacent to the the creek.
42	6122 - Black Spruce	Poletimber Medium	4.7	90	51-80	
45	429 - Mixed Upland Conifers	Sawtimber Well	23.8	78	81-110	
46	429 - Mixed Upland Conifers	Sawtimber Well	1.2	78	51-80	
56	429 - Mixed Upland Conifers	Sapling Well	5.6	15	Immature	Was commercially harvested in Jan-Mar 2000 as part of Holli Forest Products, Inc, permit #9-97-01, "Black River South Sale"



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
57	4319 - Mixed Upland Forest	Poletimber Well	5.2	35	1-50	Was commercially cut in winter of 1980 by Holli Forest Products, Inc., permit #10-80. Or possibly this was included in Holli's permit #2/76A, "Island Sale", which wasn't completed till 3/31/80 and included the adjacent high ground west of this stand. Permit #10-80 was a negotiated sale whereas #2/76A was bid I believe. The same road system of frozen ice roads were used for both sales. Four access points were used for this road system over the course of 6 yrs or so. The northwest access was through Reino Nyback's in the NW corner of Sec 12, T46N, R29W which leads to CoRd FW. The southwest access was through Sec 13, T46N, R29W through the three corporate forties on the north side of Sec 13 which will lead southwesterly past Ozzie Altabello's camp to reach CoRd FF also called the Perch Lake Road. The east access was through Sec 8, T46N, R28W and across the Black River on the RR car bridge to exit at Loren Gray's driveway to Co.Rd.CO or CH. And the south access was through Sec 18, T46N, R28W near stand #63 (small island of red pine) which leads to the Tanglefoot Lake Road which leads to CoRd 581 by the AmVets.
58	4319 - Mixed Upland Forest	Sapling Well	26.9	35	1-50	Was commercially cut in Jan-March 1980 by Holli Forest Products, Inc., permit #10/80. A salvage of spruce budworm damage sale. All merchantable trees were cut except for pine which were marked. Access by frozen winter road system.
61	42320 - Upland Spruce	Sapling Medium	1.0	35	1-50	Was commercially cut in Jan-March 1980 by Holli Forest Products, Inc., permit #10/80. All merchantable trees were cut except for pine which were marked. Access by frozen winter road system.
62	42320 - Upland Spruce	Sapling Medium	2.0	35	1-50	Was commercially cut in Jan-March 1980 by Holli Forest Products, Inc., permit #10/80. All merchantable trees were cut except for pine which were marked. Access by frozen winter road system.
63	42210 - Natural Red Pine	Sawtimber Well	1.5	78	51-80	Tiny island of high ground in treed bog, sandy soil - natural red pine. System of frozen winter roads went right by this island.
64	429 - Mixed Upland Conifers	Poletimber Well	10.5	39	51-80	This is part of a very large sale (mostly in Cmpt 221 to the south) cut in 1974-76 by Holli Forest Products, Inc, permit #14-72-01, "West Branch Creek Block". Wood from this sale was hauled out through cmpt 220 on a frozen winter road through SWSW of Sec 8 (for which we have an easement). This same sale was first issued to Unto Makela in 1971, but went uncut as his business went into receivership.
72	42290 - Natural Mixed Pine	Sawtimber Well	7.3	78	81-110	
78	429 - Mixed Upland Conifers	Sapling Medium	5.0	7	Immature	Stand cut in spring of 2008 by Triest Forest Products T-Sale #32-109-07-01.
80	6122 - Black Spruce	Poletimber Well	7.5	68	Unspecified	Black spruce stand with a small creek running though it.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
84	4319 - Mixed Upland Forest	Sapling Medium	20.0	13	Immature	Was commercially cut in Dec 2001 thru Feb 2002 by John Heidtman Logging, Inc., permit #118-97-01, "Pine Patches Quill Sale". Access (frozen winter road) was from the northwest across Loren Gray's property. Only marked pine was cut, and all cherry & cedar was left (no oak present). All merchantable aspen, birch, maple, spruce & fir was cut. The windstorm of 7/21/02 virtually wiped out the residual pine here. Less than 10 sq.ft/acre left. It was not salvaged due to winter access needed plus crossing private land. With better access it would have been salvaged. Currently the stand has patchy aspen regen, some red maple stump sprouts, and sparse spruce/fir regen. We need to preferably develop access from the east on State land, or acquire a mgt easement to cross pvt land from the north. Road across private would need fill/gravel to build it up - it's flooded in the Spring and only usable by freezing in the winter.



Stand	Cover Type	Acres	Managed Site	General Comments:
2	6229 - Mixed lowland shrub	3.6	No	Powerline opening
3	3302 - Low Density Conifer Trees	8.6	No	Stand harvested in winter/pre-breakup 2010 TS#32-108-07-01 Boulder Line Sale by Holli Forest Products. Seed trees left, see timber sale report for total number left. Some windthrow present from 7/21/02 storm. Site is semi-high ground, not wet. Jim Carey cut the adjacent pvt land to the east in the last few yrs and very little regeneration is present yet.
5	500 - Water	1.1	No	
20	6229 - Mixed lowland shrub	39.1	No	
21	320 - Upland Shrub	2.5	No	Powerline opening
24	122 - Road/Parking Lot	3.6	No	Road
32	6220 - Alder/willow	2.6	No	
35	6220 - Alder/willow	6.0	No	
41	6299 - Lowland Shrub (OI)	47.1	No	
54	6299 - Lowland Shrub (OI)	47.2	No	
59	6224 - Treed Bog	200.3	No	Bog with extensive winter road system present as well as old ELF line allowing access to all islands. Four access points were used for this road system over the course of 6 yrs or so. The northwest access is through private lands in the NW corner of Sec 12, T46N, R29W which leads to CoRd FW. The southwest access was through Sec 13, T46N, R29W through the three corporate forties on the north side of Sec 13 which will lead southwesterly through private lands camp to reach CoRd FF also called the Perch Lake Road. The east access was through Sec 8, T46N, R28W and across the Black River on the RR car bridge to Co.Rd.CO or CH. And the south access was through Sec 18, T46N, R28W near stand #63 (small island of red pine) which leads to the Tanglefoot Lake Road which leads to CoRd 581 by the AmVets.
71	6299 - Lowland Shrub (OI)	54.9	No	
83	6220 - Alder/willow	2.4	No	
88	6224 - Treed Bog	3.4	No	