



**Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 251 Entry Year: 2009
Compartment Acreage: 1639 County: Marquette**

Revision Date: March 25, 2009

Stand Examiner: Thomas Seablom

Legal Description: T46N R27W, Sec. 16, 17, 20 and 21

RMU (if applicable): None

Management Goals: Within this compartment, goals are to maintain and increase timber productivity, maintain and improve wildlife habitat and protect water quality. Timber types within this compartment will continue to be managed on an even-aged basis mainly for fiber production with some saw log production occurring on the more productive sites. Managing as such will provide both cover and feed for wildlife.

Soil and Topography: This area is flat to gently rolling; it is on the eastern edge of a larger sandy outwash plain. Soil makeup in this compartment is almost entirely Pence fine sandy loam. There is a small amount of Carbondale and Tawas soils present in the drainages.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership is primarily State with some private individual holdings scattered throughout. Two other larger land owners within the vicinity are Empire Mining Partners, Tilden and Empire mines immediately to the north, and the Michigan Northwoods Club to the south. Development is minimal, aside from the mines, with camps being on private land. Land use is consistent with that of State land, primarily hunting and fishing.

Unique, Natural Features: None.

Archeological, Historical, and Cultural Features: This area had been looked as a potential location for the Marquette Co. landfill.

Special Management Designations or Considerations: Stands along the Middle Branch Escanaba River have been listed as Special Conservation Area (SCA) for Potential Old Growth (POG). They should remain in this state to protect the habitat along the river corridor and to provide a buffer between the Empire Mine tailing basin and the river.

Watershed and Fisheries Considerations: Text

Wildlife Habitat Considerations: Text

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of coarse-textured till and glacial outwash sand & gravel and postglacial alluvium. The glacial drift thickness varies between 10 and 100 feet. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. This rock could be used as a dimension stone. Gravel pits are located in Section 16, and there should be potential. Abandoned iron mines are located three miles to the northeast. This area has not been leased previously for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access: Primary access to this compartment is via Co. Rd. PSB, Voelker Lake Rd. and Co. Rd. PS, Hemmings Lake Rd. Poor dirt roads network the remainder of the compartment providing access to individual stands.

Survey Needs: None at this time.

Recreational Facilities and Opportunities: No recreational facilities exist and there is little opportunity for any.

Fire Protection: This compartment falls within the South Ishpeming-581 Zone dispatch area. There is good access throughout the compartment for all fire equipment. Vegetation is a mix of aspen, pine and upland brush/grass opening. Jack pine is the main timber species surrounding the compartment to the west and south with the majority of it being seedlings and saplings to mid-rotation pole timber.

Additional Compartment Information: None

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**

- ◆ **Proposed road access system**
- ◆ **Suggested potential old growth**

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: 251

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not Coded	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	150-159	All Aged	Total
Aspen		33	71	233	264			6	100										707
Black Spruce										16									16
Bog or Marsh	12																		12
Grass	9																		9
Jack Pine		60	24	5	25				99										213
Lowlnd Brush	104																		104
Mx Swmp Cnfr										17				20					37
Paper Birch								19											19
Red Pine			25				216												241
Upland Brush	16			245															261
Water	20																		20
Total	161	93	120	483	289		216	25	199	33				20					1639

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: 251

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	A	S	V	C	G	H	J	I	L	P	N	Q	X	O	B	R	K	Y	F	E	T	D	U	M	Z	W	Total
A Aspen	707																										707
S Black Spruce		16																									16
V Bog or Marsh			12																								12
G Grass					9																						9
J Jack Pine							213																				213
L Lowlnd Brush									104																		104
Q Mx Swmp Cnfr												37															37
B Paper Birch															19												19
R Red Pine							83								158												241
U Upland Brush							16																245				261
Z Water																									20		20
Total	707	16	12		9		312		104			37			19	158							245		20		1639

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: **251**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	4713 Cds	Hardwood	854 Cds
Hardwood	32 Mbf	Softwood	2117 Cds
Softwood	6561 Cds	Sum CutVol	2971 Cds
Softwood	25 Mbf		
Sum TotVol	11388 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	
1639		279	

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	DFD Status
11	S6	16	87	35	black spruce-swamp	mature	final harvest	1		
comnts Fmd : Clearcut this stand leaving a 200 foot buffer around the spring creek and ponds. Cut all balsam, red maple, birch, and any aspen. Leave all cedar and any red or white pine. Recommend setting up during snow free conditions to identify creek.										
16	U0	216	20	48	upland brush	immature		0	opening maintenance	
comnts Fmd : This stand has traditionally been managed as part of a sharptail grouse area (Voelker Plains). It was roller chopped in 1985 and burned in May 1989. Wld : Historical sharptail grouse opening located in what is referred to as "Voelker Plains". Current condition of opening contains small clumps of aspen, cherry brush, advanced upland brush, and very young jack pine inclusions. Opening maintenance is being proposed for this stand via prescribed burn to restore opening by mimicking the historic natural disturbance regime. GLO notes for this township describes this area well with specific remarks regarding large openings, cold-water springs, and sparse cover primarily consisting of mixed pine. Currently this area is used by northern harriers, woodcock, upland sandpiper, and various other species associated with openings and Wildlife Division recommends it for maintenance using a controlled burn.										
37	R6	16	49	55	red pine	immature	thinning	1		
comnts Fmd : Thin stand removing small diameter and poorly formed trees. Reduce basal area to 100 sq. ft, leaving any birch, oak and cherry. Stand was planted in 1960. Thinned via timber sale #112-01, Voelker Plantation Pine, August-October 2004. Some of the windthrow from the 7/21/2002 storm was salvaged at this time.										
38	R5	50	49	55	jack pine	sparse	final harvest	1	direct seeding	
comnts Fmd : Clearcut this stand, trench and regenerate jack pine. This stand is a result of harvesting in 2004 via timber sale #112-01, Voelker Plantation Pine. Storm damage from 7/21/2002 was accomplished at this time as well. This stand was originally part of a larger red pine plantation. Leave 5-6 red pine per acre.										
43	A6	19	71	60	aspen (upland)	mature	final harvest	1		
comnts Fmd : Clearcut this stand leaving all birch and oak. Cut all other trees 2-inches (stump diameter) and up. Red maple will dominate portions of the regenerated stand. There are also oak seedlings in areas of mature oak. Monitor to see if they recruit upon being released.										
47	R5	33	49	55	jack pine	sparse	final harvest	2	direct seeding	
comnts Fmd : Stand is very patchy. Was originally part of larger red pine plantation and was separated out based on density. It is being prescribed to clearcut (with reserves) this stand and convert it to jack pine. Approximately 20 sq. ft. per acre of red pine (in patch form) should be left, all jack pine should be cut. There is a fair amount of cherry present in areas of this stand. Herbicide will be necessary to control it and allow successful regeneration of jack pine to occur. To provide for diversity, areas will be "skipped" when herbiciding to allow cherry to exist in the stand. These areas will be trenched through however.										
49	R6	41	49	55	red pine	immature	thinning	1		
comnts Fmd : Thin stand to 100 sq. ft. per acre. Accomplish this by removing all jack pine, those trees that are of small diameter or have been suppressed or damaged. Favor trees with good crown development, meaning those trees with at approximately 30-50% live crown. Try to leave maple and aspen as much as possible to promote in stand diversity. Leave all oak and any cherry.										
50	A6	4	71	50	aspen (upland)	mature	final harvest	1		
comnts Fmd : Clearcut this stand leaving 3-6 trees/acre of white birch. This could be done leaving 2 clumps/acre. Most birch is along the west edge. Trees are of poor quality, could convert this stand to red pine using herbicide, trench and hand planting. The compartment boundary is on the south edge of this stand. The aspen knob to the southeast is part of the adjacent compartment and is mature. Logistically it may be the appropriate time to cut this stand. Wld : This stand comprised of patchy aspen provides suitable habitat for woodcock and grouse. This area receives a fair amount of hunting recreation and most of pressure is focused on aspen and pine/aspen mixes.										
55	J4	43	68	60	jack pine	high risk	final harvest	1	direct seeding	
comnts Fmd : It is being prescribed to clearcut this stand cutting all trees regardless of merchantability. This stand was salvaged from the 7/21/2002 windstorm and was also affected in 2006 by another windstorm, however it was not salvaged following that event. It is a sparse/patchy stand. The northern portion is still fairly intact and contains the hardwood and aspen component. Where jack pine regeneration exists it should be trenched and seeded through to ensure uniformity with the remainder of the stand. Wld : Recommend that no herbicide is used during reforestation of this stand to maintain and/or increase habitat diversity for wildlife.										
63	J5	37	68	57	jack pine	two aged	final harvest	1	direct seeding	
comnts Fmd : 8/12/2009: This stand is being prescribed for clearcutting during the 2010 entry year. All trees are to be cut. It will then be trenched and seeded to jack pine. 3/2009: It was hit by the windstorm in 2006 however was not salvaged. There is a fair amount of budworm damage in this stand. It is a two aged stand as well.										

GWINN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 251 **Entry Year: 2011**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
64	U0	16		57	jack pine	nonstocked		0	planting	

comnts Fmd : This stand was created from the windstorm in 2006 that hit the Voelker Plains vacinity. It was not salvaged and is virtually inoperable for machine scarifying or planting. Red maple is beginning to take over the stand. However, red maple is not a viable commercial timber crop in this area. It is being prescribed to be burned for hazard fuels reduction and then trenched and seeded to jack pine.

Total Acres..... 491

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
65	A5	20	68	50	aspen (upland)	sparse	final harvest	1		

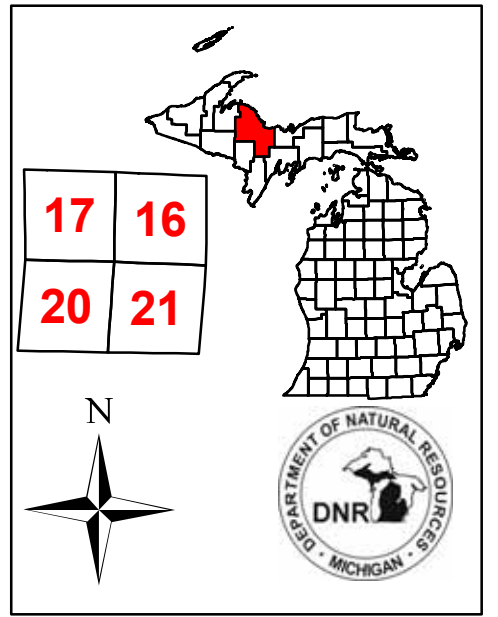
TREATMENT LIMITING FACTORS: Inadequate volume due to low stocking/small diameter/etc.

comnts Fmd : 8/12/2009: Clearcut this stand leaving <3% retention (oak, cherry, an a few scattered red maple). No herbicide is to be used. Very poor quality and sparse aspen and red maple stand. The mature aspen is 1/2 dead and 1/2 rotten. The understory is red maple saplings. At this time it isn't commercially viable to harvest this stand for pulpwood, it will need to be chipped..

Total Acres..... 20

Covertypes & Treatment Map

Compartment 251
 T46N, R27W, Sec. 16, 17, 20, 21
 County: Marquette
 Unit: Gwinn
 YOE: 2011
 Acres: 1,639 GIS Calculated
 Stand Examiner: Thomas Seablom
 Map Revised: 8/25/2009
 Map Phase: Pre-review



Legend

- Miris Corners
- Gravel Roads
- Poor Dirt Roads
- Closed Roads
- Stand Boundary
- 017 - Planting/Prescribed Burning
- 027 - Opening Maintenance/Prescribed Burning
- 100 - Final Harvest
- 133 - Final Harvest/Direct Seeding/Ground Application
- 135 - Final Harvest/Direct Seeding/Mechanical, Other
- 136 - Final Harvest/Direct Seeding
- 400 - Thinning
- A - Aspen
- B - Paper Birch
- G - Grass
- J - Jack Pine
- L - Lowland Brush
- Q - Mixed Swamp Conifers
- R - Red Pine
- S - Black Spruce Swamp
- U - Upland Brush
- V - Bog or Muskeg
- Z - Water

46°24'0"N

46°23'0"N

46°22'0"N

46°24'0"N

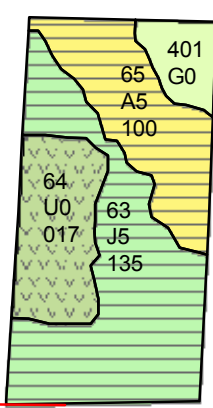
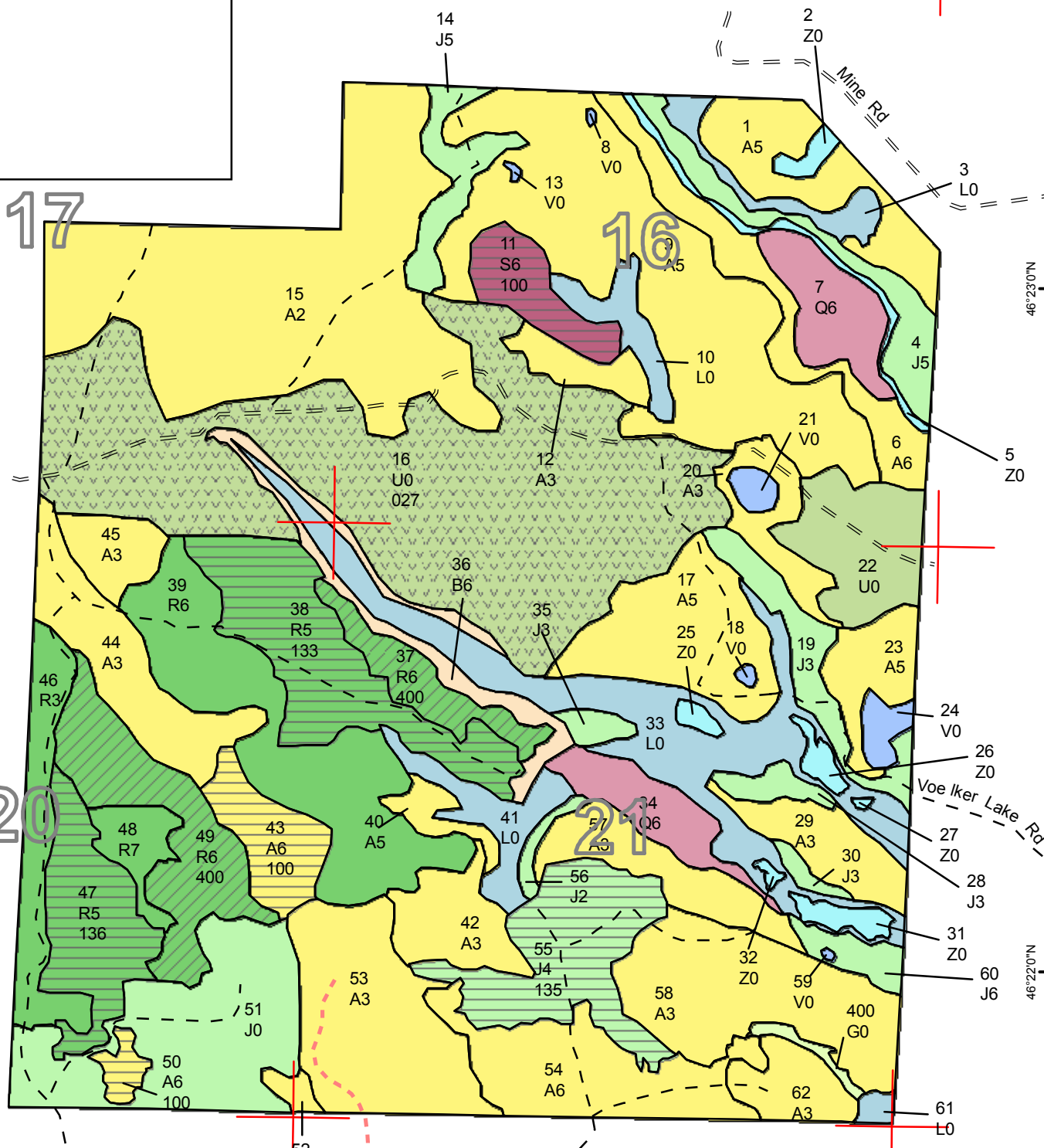
46°23'0"N

46°22'0"N

87°43'0"W

87°42'0"W

87°41'0"W

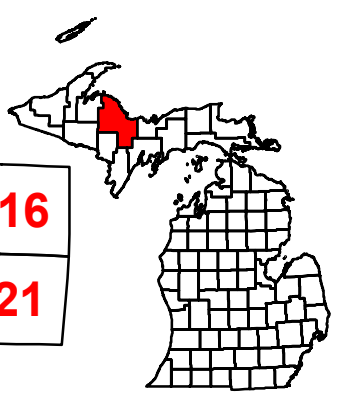


Stand Boundary Map

Compartment 251
T46N, R27W, Sec. 16, 17, 20, 21
County: Marquette
Unit: Gwinn
YOE: 2011
Acres: 1,639 GIS Calculated
Stand Examiner: Thomas Seablom
Map Revised: 8/25/2009
Map Phase: Pre-review


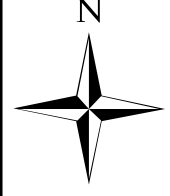
Legend

- Miris Corners
- - Gravel Roads
- - Poor Dirt Roads
- - Closed Roads
- Stand Boundary



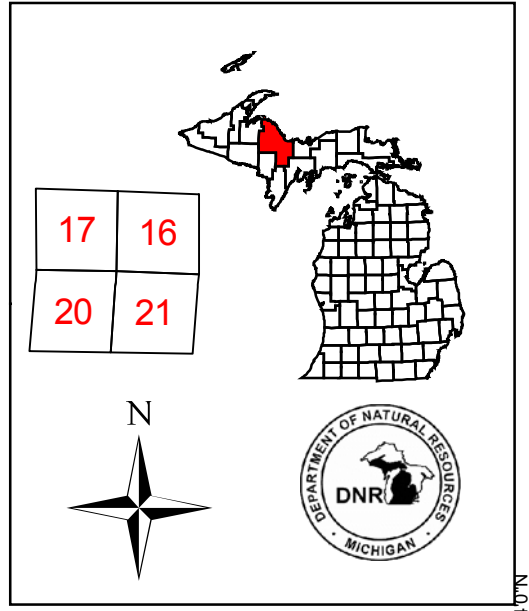
17	16
20	21

N



Dedicated & Proposed Special Conservation Area Map

Compartment 251
 T46N, R27W, Sec. 16, 17, 20, 21
 County: Marquette
 Unit: Gwinn
 YOE: 2011
 Acres: 1,639 GIS Calculated
 Stand Examiner: Thomas Seablom
 Map Revised: 8/25/2009
 Map Phase: Pre-review



Legend

- Miris Corners
- Stand Boundary
- Proposed Special Conservation Areas
- Dedicated Special Conservation Areas**
- Cold Water Streams
- Potential Old Growth Stands
- OI Special Conservation Areas

46°24'0"N

46°23'0"N

46°22'0"N

46°24'0"N

46°23'0"N

46°22'0"N

87°43'0"W

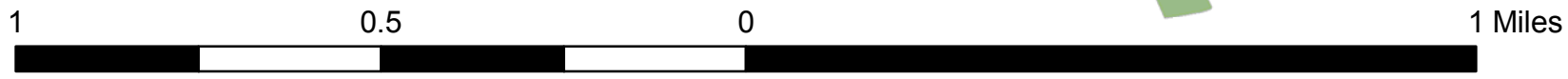
87°42'0"W

87°41'0"W

87°43'0"W

87°42'0"W

87°41'0"W

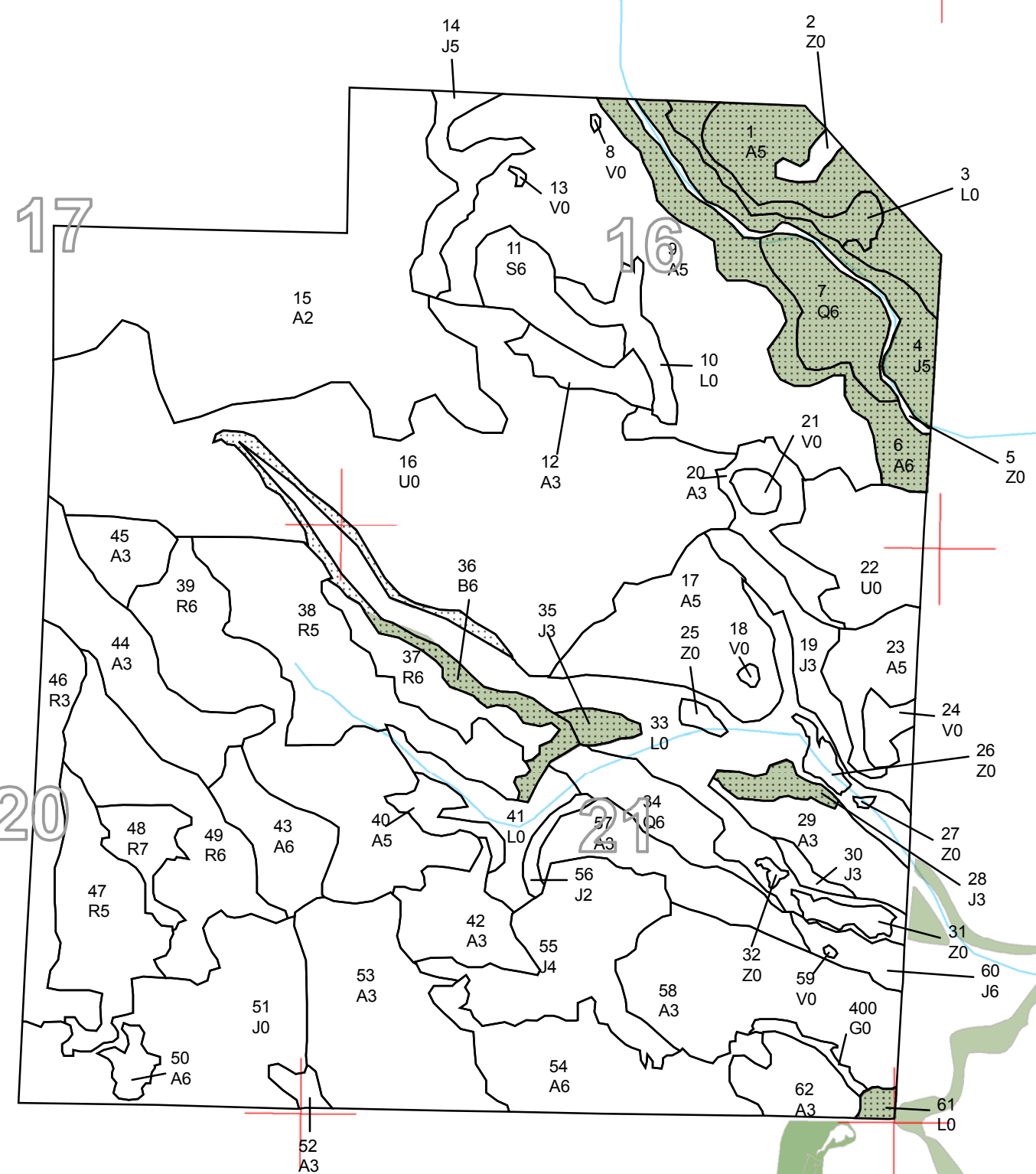
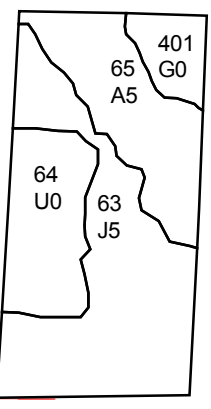


17

16

20

21





DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Potential Old Growth Areas	This category contains stands were identified for a broad range of reasons and were coded in the OI database as stand condition 8 as potential old growth (POG). Approximately 310,000 acres have been identified through the Operations Inventory (OI)/Compartment Review process. For stands in Year of Entry 2008 and forward, potential old growth is managed for the identified objective until it is: 1) vetted through the Biodiversity Conservation Planning Process (BCPP) and given a specific designation and objective (as an ERA, HCVA, or other type of SCA) and is released from the potential old growth designation; or 2) it is released from the potential old growth designation via the Compartment Review process.