

Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32041 Entry Year 2018 Acreage: 1,018

County Marquette

Management Area: Chain Lakes Moraine

Revision Date: 2016-08-09

Stand Examiner: Theresa Sysol

Legal Description:

T44N R25W Section(s) 4,5,6.

Identified Planning Goals:

To maintain and enhance the health and sustainability of the forest cover types, while providing for recreational, wildlife and fisheries values.

Soil and topography:

Mostly level terrain with semi-rolling lands west of Co Rd 557. Lowland cedar swamps are primarily Carbondale, Rifle-Spaulding peat with more upland grounds of Vilas, Newton, and Saugatuck sands.

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

State ownership to the east and south, with west and north boundaries along private. Residential area along Bilsky Lake.

Unique Natural Features:

Narrow pine, upland mixed ridges around bog types.

Archeological, Historical, and Cultural Features:

No concerns.

Special Management Designations or Considerations:

Large block of lowland conifers within interior.

Watershed and Fisheries Considerations:

The east side of this compartment contains the main branch of the Escanaba River, a Type 1 designated trout stream greater than 50' width. Priorities include ensuring that sediment from upstream sources does not reach the river channel. Best Management Practices should be followed to reduce erosion into waterbodies.

Wildlife Habitat Considerations:

Compartment 41 is found within the Chain Lakes Moraine Management Area; on a Disintegration Moraine in Southwestern Marquette County. The dominant Natural Communities are dry mesic northern forests, poor conifer swamps, and mesic northern forests. This management area offers opportunities to increase diversity and perhaps long-term oak sustainability through under planting white and red pine. Another priority is to maintain or increase wildlife corridors especially along riparian corridors. Wildlife management issues in the management area are: mast (hard and soft); habitat fragmentation; mature forest conditions; mesic conifer; course woody debris; and retention or development of large living and dead standing trees (for cavities). This management area represents approximately ¼ of the oak resource on WUP state forest.

The following have been identified as featured species for Chain Lakes Management Area: black bear, gray jay, pileated woodpecker, Northern goshawk, red crossbill.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel, postglacial alluvium, and peat and muck. The glacial drift thickness varies between 100 and 200 feet. The glacial drift is primarily directly underlain by the Cambrian Trempealeau and Munising formations. But, in places on the northern margin of the compartment, Archean granite and the Proterozoic Mighigamme Formation may subcrop below glacial deposits. There has been no known commercial development of these formations. Gravel pits are located one mile to the north, and the best potential for sand and gravel within the compartment would be in the west half of Section 6. Abandoned iron mines are located to the north within two miles of the compartment. State minerals in the compartment have not been previously leased for metallic mineral exploration. There is no economic oil and gas production in the UP.

Vehicle Access:

Good access from Co Rd 557, and from Muehrcke Road and Co Rd EHH to the north. Very limited interior access, due to large swamp complex.

Survey Needs:

None at this time. Private survey corner established within Section 6 (center SE corner).

Recreational Facilities and Opportunities:

Adjacent to Anderson Lake SFCG and cross-country ski trail. Some hunting, and fishing along the Escanaba River.

Fire Protection:

Low risk area, other than occasional lightning strikes and/or human-caused fires.

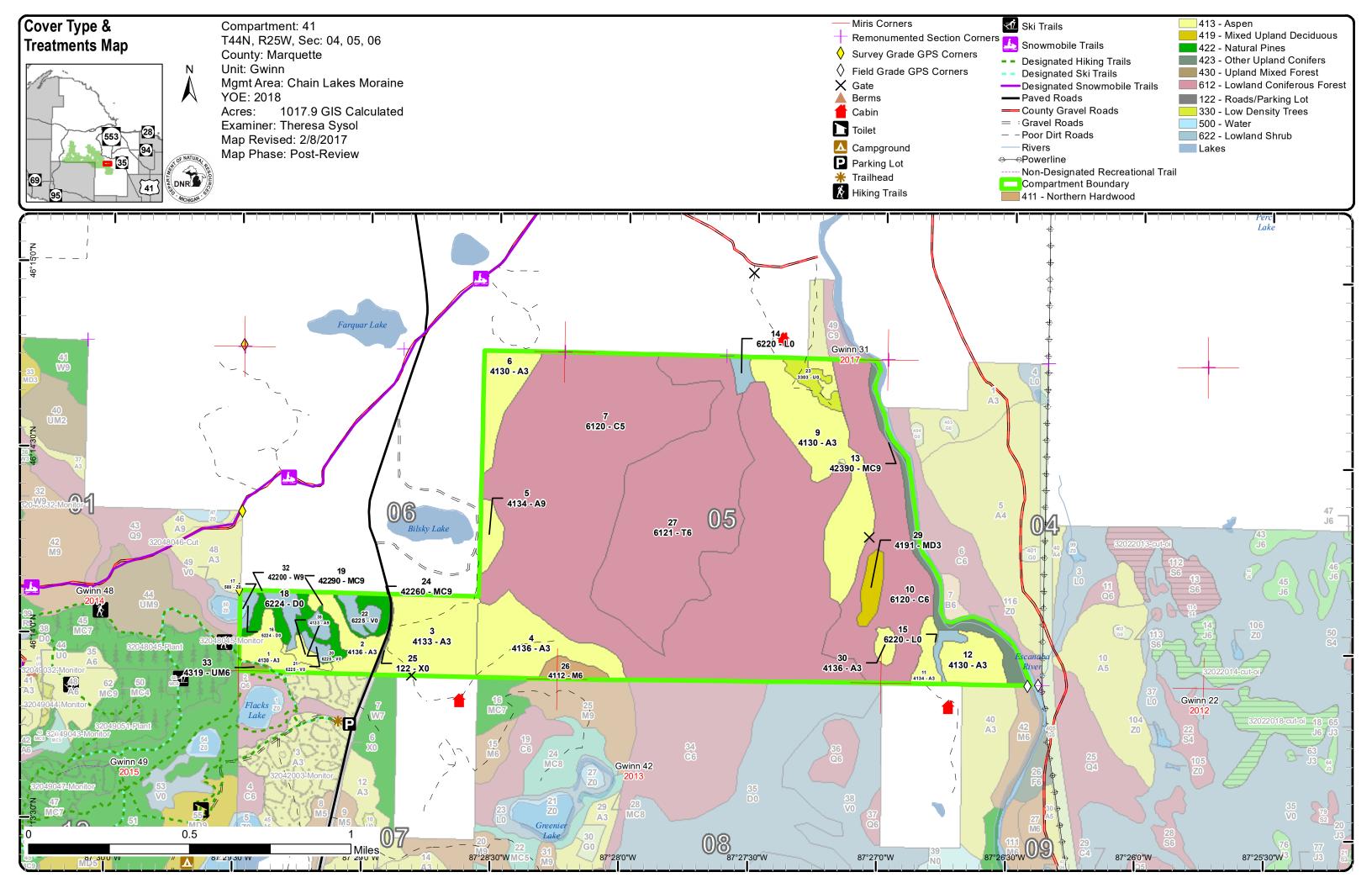
Additional Compartment Information:

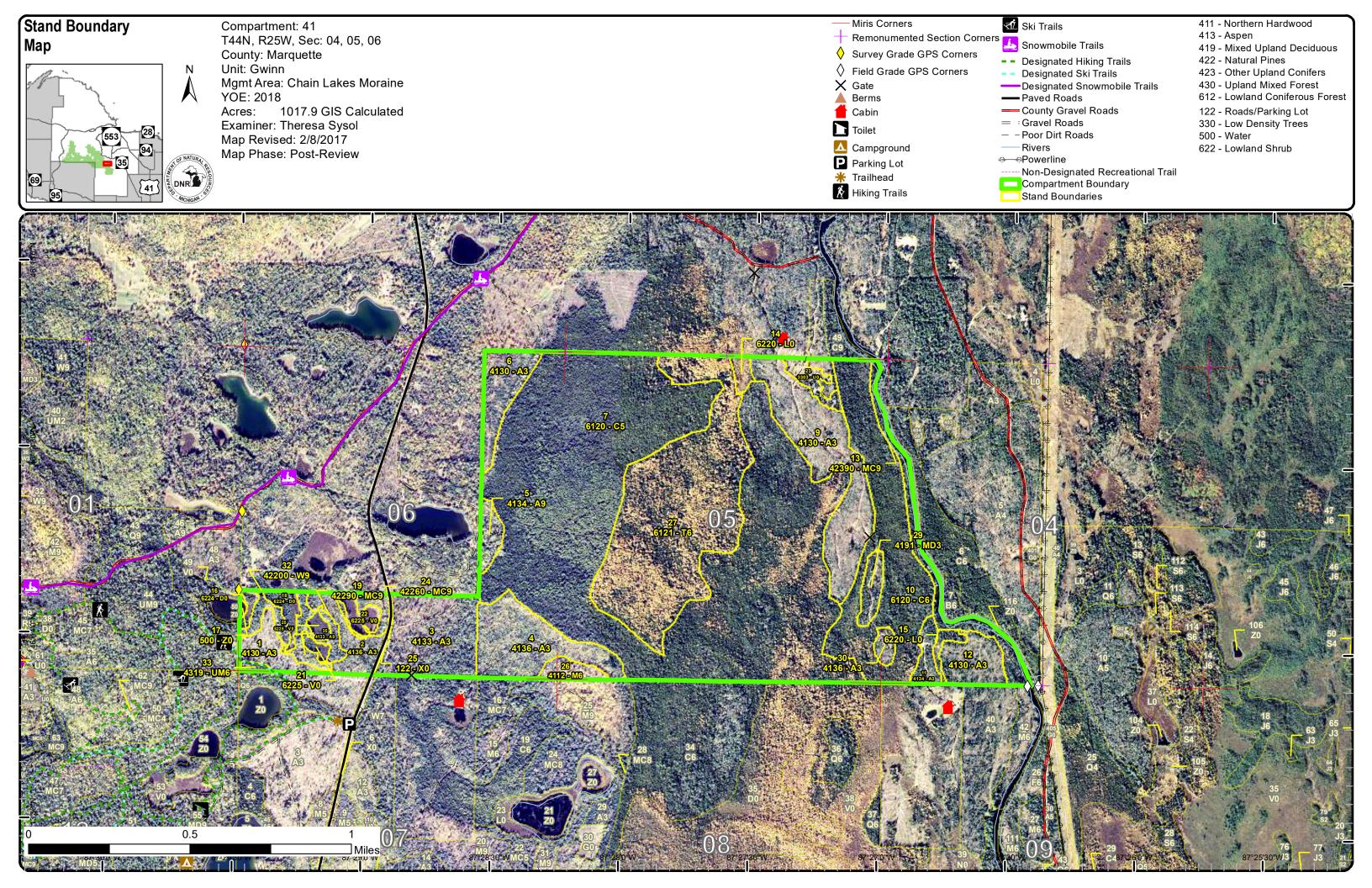
The following reports from the Inventory are attached:

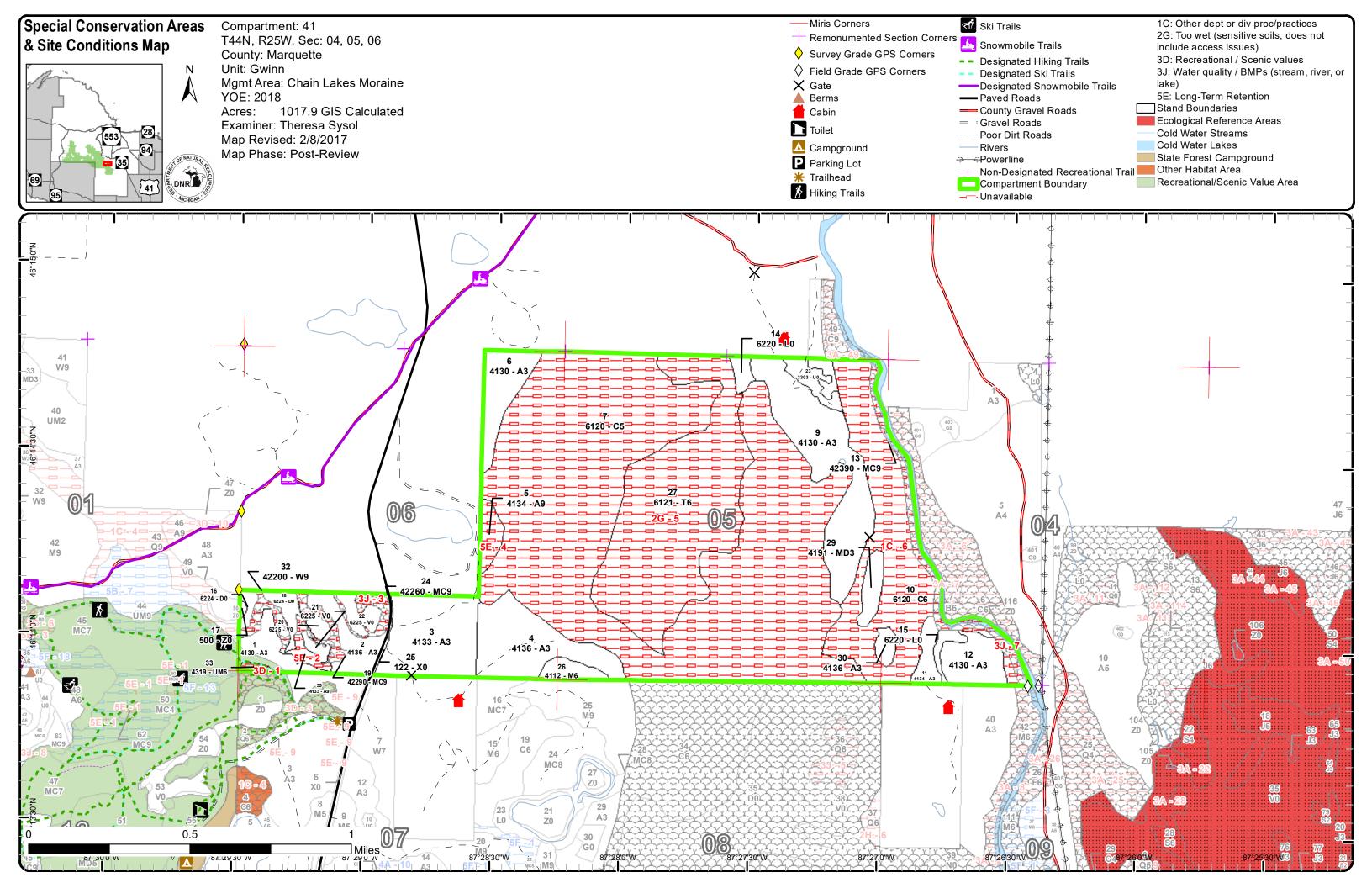
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Gwinn Mgt. Unit

Compartment 41 Year of Entry 2018



Theresa Sysol : Examiner

Age Class

	Aor Aor	LA STATE OF THE PROPERTY OF TH	3 / 5		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/ §3 / §	15 15 15 15 15 15 15 15 15 15 15 15 15 1	/ % /&	/ \$ / K	/ \$ ³ /\$		\$ §	20 Z			05/2 / 15/2 PM		By Brog	N. A.
Aspen	0	58	50	124	0	0	0	0	0	4	0	8	0	0	0	0	0	0	244
Bog	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	439	93	0	532
Low-Density Trees	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Shrub	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Mixed Upland Deciduous	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
Tamarack	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	0	0	149
Treed Bog	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
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	6	6
Total	36	58	58	124	0	0	0	0	0	4	0	8	0	0	0	588	93	52	1021



Report 2 – Treatment Summary

Gwinn Mgt. Unit Year of Entry: 2018

Acres of Harvest

Compartment 41
Total Compartment Acres: 1,018

Commercial Harvest Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Compartment: s Year of Entry: t а **Treatment** Acres Stand Size Stand ВА **Treatment Treatment Cover Type** Age **Approval** n Density Age Method Objective Structure Status Name CoverType Range Type

Report 3 -- Treatments

#Type!

Site Condition: Habitat Cut:

Prescription Specs:

Next Step

Treatments: <u>Acceptable</u>

Regen: <u>Other</u> Comment:

Proposed Start Date:

Total Treatment Acreage Proposed:

0.0

Mgt. Unit

Compartment: 41

Gwinn Mgt. Unit

Theresa Sysol : Examiner Year of Entry: 2018

Availa	bility for	Managemer	nt									
Total	Acres	Acres Avail	Acres		Dominant Site Conditions							
Acres	Available	With Condition	Not Available		1C	2G	3D	3J	5E			
242	231	0	11	Aspen					11			
11	11	0	0	Bog								
532	0	0	532	Cedar	93	439						
7	7	0	0	Low-Density Trees								
7	7	0	0	Lowland Shrub								
8	8	0	0	Mixed Upland Deciduous								
13	0	0	13	Natural Mixed Pines				6	7			
7	7	0	0	Northern Hardwood								
149	0	0	149	Tamarack		149						
8	8	0	0	Treed Bog								
23	0	0	23	Upland Conifers				23				
2	0	0	2	Upland Mixed Forest			2					
2	2	0	0	Urban								
1	1	0	0	Water								
6	0	0	6	White Pine					6			
1,018	281		737	Total Forested Acres	93	588	2	29	24			
<u> </u>	28%		72%	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	3D: Recreational / Scenic values	2	Unspecified	Unspecified	Unspecified	Unspecified	
Comments: Visual/recreational values along Anderson Lake trail and Flacks Lake buffer.								
^	Unavailable	5E: Long-Term Retention	17	3D: Recreational /	3J: Water quality / BMPs (stream, river, or	Unspecified	Unspecified	
2				Scenic values	lake)			

Report 4 – Site Conditions

Gwinn Mgt. Unit

Theresa Sysol : Examiner

Unavailable 3J: Water qualit

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ed Unspecified	Unspecified	Unsp	6 3G: Other Influence zones - See comments		3J: Water quality / BMPs (stream, river, or lake)	Unavailable	3
					ng Co Rd 557.	Comments: Also visual zone ald	
ed Unspecified	Unspecified	Unsp	2B: Unknown if according through adjacent landowner(s) is poss	8	5E: Long-Term Retention	Unavailable	1
						Comments:	
Too small a stand for	ilding a road. Too sm	cross swamp	acent landowner. Acce	by adja	ground 9/7/16: access denied	Stand inspected on independent sale.	
t this stand. As it is now, low	od time to treat this st				Adjacent private landowner lent sale. Could possibly neg		
ed Unspecified	Unspecified	Unsp	Unspecified	588	2G: Too wet (sensitive soils, does not include access issues)	Unavailable	5
ng central tamarack stand (27).	ntially harvesting centra	onditions pers	for winter sale. If droug	e well fo		Comments: Carbondale-Tawas Deer wintering com	
ed Unspecified	Unspecified	Unsp	3J: Water quality BMPs (stream, river lake)	93	1C: Other dept or div proc/practices	Unavailable	6
			er.	ba Rive	drainages feeding into Escana	Comments: Numerous wetland	
ed Unspecified	Unspecified	3D: Recr Scenic	3A: Potential old gro / biodiversity	24	3J: Water quality / BMPs (stream, river, or lake)	Unavailable	7
					along the Feedback Pines	Comments:	
ifie	Unspec		3A: Potential old gro		3J: Water quality / BMPs	Numerous wetland Unavailable Comments:	7

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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
Comments				

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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.

Conservati Area	ion Type	Description ERA = Ecological Reference Are HCVA = High Conservation Valu SCA = Special Conservation Are						
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen constocked trout populations and those of other coldwater fish conditions for coldwater fishes may occur in Michigan lakes groundwater inflows, or are located in colder (northern) are Director's action and designated as trout resources by Fish	species to persist from year to year. Suitable s if they are relatively deep, have substantial as of the state. Such lakes are established by					
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen stocked trout populations and those of other coldwater fish year to year. Coldwater streams in Michigan typically provide contributions of groundwater to their stream flows. Such streaming designated as trout resources by Fisheries Order 210.	species (e.g., slimy sculpin) to persist from de these conditions due to substantial					

S t	Gwinr	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 41 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Sapling Well	13.2	4	Immature	"Anderson Lake Aspen" sale #001-13 (unit 1A) - cut summer, 2013. Red and white pine, paper birch left for diversity. A few residual fir, spruce present also.
2	4136 - Aspen, Mixed Conifer	Sapling Well	14.7	28	Immature	2015: "Co Rd 557 Block" #016-88 - harvested spring 1989. Left residual maple, pine, birch and oak within stand and along R.O.W. Ground cover of bracken fern, wintergreen, club moss noted. Lots of small oak seedlings. 2006: A3 is 1-3" dbh., 15-30 Ft tall. There are a few scattered pine and maple poles left in the stand.
3	4133 - Aspen, Mixed Pine	Sapling Well	44.9	5	51-80	2012 - Stand treated in fall of 2011 under contract# 006-08-01 "Bilsky Lake Aspen" by Minerick. Nice job protecting residual pine stems. 2015: Good quantity of oak seedlings in the understory. Some pine regeneration noted; RP mainly where soil was disturbed by truck turnarounds/skids. Seedlings average 1 foot in height. Within areas thicker to residual pine, quaking aspen is predominate; bigtooth aspen heavier within NW portion of stand with oak. Average residual pine BA around 40-60 - higher in S/SE portions.
4	4136 - Aspen, Mixed Conifer	Sapling Well	42.9	28	Immature	2015: Fringe of mature timber left along stand 3,4 boundary, including pine and quaking aspen (12-14" dbh). Aspen sapling regeneration now 2 - 4" dbh. Ground cover of bracken fern, wintergreen noted. OPIC - FMD: CUT PERMIT NO. 38-88-01 "Bilsky Lake Block' - cut fall, 1988 and fall, 1989. A3 is 1-3" dbh, 10-25 ft. tall.
5	4134 - Aspen, Spruce/Fir	Sawtimber Well	7.6	105	51-80	2015: Heavy blowdown and dead aspen, fir - may be too late to salvage. Stand converting to fir, maple. Some low areas and transition edge with cedar, spruce/fir. Adjacent private land has been harvested within the last year. Would need private landowner access - a road system is currently in place (some of it built across State land). OPIC - FMD: A5M4, Birch dying, big aspen in poor shape, will let this stand succeed to Northern Hardwood type. This stand will not be cut because it is near private residential land with steep access.
6	4130 - Aspen	Sapling Well	20.3	18	Immature	OPIC - FMD 2005: CUT UNDER PERMIT #05-98-01 "Bilsky Lake Block", A3 is 1/2 to 11/2 " dbh. 10-20 ft tall. Cut in 1999. 2015: Steep sidehill to swamp left with birch, aspen, white spruce, cedar and fir. Main stand with heavy fir understory; residual oak with some regeneration noted. Aspen now 20-30' hts. Ground cover of club moss, wintergreen and bracken fern.
7	6120 - Lowland Cedar	Poletimber Medium	439.1	147	81-110	 2015: Good patches of cedar regeneration started within open areas around multiple cedar patches. Heavy sphagnum ground cover; also bunchberry, thistle, lab tea, snowberry present. Perched root system with lots of water underneath. More tamarack on east side, with upland edges a mix of spruce and tamarack. Ash pockets present. 2016: Variable stocking and canopy cover, especially on east end. Patches of open canopy and good cedar regeneration.
9	4130 - Aspen	Sapling Well	65.7	27	Immature	OPIC - FMD: CUT PERMIT 44-88-01 "Kirby Estate Block" - cut summer, 1989. A3 is now 1-3" dbh, 10-25 ft tall. 2015: Edges with smaller diameter timber and some sparse areas. A few conifer inclusion areas.

S	Gwinr	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 41 Year of Entry: 2018
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	6120 - Lowland Cedar	Poletimber Well	93.0	204	111-140	Some uprooting of cedar occurring; natural intermittent drainages within, feeding towards river. Older paper birch found is dead/dying. No cedar regeneration found within thicker BA's (180+); some elsewhere with lower BA's. Ground cover noted: grasses, thistle, lab tea, royal fern, sphagnum.
11	4134 - Aspen, Spruce/Fir	Sapling Well	7.6	18	Immature	OPIC - FMD: Cut prmt. #06-98-01 (unit 2) "Swinging Bridge Block" sale - cut fall, 1999. F2 is now 1/2-4 inches dbh, 5-15 ft. tall. A2 is now 1/2 to 2 inches dbh, 5-20 feet tall. A few larger pine were left in stand. 2015: Aspen now ~28' hts. Some hypoxylon noted on stems. Trace amounts of cedar, spruce.
12	4130 - Aspen	Sapling Well	17.8	18	Immature	OPIC - FMD: Cut prmt.#06-98-01 "Swinging Bridge Block" (unit 1) - cut fall, 1999. A3 is now 1-2 inches dbh., 5-15 ft. tall. A few pine left in the stand. 2015: Some budworm noted in fir; larger fir mainly in clumps/pockets within stand. Ground cover of bracken fern, raspberry, thimbleberry (mainly in old skid trails).
13	42390 - Mixed Non- Pine Upland Conifers	Sawtimber Well	23.5	100	81-110	OPIC - FMD: SCA, water infuence zone, along the Escanaba river. 2015: Legacy trees along river's edge. Some girdling noted on hemlock. Ground cover: bracken fern, hazel (trace) (south end).
19	42290 - Natural Mixed Pine	Sawtimber Well	7.0	97	81-110	Nominated as SCA last entry. 2015: Small stand of mixed pine between treed bogs. A few oak noted. Some old pine within. Regeneration in various stages. Visually appealing stand with limited harvesting access due to surrounding bogs. Retain SCA nomination.
24	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	5.7	97	81-110	Previously nominated as SCA for visual and travel. 2015: Good oak seedling ground cover. Old, charred white pine stumps within; dead paper birch. Good visual stand along Co Rd.
26	4112 - Maple, Beech, Cherry Association	Poletimber Well	6.9	97	81-110	OPIC - FMD: THINNED W, 1997 AS PART OF SALE IN COMPT 42. SALE NO. 20-93-01 "Greenier Lake Block". Some conifers retained.
27	6121 - Tamarack	Poletimber Well	149.3	147	141-170	Tamarack 4-6 sticks, decent quality poles. Carbondale-Tawas muck. Operable in drought conditions or with specialized harvesting equipment. Patches of tag alder, especially on north end. Sphagnum, bunchberry, red maple, hazel, balsam fir understory.
29	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	7.8	17	Immature	OPIC - FMD: Cut prmt# 6-98-01 " Swinging Bridge Block" (unit 3) - cut fall, 1999. A3 is now 1-2 inches dbh, 10-15 ft tall, some F2, and some birch and black cherry saplings mixed in with the A3. Also a few pole sized cedar trees, and some log sized white pine. 2015: Heavier white pine regeneration, and also good cedar regeneration noted, in places. Residual paper birch, jack pine.
30	4136 - Aspen, Mixed Conifer	Sapling Well	4.1	17	Immature	OPIC - FMD: Cut prmt.# 06-98-01 "Swinging Bridge Block" (unit 3) - cut fall, 1999. A3 is now 1-2 inches dbh, 5-15 ft. tall. Some F2, M2, a few cedar poles, and a few white pine log trees left in the stand. 2015: Aspen now 2 - 6" dbh. Transition edges contain cedar. Club moss ground cover.

S t	Gwinr	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 41 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	42200 - Natural White Pine	Sawtimber Well	5.8	97	81-110	OPIC - FMD: SCA Leave stand as is. Same as std. 24. Many large red and white pines. Maintain in natural condition as unique example of dry mesic forest. Promote biological legacies such a s snags DWD, and intact nutrient cycles. 2015: White pine is limby; weeviled. Larger red pine is in decline, due to age. Mainly heavy fir understory. Visual and buffer stand against bogs. Leave SCA designation.
33	4319 - Mixed Upland Forest	Poletimber Well	1.6	97	81-110	Stand left as a visual buffer to Flacks Lake interpretative trail and Anderson Lake X-C ski trail. Wind event in July, 2015 took down many trees (mainly large aspen).
35	4133 - Aspen, Mixed Pine	Sawtimber Well	3.9	80	51-80	Stand created as buffer, leaving a strip of mature timber along the bog type. (Part of old stand 1.) Dead balsam fir, blowdown within. Aspen and paper birch dying out, will be replaced by maple, pine. Trace amount of hemlock, white spruce. Ground cover noted: bracken fern, wintergreen, bunchberry.

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Stand	Cover Type	Acres	Managed Site	General Comments:
14	6220 - Alder/willow	3.7	No	Tagalder lowland with a few scattered trees.
15	6220 - Alder/willow	3.3	No	Lowland/tagalder crossing between aspen stands. Some iris noted.
16	6224 - Treed Bog	2.6	No	Bog with some scattered timber (white pine, tamarack). Bog laurel within; tagalder around perimeters.
17	500 - Water	0.6	No	part of Beltrame Lake
18	6224 - Treed Bog	5.5	No	Lots of white pine seedlings (5 - 20' hts), some tamarack filling in bog. A few XL white pine. Leatherleaf, bog laurel ground cover; tagalder perimeter.
20	6225 - Bog	2.7	No	Tagalder on perimeter. Bog laurel and leatherleaf ground cover.
21	6225 - Bog	2.5	No	Tagalder edges, with leatherleaf, bog laurel, bog rosemary.
22	6225 - Bog	6.2	No	Bog laurel, grasses.
23	3303 - Mixed Low Density Trees	7.2	No	OPIC - FMD: CUT PERMIT 44-88-01 "Kirby Estate Block" - cut summer, 1989. A3 is now 1-3" dbh, 10-25 ft tall. 2015: Opening created as part of timber sale. Could almost be classified as forested. North end heavier to grasses, cherry, some fir and white pine while southern end contains more mixed conifers (spruce/fir and jack pine). Ground cover of strawberry, raspberry, grasses throughout.
25	122 - Road/Parking Lot	1.5	No	Co Rd 557 and R.O.W.