

Revision Date: 8/20/2012

Stand Examiner: Ben Travis

Legal Description: T47N R23W, Sec. 11-14

RMU (if applicable): Sand River Lake Plain Management Area

Management Goals: Planning will focus on wildlife habitat management, timber management, and fisheries management. Public access, forest roads, forest regeneration, forest health, forest fire management, forest recreation, stream crossings, water quality and any resource damage are critical assessments considered during the forest mapping and inventory process. Overall management strives to provide for a diverse, healthy and productive forest through planning and implementation of sustainable, proper forest treatments.

Soil and Topography: Predominantly wet loams in the south grading to coarser sands to north. Sand dune ridges of moderate to steep slopes occur in north. The land is very level from center to south of compartment.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State land borders the compartment on the south edge. A large, private, commercial gravel pit lies adjacent to the southwest side of the compartment. Small private parcels are against the northwest, north, and northeast edges of the compartment. Another private, large, commercial gravel pit extends between Sand Lake and the compartment boundary to the northeast. Forest Land Group property is adjacent to the southeast edge of the compartment. The Alger county line lies against the east edge of the compartment. Most dwellings are year-around residences.

Unique, Natural Features: Osprey and old eagle nest record to the west in section 11. Sand River harbors potential for wood turtle. This compartment contains the James Jeske Sand River Flooding (artificial) and marsh. Potential for marsh birds: american bittern, osprey, yellow rail and black tern.

Archeological, Historical, and Cultural Features: There is a HAL database record for an archeological site within compartment.

Special Management Designations or Considerations: A special conservation area for wildlife management is designated around the perimeter of the former flooding.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: Featured species include American marten, blackburnian warbler, and red-shouldered hawk.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustine (lake) sand and gravel and thin to discontinuous glacial till over bedrock, probably part of an end

moraine of coarse-textured till. The glacial drift thickness varies between 10 and 50 feet. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was previously used as a building stone. A gravel pit is located in Section 14, and potential appears to be good in the southern part of the compartment. This compartment has never been leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access: Mangum road, Sand River Road and the snowmobile trail provide the main access routes to the compartment. DNR forest roads are fairly limited, and access to the west side of the compartment is restricted by private property and saturated, unstable soils. The Jeske Flooding parking area is serviced by a public easement across private land to the west of Sand River Road.

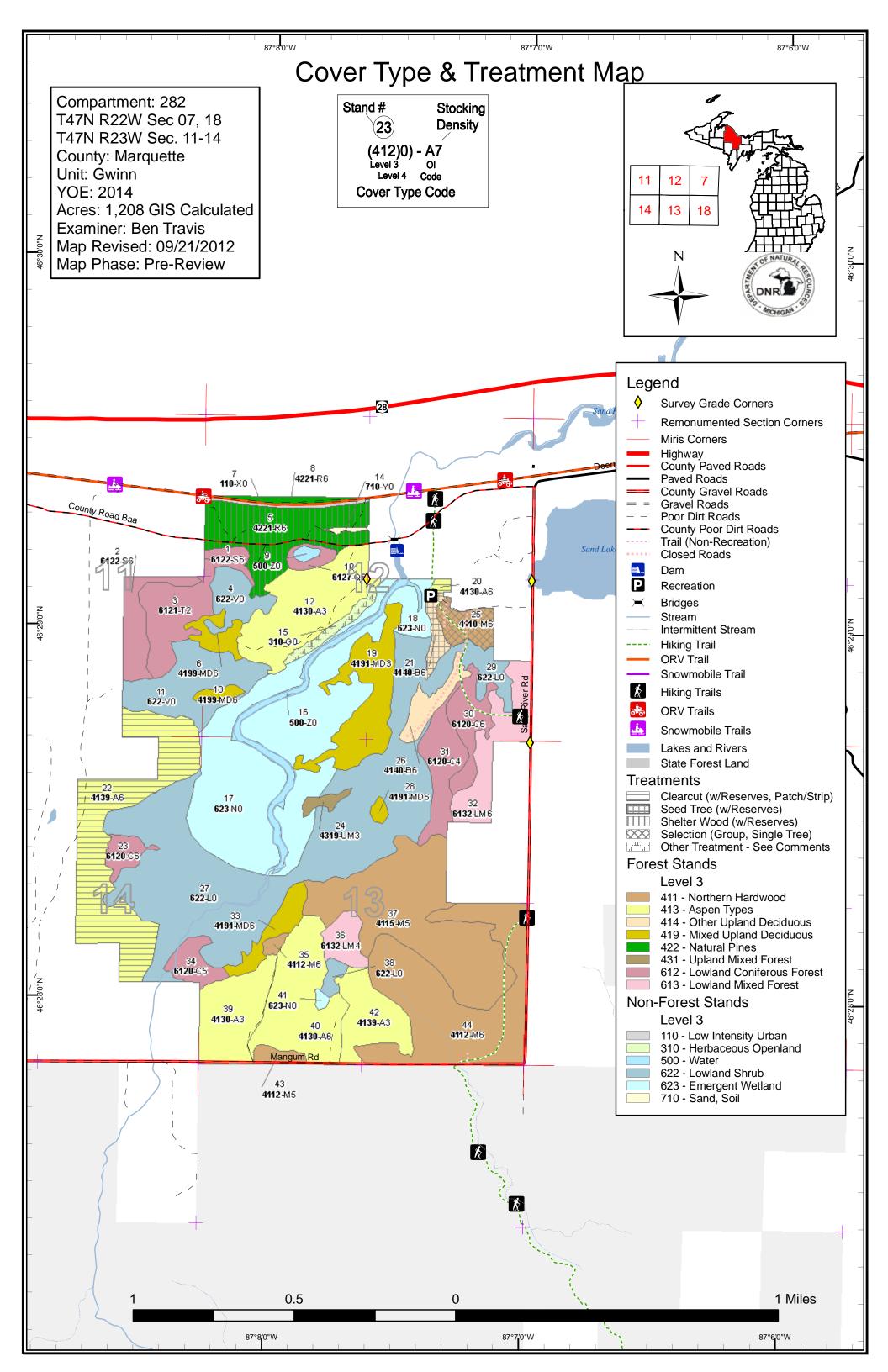
Survey Needs: At least two new survey monuments are needed.

Recreational Facilities and Opportunities: A designated snowmobile trail passes through the compartment to the north. The North Country Trail meanders through the north and east portions of the compartment. A parking lot and boat ramp for the Jeske Flooding are located in Section 12. Hunting, fishing, snowmobile riding, birdwatching, berry picking and hiking are important uses of this area.

Fire Protection: No special considerations.

Additional Compartment Information:

- > 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

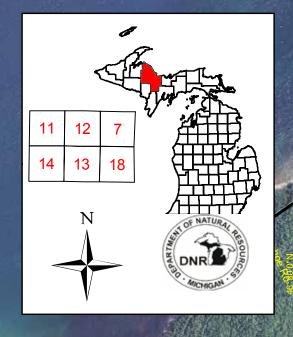


87°9'0"W

Stand Boundary Map

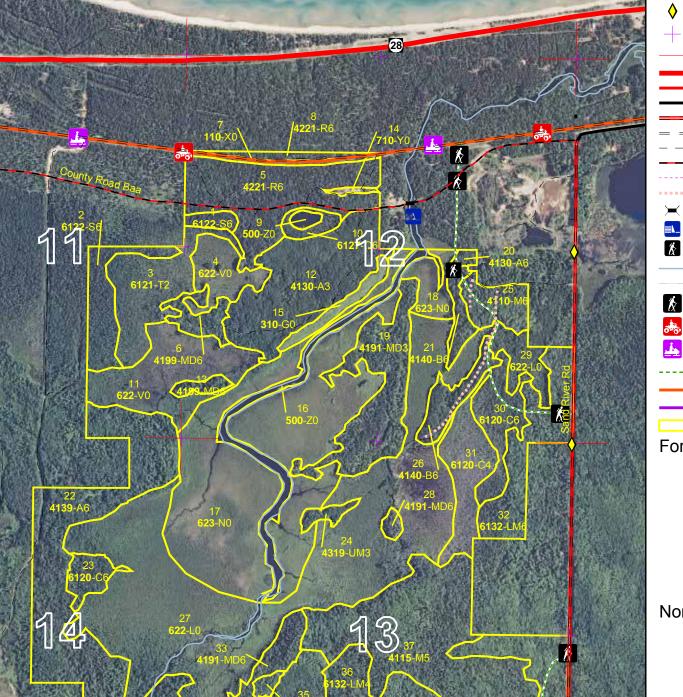
Compartment: 282 T47N R22W Sec 07, 18 T47N R23W Sec. 11-14 **County: Marquette** Unit: Gwinn YOE: 2014 Acres: 1,208 GIS Calculated Examiner: Ben Travis Map Revised: 07/11/2012 Map Phase: Pre-Review

Stand # Stocking Density (23) (412)0) - A7 Level 3 0 Level 4 Code **Cover Type Code**



87°6'0"W

Legend



Remonumented Section Corners Miris Corners Highway County Paved Roads Paved Roads County Gravel Roads Gravel Roads Poor Dirt Roads County Poor Dirt Roads Trail (Non-Recreation) Closed Roads Bridges Dam Recreation Stream Intermittent Stream **Hiking Trails ORV** Trails **Snowmobile Trails Hiking Trail ORV** Trail Snowmobile Trail

Survey Grade Corners

Stand Boundaries

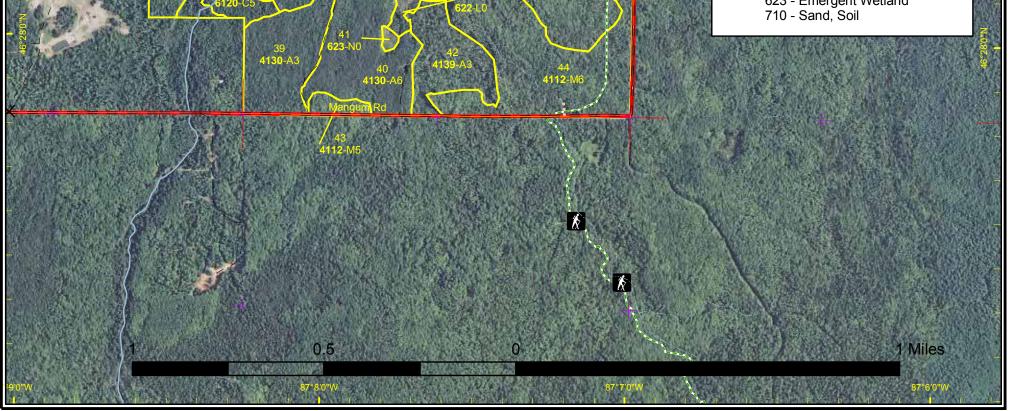
Forest Stands

Level 3

- 411 Northern Hardwood
- 413 Aspen Types
- 414 Other Upland Deciduous 419 Mixed Upland Deciduous
- 422 Natural Pines
- 431 Upland Mixed Forest 612 - Lowland Coniferous Forest
- 613 Lowland Mixed Forest

Non-Forest Stands

- Level 3
 - 110 Low Intensity Urban
 - 310 Herbaceous Openland
 - 500 Water
 - 622 Lowland Shrub
 - 623 Emergent Wetland



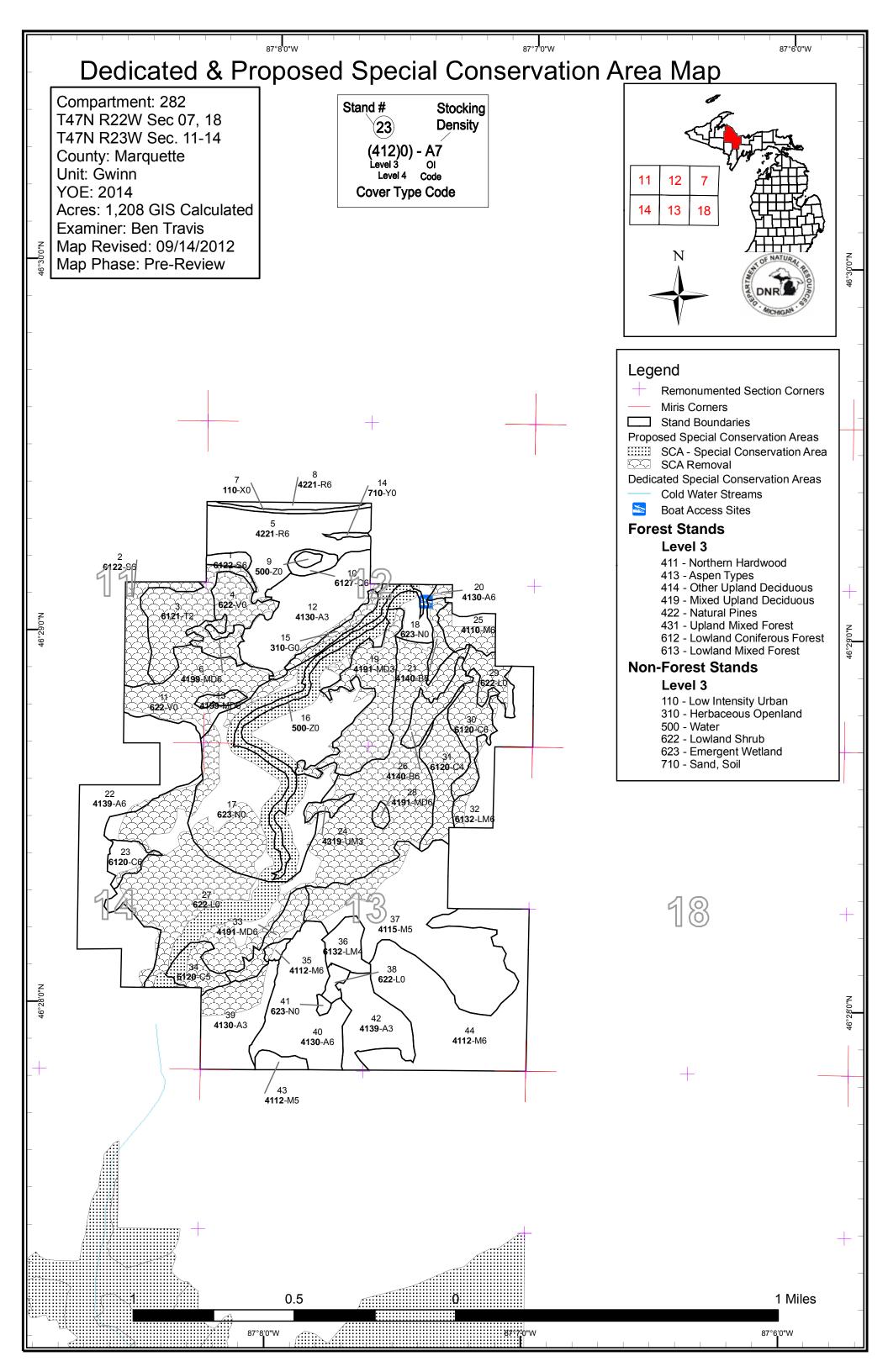


Table 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit

Ben Travis : Examiner

Compartment 282 Year of Entry 2014



		6.0	6 ^{.7} 9	D ²		10 ⁻⁰⁰	93 95 96	89 89	10	49 49 49		601.001	817.01'	NO JIN	AND	, ²⁰ ,
Aspen	27	34	104	0	0	80	0	0	0	0	0	0	0	0	245	Ì
Bog	54	0	0	0	0	0	0	0	0	0	0	0	0	0	54	l
Cedar	0	0	0	0	0	0	0	25	22	11	0	0	0	0	58	l
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7	l
_owland Conifers	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4	l
_owland Mixed Forest	0	0	0	0	11	30	0	0	0	0	0	0	0	0	41	l
₋owland Shrub	218	0	0	0	0	0	0	0	0	0	0	0	0	0	218	l
_owland Spruce/Fir	0	0	0	0	3	0	17	0	0	0	0	0	0	0	20	l
Marsh	157	0	0	0	0	0	0	0	0	0	0	0	0	0	157	l
Mixed Upland Deciduous	0	0	39	0	12	2	0	8	3	0	0	0	0	0	65	l
Northern Hardwood	0	0	0	0	0	96	2	111	0	0	0	0	0	0	209	l
Paper Birch	0	0	0	0	0	11	0	0	7	0	0	0	0	0	17	l
Red Pine	0	0	0	0	5	50	0	0	0	0	0	0	0	0	55	ł
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	ł
lamarack	0	0	30	0	0	0	0	0	0	0	0	0	0	0	30	l
Jpland Mixed Forest	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	l
Jrban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	ł
Nater	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	l
Total	488	37	173	0	36	268	19	145	32	11	0	0	0	0	1208	



Table 2 – Proposed Treatment Summaries

MICHIGAN .	Gwinn Mgt. Unit Year of Entry 2014										Compartment Total Compartment Acres:	
				Acre	s by T	reatm	ent Ty	ре				
	Commercial Harvest - 148	Site Prep - 0		Т	ree Pl	lanting	- 0		Preso	cribed Burn - 0	Other - 0	
	Habitat Cut - 0	Opening Mair	ntenance - 7	7 Т	ree Se	eeding	- 0		Pesti	cide - 0		
				Cov	ver Typ	pe by H	larves	t Meth	od			
				in the second second	Colored and Colored	000/1000 35.	and a standard	in or	C. Secrit	ACC STORES		
	Aspen		80	0	0	0	0	0	80	[
	Northe	rn Hardwood	0	12	0	0	0	0	12			
	Paper B	Birch	0	0	7	0	0	0	7			
	Red Pir	ne	0	0	0	50	0	0	50			
		Tota	80	12	7	50	0	0	148			

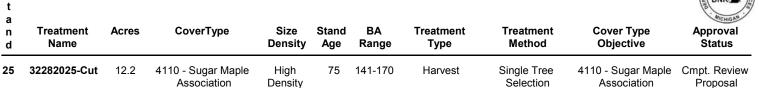
S t			Gw	vinn Mgt. Unit	Tab			ents Prescrib iting Factor	ed	Compartment: 282 Year of Entry 2014	DR NATURAL PROUNCE
a n d		itment ame	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	32282	:005-Cut	49.9	42210 - Natural Red Pine	High Density Pole	50	111-140	Harvest	Shelterwood	42210 - Natural Red Pine	Cmpt. Review Proposal
Preso Spece		Ben Tr	avis : 08/20	0/2012 comments: It w	as determi	ned at pi	re-review to	o leave some large	e bigtooth aspen	if present.	
<u>opec.</u>	<u>.</u>	well-stoo white bir	ked advan ch, aspen a	ce pine regeneration.	Areas of de All oak will	enser ree be retai	d pine pole ned. White	timber may be ma pine may be mar	arked to a higher ked for removal,	d with seed tree areas to residual stocking. Some but will be favored if pos e.	e scattered
<u>Other</u> Comr	nents:	Ben Tr	avis : 08/20	0/2012 comments: It w	as determii	ned at pi	re-review to	o not allow chippin	ng due to wildlife f	eature species concern	S.
00111	<u>nonto.</u>			luring the snow-free pe the logging operation		id poten	tial conflict	ts with snowmobile	e trail. Special co	ncern will be given for th	ne advance pine
<u>Next</u> <u>Steps</u>	<u>):</u>		p treatmen ptable regr		survey as pr	ovided f	or in "Worl	k Instruction 2.1 R	eforestation". Re	d pine, white pine, jack	pine and aspen
Propos Start D		10/01/20	13								
21	32282	021-Cut	6.6	4140 - Other Upland Deciduous	High Density Pole	82	111-140	Harvest	Seed Tree with Reserves	4137 - Aspen, Birch	Cmpt. Review Proposal
-	•	Ben Tr	avis : 08/20)/2012 comments: A d	ecision was	s reache	d at the pro	e-review to retain	some large bigtod	oth aspen.	
<u>Spec</u> :	<u>s.</u>	and map	ole. Leave a or other att	any white pine, cedar,	hemlock, ye	ellow bir	ch or oak if	f present. Retain s	some smali clump	Leave some scattered or s of aspen and those s area. Provide for scatt	tems with
<u>Other</u>	nents:	Ben Tr	avis : 08/20	0/2012 comments: A d	ecision was	s reache	d at the pro	e-review to not allo	ow chipping due t	o wildlife feature specie	s concerns.
<u>com</u>	nents.									nservation Area which p d possible conflicts with	
<u>Next</u> Steps	<u>s:</u>			t with a regeneration s fir, spruce and oak are					eforestation". As	oen, maple, white birch,	yellow birch,
Propos Start E		10/01/20	13								
22	32282	022-Cut	78.0	4139 - Aspen, Mixed Deciduous	High Density Pole	57	81-110	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
Preso Spece	•			ving some small retent all white pine. Retain						d white birch into the ret	ention patches
<u>Other</u> Comr	<u>.</u> nents:	Permiss	ion to use p	private roads to access	s sale need	s to be s	secured.				
<u>Next</u> <u>Steps</u>	<u>s:</u>			t with a regeneration s lered acceptable rege		rovided f	or in "Worl	k Instruction 2.1 R	eforestation". As	oen, white birch, maple,	fir, spruce, oak
Propo	boa										

Proposed Start Date: 10/01/2013 Gwinn Mgt. Unit

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Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 282 Year of Entry 2014



		Association	Pole		Selection	ASSociation	Fioposai				
Prescription Specs:	stocking. Leave spru	uce unless needed for	t to promote an all-aged s logging equipment operal tt. Provide for cavity deve	pility. Favor retaining b	basswood and black						
<u>Other</u> Comments:	Ben Travis : 08/20/	2012 comments: A de	cision was reached at the	e pre-review to not allo	w chipping due to w	ildlife feature specie	es concerns.				
<u>commento.</u>	Stand is currently considered as potential old-growth. It is recommended that this designation be removed. Special consideration will be given to protecting the North Country Trail. The harvest will occur during the winter to avoid potential conflicts with recreational users.										
<u>Next</u> <u>Steps:</u>											
Proposed Start Date:	10/01/2013										
_	2282015- 6.8 nFor	3105 - Mixed Upland Herbaceous		Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal				
Prescription Specs:			ening will be scheduled fo gs, required yearly mainte								
<u>Other</u> <u>Comments:</u>	Possible location for	a cooperative project	with hunters or sportsme	n groups.							
<u>Next</u> <u>Steps:</u>											
Proposed Start Date:	10/01/2013										
	Treatment Proposed: 153.	4									

S t		Gwinr	n Mgt. Unit	Table 4	Tre a L	Compartment: 282 Year of Entry 2014	DR NATURAL			
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error							
Presc Spece	ription <u>s:</u>									
<u>Other</u> Comr										
<u>Next</u> Steps	<u>:</u>									
<u>Propos</u> Start D										
	ng Factor and N ment Reason	<u>0</u>								
Ac	Total Treatme creage Propose	-								

OF NATURA

Out of YOE -- Treatments Prescribed with No Limiting Factor

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
Prescription Specs:									
<u>Other</u> <u>Comments:</u>									
<u>Next</u> <u>Steps:</u>									
Proposed Start Date: #Error									

Total Treatment Acreage Proposed:

0

S t	Gwinr	Gwinn Mgt. Unit			prested Sta	rinds Compartment: 282 Year of Entry: 2014
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6122 - Black Spruce	High Density Pole	3.5	40	111-140	healthy black spruce canopy.
2	6122 - Black Spruce	High Density Pole	16.9	65		
3	6121 - Tamarack	Medium Density	29.8	25		Site is too poorly drained to be productive.
5	42210 - Natural Red Pine	High Density Pole	49.9	50	111-140	Heavy huckleberry cover.
6	4199 - Other Mixed Upland Deciduous	High Density Pole	8.4	78	81-110	Overall, site is upland, though some low areas with tag alder. Very thick understory. Very mixed composition to overstory. Black spruce, cedar and white pine poles present. White pine saplings found.
8	42210 - Natural Red Pine	High Density Pole	4.8	42		
10	6127 - Lowland Pine	High Density Pole	4.2	45		Stand encircles small pond. Scenic. Jack pine poles are present. Tamarack, white birch and trembling aspen saplings found.
12	4130 - Aspen	High Density Sapling	52.8	24	1-50	1/3 to 1/2 of aspen stems per plot are sub-merchantable size. Sugar maple saplings show up towards north end of stand.
13	4199 - Other Mixed Upland Deciduous	High Density Pole	3.2	85	81-110	"Island" surrounded by non-forested lowlands. Scattered red and white pine in overstory.
19	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	38.8	29		"Island" surrounded by non-forested lowlands. Very densely stocked. Overstory ranges from 24 to 30 feet tall. Stand will type out as a F6 next entry. White pine, red pine and black cherry saplings present.
20	4130 - Aspen	High Density Pole	1.7	55	51-80	Boat launch and parking area for Sand River Flooding. James Jeske memorial boulder at trailhead. Aspen snags. White pine poles found.
21	4140 - Other Upland Deciduous	High Density Pole	6.6	82	111-140	White birch is in decline/overmature. with top die-back and snags. White birch are smaller diameter to southeast. Black cherry poles found.
22	4139 - Aspen, Mixed Deciduous	High Density Pole	78.0	57	81-110	Pockets of elevated aspen mortality. Aspen is overmature. Aspen range from 3 to 4 sticks tall. White pine, sugar maple and black cherry poles present. White birch, white spruce, white pine, sugar maple, black cherry and beech saplings found.
23	6120 - Lowland Cedar	High Density Pole	7.7	75		Fringe of C3 extending out into lowland to east, White birch and white pine saplings found. White birch, red maple and white pine poles present.
24	4319 - Mixed Upland Forest	High Density Sapling	3.4	15		"Island" within wetland. Very thick stocking.

S t	Gwinr	Gwinn Mgt. Unit			prested Sta	rnds Compartment: 282 Year of Entry: 2014
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4110 - Sugar Maple Association	High Density Pole	12.2	75	141-170	Aspen is large diameter and overmature. Nice sugar maple sawlogs. White spruce, ironwood and basswood are infrequent overstory associates.
26	4140 - Other Upland Deciduous	High Density Pole	10.8	54	81-110	Overall, white birch are healthy. Nice form to white birch. Average diameter of white birch declines to north. Small patches of F2 in understory to north. Small wetland inclusion of tamarack poles. White spruce and cedar poles present. White spruce, sugar maple and black cherry saplings found.
28	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	2.0	57		"Island' in lowland.
30	6120 - Lowland Cedar	High Density Pole	17.5	71	51-80	Sparse crowns on many cedar. Cedar healthier to north. Poor form to cedar boles.
31	6120 - Lowland Cedar	Low Density Pole	22.1	85		Flooded stand. Around 60% of the cedar is dead. The live cedar have very sparse crowns.
32	6132 - Mixed Lowland Forest with Cedar	High Density Pole	29.8	57	141-170	Stand is roughly 50% upland, 50% lowland. Patches of Canada yew. Groves of hemlock and cedar with mix of red maple, yellow birch and fir in-between. Hemlock crowns very healthy. Nice patches of cedar and hemlock saplings. Cedar well-represented in all forest strata. Black spruce poles present.
33	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	12.1	40	51-80	1 to 3 stick fir. Cedar poles present. Yellow birch saplings found.
34	6120 - Lowland Cedar	Medium Density Pole	10.8	92	200+	Healthy, full cedar crowns. Most cedar trunks have sweep. Pockets of nice cedar regeneration. White birch poles found. Pocket of black ash poletimber to northeast.
35	4112 - Maple, Beech, Cherry Association	High Density Pole	2.1	60	81-110	Cedar, hemlock, black cherry and white birch are infrequent overstory associates.
36	6132 - Mixed Lowland Forest with Cedar	Low Density Pole	11.0	45		Very patchy timber, within E3. Yellow birch and white pine saplings found. 3 to 6 foot tall cedar regeneration present.
37	4115 - Y.Birch, Hemlock NH	Medium Density Pole	95.6	50		Very thick fir understory.
39	4130 - Aspen	High Density Sapling	33.9	15		Aspen range from 24 to 30 feet tall. Good stocking levels. Infrequent aspen and red maple poles. Tag alder and cedar saplings found to north. White birch and black cherry saplings present. Hemlock poles and sawtimber located.
40	4130 - Aspen	High Density Pole	51.2	25	51-80	1 stick aspen. High quality aspen stand. White spruce poles found. Black cherry spalings present.
42	4139 - Aspen, Mixed Deciduous	High Density Sapling	27.2	7		Aspen is around 24 feet tall. Overall stocking of regeneration adequate. White birch, hemlock and white spruce saplings present. Hemlock poles found. Mountain maple.

S t	Gwin	Gwinn Mgt. Unit				Inds Compartment: 282 Year of Entry: 2014
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4112 - Maple, Beech, Cherry Association	Medium Density Pole	4.8	70	51-80	Yellow birch and trembling aspen poles present. Also found hemlock sawtimber.
44	4112 - Maple, Beech, Cherry Association	High Density Pole	94.5	72	81-110	Nice white pine saplings, 3 to 6 feet tall. Scattered, small hemlock groves. Hemlock crowns vigorous. Scattered white ash sawtimber and poletimber along NCT to east. 24 inch diameter beech with no sign of BBD. Many 1/2 stick sugar maple "poles" to east. Striped maple. Very diverse species composition in all strata. Pockets of F3 understory.

Gwinn Mgt. Unit

6 – Nonforested Stands

Compartment: 282 Year of Entry: 2014



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	6225 - Bog	15.0	No	Unspecified	Leatherleaf. Widely spaced white pine, red pine and black spruce saplings.
7	11 - Low Intensity Urban	3.7	N\A	Unspecified	Former railroad grade. Snowmobile trail.
9	50 - Water	1.9	No	Unspecified	Bog pond.
11	6225 - Bog	39.1	No	Unspecified	Leatherleaf.
14	710 - Sand, Soil	1.1	No	Unspecified	Sand borrow pit. Widely scattered red pine and white pine sawtimber. ATV usage is high.
15	3105 - Mixed Upland Herbaceous	6.8	Yes	Unspecified	Scattered ninebark bushes. High quality forage - birdsfoot trefoil and timothy. Some black cherry saplings. Thimbleberry.
16	50 - Water	17.9	No	Unspecified	Sand River.
17	6233 - Wet Meadow	146.2	No	Unspecified	
18	6233 - Wet Meadow	10.0	No	Unspecified	
27	6220 - Alder/willow	203.7	No	Unspecified	Bog birch and meadowsweet found in patches. Patches of marsh grass. Nice cedar regeneration (10 feet tall) along west edge.
29	6220 - Alder/willow	10.6	No	Unspecified	Black ash saplings and widely spaced black spruce and red maple poletimber.
38	6220 - Alder/willow	3.6	No	Unspecified	Narrow stream. Sparse 6 to 8 inch dbh black ash.
41	6233 - Wet Meadow	1.3	No	Unspecified	Old beaver dam and small pond of water. Infrequent white birch, red maple, fir and balsam poplar saplings.



7 – 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.

Stand	SCA Туре	SCA Name	Acres	Comments
multiple - see	Unique Site - SCA	32282_SCA	84.5	RAU added SCA
multiple - see	SCA Removal	32282_SCA_Removal	487.2	RAU added SCA



8 – 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.

Conservation Area	Туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
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.	