

Compartment Review Presentation

Atlanta Forest Management Unit

Compartment 28
Entry Year 2016

Acreage: 2,029

County Montmorency

Management Area: Rattlesnake Hills

Revision Date: 10/28/2014

Stand Examiner: Chad Fate

Legal Description:

T30N-R01E, Sections 1-3, 11, & 12

Identified Planning Goals:

The main goal in this compartment is to conduct multiple resource management for the good of the citizens of the State of Michigan.

Soil and topography:

The compartment is predominately located on Sandy soils including Grayling, Graycalm, Millersburg and Roselawn types. The area consists of rolling hills and flats with some drainages to the East Branch of the Black River.

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

The compartment has numberous private property parcels mixed within and around the state land in several locations. Land use in the area is from Antrim gas production and recreational opportunities.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

The East Branch of the Black River runs through part of this compartment.

Wildlife Habitat Considerations:

The primary focus of wildlife habitat management will be to address the habitat requirements identified for the featured species which occur in this compartment. Featured species that occur within this compartment include elk, black bear, ruffed grouse, wild turkey, and white-tailed deer. Based on the selected featured species, some of the most significant wildlife management issues in the management area are the maintenance of young forest; extensive mature forest; large open grassland complexes; the retention of large, over-mature trees and snags; and the maintenance and expansion of hard mast and mesic conifer components.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift is the Devonian Antrim Shale. The Antrim is quarried for cement products elsewhere in the State. The nearest gravel pit is located four miles to the north, but potential is considered good. This area has been drilled and is producing gas from the Antrim Shale and additional drilling is possible.

Vehicle Access:

The East side of the compartment is accessed off of County Road 622 or Shingle Mill Road and has many two tracks that provide access to the entire area. The West side of the River is accessed off of Growler Club Road through a locked gate or from the north using several 2 tracks.

Survey Needs:

No survey needs at this time.

Recreational Facilities and Opportunities:

The compartment has a lot of recreational use including elk viewing, hunting opportunities and some camping and fishing

along the East Branch of the Black River.

Fire Protection:

Fire response to the east side of the compartment should be quite fast due to its location near Atlanta and easy access off of 622. The western portion of the compartment will have a slower response time due to the long drive to reach the area.

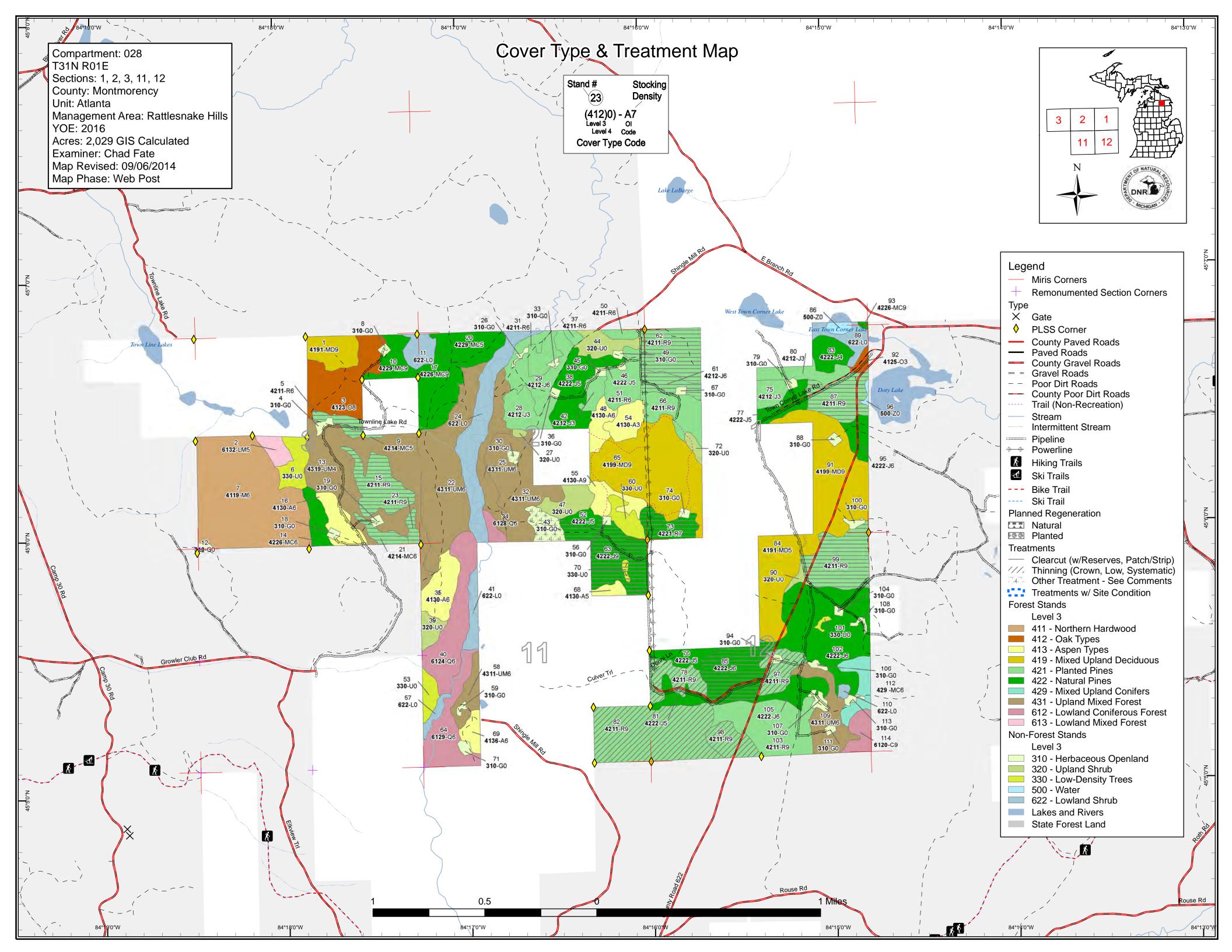
Additional Compartment Information:

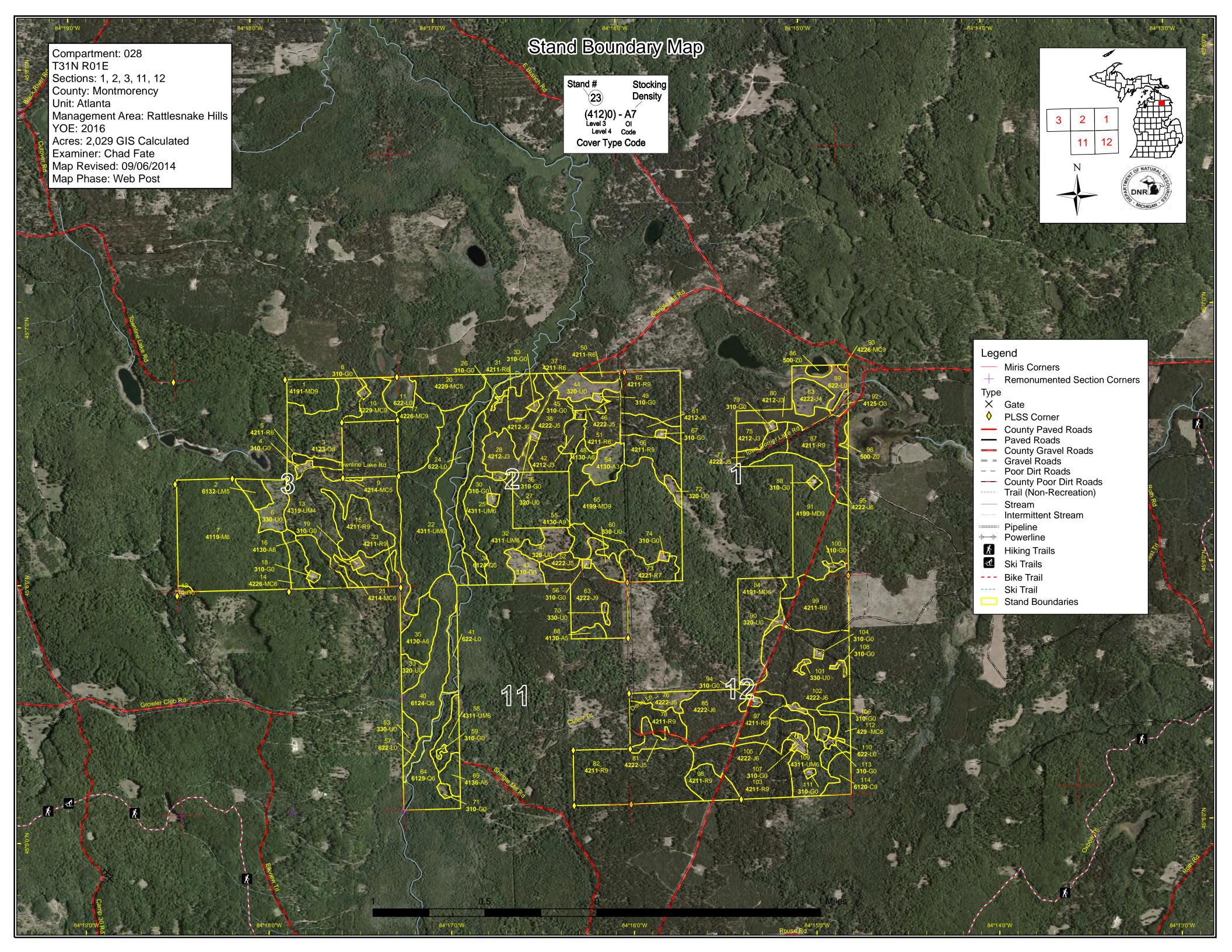
The following reports from the Inventory are attached:

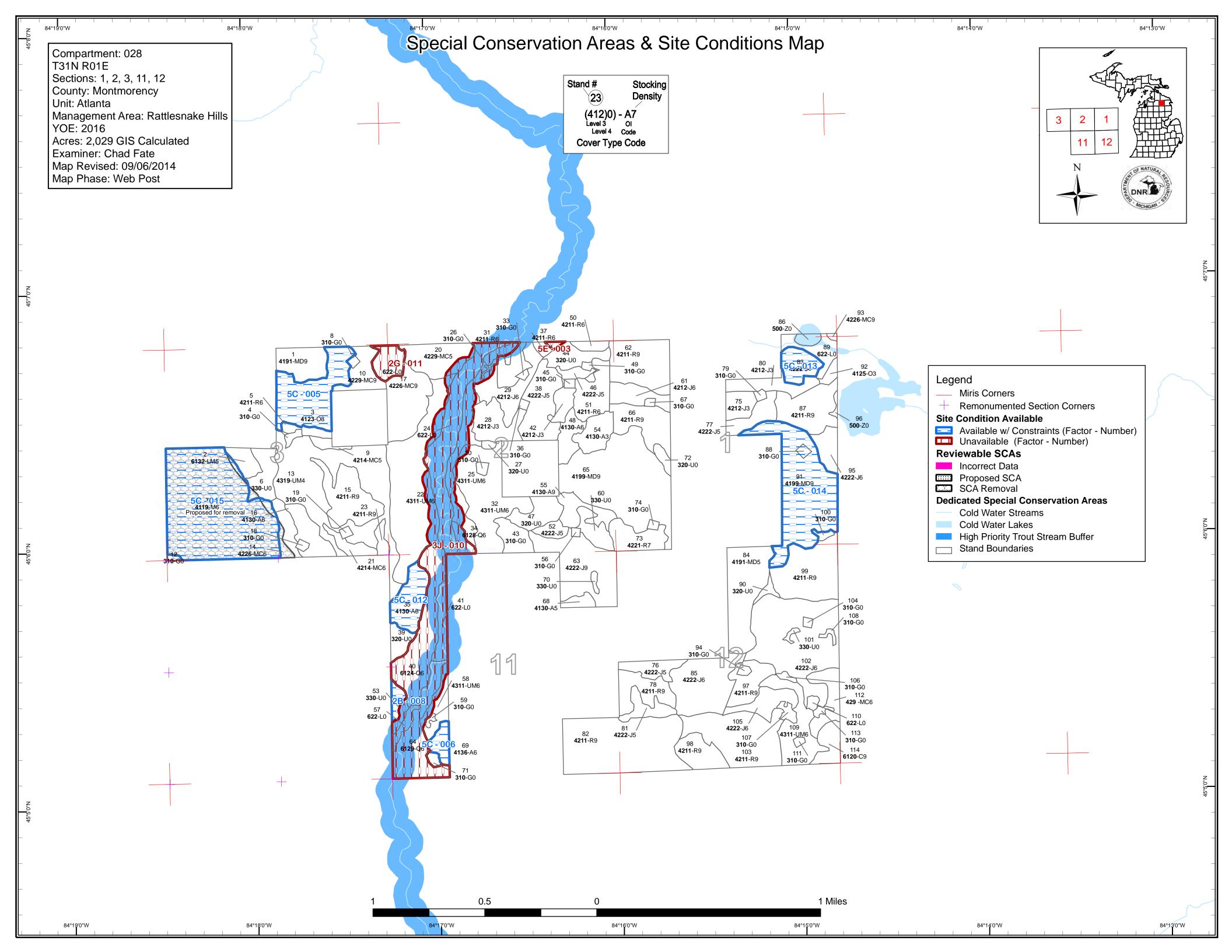
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Compartment 028 Year of Entry 2016

Atlanta Mgt. Unit
Chad Fate: Examiner



Age Class

						Age (J1433									
		80	0,0	25.50	/ %	DO AS	, go /	800	10°	80, 6	35%	00,00	,70,70 87.70	70° Jr.	No.	, so l
Aspen	14	0	0	16	51	8	0	0	0	0	0	0	0	0	89	(
Cedar	0	0	0	0	0	0	0	0	0	0	11	0	0	0	11	
Herbaceous Openland	48	0	0	0	0	0	0	0	0	0	0	0	0	0	48	
Jack Pine	0	28	46	40	190	47	13	14	0	0	0	0	0	0	377	
Low-Density Trees	36	0	0	0	0	0	0	0	0	0	0	0	0	0	36	
Lowland Conifers	0	0	0	0	0	0	0	79	5	0	0	0	0	0	84	
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	
Lowland Shrub	88	0	0	0	0	0	0	0	0	0	0	0	0	0	88	
Mixed Upland Deciduous	0	0	0	0	44	0	0	0	0	95	95	0	0	0	234	
Natural Mixed Pines	0	0	0	12	25	0	0	1	0	15	0	0	0	33	85	
Northern Hardwood	0	0	0	0	0	0	0	0	0	132	0	0	0	0	132	
Oak	3	0	0	0	0	0	0	0	0	46	0	0	0	0	49	
Planted Mixed Pines	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11	
Red Pine	0	0	0	0	5	110	61	240	0	0	0	0	0	0	416	
Upland Conifers	0	0	0	0	15	0	0	0	0	0	0	0	0	0	15	
Upland Mixed Forest	0	0	0	94	203	0	0	0	0	0	0	0	0	0	297	
Upland Shrub	44	0	0	0	0	0	0	0	0	0	0	0	0	0	44	
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Total	238	28	46	172	533	165	74	334	5	288	115	0	0	33	2029	



Report 2 – Proposed Treatment Summaries

Atlanta Mgt. Unit Year of Entry 2016

Compartment 028
Total Compartment Acres: 2,029

Acres by Treatment Type

Commercial Harvest - 415 Tree Planting - 190

Other - 0

Habitat Cut - 0 Opening Maintenance - 14

			Cov	er Ty	oe by F	larves	t Meth	nod	
		/ (C. C. C. C.	Signal of	LOS S	No do	in or		, keres
Low-Density Trees		1	0	0	0	0	0	1	
Natural Pines		105	0	0	0	0	0	105	
Planted Pines		173	0	0	0	135	0	308	
	Total	280	0	0	0	135	0	415	

Atlanta Mgt. Unit S

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 028 Year of Entry 2016

OEPAKTME	DNR MICHIGAN	1
`	MICHIGAN	

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	54028005-Cut	5.3	42110 - Planted Red Pine	High Density Pole	48	171-200	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Clearcut, cut all trees 2" DBH and Larger, chip tops, low stumps for replanting. No retention is necessary in this stand due to health risks (trees Specs: are tightly spaces and have very small live crowns making them susceptible to wind throw and bark beetles)

Other_ Comments:

Trench and plant red pine, use any site prep and/or follow up treatments necessary to ensure adequate regeneration. 1st and 3rd year regen

surveys following the planting. Steps:

<u>Proposed</u>

Next

Start Date: 10/01/2015

54028009-Cut 42141 - Planted Medium 35 51-80 Harvest Clearcut 4211 - Planted Red Cmpt. Review Mixed Pine, Mixed Density Pine Proposal Deciduous

Prescription Clearcut, cut all trees 2" DBH and Larger, chip tops, cut and chip all scotch pine regardless of size, low stumps for replanting. No retention due to small size and the need to remove all scotch pine. Specs:

<u>Other</u> Comments:

Next Trench and plant red pine, use any site prep and/or follow up treatments necessary to ensure adequate regeneration. 1st and 3rd year regen Steps:

surveys following the planting.

Proposed

10/01/2015 Start Date:

54028015-Cut 31.8 42110 - Planted 52 81-110 Harvest Clearcut with 4211 - Planted Red Cmpt. Review 15 High Red Pine **Density Log** Reserves Pine Proposal

Prescription Clearcut, cut all trees 2" DBH and Larger, chip tops, low stumps for replanting. Leave 3% retention in the northwest finger of the stand.

Specs:

<u>Other</u> Comments:

Trench and plant red pine, use any site prep and/or follow up treatments necessary to ensure adequate regeneration. 1st and 3rd year regen Next

surveys following the planting. Steps:

<u>Proposed</u>

10/01/2015 Start Date:

High 54028021-Cut 7.2 42141 - Planted 35 51-80 Harvest Clearcut 4211 - Planted Red Cmpt. Review Mixed Pine, Mixed Density Pine Proposal

> Deciduous Pole

Prescription Clearcut, cut all trees 2" DBH and Larger, chip tops, cut and chip all scotch pine regardless of size, keep stumps low to facilitate replanting

Specs: operations. No retention needed, removal of all scotch pine.

Other Comments:

Next Trench and plant red pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. 1st and 3rd year

regen surveys following the planting.

Steps: **Proposed**

10/01/2015 Start Date:

Atlanta Mgt. Unit S

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 028 Year of Entry 2016

DEPARTME	DNR MICHIGAN
	CHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
23	54028023-Cut	4.2	42110 - Planted Red Pine	High Density Log	52	171-200	Harvest	Clearcut with Reserves	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Clearcut, leave retention on east edge to limit 4x4/vehicle activity. Cut all trees 2" DBH and larger, chip tops, keep stumps low to facilitate

planting. Specs:

Other Comments:

Trench and plant red pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. 1st and 3rd year Next

Steps: regen surveys following the planting.

Proposed

10/01/2015 Start Date:

4211 - Planted Red Cmpt. Review 42120 - Planted High 64 61 54028061-Cut 13.2 Harvest Clearcut with Jack Pine Density Reserves Pine Proposal

Pole

Prescription Clearcut, cut all trees 2" DBH and larger, chip tops, low stumps. leave 3-10% retention

Specs:

<u>Other</u> jack and red are the same age. jack pine is poor quality on this site and red seems to be growing well.

Comments:

<u>Next</u> Trench and plant red pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. expect some

Steps: natural jack pine with the planted red pine. 1st and 3rd year regen surveys following the planting.

<u>Proposed</u>

Start Date: 10/01/2015

54028062-Cut 36.2 42110 - Planted 111-140 Harvest Clearcut with 4211 - Planted Red Cmpt. Review High Red Pine Reserves Pine Proposal **Density Log**

Prescription clearcut, cut all trees 2" DBH and larger, chip tops, low stumps. Leave 3% retention.

Specs:

Other Comments:

Trench and plant red pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. expect some **Next**

natural jack pine with the planted red pine. 1st and 3rd year regen surveys following the planting.

Steps: **Proposed**

Start Date: 10/01/2015

54028063-Cut 42220 - Natural Clearcut with 4222 - Natural Jack Cmpt. Review 47.2 High Harvest Jack Pine **Density Log** Reserves Pine Proposal

Prescription Clearcut, cut all trees 2" dbh and larger, chip tops, low stumps, leave 3-10% retention. Summer cut, whole tree skid to scarify

Specs:

Other

Comments:

Next Try for natural jack pine regen (medium-well stocked stand) by scarifying during the timber sale. Follow up with a regen check, if regen fails then Steps:

trench and plant jack pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. follow up any

planting with 1st and 3rd year regen checks.

Proposed

Start Date: 10/01/2015

Atlanta Mgt. Unit S

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 028 Year of Entry 2016

DEPARTME	DNR MICHIGAN
	CHIGA

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73	54028073-Cut	16.7	42211 - Natural Red Pine, Mixed Deciduous	Low Density Log	70	1-50	Harvest	Clearcut with Reserves	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Clearcut, cut all trees 2" dbh and larger, chip tops, low stumps. Leave 3% retention.

Specs: Other

Access will be best from the SW off Shingle Mill Rd. Power line to the north is too steep.

Comments:

Trench and plant red pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. Expect natural Next Steps:

mixed deciduous regen with the planted red pine. 1st and 3rd year regen surveys after planting.

Proposed

Start Date: 10/01/2015

54028078-Cut 19.4 42110 - Planted High 171-200 Harvest Systematic 4211 - Planted Red Cmpt. Review Thinning Red Pine Pine Proposal **Density Log**

Prescription cut every 3rd row.

Specs:

Other Comments:

<u>Next</u> Steps:

Proposed

Start Date: 10/01/2015

82 54028082-82.3 42110 - Planted High 76 141-170 Harvest Crown Thinning 4211 - Planted Red Cmpt. Review Red Pine **Thinning** Density Log Pine Proposal

Prescription Thin to 110 BA, focus on releasing the dominant and co dominant trees.

Specs:

Other Comments:

Next Steps:

Proposed

Start Date: 10/01/2015

54028085-Cut 41.3 42220 - Natural High 49 Harvest Clearcut with 4222 - Natural Jack Cmpt. Review Jack Pine Density Reserves Pine Proposal Pole

Prescription Clearcut, cut all trees 2" DBH and larger, chip tops, low stumps. Leave 3-10% retention. Cut in the summer, whole tree skid to scarify during the

Specs:

Other Comments:

Next Try for natural jack pine regen (medium to well stocked). Follow up with regen survey. If it fails, trench and plant Jack pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. Follow up any planting with 1st and 3rd year regen surveys after Steps:

planting.

Proposed

10/01/2015 Start Date:

Atlanta Mgt. Unit

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 028
Year of Entry 2016

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
87	54028087-Cut	29.5	42110 - Planted Red Pine	High Density Log	76)	81-110	Harvest	Clearcut with Reserves	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Clearcut, cut all trees 2" DBH and larger, chip tops, low stumps. Leave 3% retention on east side along Doty Lake

Specs:

S

Other Comments:

Next Trench and plant red pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. 1st and 3rd year

regen surveys after planting.

Steps: Proposed

Start Date: 10/01/2015

97 54028097-Cut 16.3 42110 - Planted High 54 141-170 Harvest Systematic 4211 - Planted Red Cmpt. Review Red Pine Density Log Thinning Pine Proposal

<u>Prescription</u> 3rd row thin. rows are narrow in places requiring the removal of 2 rows. rows are indistinguishable in other place, may need marks on the trees.

Specs:

Other Comments:

Next Steps:

Proposed

Start Date: 10/01/2015

9854028098-
Cut116.542111 - Planted
Red Pine, MixedHigh76171-200HarvestCrown Thinning
Harvest4211 - Planted Red
PineCmpt. Review
Pine

Deciduous

Prescription Thin to 120 BA, focus on releasing dominant and codominant trees.

Specs:

Other Comments:

Next Steps:

Proposed

Start Date: 10/01/2015

99 54028099-Cut 42.6 42110 - Planted High 76 111-140 Harvest Clearcut with 4211 - Planted Red Cmpt. Review Red Pine Density Log Reserves Pine Proposal

Prescription Clearcut, cut all trees 2" DBH and larger, chip tops, low stumps. Leave 3% retention

Specs:

Other Comments:

Next Trench and plant red pine, use any site prep and/or release follow up treatments necessary to ensure adequate regeneration. Follow up planting

with 1st and 3rd year regen surveys.

Steps: Proposed

Start Date: 10/01/2015

70 NF_54028070- 1.4 3302 - Low Density Harvest Clearcut 3102 - Grass Cmpt. Review
Cut Conifer Trees Proposal

Prescription Clearcut with adjacent stand 63 to create opening.

Specs:

Other Comments:

 $\underline{\underline{\text{Next}}} \hspace{1.5cm} \text{Perform opening maintenance - remove shrubs mechanically if present after cc and maintain as opening through mechanical methods.}$

Steps:

Proposed

Start Date: 10/01/2015

Atlanta Mgt. Unit

Acres

Report 3 -- Treatments Prescribed with No Limiting Factor

BA

Range

Compartment: 028
Year of Entry 2016

DNR DICHIGAN

30 NF_54028030-NonFor

Treatment

Name

1.7 3102 - Grass

CoverType

Non-Forest Management

Treatment

Type

Method
Other - Specify

Treatment

Objective 3102 - Grass

Cover Type

Cmpt. Review Proposal

Status

<u>Prescription</u> Plant to food and cover crops for wildlife or maintain grasses using mechanical methods or fire as funding allows.

Size

Density

Age

Specs:

S t a

n

d

Other Comments:

Next Mon

Monitor for cover type and perform opening maintenance on 5-10 year rotation

Steps:

Proposed

Start Date: Unspecified

33 NF_54028033-NonFor 1.0 3102 - Grass

Non-Forest Management Other - Specify

3102 - Grass

Cmpt. Review Proposal

Prescription Plant to food and cover crops for wildlife or maintain grasses using mechanical methods or fire as funding allows.

Specs:

Other Comments:

Next

Monitor for cover type and perform opening maintenance on 5-10 year rotation

Steps:

<u>Proposed</u>

Start Date: Unspecified

43 NF_54028043-NonFor

11.5 3102 - Grass

Non-Forest Management Other - Specify

3102 - Grass

Cmpt. Review Proposal

Prescription Maintain as opening through fire, mowing, and/or planting to food and cover crops for wildlife

Specs:

<u>Other</u>

Comments:

Monitor for cover type and perform opening maintenance on 5-10 year rotation

Next Steps:

Proposed

Start Date: Unspecified

Total Treatment

Acreage Proposed: 428.9

Atlanta Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 028 a Site Condition s Year of Entry 2016 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Objective Method Status Name Range Density Age Type #Type! #Type! **Prescription** Specs: Other Comment: **Next** Steps: <u>Proposed</u> #Type! Start Date:

Total Treatment

Limiting Factor

Acreage Proposed: 0.0

Report 5 – Site Conditions

Atlanta Mgt. Unit

15

297

1,808

15

262

1,679

93%

35

129

7%

Compartment 028 Year of Entry 2016 Chad Fate: Examiner

Availa	ability for I	Management					
Total	Acres	Acres		Domina	nt Site	e Cond	itik
Acres	Available	Not Available		No	5C	3J	
89	89		Aspen	59	29		
11	11		Cedar	11			1
377	371	7	Jack Pine	357	14	7	1
84		84	Lowland Conifers			84	1
8	8		Lowland Mixed Forest	8			1
234	234		Mixed Upland Deciduous	158	76		1
85	83	3	Natural Mixed Pines	83		3	1
132	132		Northern Hardwood		132		1
49	49		Oak	3	46		1
11	11		Planted Mixed Pines	11			1
416	416		Red Pine	416			1

Upland Conifers

Upland Mixed Forest

Total Forested Acres

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.

35

129

15

262

1,383

297

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
003	Not Available	5E: Long Term Retention	1				
	omments: dded 31N01E11N\	WSW and SWSW per Laurie N	Marzolo 1	11/16/2010			
005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	46	No Limiting Factor			
	omments: 'ait untill non-desir	able regen (red maple) is mer	chantabl	e. Then cut and promote	oak regeneration.		

Report 5 – Site Conditions

Atlanta Mgt. Unit
Chad Fate: Examiner

Compartment 028 Year of Entry 2016

006	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8					
Co	omments:							
800	Available	2B: Unknown if access through adjacent landowner(s) is possible	5					
	omments: ded 31N01E11N	WSW and SWSW per Laurie M	arzolo 11/16/2010					
010	Not Available	3J: Water quality / BMPs (stream, river, or lake)	196 2G: Too wet (sensitive soils, does not include access issues)					
Co	omments:							
011	Not Available	2G: Too wet (sensitive soils, does not include access issues)	12					
	omments: ded 31N01E11N	WSW and SWSW per Laurie M	arzolo 11/16/2010					
012	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	22					
	Comments: added 31N01E11NWSW and SWSW per Laurie Marzolo 11/16/2010							
013	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14					
Co	omments:							

Report 5 – Site Conditions

Atlanta Mgt. Unit
Chad Fate: Examiner

Compartment 028 Year of Entry 2016

014	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	78
Co	omments:		
015	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	132
	omments: old temporarily u	ıntill QD plots are done.	

Atlanta Mgt. Unit

Compartment: 028
Year of Entry: 2016



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
Proposed for removal	Other SCA		SCA Removal	134.0
Comments				
Nice stand of Oak with mixt Pine, Red Pine, Hemlock	ture of conifer and hardwoods. Hills the	hroughout the stand. 99=white b	pirch, basswood, ironwood. 98	=White

Atlanta Mgt. Unit Compartment: 028
Year of Entry 2016



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.

Conservation	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area			
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical r sites of cultural and historical significance that may occur upon to bottomlands. They include thousands of Native American settlem and British outposts, nineteenth century logging camps, mines at the Great Lakes, there are shipwrecks and other remains docum be identified by Natural heritage data from the State Historic Pretitis compartment will be implemented in such a manner as to mathe sensitive nature of this information, no further detail about local	errestrial areas and Great Lakes nents and burial sites, as well as French and homesteads. Beneath the waters of enting the maritime trade. Such sites may servation Office. Proposed treatments in aintain the integrity of these sites. Due to			
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 cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial			
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high of communities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well			

S t		a Mgt. Unit		Report 8 –	Forested	Stands Compartment: 028 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4191 - Mixed Upland Deciduous with Conifer	High Density Log	19.4	94	51-80	
2	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	8.5	107		lots of dead black ash. very wet, poor quality cedar and spruce
3	4123 - Red Oak	Medium Density Log	45.7	94	51-80	Stand was thinned approx. 20+ yrs ago. Thick full coverage of red maple saplings10-20 ft tall
5	42110 - Planted Red Pine	High Density Pole	5.3	48	171-200	un-thinned, very small crows, tightly planted, some pockets already blown over.
7	4119 - Mixed Northern Hardwoods	High Density Pole	131.7	92	111-140	
9	42141 - Planted Mixed Pine, Mixed Deciduous	Medium Density Pole	3.5	35	51-80	Scotch pine planted in random rows with cherry brush
10	42290 - Natural Mixed Pine	High Density Log	15.1	92	81-110	lots of rm regen 20-30ft tall.
13	4319 - Mixed Upland Forest	Low Density Pole	93.8	34	1-50	this stand is a mix of upland shrub, jack pine, white pine, and small aspen clones with pin cherry scattered through out.
14	42260 - Natural Pine, Mixed Deciduous	High Density Pole	12.0	35	81-110	
15	42110 - Planted Red Pine	High Density Log	31.8	52	81-110	BA and DBH are extremely variable. Looks as though it was machine planted in random directions. Some spots are really dense and others have large spaces between rows.
16	4130 - Aspen	High Density Pole	15.9	35		
17	42260 - Natural Pine, Mixed Deciduous	High Density Log	32.8	Uneven Age	171-200	multi-storied stand. large red pine, white pine, and oak in the overstory. aspen, maple, and mixed pine in the mid canopy. white pine and red maple in the understory.
20	42290 - Natural Mixed Pine	Medium Density Pole	24.8	40	51-80	lots of cherry brush in the understory
21	42141 - Planted Mixed Pine, Mixed Deciduous	High Density Pole	7.2	35	51-80	planted scotch pine with some jp and cherry mixed in.
22	4311 - Pine, Aspen Mix	High Density Pole	83.6	49		scattered large white and red pines from historic stand.
23	42110 - Planted Red Pine	High Density Log	4.2	52	171-200	diameters vary from 7 in to 16 in. north end is more dense with diameters about 12 in. lots of rm seedlings on north end and little to no regen on south.
25	4311 - Pine, Aspen Mix	High Density Pole	25.0	45		full understory of 20ft tall white pine

s t				Report 8	Forested	Stands Compartment: 028 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	42120 - Planted Jack Pine	High Density Sapling	19.9	16		
29	42120 - Planted Jack Pine	High Density Pole	28.6	45		planted or seeded in trenches
31	42110 - Planted Red Pine	High Density Pole	11.0	53	111-140	3rd row thinned in 2009
32	4311 - Pine, Aspen Mix	High Density Pole	54.1	48		
34	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	4.9	84		low ground and river riparian area
35	4130 - Aspen	High Density Pole	21.8	49		
37	42110 - Planted Red Pine	High Density Pole	2.4	53	111-140	3rd row thinned in 2009
38	42220 - Natural Jack Pine	Medium Density Pole	29.9	30		
40	6124 - Lowland Spruce- Fir	High Density Pole	45.8	79		slopes down to the river. most of the cedar is on south end of the stand. heavy deer and elk use in the winter.
42	42120 - Planted Jack Pine	High Density Sapling	7.6	17		planted or seeded. very high density
46	42220 - Natural Jack Pine	Medium Density Pole	4.3	30		
48	4130 - Aspen	High Density Pole	11.3	45		
50	42110 - Planted Red Pine	High Density Pole	4.2	53	111-140	third row thinned in 2009. small diameter. some minor blowdown since last cut.
51	42110 - Planted Red Pine	High Density Pole	20.4	53	111-140	3rd row thinned in 2009
52	42220 - Natural Jack Pine	Medium Density Pole	5.6	32		
54	4130 - Aspen	High Density Sapling	14.0	7		cut in 2007 "Elk Salad Aspen" #54-008-06-01. red maple and red oak are heavely browsed by elk. aspen is somewhat browsed but recovering with poor form. Fully stocked.
55	4130 - Aspen	High Density Log	13.5	45		

S t				Report 8	– Forested	Stands Compartment: 028 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	4311 - Pine, Aspen Mix	High Density Pole	12.7	42		more red pine on north end of stand.
61	42120 - Planted Jack Pine	High Density Pole	13.2	64		poor quality Jack Pine
62	42110 - Planted Red Pine	High Density Log	36.2	64	111-140	large mature red and white pines in the middle of the stand. log size red pine throughout and pole size jack pine throughout. Red and Jack pines were planted together in 1950. Red Pines out competed the Jack, sizes and BA are extreamly variable through out the stand.
63	42220 - Natural Jack Pine	High Density Log	47.2	54		some areas of blowdown and dead trees.
64	6129 - Mixed Coniferous Lowland Forest	High Density Pole	33.4	78		Wet ground, most of the tamarack is hollow and rotten. The north end of the stand has steeper slopes down to the river with some mixed pine and aspen scattered.
65	4199 - Other Mixed Upland Deciduous	High Density Log	95.4	100	81-110	extremely variable BA and diameters. Pockets (regen gaps) of dense young red maple and aspen scattered throughout with large log sized oak. Scattered red and white pine along east edge.
66	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	24.6	64	81-110	large red pine. variable ba and dbh. full understory of red maple.
68	4130 - Aspen	Medium Density Pole	4.6	45		
69	4136 - Aspen, Mixed Conifer	High Density Pole	7.7	53		conservation easment on 80 acres
73	42211 - Natural Red Pine, Mixed Deciduous	Low Density Log	16.7	70	1-50	Low density red pine logs. Aspen was cut in 1980 and regen did not succeed due to heavy elk browes. cherry brush in the understory.
75	42120 - Planted Jack Pine	High Density Sapling	9.8	27		
76	42220 - Natural Jack Pine	Medium Density Pole	11.1	24		Open grown Jack Pine with cherry brush
77	42220 - Natural Jack Pine	Medium Density Pole	12.6	46	51-80	
78	42110 - Planted Red Pine	High Density Log	19.4	54	171-200	
80	42120 - Planted Jack Pine	High Density Sapling	14.7	20		
81	42220 - Natural Jack Pine	Medium Density Pole	10.0	24		Open grown JP with cherry brush

S t				Report 8	Forested	Stands Compartment: 028 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
82	42110 - Planted Red Pine	High Density Log	82.3	76	141-170	
83	42220 - Natural Jack Pine	Low Density Pole	14.1	71		cut in 2009 "Shingle Shell Pine" #54-009-06-01. everything under 4 in dbh was left and scattered log sized oak and red pine resulting in a low stocked stand. mostly oak and jack pine in understory.
84	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	43.6	46	51-80	
85	42220 - Natural Jack Pine	High Density Pole	41.3	49		lots of dead down and dead standing jp in places. could be fire hazard.
87	42110 - Planted Red Pine	High Density Log	29.5	76	81-110	Stand was thinned in 1999. lower ba on east end with some red pine regen doing well (not enough tpa to be well stocked).
91	4199 - Other Mixed Upland Deciduous	High Density Log	76.0	94	111-140	thick wp regen in places. pockets of scattered white oak. north end of stand has wp and rp mixed with oak.
92	4125 - Black, N. Pin Oak	High Density Sapling	3.3	5		Stand was cut in 2009 "Shingle Shell Pine" #54-009-06-01
93	42260 - Natural Pine, Mixed Deciduous	High Density Log	0.8	78	51-80	very small acreage. Canada Creek Ranch to the north, water and marsh to west and south.
95	42220 - Natural Jack Pine	High Density Pole	10.8	45		
97	42110 - Planted Red Pine	High Density Log	16.3	54	141-170	
98	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	16.5	76	171-200	
99	42110 - Planted Red Pine	High Density Log	42.6	76	111-140	Stand was thinned last in 1987. scattered super canopy "legacy" red pine trees with fire scars. rows are indistinguishable in places.
102	42220 - Natural Jack Pine	High Density Pole	82.4	44		
103	42110 - Planted Red Pine	High Density Log	52.6	76	111-140	
105	42220 - Natural Jack Pine	High Density Pole	14.3	43		
109	4311 - Pine, Aspen Mix	High Density Pole	27.7	42		poor quality aspen with lots of wp and balsam fir regen
112	429 - Mixed Upland Conifers	High Density Pole	14.6	45	81-110	lots of poles and saps with scattered large wp and rp from previous stand.

S t a n d	Atlant		Report 8	– Forested	Stands Compartment: 028 Year of Entry: 2016	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
114	6120 - Lowland Cedar	High Density Log	11.2	107	200+	poor quality spruce to the south. lots of blow down on west and north edges with balsam fir and black spruce regen. signs of heavy deer and elk use in the winter.

Compartment: 028 Year of Entry: 2016



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	3102 - Grass	2.0	Unspecified	Unspecified	gas well and opening. grass and sweet fern
6	3303 - Mixed Low Density Trees	14.9	Unspecified	Unspecified	cut in 2007 "Elk Salad Aspen" #54-008-06-01 there are scattered red and white pine seed trees. aspen only regenerated in a portion of the stand approx (3 acres). Stand failed to regenerate, discuss options at pre-review!
8	3102 - Grass	1.2	Unspecified	Unspecified	gas well
11	6229 - Mixed lowland shrub	11.7	Unspecified	Unspecified	lowland shrub with tamarck and white pine.
12	3102 - Grass	1.0	Unspecified	Unspecified	gas well
18	3102 - Grass	1.3	Unspecified	Unspecified	gas well
19	3102 - Grass	1.4	Unspecified	Unspecified	gas well
24	6229 - Mixed lowland shrub	48.5	Unspecified	Unspecified	East Branch Black River and riparian area. includes tag alder.
26	3102 - Grass	1.1	Unspecified	Unspecified	
27	3205 - Mixed Upland Shrub	1.4	Unspecified	Unspecified	grass with scattered cherry and jack pine.
30	3102 - Grass	1.7	Unspecified	Unspecified	
33	3102 - Grass	1.0	Unspecified	Unspecified	grass and sweet fern
36	3102 - Grass	1.1	Unspecified	Unspecified	gas well
39	3205 - Mixed Upland Shrub	7.8	Unspecified	Unspecified	cherry brush w/ scattered aspen, oak, red maple
41	6229 - Mixed lowland shrub	10.2	Unspecified	Unspecified	
43	3102 - Grass	11.5	Unspecified	Unspecified	grass with scattered cherry and jp along with sweet fern
44	3205 - Mixed Upland Shrub	14.1	Unspecified	Unspecified	stand cut in 2009 with jp MO low density natural jp regen and high density cherry brush. trenched and planted jp in 20

Compartment: 028 Year of Entry: 2016



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
45	3102 - Grass	1.2	Unspecified	Unspecified	gras, sweet fern, jack pine
47	3205 - Mixed Upland Shrub	14.5	No	Low	cherry brush
49	3102 - Grass	1.9	Unspecified	Unspecified	gas well
53	3303 - Mixed Low Density Trees	7.8	Unspecified	Unspecified	Open, with scattered trees and brush. Small pocket of aspen in the north end approx. 1-2 acres.
56	3102 - Grass	1.0	Unspecified	Unspecified	gas well
57	6229 - Mixed lowland shrub	4.3	Unspecified	Unspecified	
59	3104 - Degraded	0.9	Unspecified	Unspecified	Old building site. House has been removed. Pole Barn is still standing. Scattered open grown trees.
60	3302 - Low Density Conifer Trees	10.4	Unspecified	Unspecified	scattered large oak, scrub jack pine and cherry brush.
67	3102 - Grass	1.0	Unspecified	Unspecified	gas well
70	3302 - Low Density Conifer Trees	1.4	Unspecified	Unspecified	grass and scattered jp
71	3102 - Grass	2.0	Unspecified	Unspecified	old food plot with apple trees and exclosures. there are some scotch pine at south end.
72	3205 - Mixed Upland Shrub	3.5	Unspecified	Unspecified	grass, sweet fern, cherry, jack pine
74	3102 - Grass	1.1	Unspecified	Unspecified	gas well
79	3102 - Grass	1.4	Unspecified	Unspecified	gas well
86	50 - Water	3.4	Unspecified	Unspecified	
88	3102 - Grass	1.5	Unspecified	Unspecified	gas well
89	6221 - Fen	11.9	Unspecified	Unspecified	grassy marsh

Compartment: 028 Year of Entry: 2016



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
90	3205 - Mixed Upland Shrub	2.7	Unspecified	Unspecified	scattered cherry and jack pine with grass and sweet fern
94	3102 - Grass	1.4	Unspecified	Unspecified	gas well
96	50 - Water	1.1	Unspecified	Unspecified	
100	3102 - Grass	1.7	Unspecified	Unspecified	maintained opening
101	3302 - Low Density Conifer Trees	1.2	Unspecified	Unspecified	scattered jack pine
104	3102 - Grass	1.1	Unspecified	Unspecified	gas well
106	3102 - Grass	1.4	Unspecified	Unspecified	planted and maintained opening
107	3102 - Grass	3.1	Unspecified	Unspecified	planted and maintained opening
108	3102 - Grass	1.3	Unspecified	Unspecified	planted and maintained opening
110	6229 - Mixed lowland shrub	1.8	Unspecified	Unspecified	
111	3102 - Grass	1.1	Unspecified	Unspecified	gas well
113	3102 - Grass	1.5	Unspecified	Unspecified	planted and maintained opening