

Compartment Review Presentation

Gaylord Forest Management Unit Compartment 15 Entry Year 2015 Acreage: 3,540 County Otsego Management Area: Camp Grayling

Revision Date: 04/10/2013

Stand Examiner: Ric Barta

Legal Description:

Chester Township, T29N, R02W, Sections: 28-33.

Identified Planning Goals:

To provide for the protection, integrated management and responsible use of healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

Soil and topography:

This compartment is level to gently rolling and is covered with stands of aspen and/or oak except where military use maintains a large grassy expanse in the bombing range. Soils consist of Roselawn, Rubicon and Grayling sands.

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

The six sections that make up the compartment are entirely under state ownership except for 160 acres in the very northwest corner. All the State land in the compartment that is south of the river is leased by Camp Grayling, as is adjacent land to the north, east and south. Adjacent private land to the north and west comprise the residential areas around Chub and Guthrie Lakes. Oil and gas development exists on the private lands around the compartment.

Unique Natural Features:

There is potential for a number of threatened/endangered species of dry prairie plants and animals in the grassy openings.

Archeological, Historical, and Cultural Features:

There are HAL concerns associated with section 30.

Special Management Designations or Considerations:

Military lease.

Watershed and Fisheries Considerations:

This compartment is in the Au Sable River watershed. The western portion is in the Chub Creek subwatershed, the central portion is in the E Br Au Sable River subwatershed, and the east portion is in the North Branch Au Sable river subwatershed. Chub Creek flows through this compartment. Natural Rivers buffer should be used adjacent to this stream.

Wildlife Habitat Considerations:

This compartment consists mostly of upland areas consisting of aspen and mixed oak. Harvest will concentrate on regenerating the oak for future mast production while leaving clumps and scattered individual islands of mature oak for current mast production and a seed source. There will also be some aspen treated to diversify the aspen age class within the compartment and provide early successional habitat that benefits white-tailed deer, wild turkey, grouse, woodcock, and various songbirds. This area recieves significant hunting pressure for white-tailed deer, grouse, woodcock, and wild turkey.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 800 feet. The Mississippian Coldwater Shale subcrops below the glacial drift and does not have an economic use. The nearest gravel pit is located three miles to the south, but potential should be good on the uplands. Most of the compartment has not been developed for Antrim Shale gas production – State Military Board. One Niagaran reef well has been directionally drilled under Section 28 and there may be additional potential for the Niagaran reef trend.

Vehicle Access:

Military use has created an extensive system of rough trails throughout most of the compartment, so while the bombing range itself (behind the fence) is off limits to the general public, most of the compartment is readily accessible.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

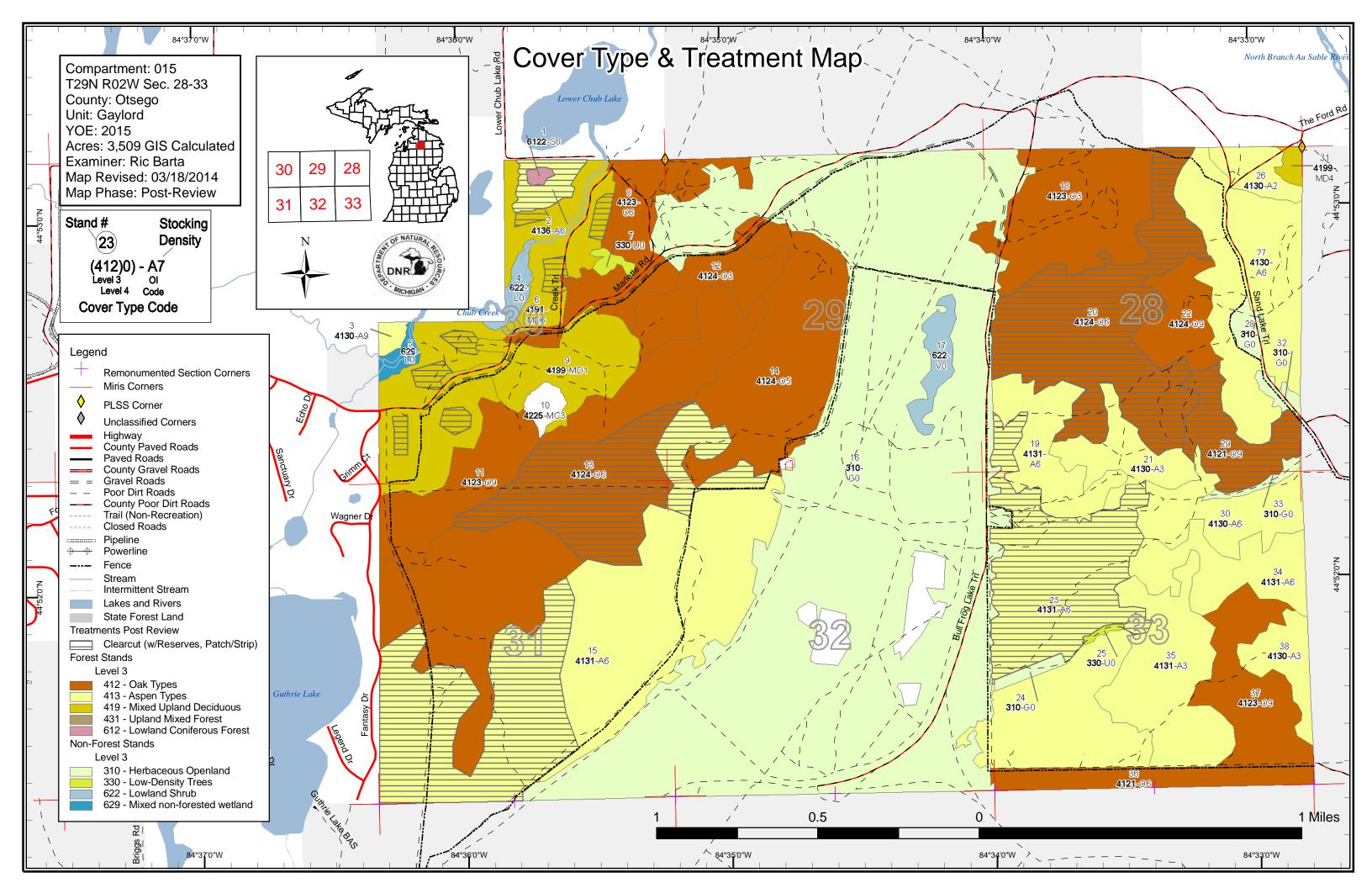
This area provides plenty of opportunity for hunting. In addition, it appears to get a fair amount of use by snowmobilers, and there is some dispersed camping occurring along the river.

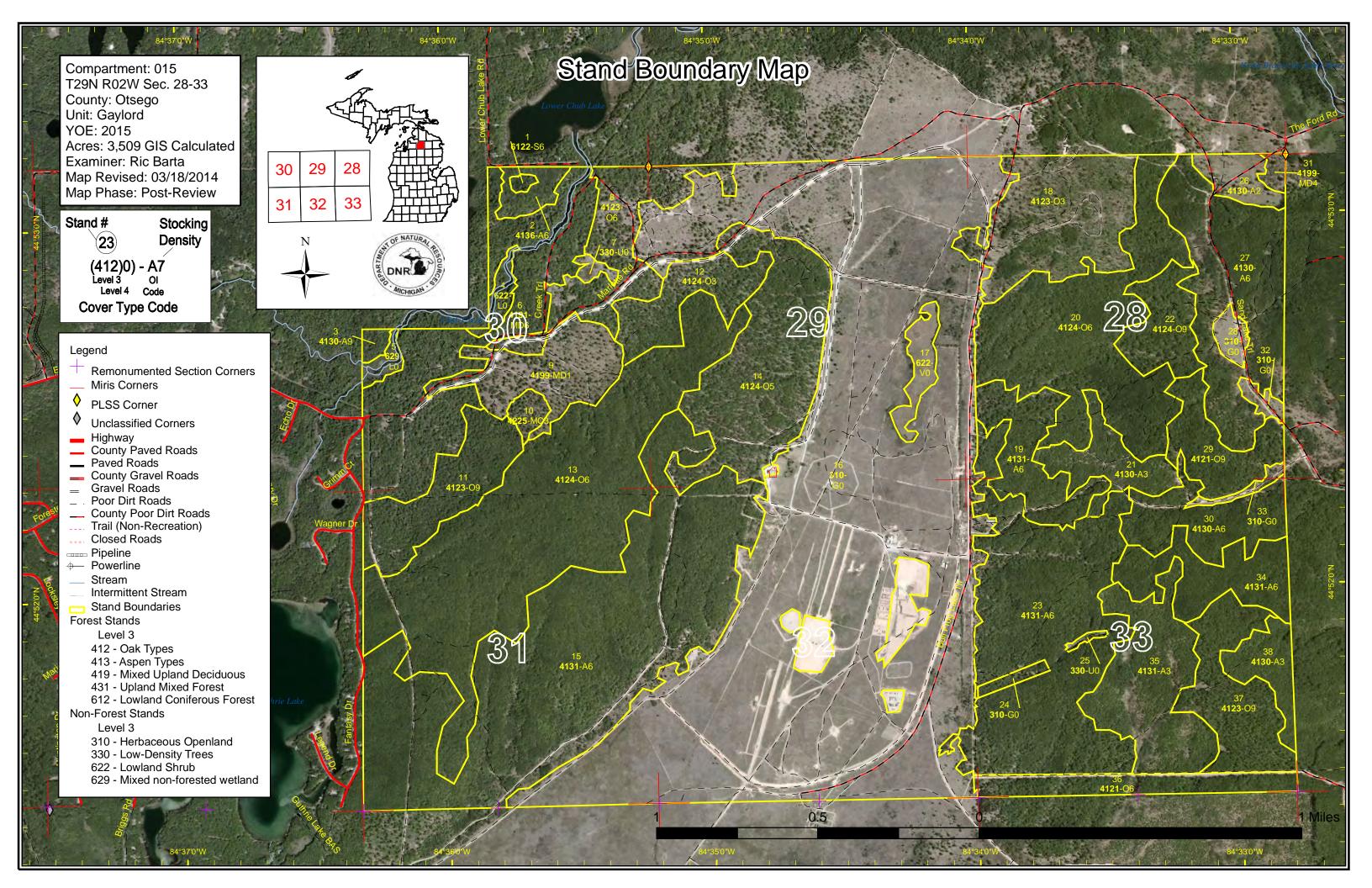
Fire Protection:

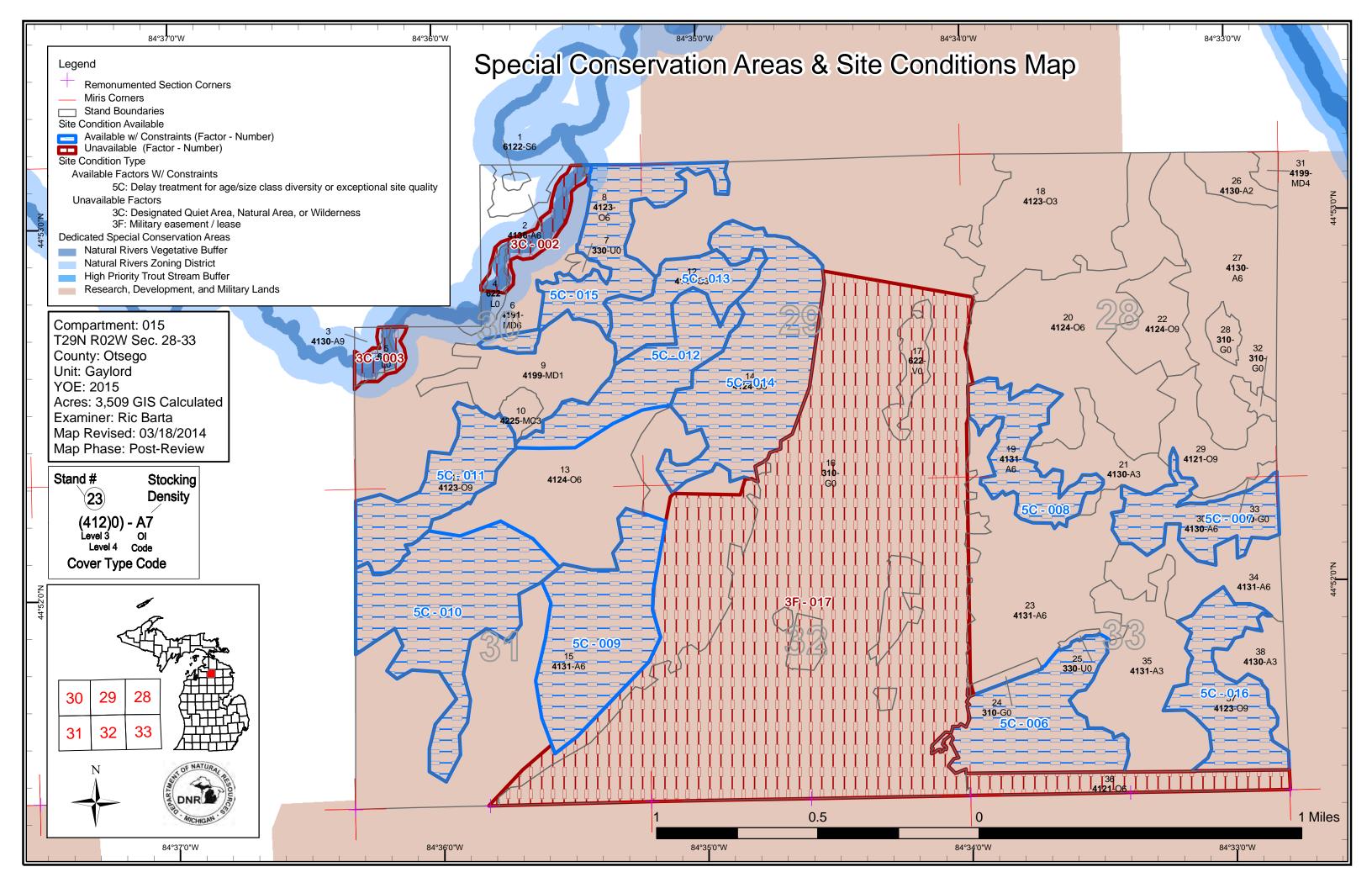
Additional Compartment Information:

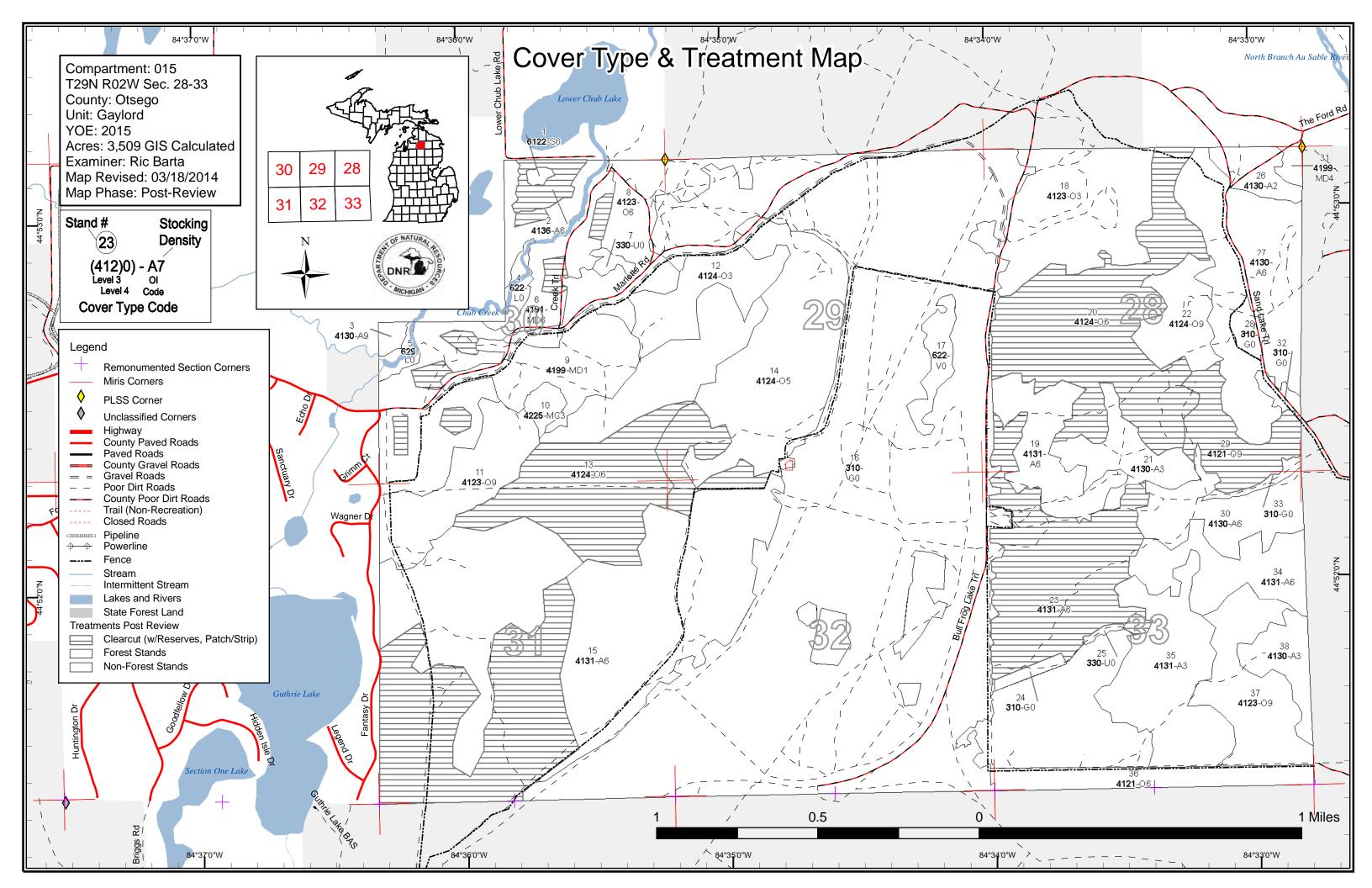
The following reports from the Inventory are attached: Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas 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









Report 1 – Total Acres by Cover Type and Age Class

Gaylord Mgt. Unit Richard Barta : Examiner

Compartment 015 Year of Entry 2015

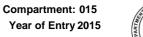


	Age Class															
	/	a.9	⁷ a ₇₉	67 C	and	100 A2	^{30,30}	^{60,6} 0	18 18	90 90 90 90	800 A	100 001	10'10'	120× 150	A AS	, 0 ²⁰
Aspen	20	161	128	0	738	19	55	0	0	0	0	0	0	0	1121	
Bog	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17	
Herbaceous Openland	997	0	0	0	0	0	0	0	0	0	0	0	0	0	997	
Low-Density Trees	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Lowland Shrub	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	
Mixed Upland Deciduous	64	0	0	5	0	0	0	0	0	0	154	0	0	0	223	
Natural Mixed Pines	0	0	8	0	0	0	0	0	0	0	0	0	0	0	8	
Oak	108	0	47	0	0	0	0	39	783	0	77	65	0	0	1118	
Sand, Soil	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32	
Total	1260	161	182	5	738	19	55	39	785	0	231	65	0	0	3540]



ATCHIGAN .	Gaylord Mgt. Unit Year of Entry 2015							Compartment Total Compartment Acres:	
			Acr	es by Tr	eatment T	уре			
	Commercial Harvest - 704	Tree Planting - 0		Other - 0					
	Habitat Cut - 0 Opening Maintenance - 0								
			Co	over Type	by Harve	est Method			
			C. C	Selection Security	Close Contraction of the second	Contraction of the second	Sec. Sec. Sec. Sec. Sec. Sec. Sec. Sec.		
	Aspen Types	349 0	0	0 0	0 349				
		Mixed Upland Deciduous							
	Mixed Upland Decidu	ious	27 0	0	0 0	0 27			
	Mixed Upland Decidu Oak Types	IOUS	27 0 328 0	0	0 0 0 0	0 27 0 328			

Gaylord Mgt. Unit Report 3 -- Treatments Prescribed with No Limiting Factor



t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	52015002-Cut	14.4	4136 - Aspen, Mixed Conifer	High Density Pole	54	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Fld. Tr. Bdy Incomplete

<u>Prescription</u> Clearcut with retention placed to buffer the road. Protect the bog (Stand 1). Leave all oak. <u>Specs:</u>

<u>Other</u>

s

Comments:

<u>Next</u> Monitor regeneration three years after harvest. Aspen is preferred but expect a red maple component. A somewhat mixed stand is acceptable. <u>Steps:</u>

Proposed

```
Start Date: 10/01/2014
```

6 52015	5006-Cut	26.6	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	106	81-110	Harvest	Patch or Strip Clearcut	4131 - Aspen, Oak	Fld. Tr. Bdy Incomplete
Prescription Specs:	area should	be 15-2		age. The po	lygons				enerate oak and aspen earcuts should be place	
<u>Other</u> Comments:	Buffer Chub	Creek (150'), which has Natu	ıral River sta	itus.					
<u>Next</u> <u>Steps:</u>	Monitor for r	egenera	ation 3 years after har	vest.						
Proposed Start Date:	10/01/2014									
	i013_cut- Cut	106.8	4124 - Red with White Oak	High Density Pole	84	81-110	Harvest	Clearcut with Reserves	4124 - Red with White Oak	Fld. Tr. Bdy Incomplete
Prescription Specs:	_ Clearcut. Le	eave les	s than 10 BA of oak fo	or wildlife, in	clumps	s of several	trees.			
<u>Other</u> Comments:										
<u>Next</u> <u>Steps:</u>	Check for re	geratior	n 3 years after the har	vest. Optim	al would	d be an oak	/aspen mix with	oak dominating. So	ome red maple is to be	e expected.
Proposed Start Date:	10/01/2014									
	5015_nor ut-Cut	31.9	4131 - Aspen, Oak	High Density Pole	49	1-50	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Fld. Tr. Bdy Incomplete
Prescription Specs:	_ Clearcut. R	etain 3-	10% of stand acres as	s several isla	ands. Ir	the cut are	eas mark to save	e less than 10 BA of	oak in clumps of 2-5.	
<u>Other</u> Comments:										
<u>Next</u> <u>Steps:</u>	Check for re	geratior	n 3 years after the har	vest. Optim	al would	d be an asp	en/oak mix with	aspen dominating.	Some red maple is to	be expected.
Proposed Start Date:	10/01/2014									

S t		Gay	lord Mgt. Unit	Repo			nents Prescr ting Factor	ibed	Compartment: 015 Year of Entry 2015	DNR DNR
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
15	52015015_sou thcut-Cut	165.4	4131 - Aspen, Oak	High Density Pole	49	1-50	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Fld. Tr. Bdy Incomplete
Pres Spec		. Retain 3	-10% of the stand acre	age as isla	nds, and	l in the cut	areas leave less	than 10 BA of oak	in clumps of several tre	ees.
<u>Othe</u> Com	<u>r</u> ments:									
<u>Next</u> Step	<u>s:</u>	or regeratio	on 3 years after the har	vest. Optin	nal would	d be an as	pen/oak mix with	aspen dominating	. Some red maple is to	be expected.
Propo Start	<u>sed</u> Date: 10/01/20 ⁻	14								
20	52015020-Cut	176.4	4124 - Red with White Oak	High Density Pole	84	81-110	Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Fld. Tr. Bdy Incomplete
Pres Spec		. Retain le	ess than 10BA of oak fo	or wildlife in	clumps	of several	trees.			
<u>Othe</u> Com	<u>r</u> ments:									
<u>Next</u> Step		or regeratio	on 3 years after the har	vest. Optin	nal would	d be an oa	k/aspen mix with	oak dominating.	Some red maple is to be	e expected.
Prope		14								
23	52015023-Cut	137.6	4131 - Aspen, Oak	High Density Pole	49	51-80	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Fld. Tr. Bdy Incomplete
Pres Spec		. Retain 3	-10% of the AOI acrea	ge as island	ds. Leav	ve all oak.				
<u>Othe</u> Com	<u>r</u> ments:									
<u>Next</u> Step		or regeratio	on 3 years after the har	vest. Optin	nal would	d be an as	pen/oak mix with	aspen dominating	. Some red maple is to	be expected.
Propo Start	o <u>sed</u> Date: 10/01/201	14								
29	52015029-Cut	45.1	4121 - Oak, Aspen	High Density Lo	84 g	81-110	Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Fld. Tr. Bdy Incomplete
Pres Spec	•	. Retain le	ess than 10 BA of oak i	n clumps o	f several	trees.				
<u>Othe</u> Com	<u>r</u> ments:									
<u>Next</u> Step		or regeratio	on 3 years after the har	vest. Optin	nal would	d be an oa	k/aspen mix with	oak dominating.	Some red maple is to be	e expected.
Propo Start	<u>sed</u> <u>Date:</u> 10/01/201	14								
	Total Treatmer	nt								

Total Treatment Acreage Proposed: 704.4

S t		Gaylo	ord Mgt. Unit	Report 4		eatment Site Con	Compartment: 015 Year of Entry 2015	DIR NATURAL VIEW		
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
		#Type!	#Type!							
Presci Specs Other Comm										
<u>Next</u> Steps:	1									
Propo Start [

Gaylord Mgt. Unit

Ric Barta : Examiner

Compartment 015 Year of Entry 2015

Availability for Management

Total	Acres	Acres		Domina	nt Site	e Cono	dition
Acres	Available	Not Available		No	5C	3F	3C
1120	1033	87	Aspen	719	314	86	1
2	2		Lowland Spruce/Fir	2			
223	202	21	Mixed Upland Deciduous	202			21
8	8		Natural Mixed Pines	8			
1117	1076	42	Oak	475	601	41	0
2,471	2,322	149	Total Forested Acres	1,406	916	127	22
	94%	6%	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.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	3C: Designated Quiet Area, Natural Area, or Wilderness	22				
	comments: latural River buffer						
003	Not Available	3C: Designated Quiet Area, Natural Area, or Wilderness	12				
	comments: latural River buffer						
006	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	93				
C	comments:						

		Baylord Mgt. Unit c Barta : Examiner		Report 5 – Site Conditions	Compartment 015 Year of Entry 2015
007	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	56		
Co	omments:				
008	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	54		
Co	omments:				
009	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	112		
Co	omments:				
010	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	135		
Co	omments:				
011	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	65		
Co	omments:				
012	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	67		
Co	omments:				

	Gaylord Mgt. Unit Ric Barta : Examiner			Report 5 – Site Conditions	Compartment 015 Year of Entry 2015
013	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	47		
C	omments:				
014	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	141		
C	omments:				
015	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	76		
C	omments:				
016	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	70		
C	omments:				
017	Not Available	3F: Military easement / lease	910		
	omments: amp Grayling bor	mbing range.			



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

Comments



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.

Conservatio Area	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 sites of cultural and historical significance that may occur upon bottomlands. They include thousands of Native American settle and British outposts, nineteenth century logging camps, mines the Great Lakes, there are shipwrecks and other remains docur be identified by Natural heritage data from the State Historic Pre this compartment will be implemented in such a manner as to m the sensitive nature of this information, no further detail about lo	terrestrial areas and Great Lakes ments and burial sites, as well as French and homesteads. Beneath the waters of nenting the maritime trade. Such sites may eservation Office. Proposed treatments in naintain the integrity of these sites. Due to
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for include the 5,847 acre Forest Fire Experiment Station, the 12,00 Area, the Beaver Islands Archipelago Wildlife Research Area (the High and Hog Islands, all state owned land on Beaver, South For Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Re Nursery, and over 144,000 acres of Military Lands.	00 acre Houghton Lake Wildlife Research hat includes most of Garden Island, all of ox and North Fox Islands), the Cusino
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and the	ne unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian ects on water quality and quantity, as well
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from s approved distance from the river centerlines. The Natural River most Natural Rivers. The Vegetative Buffer ranges from 25 to 1 and Vegetative Buffers for each Natural River see the table loca folder.	s Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts

S	Gaylord	d Mgt. Unit		Report 8	– Forested	Stands Compartment: 015 Year of Entry: 2015
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6122 - Black Spruce	High Density Pole	2.2	89	81-110	Unique in this compartment. Boggy groundcover with Labrador tea.
2	4136 - Aspen, Mixed Conifer	High Density Pole	14.4	54	81-110	Occasional white oak, and red oak logs. Will easily hold another 10 years if desirable. Chub Creek is a natural river. Protect oak if this is cut.
3	4130 - Aspen	High Density Log	4.8	54		Old enough to cut but no access and much of the stand's 5 acres is in the natural river buffer.
6	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	154.4	106	81-110	Regenerating well to white pine. Some of the young white pine was underplanted. The stand includes a thin band along the river that holds some swamp conifers and white birch. Natural river runs through.
8	4123 - Red Oak	High Density Pole	76.7	106	1-50	Savannah-like in places
9	4199 - Other Mixed Upland Deciduous	Low Density Sapling	63.9	8		Recent cut in a stand that was not heavily stocked to begin with, so current regeneration is patchy. Less than 10 BA of oak logs were left for mast. Stumps are sprouting well. There doesn't seem to be much apparent expansion of aspen.
10	42250 - Pine, Oak	High Density Sapling	8.2	28	51-80	Appears to be planted white pine under oak. Stocking is a little sporadic. Some oak regeneration.
11	4123 - Red Oak	High Density Log	65.2	113	51-80	Selection cut in 1985. Nice mix of oak and pine.
12	4124 - Red with White Oak	High Density Sapling	46.5	28		Significant overtopping red oak poles and logs, but essentially a regenerating stand. Cut in 1986. Erratic stocking.
13	4124 - Red with White Oak	High Density Pole	309.0	84	81-110	Quite a bit of oak regen mixed with relatively fewer trees of size in the east end.
14	4124 - Red with White Oak	Medium Density Pole	141.1	84	81-110	Recently cut as Badger Oak.
15	4131 - Aspen, Oak	High Density Pole	396.0	49	1-50	Erratic stocking. At least parts of this stand appear to have been burnt. Patches of oak regeneration.
18	4123 - Red Oak	High Density Sapling	107.7	8		Recently cut as Sundawgs Oak. Some scattered red oak logs were left for mast, Good sprouting in general.
19	4131 - Aspen, Oak	High Density Pole	54.2	49	81-110	Patchy stocking, heavy with low quality stems. Lots of fire scarring with poor form/quality in general on all species. Patches of saplings dominated by red maple.
20	4124 - Red with White Oak	High Density Pole	176.4	84	81-110	In many places this stand is remarkably pure to oak.

S t	Gaylord Mgt. Unit			Report 8 – Forested Stands		Stands Compartment: 015 Year of Entry: 2015	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
21	4130 - Aspen	High Density Sapling	38.5	17			
22	4124 - Red with White Oak	High Density Log	38.6	77	81-110	Ready to cut but should be held back for age class distribution.	
23	4131 - Aspen, Oak	High Density Pole	230.5	49	51-80	Looks like this stand was burnt, leaving less than 10 basal area of red oak logs over a sea of regeneration, which varies from nearly pure aspen to nearly pure hardwood. Aspen regen is mostly poles now, while hardwood regen is still more to saps moving into poles	
26	4130 - Aspen	Medium Density	19.6	5		Recently cut. A few oak logs left for wildlife.	
27	4130 - Aspen	High Density Pole	127.5	28	1-50	Transitioning from saplings to poles.	
29	4121 - Oak, Aspen	High Density Log	45.1	84	81-110	High BA in places. More to mature aspen in the northwest. Ready to cut.	
30	4130 - Aspen	High Density Pole	55.5	60	81-110	Old enough to cut, but hold for age class distribution.	
31	4199 - Other Mixed Upland Deciduous	Low Density Pole	5.0	31	1-50	Mostly unmerchantable cherry with scattered oak logs.	
34	4131 - Aspen, Oak	High Density Pole	57.5	43	81-110	Occasional white birch. Seems young but there seems to be no record of a cut or fire.	
35	4131 - Aspen, Oak	High Density Sapling	95.6	17		Contains a few aspen poles.	
36	4121 - Oak, Aspen	High Density Pole	41.2	81		Behind the interior military fence, so no access.	
37	4123 - Red Oak	High Density Log	70.1	84	1-50	Oak residual over aspen/oak/red maple regeneration. BA in the north end is much higher and more consistent.	
38	4130 - Aspen	High Density Sapling	26.8	17			

Gaylord Mgt. Unit

Report 9 – Nonforested Stands

Compartment: 015

Year of Entry: 2015

NATUR

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	6223 - Inundated Shrub Swamp	9.2	No	Unspecified	
5	629 - Mixed non-forested wetland	6.9	No	Unspecified	
7	3301 - Low Density Deciduous Tree	4.3	No	Unspecified	
16	3104 - Degraded	971.8	No	Unspecified	
17	6225 - Bog	17.5	No	Unspecified	
24	3105 - Mixed Upland Herbaceous	5.1	No	Unspecified	
25	3303 - Mixed Low Density Trees	1.7	No	Unspecified	
28	3105 - Mixed Upland Herbaceous	8.6	No	Unspecified	
32	3105 - Mixed Upland Herbaceous	5.8	No	Unspecified	
33	3105 - Mixed Upland Herbaceous	5.1	Unspecified	Unspecified	
39	710 - Sand, Soil	0.9	No	Unspecified	
40	710 - Sand, Soil	10.0	No	Unspecified	
41	710 - Sand, Soil	2.1	No	Unspecified	
42	710 - Sand, Soil	2.4	No	Unspecified	
43	710 - Sand, Soil	16.9	No	Unspecified	